

# Ultra-Thin Flexible Heaters

## Product Specifications & Installation Guide

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# Part Numbering

## Example:

**Model:** Nano Carbon Flexible Heater  
**Size:** 210 x 333mm  
**Voltage:** 110V  
**Resistance:** 45Ω



**CE** Recognized:  
 DC/AC: 1.5V~600V  
 Max Dimension: 520 x 2220mm  
 Max Power: 1440W

**UL US** Recognized:  
 DC: 1.5V~72V  
 AC: 100~600V  
 Max Dimension: 333x222mm  
 Max Power: 1000W

**TS**

**C**

**210**

**0333**

**B**

**R**

**45**

TYPE	
A	Cu-Ni alloy
B	Fe-Cr-Al alloy
C	Nano Carbon (STANDARD)
D	Stainless steel, SUS304

WIDTH / OUTER DIAMETER (mm)	
e.g. 210 = 210mm	

LENGTH / INNER DIAMETER (mm)	
e.g. 0333 = 333mm	

VOLTAGE (V)			
a	1.5V	A	100V
b	3V	B	110V
c	3.7V	C	120V
d	4.2V	D	200V
e	5V	E	220V
f	9V	F	230V
g	12V	G	240V
h	24V	H	380V
i	42V	I	440V
j	48V	J	480V
k	56V	K	520V
l	72V	L	600V
(Rated Voltage)			

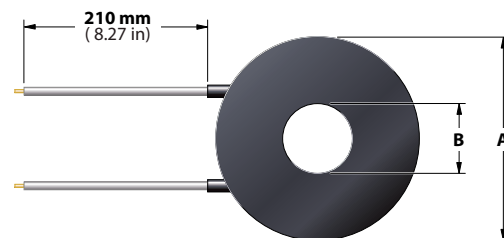
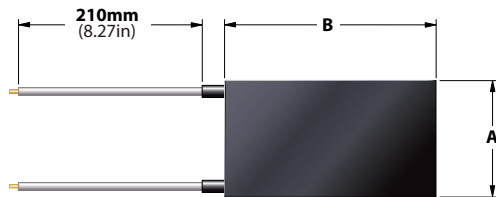
RESISTANCE (Ω)	
eg. 45 = 45Ω	

## How to Order

To order, please provide the following:

1. Heater application
2. Shape of heater
3. Heater dimensions (select from our Standard tables)
4. Estimated temperature rise (select from list below or from our Standard tables)
5. Voltage (select from list below or from our Standard tables)
6. Installation method (Clamping or Adhesive)

\* We will calculate the wattage, resistance, and lead wire size based on your selection and application!

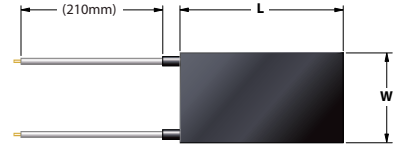


### STANDARD ULTRA-THIN FLEXIBLE HEATER SPECIFICATIONS

<b>Heater Material</b>	: TSA - Etched Foil or TSC - Nano Carbon or Silicon
<b>Shapes</b>	: Rectangular or Round
<b>Dimension Range (mm)</b>	
Standard widths/Outer Diameter (A)	: 10 13 16 20 25 32 40 50 63 80 100 125 160 200 250 300 mm
Standard lengths (B of rectangular)	: 10 13 16 20 25 32 40 50 63 80 100 125 160 200 250 300 mm
Standard inner diameter (B of round)	: 0 5 6 8 10 13 16 20 25 32 40 50 63 80 100 125 160 mm (must be smaller than A)
<b>Temp Rise Reference (°C)</b>	: 30 60 90 120 150 180 210°C
<b>Voltage Range(V)</b>	: 1.5 3 3.7 4.2 5 9 12 24 48 56 72 100 110 120 200 220 230 240VAC/DC

#### Notes:

- \* The length of the lead wires will be 210mm unless otherwise specified.
- \*\* Please note that the Temperature Rise value is for reference only. The actual temperature rise is dependent on the ambient environment and the application of the flexible heater.
- \*\*\* If the heater requires a higher heat-up rate or higher power density (>0.8W/cm<sup>2</sup>), make sure a temperature sensor or thermostat is installed to prevent overheating causing damage to products.



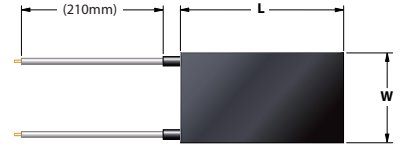
# STANDARD | Rectangular 1.5V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSA(C)0100010aR8.88	A & C	10	10	30	8.88	0.25	0.25	0.17
2	TSA(C)0100010aR4.21	A & C	10	10	60	4.21	0.53	0.53	0.35
3	TSA0100010aR2.64	A	10	10	90	2.64	0.85	0.85	0.57
4	TSA0100010aR1.87	A	10	10	120	1.87	1.2	1.20	0.8
5	TSA0100010aR1.41	A	10	10	150	1.41	1.6	1.60	1.07
6	TSA0100010aR1.12	A	10	10	180	1.12	2.01	2.01	1.34
7	TSA0100010aR0.941	A	10	10	210	0.941	2.39	2.39	1.59
8	TSA(C)0100013aR6.66	A & C	10	13	30	6.66	0.34	0.26	0.23
9	TSA(C)0100013aR3.15	A & C	10	13	60	3.15	0.71	0.55	0.47
10	TSA0100013aR1.98	A	10	13	90	1.98	1.14	0.88	0.76
11	TSA0100013aR1.49	A	10	13	120	1.49	1.51	1.16	1.01
12	TSA0100013aR1.06	A	10	13	150	1.06	2.12	1.63	1.41
13	TSA0100013aR0.888	A	10	13	180	0.888	2.53	1.95	1.69
14	TSA0100013aR0.705	A	10	13	210	0.705	3.19	2.45	2.13
15	TSA(C)0100016aR5.61	A & C	10	16	30	5.61	0.4	0.25	0.27
16	TSA0100016aR2.64	A	10	16	60	2.64	0.85	0.53	0.57
17	TSA0100016aR1.67	A	10	16	90	1.67	1.35	0.84	0.9
18	TSA0100016aR1.19	A	10	16	120	1.19	1.89	1.18	1.26
19	TSA0100016aR0.888	A	10	16	150	0.888	2.53	1.58	1.69
20	TSA0100016aR0.705	A	10	16	180	0.705	3.19	1.99	2.13
21	TSA0100016aR0.594	A	10	16	210	0.594	3.79	2.37	2.53
22	TSA(C)0100020aR4.46	A & C	10	20	30	4.46	0.5	0.25	0.33
23	TSA0100020aR2.1	A	10	20	60	2.1	1.07	0.54	0.71
24	TSA0100020aR1.33	A	10	20	90	1.33	1.69	0.85	1.13
25	TSA0100020aR0.941	A	10	20	120	0.941	2.39	1.20	1.59
26	TSA0100020aR0.705	A	10	20	150	0.705	3.19	1.60	2.13
27	TSA0100020aR0.561	A	10	20	180	0.561	4.01	2.01	2.67
28	TSA0100020aR0.472	A	10	20	210	0.472	4.77	2.39	3.18
29	TSA(C)0100025aR3.54	A & C	10	25	30	3.54	0.64	0.26	0.43
30	TSA0100025aR1.67	A	10	25	60	1.67	1.35	0.54	0.9
31	TSA0100025aR1.06	A	10	25	90	1.06	2.12	0.85	1.41
32	TSA0100025aR0.747	A	10	25	120	0.747	3.01	1.20	2.01
33	TSA0100025aR0.561	A	10	25	150	0.561	4.01	1.60	2.67
34	TSA0100025aR0.446	A	10	25	180	0.446	5.04	2.02	3.36
35	TSA0100025aR0.375	A	10	25	210	0.375	6	2.40	4
36	TSA0100032aR2.8	A	10	32	30	2.8	0.8	0.25	0.53
37	TSA0100032aR1.26	A	10	32	60	1.26	1.79	0.56	1.19
38	TSA0100032aR0.838	A	10	32	90	0.838	2.68	0.84	1.79
39	TSA0100032aR0.594	A	10	32	120	0.594	3.79	1.18	2.53
40	TSA0100032aR0.446	A	10	32	150	0.446	5.04	1.58	3.36
41	TSA0100032aR0.354	A	10	32	180	0.354	6.36	1.99	4.24
42	TSA0100032aR0.297	A	10	32	210	0.297	7.58	2.37	5.05
43	TSA0100040aR2.22	A	10	40	30	2.22	1.01	0.25	0.67
44	TSA0100040aR1.06	A	10	40	60	1.06	2.12	0.53	1.41
45	TSA0100040aR0.666	A	10	40	90	0.666	3.38	0.85	2.25
46	TSA0100040aR0.472	A	10	40	120	0.472	4.77	1.19	3.18
47	TSA0100040aR0.354	A	10	40	150	0.354	6.36	1.59	4.24
48	TSA0100040aR0.28	A	10	40	180	0.28	8.04	2.01	5.36
49	TSA0100040aR0.235	A	10	40	210	0.235	9.57	2.39	6.38
50	TSA(C)0130013aR5.94	A & C	13	13	30	5.94	0.38	0.22	0.25
51	TSA0130013aR2.8	A	13	13	60	2.8	0.8	0.47	0.53
52	TSA0130013aR1.77	A	13	13	90	1.77	1.27	0.75	0.85
53	TSA0130013aR1.26	A	13	13	120	1.26	1.79	1.06	1.19
54	TSA0130013aR0.941	A	13	13	150	0.941	2.39	1.41	1.59
55	TSA0130013aR0.747	A	13	13	180	0.747	3.01	1.78	2.01
56	TSA0130013aR0.629	A	13	13	210	0.629	3.58	2.12	2.39
57	TSA(C)0130016aR5	A & C	13	16	30	5	0.45	0.22	0.3
58	TSA0130016aR2.22	A	13	16	60	2.22	1.01	0.49	0.67
59	TSA0130016aR1.41	A	13	16	90	1.41	1.6	0.77	1.07
60	TSA0130016aR1.06	A	13	16	120	1.06	2.12	1.02	1.41
61	TSA0130016aR0.791	A	13	16	150	0.791	2.84	1.37	1.89
62	TSA0130016aR0.629	A	13	16	180	0.629	3.58	1.72	2.39
63	TSA0130016aR0.5	A	13	16	210	0.5	4.5	2.16	3
64	TSA(C)0130020aR3.75	A & C	13	20	30	3.75	0.6	0.23	0.4
65	TSA0130020aR1.87	A	13	20	60	1.87	1.2	0.46	0.8
66	TSA0130020aR1.12	A	13	20	90	1.12	2.01	0.77	1.34
67	TSA0130020aR0.838	A	13	20	120	0.838	2.68	1.03	1.79
68	TSA0130020aR0.629	A	13	20	150	0.629	3.58	1.38	2.39
69	TSA0130020aR0.5	A	13	20	180	0.5	4.5	1.73	3
70	TSA0130020aR0.421	A	13	20	210	0.421	5.34	2.05	3.56
71	TSA(C)0130025aR3.15	A & C	13	25	30	3.15	0.71	0.22	0.47
72	TSA0130025aR1.49	A	13	25	60	1.49	1.51	0.46	1.01
73	TSA0130025aR0.941	A	13	25	90	0.941	2.39	0.74	1.59

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA0130025aR0.666	A	13	25	120	0.666	3.38	1.04	2.25
75	TSA0130025aR0.5	A	13	25	150	0.5	4.5	1.38	3
76	TSA0130025aR0.397	A	13	25	180	0.397	5.67	1.74	3.78
77	TSA0130025aR0.334	A	13	25	210	0.334	6.74	2.07	4.49
78	TSA0130032aR2.35	A	13	32	30	2.35	0.96	0.23	0.64
79	TSA0130032aR1.12	A	13	32	60	1.12	2.01	0.48	1.34
80	TSA0130032aR0.705	A	13	32	90	0.705	3.19	0.77	2.13
81	TSA0130032aR0.53	A	13	32	120	0.53	4.25	1.02	2.83
82	TSA0130032aR0.397	A	13	32	150	0.397	5.67	1.36	3.78
83	TSA0130032aR0.315	A	13	32	180	0.315	7.14	1.72	4.76
84	TSA0130032aR0.264	A	13	32	210	0.264	8.52	2.05	5.68
85	TSA0130040aR1.87	A	13	40	30	1.87	1.2	0.23	0.8
86	TSA0130040aR0.888	A	13	40	60	0.888	2.53	0.49	1.69
87	TSA0130040aR0.561	A	13	40	90	0.561	4.01	0.77	2.67
88	TSA0130040aR0.421	A	13	40	120	0.421	5.34	1.03	3.56
89	TSA0130040aR0.315	A	13	40	150	0.315	7.14	1.37	4.76
90	TSA0130040aR0.249	A	13	40	180	0.249	9.04	1.74	6.03
91	TSA0130040aR0.21	A	13	40	210	0.21	10.71	2.06	7.14
92	TSA0130050aR1.58	A	13	50	30	1.58	1.42	0.22	0.95
93	TSA0130050aR0.747	A	13	50	60	0.747	3.01	0.46	2.01
94	TSA0130050aR0.472	A	13	50	90	0.472	4.77	0.73	3.18
95	TSA0130050aR0.334	A	13	50	120	0.334	6.74	1.04	4.49
96	TSA0130050aR0.249	A	13	50	150	0.249	9.04	1.39	6.03
97	TSA0130050aR0.198	A	13	50	180	0.198	11.36	1.75	7.57
98	TSA0130050aR0.167	A	13	50	210	0.167	13.47	2.07	8.98
99	TSA(C)0160016aR4.46	A & C	16	16	30	4.46	0.5	0.20	0.33
100	TSA0160016aR2.22	A	16	16	60	2.22	1.01	0.39	0.67
101	TSA0160016aR1.33	A	16	16	90	1.33	1.69	0.66	1.13
102	TSA0160016aR1	A	16	16	120	1	2.25	0.88	1.5
103	TSA0160016aR0.747	A	16	16	150	0.747	3.01	1.18	2.01
104	TSA0160016aR0.594	A	16	16	180	0.594	3.79	1.48	2.53
105	TSA0160016aR0.5	A	16	16	210	0.5	4.5	1.76	3
106	TSA(C)0160020aR3.75	A & C	16	20	30	3.75	0.6	0.19	0.4
107	TSA0160020aR1.77	A	16	20	60	1.77	1.27	0.40	0.85
108	TSA0160020aR1.12	A	16	20	90	1.12	2.01	0.63	1.34
109	TSA0160020aR0.791	A	16	20	120	0.791	2.84	0.89	1.89
110	TSA0160020aR0.594	A	16	20	150	0.594	3.79	1.18	2.53
111	TSA0160020aR0.472	A	16	20	180	0.472	4.77	1.49	3.18
112	TSA0160020aR0.397	A	16	20	210	0.397	5.67	1.77	3.78
113	TSA0160025aR2.97	A	16	25	30	2.97	0.76	0.19	0.51
114	TSA0160025aR1.41	A	16	25	60	1.41	1.6	0.40	1.07
115	TSA0160025aR0.888	A	16	25	90	0.888	2.53	0.63	1.69
116	TSA0160025aR0.629	A	16	25	120	0.629	3.58	0.90	2.39
117	TSA0160025aR0.472	A	16	25	150	0.472	4.77	1.19	3.18
118	TSA0160025aR0.375	A	16	25	180	0.375	6	1.50	4
119	TSA0160025aR0.315	A	16	25	210	0.315	7.14	1.79	4.76
120	TSA0160032aR2.22	A	16	32	30	2.22	1.01	0.20	0.67
121	TSA0160032aR1.06	A	16	32	60	1.06	2.12	1.02	1.41
122	TSA0160032aR0.666	A	16	32	90	0.666	3.38	0.66	2.25
123	TSA0160032aR0.5	A	16	32	120	0.5	4.5	0.88	3
124	TSA0160032aR0.375	A	16	32	150	0.375	6	1.17	4
125	TSA0160032aR0.297	A	16	32	180	0.297	7.58	1.48	5.05
126	TSA0160032aR0.249	A	16	32	210	0.249	9.04	1.77	6.03
127	TSA0160040aR1.87	A</							



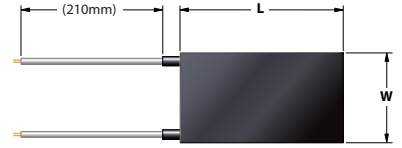
# STANDARD | Rectangular 1.5V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA0160063aR0.126	A	16	63	210	0.126	17.86	1.77	11.91
148	TSA(C)0200020aR3.75	A & C	20	20	30	3.75	0.6	0.15	0.4
149	TSA0200020aR1.77	A	20	20	60	1.77	1.27	0.32	0.85
150	TSA0200020aR1.12	A	20	20	90	1.12	2.01	0.50	1.34
151	TSA0200020aR0.791	A	20	20	120	0.791	2.84	0.71	1.89
152	TSA0200020aR0.629	A	20	20	150	0.629	3.58	0.90	2.39
153	TSA0200020aR0.5	A	20	20	180	0.5	4.5	1.13	3
154	TSA0200020aR0.421	A	20	20	210	0.421	5.34	1.34	3.56
155	TSA0200025aR2.97	A	20	25	30	2.97	0.76	0.15	0.51
156	TSA0200025aR1.49	A	20	25	60	1.49	1.51	0.30	1.01
157	TSA0200025aR0.888	A	20	25	90	0.888	2.53	0.51	1.69
158	TSA0200025aR0.629	A	20	25	120	0.629	3.58	0.72	2.39
159	TSA0200025aR0.5	A	20	25	150	0.5	4.5	0.90	3
160	TSA0200025aR0.397	A	20	25	180	0.397	5.67	1.13	3.78
161	TSA0200025aR0.334	A	20	25	210	0.334	6.74	1.35	4.49
162	TSA0200032aR2.35	A	20	32	30	2.35	0.96	0.15	0.64
163	TSA0200032aR1.12	A	20	32	60	1.12	2.01	0.31	1.34
164	TSA0200032aR0.705	A	20	32	90	0.705	3.19	0.50	2.13
165	TSA0200032aR0.5	A	20	32	120	0.5	4.5	0.70	3
166	TSA0200032aR0.375	A	20	32	150	0.375	6	0.94	4
167	TSA0200032aR0.315	A	20	32	180	0.315	7.14	1.12	4.76
168	TSA0200032aR0.264	A	20	32	210	0.264	8.52	1.33	5.68
169	TSA0200040aR1.87	A	20	40	30	1.87	1.2	0.15	0.8
170	TSA0200040aR0.888	A	20	40	60	0.888	2.53	0.32	1.69
171	TSA0200040aR0.561	A	20	40	90	0.561	4.01	0.50	2.67
172	TSA0200040aR0.397	A	20	40	120	0.397	5.67	0.71	3.78
173	TSA0200040aR0.315	A	20	40	150	0.315	7.14	0.89	4.76
174	TSA0200040aR0.249	A	20	40	180	0.249	9.04	1.13	6.03
175	TSA0200040aR0.21	A	20	40	210	0.21	10.71	1.34	7.14
176	TSA0200050aR1.49	A	20	50	30	1.49	1.51	0.15	1.01
177	TSA0200050aR0.705	A	20	50	60	0.705	3.19	0.32	2.13
178	TSA0200050aR0.446	A	20	50	90	0.446	5.04	0.50	3.36
179	TSA0200050aR0.315	A	20	50	120	0.315	7.14	0.71	4.76
180	TSA0200050aR0.249	A	20	50	150	0.249	9.04	0.90	6.03
181	TSA0200050aR0.198	A	20	50	180	0.198	11.36	1.14	7.57
182	TSA0200050aR0.167	A	20	50	210	0.167	13.47	1.35	8.98
183	TSA0200063aR1.19	A	20	63	30	1.19	1.89	0.15	1.26
184	TSA0200063aR0.561	A	20	63	60	0.561	4.01	0.32	2.67
185	TSA0200063aR0.354	A	20	63	90	0.354	6.36	0.50	4.24
186	TSA0200063aR0.249	A	20	63	120	0.249	9.04	0.72	6.03
187	TSA0200063aR0.198	A	20	63	150	0.198	11.36	0.90	7.57
188	TSA0200063aR0.158	A	20	63	180	0.158	14.24	1.13	9.49
189	TSA0200063aR0.133	A	20	63	210	0.133	16.92	1.34	11.28
190	TSA0200080aR0.941	A	20	80	30	0.941	2.39	0.15	1.59
191	TSA0200080aR0.446	A	20	80	60	0.446	5.04	0.32	3.36
192	TSA0200080aR0.28	A	20	80	90	0.28	8.04	0.50	5.36
193	TSA0200080aR0.198	A	20	80	120	0.198	11.36	0.71	7.57
194	TSA0200080aR0.158	A	20	80	150	0.158	14.24	0.89	9.49
195	TSA0200080aR0.126	A	20	80	180	0.126	17.86	1.12	11.91
196	TSA0200080aR0.106	A	20	80	210	0.106	21.23	1.33	14.15
197	TSA0250025aR2.49	A	25	25	30	2.49	0.9	0.14	0.6
198	TSA0250025aR1.19	A	25	25	60	1.19	1.89	0.30	1.26
199	TSA0250025aR0.747	A	25	25	90	0.747	3.01	0.48	2.01
200	TSA0250025aR0.53	A	25	25	120	0.53	4.25	0.68	2.83
201	TSA0250025aR0.421	A	25	25	150	0.421	5.34	0.85	3.56
202	TSA0250025aR0.334	A	25	25	180	0.334	6.74	1.08	4.49
203	TSA0250025aR0.28	A	25	25	210	0.28	8.04	1.29	5.36
204	TSA0250032aR1.98	A	25	32	30	1.98	1.14	0.14	0.76
205	TSA0250032aR0.941	A	25	32	60	0.941	2.39	0.30	1.59
206	TSA0250032aR0.594	A	25	32	90	0.594	3.79	0.47	2.53
207	TSA0250032aR0.421	A	25	32	120	0.421	5.34	0.67	3.56
208	TSA0250032aR0.315	A	25	32	150	0.315	7.14	0.89	4.76
209	TSA0250032aR0.264	A	25	32	180	0.264	8.52	1.07	5.68
210	TSA0250032aR0.222	A	25	32	210	0.222	10.14	1.27	6.76
211	TSA0250040aR1.58	A	25	40	30	1.58	1.42	0.14	0.95
212	TSA0250040aR0.747	A	25	40	60	0.747	3.01	0.30	2.01
213	TSA0250040aR0.472	A	25	40	90	0.472	4.77	0.48	3.18
214	TSA0250040aR0.334	A	25	40	120	0.334	6.74	0.67	4.49
215	TSA0250040aR0.264	A	25	40	150	0.264	8.52	0.85	5.68
216	TSA0250040aR0.21	A	25	40	180	0.21	10.71	1.07	7.14
217	TSA0250040aR0.177	A	25	40	210	0.177	12.71	1.27	8.47
218	TSA0250050aR1.26	A	25	50	30	1.26	1.79	0.14	1.19
219	TSA0250050aR0.594	A	25	50	60	0.594	3.79	0.30	2.53

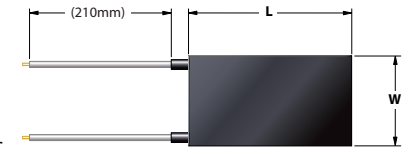
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA0250050aR0.375	A	25	50	90	0.375	6	0.48	4
221	TSA0250050aR0.264	A	25	50	120	0.264	8.52	0.68	5.68
222	TSA0250050aR0.21	A	25	50	150	0.21	10.71	0.86	7.14
223	TSA0250050aR0.167	A	25	50	180	0.167	13.47	1.08	8.98
224	TSA0250050aR0.141	A	25	50	210	0.141	15.96	1.28	10.64
225	TSA0250063aR1	A	25	63	30	1	2.25	0.14	1.5
226	TSA0250063aR0.472	A	25	63	60	0.472	4.77	0.30	3.18
227	TSA0250063aR0.297	A	25	63	90	0.297	7.58	0.48	5.05
228	TSA0250063aR0.21	A	25	63	120	0.21	10.71	0.68	7.14
229	TSA0250063aR0.167	A	25	63	150	0.167	13.47	0.86	8.98
230	TSA0250063aR0.133	A	25	63	180	0.133	16.92	1.07	11.28
231	TSA0250080aR0.791	A	25	80	30	0.791	2.84	0.14	1.89
232	TSA0250080aR0.375	A	25	80	60	0.375	6	0.30	4
233	TSA0250063aR0.112	A	25	63	210	0.112	20.09	1.28	13.39
234	TSA0250063aR0.235	A	25	80	90	0.235	9.57	0.48	6.38
235	TSA0250080aR0.167	A	25	80	120	0.167	13.47	0.67	8.98
236	TSA0250080aR0.126	A	25	80	150	0.126	17.86	0.89	11.91
237	TSA0250080aR0.106	A	25	80	180	0.106	21.23	1.06	14.15
238	TSA0250100aR0.629	A	25	100	30	0.629	3.58	0.14	2.39
239	TSA0250100aR0.297	A	25	100	60	0.297	7.58	0.30	5.05
240	TSA0250100aR0.187	A	25	100	90	0.187	12.03	0.48	8.02
241	TSA0250100aR0.133	A	25	100	120	0.133	16.92	0.68	11.28
242	TSA0250100aR0.106	A	25	100	150	0.106	21.23	0.85	14.15
243	TSA0250032aR1.67	A	32	32	30	1.67	1.35	0.13	0.9
244	TSA0320032aR0.791	A	32	32	60	0.791	2.84	0.28	1.89
245	TSA0320032aR0.472	A	32	32	90	0.472	4.77	0.47	3.18
246	TSA0320032aR0.354	A	32	32	120	0.354	6.36	0.62	4.24
247	TSA0320032aR0.264	A	32	32	150	0.264	8.52	0.83	5.68
248	TSA0320032aR0.222	A	32	32	180	0.222	10.14	0.99	6.76
249	TSA0320032aR0.187	A	32	32	210	0.187	12.03	1.17	8.02
250	TSA0320040aR1.33	A	32	40	30	1.33	1.69	0.13	1.13
251	TSA0320040aR0.629	A	32	40	60	0.629	3.58	0.28	2.39
252	TSA0320040aR0.375	A	32	40	90	0.375	6	0.47	4
253	TSA0320040aR0.28	A	32	40	120	0.28	8.04	0.63	5.36
254	TSA0320040aR0.222	A	32	40	150	0.222	10.14	0.79	6.76
255	TSA0320040aR0.177	A	32	40	180	0.177	12.71	0.99	8.47
256	TSA0320040aR0.149	A	32	40	210	0.149	15.1	1.18	10.07
257	TSA0320050aR1.06	A	32	50	30	1.06	2.12	0.13	1.41
258	TSA0320050aR0.5	A	32	50	60	0.5	4.5	0.28	3
259	TSA0320050aR0.315	A	32	50	90	0.315	7.14	0.45	4.76
260	TSA0320050aR0.222	A	32	50	120	0.222	10.14	0.63	6.76
261	TSA0320050aR0.177	A	32	50	150	0.177	12.71	0.79	8.47
262	TSA0320050aR0.141	A	32	50	180	0.141	15.96	1.00	10.64
263	TSA0320050aR0.119	A	32	50	210	0.119	18.91	1.18	12.61
264	TSA0320063aR0.838	A	32	63	30	0.838	2.68	0.13	1.79
265	TSA0320063aR0.397	A	32	63	60	0.397	5.67	0.28	3.78
266	TSA0320063aR0.249	A	32	63	90	0.249	9.04	0.45	6.03
267	TSA0320063aR0.177	A	32	63	120	0.177	12.71	0.63	8.47
268	TSA0320063aR0.141	A	32	63	150	0.141	15.96	0.79	10.64
269	TSA0320063aR0.112	A	32	63	180	0.112	20.09	1.00	13.39
270	TSA0320080aR0.666	A	32	80	30	0.666	3.38	0.13	2.25
271									

# STANDARD | Rectangular 1.5V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA0400050aR0.149	A	40	50	150	0.149	15.1	0.76	10.07
294	TSA0400050aR0.119	A	40	50	180	0.119	18.91	0.95	12.61
295	TSA0400050aR0.1	A	40	50	210	0.1	22.5	1.13	15
296	TSA0400063aR0.705	A	40	63	30	0.705	3.19	0.13	2.13
297	TSA0400063aR0.334	A	40	63	60	0.334	6.74	0.27	4.49
298	TSA0400063aR0.21	A	40	63	90	0.21	10.71	0.43	7.14
299	TSA0400063aR0.149	A	40	63	120	0.149	15.1	0.60	10.07
300	TSA0400063aR0.112	A	40	63	150	0.112	20.09	0.80	13.39
301	TSA0400080aR0.561	A	40	80	30	0.561	4.01	0.13	2.67
302	TSA0400080aR0.264	A	40	80	60	0.264	8.52	0.27	5.68
303	TSA0400080aR0.158	A	40	80	90	0.158	14.24	0.45	9.49
304	TSA0400080aR0.119	A	40	80	120	0.119	18.91	0.59	12.61
305	TSA0400100aR0.446	A	40	100	30	0.446	5.04	0.13	3.36
306	TSA0400100aR0.21	A	40	100	60	0.21	10.71	0.27	7.14
307	TSA0400100aR0.133	A	40	100	90	0.133	16.92	0.42	11.28
308	TSA0400125aR0.354	A	40	125	30	0.354	6.36	0.13	4.24
309	TSA0400125aR0.167	A	40	125	60	0.167	13.47	0.27	8.98
310	TSA0400125aR0.106	A	40	125	90	0.106	21.23	0.42	14.15
311	TSA0400160aR0.28	A	40	160	30	0.28	8.04	0.13	5.36
312	TSA0400160aR0.133	A	40	160	60	0.133	16.92	0.26	11.28
313	TSA0500050aR0.705	A	50	50	30	0.705	3.19	0.13	2.13
314	TSA0500050aR0.354	A	50	50	60	0.354	6.36	0.25	4.24
315	TSA0500050aR0.222	A	50	50	90	0.222	10.14	0.41	6.76
316	TSA0500050aR0.158	A	50	50	120	0.158	14.24	0.57	9.49
317	TSA0500050aR0.126	A	50	50	150	0.126	17.86	0.71	11.91
318	TSA0500050aR0.1	A	50	50	180	0.1	22.5	0.90	15
319	TSA0500063aR0.561	A	50	63	30	0.561	4.01	0.13	2.67
320	TSA0500063aR0.28	A	50	63	60	0.28	8.04	0.26	5.36
321	TSA0500063aR0.177	A	50	63	90	0.177	12.71	0.40	8.47
322	TSA0500063aR0.126	A	50	63	120	0.126	17.86	0.57	11.91
323	TSA0500063aR0.1	A	50	63	150	0.1	22.5	0.71	15
324	TSA0500080aR0.446	A	50	80	30	0.446	5.04	0.13	3.36
325	TSA0500080aR0.222	A	50	80	60	0.222	10.14	0.25	6.76
326	TSA0500080aR0.141	A	50	80	90	0.141	15.96	0.40	10.64
327	TSA0500080aR0.1	A	50	80	120	0.1	22.5	0.56	15
328	TSA0500100aR0.354	A	50	100	30	0.354	6.36	0.13	4.24
329	TSA0500100aR0.177	A	50	100	60	0.177	12.71	0.25	8.47
330	TSA0500100aR0.112	A	50	100	90	0.112	20.09	0.40	13.39

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
331	TSA0500125aR0.297	A	50	125	30	0.297	7.58	0.12	5.05
332	TSA0500125aR0.141	A	50	125	60	0.141	15.96	0.26	10.64
333	TSA0500160aR0.222	A	50	160	30	0.222	10.14	0.13	6.76
334	TSA0500160aR0.112	A	50	160	60	0.112	20.09	0.25	13.39
335	TSA0500200aR0.177	A	50	200	30	0.177	12.71	0.13	8.47
336	TSA0630063aR0.5	A	63	63	30	0.5	4.5	0.11	3
337	TSA0630063aR0.235	A	63	63	60	0.235	9.57	0.24	6.38
338	TSA0630063aR0.149	A	63	63	90	0.149	15.1	0.38	10.07
339	TSA0630063aR0.106	A	63	63	120	0.106	21.23	0.53	14.15
340	TSA0630080aR0.375	A	63	80	30	0.375	6	0.12	4
341	TSA0630080aR0.187	A	63	80	60	0.187	12.03	0.24	8.02
342	TSA0630080aR0.119	A	63	80	90	0.119	18.91	0.38	12.61
343	TSA0630100aR0.315	A	63	100	30	0.315	7.14	0.11	4.76
344	TSA0630100aR0.149	A	63	100	60	0.149	15.1	0.24	10.07
345	TSA0630125aR0.249	A	63	125	30	0.249	9.04	0.11	6.03
346	TSA0630125aR0.119	A	63	125	60	0.119	18.91	0.24	12.61
347	TSA0630160aR0.187	A	63	160	30	0.187	12.03	0.12	8.02
348	TSA0630200aR0.149	A	63	200	30	0.149	15.1	0.12	10.07
349	TSA0630250aR0.126	A	63	250	30	0.126	17.86	0.11	11.91
350	TSA0800080aR0.334	A	80	80	30	0.334	6.74	0.11	4.49
351	TSA0800080aR0.167	A	80	80	60	0.167	13.47	0.21	8.98
352	TSA0800080aR0.106	A	80	80	90	0.106	21.23	0.33	14.15
353	TSA0800100aR0.264	A	80	100	30	0.264	8.52	0.11	5.68
354	TSA0800100aR0.133	A	80	100	60	0.133	16.92	0.21	11.28
355	TSA0800125aR0.21	A	80	125	30	0.21	10.71	0.11	7.14
356	TSA0800125aR0.106	A	80	125	60	0.106	21.23	0.21	14.15
357	TSA0800160aR0.167	A	80	160	30	0.167	13.47	0.11	8.98
358	TSA0800200aR0.133	A	80	200	30	0.133	16.92	0.11	11.28
359	TSA0800250aR0.106	A	80	250	30	0.106	21.23	0.11	14.15
360	TSA1000100aR0.235	A	100	100	30	0.235	9.57	0.10	6.38
361	TSA1000100aR0.119	A	100	100	60	0.119	18.91	0.19	12.61
362	TSA1000125aR0.187	A	100	125	30	0.187	12.03	0.10	8.02
363	TSA1000160aR0.149	A	100	160	30	0.149	15.1	0.09	10.07
364	TSA1000200aR0.119	A	100	200	30	0.119	18.91	0.09	12.61
365	TSA1250125aR0.167	A	125	125	30	0.167	13.47	0.09	8.98
366	TSA1250160aR0.133	A	125	160	30	0.133	16.92	0.08	11.28
367	TSA1250200aR0.106	A	125	200	30	0.106	21.23	0.08	14.15
368	TSA1600160aR0.112	A	160	160	30	0.112	20.09	0.08	13.39



# STANDARD | Rectangular 3V

■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSA(C)0100010bR35.4	A & C	10	10	30	35.4	0.25	0.25	0.08
2	TSA(C)0100010bR16.7	A & C	10	10	60	16.7	0.54	0.54	0.18
3	TSA(C)0100010bR10.6	A & C	10	10	90	10.6	0.85	0.85	0.28
4	TSA(C)0100010bR7.47	A & C	10	10	120	7.47	1.2	1.20	0.4
5	TSA(C)0100010bR5.61	A & C	10	10	150	5.61	1.6	1.60	0.53
6	TSA0100010bR4.46	A	10	10	180	4.46	2.02	2.02	0.67
7	TSA0100010bR3.75	A	10	10	210	3.75	2.4	2.40	0.8
8	TSA(C)0100013bR28	A & C	10	13	30	28	0.32	0.25	0.11
9	TSA(C)0100013bR12.6	A & C	10	13	60	12.6	0.71	0.55	0.24
10	TSA(C)0100013bR7.91	A & C	10	13	90	7.91	1.14	0.88	0.38
11	TSA(C)0100013bR5.94	A & C	10	13	120	5.94	1.52	1.17	0.51
12	TSA0100013bR4.46	A	10	13	150	4.46	2.02	1.55	0.67
13	TSA0100013bR3.54	A	10	13	180	3.54	2.54	1.95	0.85
14	TSA0100013bR2.8	A	10	13	210	2.8	3.21	2.47	1.07
15	TSA(C)0100016bR22.2	A & C	10	16	30	22.2	0.41	0.26	0.14
16	TSA(C)0100016bR10	A & C	10	16	60	10	0.9	0.56	0.3
17	TSA(C)0100016bR6.66	A & C	10	16	90	6.66	1.35	0.84	0.45
18	TSA0100016bR4.72	A	10	16	120	4.72	1.91	1.19	0.64
19	TSA0100016bR3.54	A	10	16	150	3.54	2.54	1.59	0.85
20	TSA0100016bR2.8	A	10	16	180	2.8	3.21	2.01	1.07
21	TSA0100016bR2.35	A	10	16	210	2.35	3.83	2.39	1.28
22	TSA(C)0100020bR17.7	A & C	10	20	30	17.7	0.51	0.26	0.17
23	TSA(C)0100020bR8.38	A & C	10	20	60	8.38	1.07	0.54	0.36
24	TSA0100020bR5.3	A	10	20	90	5.3	1.7	0.85	0.57
25	TSA0100020bR3.75	A	10	20	120	3.75	2.4	1.20	0.8

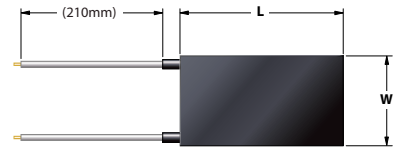
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
26	TSA0100020bR2.8	A	10	20	150	2.8	3.21	1.61	1.07
27	TSA0100020bR2.22	A	10	20	180	2.22	4.05	2.03	1.35
28	TSA0100020bR1.87	A	10	20	210	1.87	4.81	2.41	1.6
29	TSA(C)0100025bR14.1	A & C	10	25	30	14.1	0.64	0.26	0.21
30	TSA(C)0100025bR6.66	A & C	10	25	60	6.66	1.35	0.54	0.45
31	TSA0100025bR4.21	A	10	25	90	4.21	2.14	1.06	0.71
32	TSA0100025bR2.97	A	10	25	120	2.97	3.03	1.21	1.01
33	TSA0100025bR2.22	A	10	25	150	2.22	4.05	1.62	1.35
34	TSA0100025bR1.77	A	10	25	180	1.77	5.08	2.03	1.69
35	TSA0100025bR1.49	A	10	25	210	1.49	6.04	2.42	2.01
36	TSA(C)0100032bR11.2	A & C	10	32	30	11.2	0.8	0.25	0.27
37	TSA0100032bR5	A	10	32	60	5	1.8	0.56	0.6
38	TSA0100032bR3.34	A	10	32	90	3.34	2.69	0.84	0.9
39	TSA0100032bR2.35	A	10	32	120	2.35	3.83	1.20	1.28
40	TSA0100032bR1.77	A	10	32	150	1.77	5.08	1.59	1.69
41	TSA0100032bR1.41	A	10	32	180	1.41	6.38	1.99	2.13
42	TSA0100032bR1.19	A	10	32	210	1.19	7.56	2.36	2.52
43	TSA(C)0100040bR8.88	A & C	10	40	30</				

# STANDARD | Rectangular 3V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
51	TSA(C)0130013bR11.2	A & C	13	13	60	11.2	0.8	0.47	0.27
52	TSA(C)0130013bR7.05	A & C	13	13	90	7.05	1.28	0.76	0.43
53	TSA(C)0130013bR5	A & C	13	120	5	1.8	1.07	0.6	
54	TSA0130013bR3.75	A	13	13	150	3.75	2.4	1.42	0.8
55	TSA0130013bR3.15	A	13	13	180	3.15	2.86	1.69	0.95
56	TSA0130013bR2.49	A	13	13	210	2.49	3.61	2.14	1.2
57	TSA(C)0130016bR19.8	A & C	13	16	30	19.8	0.45	0.22	0.15
58	TSA(C)0130016bR8.88	A & C	13	16	60	8.88	1.01	0.49	0.34
59	TSA(C)0130016bR5.61	A & C	13	16	90	5.61	1.6	0.77	0.53
60	TSA0130016bR4.21	A	13	16	120	4.21	2.14	1.03	0.71
61	TSA0130016bR3.15	A	13	16	150	3.15	2.86	1.38	0.95
62	TSA0130016bR2.49	A	13	16	180	2.49	3.61	1.74	1.2
63	TSA0130016bR2.1	A	13	16	210	2.1	4.29	2.06	1.43
64	TSA(C)0130020bR14.9	A & C	13	20	30	14.9	0.6	0.23	0.2
65	TSA(C)0130020bR7.47	A & C	13	20	60	7.47	1.2	0.46	0.4
66	TSA(C)0130020bR4.72	A & C	13	20	90	4.72	1.91	0.73	0.64
67	TSA0130020bR3.34	A	13	20	120	3.34	2.69	1.03	0.9
68	TSA0130020bR2.49	A	13	20	150	2.49	3.61	1.39	1.2
69	TSA0130020bR1.98	A	13	20	180	1.98	4.55	1.75	1.52
70	TSA0130020bR1.67	A	13	20	210	1.67	5.39	2.07	1.8
71	TSA(C)0130025bR12.6	A & C	13	25	30	12.6	0.71	0.22	0.24
72	TSA(C)0130025bR5.94	A & C	13	25	60	5.94	1.52	0.47	0.51
73	TSA0130025bR3.75	A	13	25	90	3.75	2.4	0.74	0.8
74	TSA0130025bR2.64	A	13	25	120	2.64	3.41	1.05	1.14
75	TSA0130025bR1.98	A	13	25	150	1.98	4.55	1.40	1.52
76	TSA0130025bR1.58	A	13	25	180	1.58	5.7	1.75	1.9
77	TSA0130025bR1.33	A	13	25	210	1.33	6.77	2.08	2.26
78	TSA(C)0130032bR9.41	A & C	13	32	30	9.41	0.96	0.23	0.32
79	TSA(C)0130032bR4.46	A & C	13	32	60	4.46	2.02	0.49	0.67
80	TSA0130032bR2.8	A	13	32	90	2.8	3.21	0.77	1.07
81	TSA0130032bR2.1	A	13	32	120	2.1	4.29	1.03	1.43
82	TSA0130032bR1.58	A	13	32	150	1.58	5.7	1.37	1.9
83	TSA0130032bR1.26	A	13	32	180	1.26	7.14	1.72	2.38
84	TSA0130032bR1	A	13	32	210	1	9	2.16	3
85	TSA(C)0130040bR7.47	A & C	13	40	30	7.47	1.2	0.23	0.4
86	TSA0130040bR3.75	A	13	40	60	3.75	2.4	0.46	0.8
87	TSA0130040bR2.35	A	13	40	90	2.35	3.83	0.74	1.28
88	TSA0130040bR1.67	A	13	40	120	1.67	5.39	1.04	1.8
89	TSA0130040bR1.26	A	13	40	150	1.26	7.14	1.37	2.38
90	TSA0130040bR1	A	13	40	180	1	9	1.73	3
91	TSA0130040bR0.838	A	13	40	210	0.838	10.74	2.07	3.58
92	TSA(C)0130050bR6.29	A & C	13	50	30	6.29	1.43	0.22	0.48
93	TSA0130050bR2.97	A	13	50	60	2.97	3.03	0.47	1.01
94	TSA0130050bR1.87	A	13	50	90	1.87	4.81	0.74	1.6
95	TSA0130050bR1.33	A	13	50	120	1.33	6.77	1.04	2.26
96	TSA0130050bR1	A	13	50	150	1	9	1.38	3
97	TSA0130050bR0.791	A	13	50	180	0.791	11.38	1.75	3.79
98	TSA0130050bR0.666	A	13	50	210	0.666	13.51	2.08	4.5
99	TSA(C)0160016bR18.7	A & C	16	16	30	18.7	0.48	0.19	0.16
100	TSA(C)0160016bR8.88	A & C	16	16	60	8.88	1.01	0.39	0.34
101	TSA(C)0160016bR5.61	A & C	16	16	90	5.61	1.6	0.63	0.53
102	TSA(C)0160016bR3.97	A & C	16	16	120	3.97	2.27	0.89	0.76
103	TSA0160016bR2.97	A	16	16	150	2.97	3.03	1.18	1.01
104	TSA0160016bR2.35	A	16	16	180	2.35	3.83	1.50	1.28
105	TSA0160016bR1.98	A	16	16	210	1.98	4.55	1.78	1.52
106	TSA(C)0160020bR14.9	A & C	16	20	30	14.9	0.6	0.19	0.2
107	TSA(C)0160020bR7.05	A & C	16	20	60	7.05	1.28	0.40	0.43
108	TSA(C)0160020bR4.46	A & C	16	20	90	4.46	2.02	0.63	0.67
109	TSA0160020bR3.15	A	16	20	120	3.15	2.86	0.89	0.95
110	TSA0160020bR2.35	A	16	20	150	2.35	3.83	1.20	1.28
111	TSA0160020bR1.87	A	16	20	180	1.87	4.81	1.50	1.6
112	TSA0160020bR1.58	A	16	20	210	1.58	5.7	1.78	1.9
113	TSA(C)0160025bR11.9	A & C	16	25	30	11.9	0.76	0.19	0.25
114	TSA(C)0160025bR5.61	A & C	16	25	60	5.61	1.6	0.40	0.53
115	TSA0160025bR3.54	A	16	25	90	3.54	2.54	0.64	0.85
116	TSA0160025bR2.49	A	16	25	120	2.49	3.61	0.90	1.2
117	TSA0160025bR1.87	A	16	25	150	1.87	4.81	1.20	1.6
118	TSA0160025bR1.49	A	16	25	180	1.49	6.04	1.51	2.01
119	TSA0160025bR1.26	A	16	25	210	1.26	7.14	1.79	2.38
120	TSA(C)0160032bR8.88	A & C	16	32	30	8.88	1.01	0.20	0.34
121	TSA(C)0160032bR4.21	A & C	16	32	60	4.21	2.14	0.42	0.71
122	TSA0160032bR2.8	A	16	32	90	2.8	3.21	0.63	1.07
123	TSA0160032bR1.98	A	16	32	120	1.98	4.55	0.89	1.52

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
124	TSA0160032bR1.49	A	16	32	150	1.49	6.04	1.18	2.01
125	TSA0160032bR1.19	A	16	32	180	1.19	7.56	1.48	2.52
126	TSA0160032bR1	A	16	32	210	1	9	1.76	3
127	TSA(C)0160040bR7.47	A & C	16	40	30	7.47	1.2	0.19	0.4
128	TSA0160040bR3.54	A	16	40	60	3.54	2.54	0.40	0.85
129	TSA0160040bR2.22	A	16	40	90	2.22	4.05	0.63	1.35
130	TSA0160040bR1.58	A	16	40	120	1.58	5.7	0.89	1.9
131	TSA0160040bR1.19	A	16	40	150	1.19	7.56	1.18	2.52
132	TSA0160040bR0.941	A	16	40	180	0.941	9.56	1.49	3.19
133	TSA0160040bR0.791	A	16	40	210	0.791	11.38	1.78	3.79
134	TSA(C)0160050bR5.94	A & C	16	50	30	5.94	1.52	0.19	0.51
135	TSA0160050bR2.8	A	16	50	60	2.8	3.21	0.40	1.07
136	TSA0160050bR1.77	A	16	50	90	1.77	5.08	0.64	1.69
137	TSA0160050bR1.26	A	16	50	120	1.26	7.14	0.89	2.38
138	TSA0160050bR0.941	A	16	50	150	0.941	9.56	1.20	3.19
139	TSA0160050bR0.747	A	16	50	180	0.747	12.05	1.51	4.02
140	TSA0160050bR0.629	A	16	50	210	0.629	14.31	1.79	4.77
141	TSA(C)0160063bR4.72	A & C	16	63	30	4.72	1.91	0.19	0.64
142	TSA0160063bR2.22	A	16	63	60	2.22	4.05	0.40	1.35
143	TSA0160063bR1.41	A	16	63	90	1.41	6.38	0.63	2.13
144	TSA0160063bR1	A	16	63	120	1	9	0.89	3
145	TSA0160063bR0.794	A	16	63	150	0.747	12.05	1.20	4.02
146	TSA0160063bR0.594	A	16	63	180	0.594	15.15	1.50	5.05
147	TSA0160063bR0.5	A	16	63	210	0.5	18	1.79	6
148	TSA(C)0200020bR14.9	A & C	20	20	30	14.9	0.6	0.15	0.2
149	TSA(C)0200020bR7.05	A & C	20	20	60	7.05	1.28	0.32	0.43
150	TSA(C)0200020bR4.46	A & C	20	20	90	4.46	2.02	0.51	0.67
151	TSA(C)0200020bR3.15	A & C	20	20	120	3.15	2.86	0.72	0.95
152	TSA0200020bR2.49	A	20	20	150	2.49	3.61	0.90	1.2
153	TSA0200020bR1.98	A	20	20	180	1.98	4.55	1.14	1.52
154	TSA0200020bR1.67	A	20	20	210	1.67	5.39	1.35	1.8
155	TSA(C)0200025bR11.9	A & C	20	25	30	11.9	0.76	0.15	0.25
156	TSA(C)0200025bR5.94	A & C	20	25	60	5.94	1.52	0.30	0.51
157	TSA(C)0200025bR3.54	A & C	20	25	90	3.54	2.54	0.51	0.85
158	TSA0200025bR2.49	A	20	25	120	2.49	3.61	0.72	1.2
159	TSA0200025bR1.98	A	20	25	150	1.98	4.55	0.91	1.52
160	TSA0200025bR1.58	A	20	25	180	1.58	5.7	1.14	1.9
161	TSA0200025bR1.33	A	20	25	210	1.33	6.77	1.35	2.26
162	TSA(C)0200032bR9.41	A & C	20	32	30	9.41	0.96	0.15	0.32
163	TSA(C)0200032bR4.46	A & C	20	32	60	4.46	2.02	0.32	0.67
164	TSA0200032bR2.8	A	20	32	90	2.8	3.21	0.50	1.07
165	TSA0200032bR1.98	A	20	32	120	1.98	4.55	0.71	1.52
166	TSA0200032bR1.58	A	20	32	150	1.58	5.7	0.89	1.9
167	TSA0200032bR1.26	A	20	32	180	1.26	7.14	1.12	2.38
168	TSA0200032bR1.06	A	20	32	210	1.06	8.49	1.33	2.83
169	TSA(C)0200040bR7.47	A & C	20	40	30	7.47	1.2	0.15	0.4
170	TSA(C)0200040bR3.54	A & C	20	40	60	3.54	2.54	0.32	0.85
171	TSA0200040bR2.22	A	20	40	90	2.22	4.05	0.51	1.35
172	TSA0200040bR1.58	A	20	40	120	1.58	5.7	0.71	1.9
173	TSA0200040bR1.26	A	20	40	150	1.26	7.14	0.89	2.38
174	TSA0200040bR1	A	20	40	180	1	9	1.13	3
175	TSA0200040bR0.838	A	20	40	210	0.838	10.74	1.34	3.58
176	TSA(C)0200050bR5.94	A & C	20	50	30	5.94	1.52		



# STANDARD | Rectangular 3V

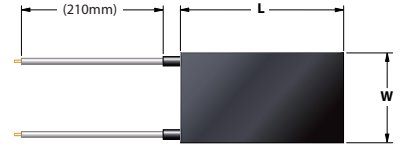
Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
197	TSA(C)0250025bR10	A & C	25	25	30	10	0.9	0.14	0.3
198	TSA(C)0250025bR4.72	A & C	25	25	60	4.72	1.91	0.31	0.64
199	TSA0250025bR2.97	A	25	25	90	2.97	3.03	0.48	1.01
200	TSA0250025bR2.1	A	25	25	120	2.1	4.29	0.69	1.43
201	TSA0250025bR1.67	A	25	25	150	1.67	5.39	0.86	1.8
202	TSA0250025bR1.33	A	25	25	180	1.33	6.77	1.08	2.26
203	TSA0250025bR1.12	A	25	25	210	1.12	8.04	1.29	2.68
204	TSA(C)0250032bR7.91	A & C	25	32	30	7.91	1.14	0.14	0.38
205	TSA(C)0250032bR3.75	A & C	25	32	60	3.75	2.4	0.30	0.8
206	TSA0250032bR2.35	A	25	32	90	2.35	3.83	0.48	1.28
207	TSA0250032bR1.67	A	25	32	120	1.67	5.39	0.67	1.8
208	TSA0250032bR1.26	A	25	32	150	1.26	7.14	0.89	2.38
209	TSA0250032bR1.06	A	25	32	180	1.06	8.49	1.06	2.83
210	TSA0250032bR0.888	A	25	32	210	0.888	10.14	1.27	3.38
211	TSA0250040bR6.29	A & C	25	40	30	6.29	1.43	0.14	0.48
212	TSA0250040bR2.97	A	25	40	60	2.97	3.03	0.30	1.01
213	TSA0250040bR1.87	A	25	40	90	1.87	4.81	0.48	1.6
214	TSA0250040bR1.33	A	25	40	120	1.33	6.77	0.68	2.26
215	TSA0250040bR1.06	A	25	40	150	1.06	8.49	0.85	2.83
216	TSA0250040bR0.838	A	25	40	180	0.838	10.74	1.07	3.58
217	TSA0250040bR0.705	A	25	40	210	0.705	12.77	1.28	4.26
218	TSA(C)0250050bR5	A & C	25	50	30	5	1.8	0.14	0.6
219	TSA0250050bR2.35	A	25	50	60	2.35	3.83	0.31	1.28
220	TSA0250050bR1.49	A	25	50	90	1.49	6.04	0.48	2.01
221	TSA0250050bR1.06	A	25	50	120	1.06	8.49	0.68	2.83
222	TSA0250050bR0.838	A	25	50	150	0.838	10.74	0.86	3.58
223	TSA0250050bR0.666	A	25	50	180	0.666	13.51	1.08	4.5
224	TSA0250050bR0.561	A	25	50	210	0.561	16.04	1.28	5.35
225	TSA(C)0250063bR3.97	A & C	25	63	30	3.97	2.27	0.14	0.76
226	TSA0250063bR1.87	A	25	63	60	1.87	4.81	0.31	1.6
227	TSA0250063bR1.19	A	25	63	90	1.19	7.56	0.48	2.52
228	TSA0250063bR0.838	A	25	63	120	0.838	10.74	0.68	3.58
229	TSA0250063bR0.666	A	25	63	150	0.666	13.51	0.86	4.5
230	TSA0250063bR0.53	A	25	63	180	0.53	16.98	1.08	5.66
231	TSA(C)0250080bR3.15	A & C	25	80	30	3.15	2.86	0.14	0.95
232	TSA0250080bR1.49	A	25	80	60	1.49	6.04	0.30	2.01
233	TSA0250063bR0.446	A	25	63	210	0.446	20.18	1.28	6.73
234	TSA0250080bR0.941	A	25	80	90	0.941	9.56	0.48	3.19
235	TSA0250080bR0.666	A	25	80	120	0.666	13.51	0.68	4.5
236	TSA0250080bR0.53	A	25	80	150	0.53	16.98	0.85	5.66
237	TSA0250080bR0.421	A	25	80	180	0.421	21.38	1.07	7.13
238	TSA0250080bR0.354	A	25	80	210	0.354	25.42	1.27	8.47
239	TSA0250100bR2.49	A	25	100	30	2.49	3.61	0.14	1.2
240	TSA0250100bR1.19	A	25	100	60	1.19	7.56	0.30	2.52
241	TSA0250100bR0.747	A	25	100	90	0.747	12.05	0.48	4.02
242	TSA0250100bR0.53	A	25	100	120	0.53	16.98	0.68	5.66
243	TSA0250100bR0.421	A	25	100	150	0.421	21.38	0.86	7.13
244	TSA0250100bR0.334	A	25	100	180	0.334	26.95	1.08	8.98
245	TSA0250100bR0.28	A	25	100	210	0.28	32.14	1.29	10.71
246	TSA(C)0320032bR6.66	A & C	32	32	30	6.66	1.35	0.13	0.45
247	TSA(C)0320032bR3.15	A & C	32	32	60	3.15	2.86	0.28	0.95
248	TSA0320032bR1.87	A	32	32	90	1.87	4.81	0.47	1.6
249	TSA0320032bR1.41	A	32	32	120	1.41	6.38	0.62	2.13
250	TSA0320032bR1.06	A	32	32	150	1.06	8.49	0.83	2.83
251	TSA0320032bR0.888	A	32	32	180	0.888	10.14	0.99	3.38
252	TSA0320032bR0.747	A	32	32	210	0.747	12.05	1.18	4.02
253	TSA(C)0320040bR5.3	A & C	32	40	30	5.3	1.7	0.13	0.57
254	TSA0320040bR2.49	A	32	40	60	2.49	3.61	0.28	1.2
255	TSA0320040bR1.49	A	32	40	90	1.49	6.04	0.47	2.01
256	TSA0320040bR1.12	A	32	40	120	1.12	8.04	0.63	2.68
257	TSA0320040bR0.888	A	32	40	150	0.888	10.14	0.79	3.38
258	TSA0320040bR0.705	A	32	40	180	0.705	12.77	1.00	4.26
259	TSA0320040bR0.594	A	32	40	210	0.594	15.15	1.18	5.05
260	TSA(C)0320050bR4.21	A & C	32	50	30	4.21	2.14	0.13	0.71
261	TSA0320050bR1.98	A	32	50	60	1.98	4.55	0.28	1.52
262	TSA0320050bR1.26	A	32	50	90	1.26	7.14	0.45	2.38
263	TSA0320050bR0.888	A	32	50	120	0.888	10.14	0.63	3.38
264	TSA0320050bR0.705	A	32	50	150	0.705	12.77	0.80	4.26
265	TSA0320050bR0.561	A	32	50	180	0.561	16.04	1.00	5.35
266	TSA0320050bR0.472	A	32	50	210	0.472	19.07	1.19	6.36
267	TSA(C)0320063bR3.34	A & C	32	63	30	3.34	2.69	0.13	0.9
268	TSA0320063bR1.58	A	32	63	60	1.58	5.7	0.28	1.9
269	TSA0320063bR1	A	32	63	90	1	9	0.45	3

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
270	TSA0320063bR0.705	A	32	63	120	0.705	12.77	0.63	4.26
271	TSA0320063bR0.561	A	32	63	150	0.561	16.04	0.80	5.35
272	TSA0320063bR0.446	A	32	63	180	0.446	20.18	1.00	6.73
273	TSA0320063bR0.375	A	32	63	210	0.375	24	1.19	8
274	TSA0320080bR2.64	A	32	80	30	2.64	3.41	0.13	1.14
275	TSA0320080bR1.26	A	32	80	60	1.26	7.14	0.28	2.38
276	TSA0320080bR0.747	A	32	80	90	0.747	12.05	0.47	4.02
277	TSA0320080bR0.561	A	32	80	120	0.561	16.04	0.63	5.35
278	TSA0320080bR0.446	A	32	80	150	0.446	20.18	0.79	6.73
279	TSA0320080bR0.354	A	32	80	180	0.354	25.42	0.99	8.47
280	TSA0320080bR0.297	A	32	80	210	0.297	30.3	1.18	10.1
281	TSA0320100bR2.1	A	32	100	30	2.1	4.29	0.13	1.43
282	TSA0320100bR1	A	32	100	60	1	9	0.28	3
283	TSA0320100bR0.629	A	32	100	90	0.629	14.31	0.45	4.77
284	TSA0320100bR0.446	A	32	100	120	0.446	20.18	0.63	6.73
285	TSA0320100bR0.354	A	32	100	150	0.354	25.42	0.79	8.47
286	TSA0320100bR0.28	A	32	100	180	0.28	32.14	1.00	10.71
287	TSA0320100bR0.235	A	32	100	210	0.235	38.3	1.20	12.77
288	TSA0320125bR1.67	A	32	125	30	1.67	5.39	0.13	1.8
289	TSA0320125bR0.791	A	32	125	60	0.791	11.38	0.28	3.79
290	TSA0320125bR0.5	A	32	125	90	0.5	18	0.45	6
291	TSA0320125bR0.354	A	32	125	120	0.354	25.42	0.64	8.47
292	TSA0320125bR0.28	A	32	125	150	0.28	32.14	0.80	10.71
293	TSA0320125bR0.222	A	32	125	180	0.222	40.54	1.01	13.51
294	TSA(C)0400040bR4.46	A & C	40	40	30	4.46	2.02	0.13	0.67
295	TSA0400040bR2.1	A	40	40	60	2.1	4.29	0.27	1.43
296	TSA0400040bR1.33	A	40	40	90	1.33	6.77	0.42	2.26
297	TSA0400040bR0.941	A	40	40	120	0.941	9.56	0.60	3.19
298	TSA0400040bR0.705	A	40	40	150	0.705	12.77	0.80	4.26
299	TSA0400040bR0.594	A	40	40	180	0.594	15.15	0.95	5.05
300	TSA0400040bR0.5	A	40	40	210	0.5	18	1.13	6
301	TSA(C)0400050bR3.54	A & C	40	50	30	3.54	2.54	0.13	0.85
302	TSA0400050bR1.67	A	40	50	60	1.67	5.39	0.27	1.8
303	TSA0400050bR1.06	A	40	50	90	1.06	8.49	0.42	2.83
304	TSA0400050bR0.747	A	40	50	120	0.747	12.05	0.60	4.02
305	TSA0400050bR0.594	A	40	50	150	0.594	15.15	0.76	5.05
306	TSA0400050bR0.472	A	40	50	180	0.472	19.07	0.95	6.36
307	TSA0400050bR0.397	A	40	50	210	0.397	22.67	1.13	7.56
308	TSA0400063bR2.8	A	40	63	30	2.8	3.21	0.13	1.07
309	TSA0400063bR1.33	A	40	63	60	1.33	6.77	0.27	2.26
310	TSA0400063bR0.838	A	40	63	90	0.838	10.74	0.43	3.58
311	TSA0400063bR0.594	A	40	63	120	0.594	15.15	0.60	5.05
312	TSA0400063bR0.472	A	40	63	150	0.472	19.07	0.76	6.36
313	TSA0400063bR0.375	A	40	63	180	0.375	24	0.95	8
314	TSA0400063bR0.315	A	40	63	210	0.315	28.57	1.13	9.52
315	TSA0400080bR2.22	A	40	80	30	2.22	4.05	0.13	1.35
316	TSA0400080bR1.06	A	40	80	60	1.06	8.49	0.27	2.83
317	TSA0400080bR0.666	A	40	80	90	0.666	13.51	0.42	4.5
318	TSA0400080bR0.472	A	40	80	120	0.472	19.07	0.60	6.36
319	TSA0400080bR0.354	A	40	80	150	0.354	25.42	0.79	8.47
320	TSA0400080bR0.297	A	40	80	180	0.297	30.3	0.95	1



# STANDARD | Rectangular 3V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
343	TSA0500050bR0.397	A	50	50	180	0.397	22.67	0.91	7.56
344	TSA0500050bR0.334	A	50	50	210	0.334	26.95	1.08	8.98
345	TSA0500063bR2.35	A	50	63	30	2.35	3.83	0.12	1.28
346	TSA0500063bR1.12	A	50	63	60	1.12	8.04	0.26	2.68
347	TSA0500063bR0.705	A	50	63	90	0.705	12.77	0.41	4.26
348	TSA0500063bR0.5	A	50	63	120	0.5	18	0.57	6
349	TSA0500063bR0.397	A	50	63	150	0.397	22.67	0.72	7.56
350	TSA0500063bR0.315	A	50	63	180	0.315	28.57	0.91	9.52
351	TSA0500063bR0.264	A	50	63	210	0.264	34.09	1.08	11.36
352	TSA0500080bR1.77	A	50	80	30	1.77	5.08	0.13	1.69
353	TSA0500080bR0.888	A	50	80	60	0.888	10.14	0.25	3.38
354	TSA0500080bR0.561	A	50	80	90	0.561	16.04	0.40	5.35
355	TSA0500080bR0.397	A	50	80	120	0.397	22.67	0.57	7.56
356	TSA0500080bR0.315	A	50	80	150	0.315	28.57	0.71	9.52
357	TSA0500080bR0.249	A	50	80	180	0.249	36.14	0.90	12.05
358	TSA0500080bR0.21	A	50	80	210	0.21	42.86	1.07	14.29
359	TSA0500100bR1.41	A	50	100	30	1.41	6.38	0.13	2.13
360	TSA0500100bR0.705	A	50	100	60	0.705	12.77	0.26	4.26
361	TSA0500100bR0.446	A	50	100	90	0.446	20.18	0.40	6.73
362	TSA0500100bR0.315	A	50	100	120	0.315	28.57	0.57	9.52
363	TSA0500100bR0.249	A	50	100	150	0.249	36.14	0.72	12.05
364	TSA0500100bR0.198	A	50	100	180	0.198	45.45	0.91	15.15
365	TSA0500125bR1.19	A	50	125	30	1.19	7.56	0.12	2.52
366	TSA0500125bR0.561	A	50	125	60	0.561	16.04	0.26	5.35
367	TSA0500125bR0.354	A	50	125	90	0.354	25.42	0.41	8.47
368	TSA0500125bR0.249	A	50	125	120	0.249	36.14	0.58	12.05
369	TSA0500125bR0.198	A	50	125	150	0.198	45.45	0.73	15.15
370	TSA0500160bR0.888	A	50	160	30	0.888	10.14	0.13	3.38
371	TSA0500160bR0.446	A	50	160	60	0.446	20.18	0.25	6.73
372	TSA0500160bR0.28	A	50	160	90	0.28	32.14	0.40	10.71
373	TSA0500160bR0.198	A	50	160	120	0.198	45.45	0.57	15.15
374	TSA0500200bR0.705	A	50	200	30	0.705	12.77	0.13	4.26
375	TSA0500200bR0.354	A	50	200	60	0.354	25.42	0.25	8.47
376	TSA0500200bR0.222	A	50	200	90	0.222	40.54	0.41	13.51
377	TSA0630063bR1.98	A	63	63	30	1.98	4.55	0.11	1.52
378	TSA0630063bR0.941	A	63	63	60	0.941	9.56	0.24	3.19
379	TSA0630063bR0.594	A	63	63	90	0.594	15.15	0.38	5.05
380	TSA0630063bR0.421	A	63	63	120	0.421	21.38	0.54	7.13
381	TSA0630063bR0.334	A	63	63	150	0.334	26.95	0.68	8.98
382	TSA0630063bR0.264	A	63	63	180	0.264	34.09	0.86	11.36
383	TSA0630063bR0.222	A	63	63	210	0.222	40.54	1.02	13.51
384	TSA0630080bR1.49	A	63	80	30	1.49	6.04	0.12	2.01
385	TSA0630080bR0.747	A	63	80	60	0.747	12.05	0.24	4.02
386	TSA0630080bR0.472	A	63	80	90	0.472	19.07	0.38	6.36
387	TSA0630080bR0.334	A	63	80	120	0.334	26.95	0.53	8.98
388	TSA0630080bR0.264	A	63	80	150	0.264	34.09	0.68	11.36
389	TSA0630080bR0.21	A	63	80	180	0.21	42.86	0.85	14.29
390	TSA0630100bR1.26	A	63	100	30	1.26	7.14	0.11	2.38
391	TSA0630100bR0.594	A	63	100	60	0.594	15.15	0.24	5.05
392	TSA0630100bR0.375	A	63	100	90	0.375	24	0.38	8
393	TSA0630100bR0.264	A	63	100	120	0.264	34.09	0.54	11.36
394	TSA0630100bR0.21	A	63	100	150	0.21	42.86	0.68	14.29
395	TSA0630125bR1	A	63	125	30	1	9	0.11	3
396	TSA0630125bR0.472	A	63	125	60	0.472	19.07	0.24	6.36
397	TSA0630125bR0.297	A	63	125	90	0.297	30.3	0.38	10.1
398	TSA0630125bR0.21	A	63	125	120	0.21	42.86	0.54	14.29
399	TSA0630160bR0.747	A	63	160	30	0.747	12.05	0.12	4.02

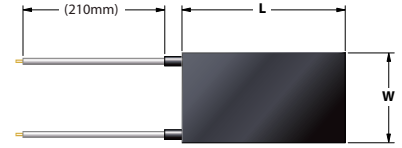
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
400	TSA0630160bR0.375	A	63	160	60	0.375	24	0.24	8
401	TSA0630160bR0.235	A	63	160	90	0.235	38.3	0.38	12.77
402	TSA0630200bR0.629	A	63	200	30	0.629	14.31	0.11	4.77
403	TSA0630200bR0.297	A	63	200	60	0.297	30.3	0.24	10.1
404	TSA0630250bR0.5	A	63	250	30	0.5	18	0.11	6
405	TSA0630250bR0.235	A	63	250	60	0.235	38.3	0.24	12.77
406	TSA0800080bR1.33	A	80	80	30	1.33	6.77	0.11	2.26
407	TSA0800080bR0.666	A	80	80	60	0.666	13.51	0.21	4.5
408	TSA0800080bR0.421	A	80	80	90	0.421	21.38	0.33	7.13
409	TSA0800080bR0.28	A	80	80	120	0.28	32.14	0.50	10.71
410	TSA0800080bR0.222	A	80	80	150	0.222	40.54	0.63	13.51
411	TSA0800100bR1.06	A	80	100	30	1.06	8.49	0.11	2.83
412	TSA0800100bR0.53	A	80	100	60	0.53	16.98	0.21	5.66
413	TSA0800100bR0.334	A	80	100	90	0.334	26.95	0.34	8.98
414	TSA0800100bR0.235	A	80	100	120	0.235	38.3	0.48	12.77
415	TSA0800125bR0.838	A	80	125	30	0.838	10.74	0.11	3.58
416	TSA0800125bR0.421	A	80	125	60	0.421	21.38	0.21	7.13
417	TSA0800125bR0.264	A	80	125	90	0.264	34.09	0.34	11.36
418	TSA0800160bR0.666	A	80	160	30	0.666	13.51	0.11	4.5
419	TSA0800160bR0.334	A	80	160	60	0.334	26.95	0.21	8.98
420	TSA0800160bR0.21	A	80	160	90	0.21	42.86	0.33	14.29
421	TSA0800200bR0.53	A	80	200	30	0.53	16.98	0.11	5.66
422	TSA0800200bR0.264	A	80	200	60	0.264	34.09	0.21	11.36
423	TSA0800250bR0.421	A	80	250	30	0.421	21.38	0.11	7.13
424	TSA0800250bR0.21	A	80	250	60	0.21	42.86	0.21	14.29
425	TSA0800300bR0.354	A	80	300	30	0.354	25.42	0.11	8.47
426	TSA1000100bR0.941	A	100	100	30	0.941	9.56	0.10	3.19
427	TSA1000100bR0.472	A	100	100	60	0.472	19.07	0.19	6.36
428	TSA1000100bR0.297	A	100	100	90	0.297	30.3	0.30	10.1
429	TSA1000100bR0.21	A	100	100	120	0.21	42.86	0.43	14.29
430	TSA1000125bR0.747	A	100	125	30	0.747	12.05	0.10	4.02
431	TSA1000125bR0.375	A	100	125	60	0.375	24	0.19	8
432	TSA1000125bR0.235	A	100	125	90	0.235	38.3	0.31	12.77
433	TSA1000160bR0.594	A	100	160	30	0.594	15.15	0.09	5.05
434	TSA1000160bR0.297	A	100	160	60	0.297	30.3	0.19	10.1
435	TSA1000160bR0.472	A	100	200	30	0.472	19.07	0.10	6.36
436	TSA1000200bR0.235	A	100	200	60	0.235	38.3	0.19	12.77
437	TSA1000250bR0.375	A	100	250	30	0.375	24	0.10	8
438	TSA1000300bR0.315	A	100	300	30	0.315	28.57	0.10	9.52
439	TSA1250125bR0.666	A	125	125	30	0.666	13.51	0.09	4.5
440	TSA1250125bR0.334	A	125	125	60	0.334	26.95	0.17	8.98
441	TSA1250125bR0.21	A	125	125	90	0.21	42.86	0.27	14.29
442	TSA1250160bR0.53	A	125	160	30	0.53	16.98	0.08	5.66
443	TSA1250160bR0.264	A	125	160	60	0.264	34.09	0.17	11.36
444	TSA1250200bR0.421	A	125	200	30	0.421	21.38	0.09	7.13
445	TSA1250200bR0.21	A	125	200	60	0.21	42.86	0.17	14.29
446	TSA1250250bR0.334	A	125	250	30	0.334	26.95	0.09	8.98
447	TSA1250300bR0.28	A	125	300	30	0.28	32.14	0.09	10.71
448	TSA1600160bR0.446	A	160	160	30	0.446	20.18	0.08	6.73
449	TSA1600160bR0.222	A	160	160	60	0.222	40.54	0.16	13.51
450	TSA1600200bR0.354	A	160	200	30	0.354	25.42	0.08	8.47
451	TSA1600250bR0.297	A	160	250	30	0.297	30.3	0.08	10.1
452	TSA1600300bR0.249	A	160	300	30	0.249	36.14	0.08	12.05
453	TSA2000200bR0.315	A	200	200	30	0.315	28.57	0.07	9.52
454	TSA2000250bR0.249	A	200	250	30	0.249	36.14	0.07	12.05
455	TSA2000300bR0.21	A	200	300	30	0.21	42.86	0.07	14.29
456	TSA2500250bR0.222	A	250	250	30	0.222	40.54	0.06	13.51

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape	: RECTANGULAR
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Length(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Width(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

Dimensions and specifications are subject to change without notice.

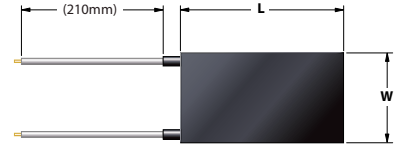
# STANDARD | Rectangular 3.7V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt Density (W/cm <sup>2</sup> )	Current (A)
1	TSA(C)0100010cR53	A & C	10	10	30	53	0.26	0.26	0.07
2	TSA(C)0100010cR24.9	A & C	10	10	60	24.9	0.55	0.55	0.15
3	TSA(C)0100010cR15.8	A & C	10	10	90	15.8	0.87	0.87	0.24
4	TSA(C)0100010cR11.2	A & C	10	10	120	11.2	1.22	1.22	0.33
5	TSA(C)0100010cR8.88	A & C	10	10	150	8.88	1.54	1.54	0.42
6	TSA(C)0100010cR7.05	A & C	10	10	180	7.05	1.94	1.94	0.52
7	TSA0100010cR5.61	A	10	10	210	5.61	2.44	2.44	0.66
8	TSA(C)0100013cR42.1	A & C	10	13	30	42.1	0.33	0.25	0.09
9	TSA(C)0100013cR19.8	A & C	10	13	60	19.8	0.69	0.53	0.19
10	TSA(C)0100013cR12.6	A & C	10	13	90	12.6	1.09	0.84	0.29
11	TSA(C)0100013cR8.88	A & C	10	13	120	8.88	1.54	1.18	0.42
12	TSA0100013cR6.66	A	10	13	150	6.66	2.06	1.58	0.56
13	TSA0100013cR5.3	A	10	13	180	5.3	2.58	1.98	0.7
14	TSA0100013cR4.21	A	10	13	210	4.21	3.25	2.50	0.88
15	TSA(C)0100016cR33.4	A & C	10	16	30	33.4	0.41	0.26	0.11
16	TSA(C)0100016cR15.8	A & C	10	16	60	15.8	0.87	0.54	0.24
17	TSA(C)0100016cR10	A & C	10	16	90	10	1.37	0.86	0.37
18	TSA(C)0100016cR7.05	A & C	10	16	120	7.05	1.94	1.21	0.52
19	TSA0100016cR5.3	A	10	16	150	5.3	2.58	1.61	0.7
20	TSA0100016cR4.21	A	10	16	180	4.21	3.25	2.03	0.88
21	TSA0100016cR3.54	A	10	16	210	3.54	3.87	2.42	1.05
22	TSA(C)0100020cR26.4	A & C	10	20	30	26.4	0.52	0.26	0.14
23	TSA(C)0100020cR12.6	A & C	10	20	60	12.6	1.09	0.55	0.29
24	TSA(C)0100020cR7.91	A & C	10	20	90	7.91	1.73	0.87	0.47
25	TSA0100020cR5.61	A	10	20	120	5.61	2.44	1.22	0.66
26	TSA0100020cR4.21	A	10	20	150	4.21	3.25	1.63	0.88
27	TSA0100020cR3.34	A	10	20	180	3.34	4.1	2.05	1.11
28	TSA0100020cR2.8	A	10	20	210	2.8	4.89	2.45	1.32
29	TSA(C)0100025cR21	A & C	10	25	30	21	0.65	0.26	0.18
30	TSA(C)0100025cR10	A & C	10	25	60	10	1.37	0.55	0.37
31	TSA0100025cR6.29	A	10	25	90	6.29	2.18	0.87	0.59
32	TSA0100025cR4.72	A	10	25	120	4.72	2.9	1.16	0.78
33	TSA0100025cR3.54	A	10	25	150	3.54	3.87	1.55	1.05
34	TSA0100025cR2.8	A	10	25	180	2.8	4.89	1.96	1.32
35	TSA0100025cR2.22	A	10	25	210	2.22	6.17	2.47	1.67
36	TSA(C)0100032cR16.7	A & C	10	32	30	16.7	0.82	0.26	0.22
37	TSA(C)0100032cR7.91	A & C	10	32	60	7.91	1.73	0.54	0.47
38	TSA0100032cR5	A	10	32	90	5	2.74	0.86	0.74
39	TSA0100032cR3.54	A	10	32	120	3.54	3.87	1.21	1.05
40	TSA0100032cR2.64	A	10	32	150	2.64	5.19	1.62	1.4
41	TSA0100032cR2.1	A	10	32	180	2.1	6.52	2.04	1.76
42	TSA0100032cR1.77	A	10	32	210	1.77	7.73	2.42	2.09
43	TSA(C)0100040cR13.3	A & C	10	40	30	13.3	1.03	0.26	0.28
44	TSA0100040cR6.29	A	10	40	60	6.29	2.18	0.55	0.59
45	TSA0100040cR3.97	A	10	40	90	3.97	3.45	0.86	0.93
46	TSA0100040cR2.8	A	10	40	120	2.8	4.89	1.22	1.32
47	TSA0100040cR2.1	A	10	40	150	2.1	6.52	1.63	1.76
48	TSA0100040cR1.67	A	10	40	180	1.67	8.2	2.05	2.22
49	TSA0100040cR1.41	A	10	40	210	1.41	9.71	2.43	2.62
50	TSA(C)0130013cR35.4	A & C	13	13	30	35.4	0.39	0.23	0.11
51	TSA(C)0130013cR16.7	A & C	13	13	60	16.7	0.82	0.49	0.22
52	TSA(C)0130013cR10.6	A & C	13	13	90	10.6	1.29	0.76	0.35
53	TSA(C)0130013cR7.91	A & C	13	13	120	7.91	1.73	1.02	0.47
54	TSA(C)0130013cR5.94	A & C	13	13	150	5.94	2.3	1.36	0.62
55	TSA0130013cR4.72	A	13	13	180	4.72	2.9	1.72	0.78
56	TSA0130013cR3.75	A	13	13	210	3.75	3.65	2.16	0.99
57	TSA(C)0130016cR29.7	A & C	13	16	30	29.7	0.46	0.22	0.12
58	TSA(C)0130016cR14.1	A & C	13	16	60	14.1	0.97	0.47	0.26
59	TSA(C)0130016cR8.88	A & C	13	16	90	8.88	1.54	0.74	0.42
60	TSA(C)0130016cR6.72	A & C	13	16	120	6.72	2.18	1.05	0.59
61	TSA0130016cR4.72	A	13	16	150	4.72	2.9	1.39	0.78
62	TSA0130016cR3.75	A	13	16	180	3.75	3.65	1.75	0.99
63	TSA0130016cR3.15	A	13	16	210	3.15	4.35	2.09	1.18
64	TSA(C)0130020cR23.5	A & C	13	20	30	23.5	0.58	0.22	0.16
65	TSA(C)0130020cR11.2	A & C	13	20	60	11.2	1.22	0.47	0.33
66	TSA(C)0130020cR7.05	A & C	13	20	90	7.05	1.94	0.75	0.52
67	TSA0130020cR5	A	13	20	120	5	2.74	1.05	0.74
68	TSA0130020cR3.75	A	13	20	150	3.75	3.65	1.40	0.99
69	TSA0130020cR2.97	A	13	20	180	2.97	4.61	1.77	1.25
70	TSA0130020cR2.49	A	13	20	210	2.49	5.5	2.12	1.49
71	TSA(C)0130025cR18.7	A & C	13	25	30	18.7	0.73	0.22	0.2
72	TSA(C)0130025cR8.88	A & C	13	25	60	8.88	1.54	0.47	0.42

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt Density (W/cm <sup>2</sup> )	Current (A)
73	TSA(C)0130025cR5.61	A & C	13	25	90	5.61	2.44	0.75	0.66
74	TSA0130025cR3.97	A	13	25	120	3.97	3.45	1.06	0.93
75	TSA0130025cR2.97	A	13	25	150	2.97	4.61	1.42	1.25
76	TSA0130025cR2.49	A	13	25	180	2.49	5.5	1.69	1.49
77	TSA0130025cR1.98	A	13	25	210	1.98	6.91	2.13	1.87
78	TSA(C)0130032cR14.9	A & C	13	32	30	14.9	0.92	0.22	0.25
79	TSA(C)0130032cR7.05	A & C	13	32	60	7.05	1.94	0.47	0.52
80	TSA0130032cR4.46	A	13	32	90	4.46	3.07	0.74	0.83
81	TSA0130032cR3.15	A	13	32	120	3.15	4.35	1.05	1.18
82	TSA0130032cR2.35	A	13	32	150	2.35	5.83	1.40	1.58
83	TSA0130032cR1.87	A	13	32	180	1.87	7.32	1.76	1.98
84	TSA0130032cR1.58	A	13	32	210	1.58	8.66	2.08	2.34
85	TSA(C)0130040cR11.9	A & C	13	40	30	11.9	1.15	0.22	0.31
86	TSA(C)0130040cR5.61	A & C	13	40	60	5.61	2.44	0.47	0.66
87	TSA0130040cR3.54	A	13	40	90	3.54	3.87	0.74	1.05
88	TSA0130040cR2.49	A	13	40	120	2.49	5.5	1.06	1.49
89	TSA0130040cR1.87	A	13	40	150	1.87	7.32	1.41	1.98
90	TSA0130040cR1.49	A	13	40	180	1.49	9.19	1.77	2.48
91	TSA0130040cR1.26	A	13	40	210	1.26	10.87	2.09	2.94
92	TSA(C)0130050cR9.41	A & C	13	50	30	9.41	1.45	0.22	0.39
93	TSA0130050cR4.46	A	13	50	60	4.46	3.07	0.47	0.83
94	TSA0130050cR2.8	A	13	50	90	2.8	4.89	0.75	1.32
95	TSA0130050cR1.98	A	13	50	120	1.98	6.91	1.06	1.87
96	TSA0130050cR1.49	A	13	50	150	1.49	9.19	1.41	2.48
97	TSA0130050cR1.19	A	13	50	180	1.19	11.5	1.77	3.11
98	TSA0130050cR1	A	13	50	210	1	13.69	2.11	3.7
99	TSA(C)0160016cR28	A & C	16	16	30	28	0.49	0.19	0.13
100	TSA(C)0160016cR13.3	A & C	16	16	60	13.3	1.03	0.40	0.28
101	TSA(C)0160016cR8.38	A & C	16	16	90	8.38	1.63	0.64	0.44
102	TSA(C)0160016cR5.94	A & C	16	16	120	5.94	2.3	0.90	0.62
103	TSA(C)0160016cR4.46	A & C	16	16	150	4.46	3.07	1.20	0.83
104	TSA0160016cR3.54	A	16	16	180	3.54	3.87	1.51	1.05
105	TSA0160016cR2.97	A	16	16	210	2.97	4.61	1.80	1.25
106	TSA(C)0160020cR22.2	A & C	16	20	30	22.2	0.62	0.19	0.17
107	TSA(C)0160020cR10.6	A & C	16	20	60	10.6	1.29	0.40	0.35
108	TSA(C)0160020cR6.66	A & C	16	20	90	6.66	2.06	0.64	0.56
109	TSA(C)0160020cR4.72	A & C	16	20	120	4.72	2.9	0.91	0.78
110	TSA0160020cR3.54	A	16	20	150	3.54	3.87	1.21	1.05
111	TSA0160020cR2.97	A	16	20	180	2.97	4.61	1.44	1.25
112	TSA0160020cR2.35	A	16	20	210	2.35	5.83	1.82	1.58
113	TSA(C)0160025cR17.7	A & C	16	25	30	17.7	0.77	0.19	0.21
114	TSA(C)0160025cR8.38	A & C	16	25	60	8.38	1.63	0.41	0.44
115	TSA(C)0160025cR5.3	A & C	16	25	90	5.3	2.58	0.65	0.7
116	TSA0160025cR3.75	A	16	25	120	3.75	3.65	0.91	0.99
117	TSA0160025cR2.97	A	16	25	150	2.97	4.61	1.15	1.25
118	TSA0160025cR2.35	A	16	25	180	2.35	5.83	1.46	1.58
119	TSA0160025cR1.98	A	16	25	210	1.98	6.91	1.73	1.87
120	TSA(C)0160032cR14.1	A & C	16	32	30	14.1	0.97	0.19	0.26
121	TSA(C)0160032cR6.66	A & C	16	32	60	6.66	2.06	0.40	0.56
122	TSA0160032cR4.21	A	16	32	90	4.21	3.25	0.63	0.88
123	TSA0160032cR2.97	A	16	32	120	2.97	4.61	0.90	1.25
124	TSA0160032cR2.22	A	16	32	150	2.22	6.17	1.21	1.67
125	TSA0160032cR1.77	A	16	32</					

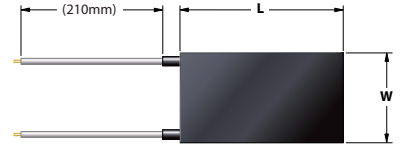
# STANDARD | Rectangular 3.7V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
145	TSA0160063cR1.12	A	16	63	150	1.12	12.22	1.21	3.3
146	TSA0160063cR0.941	A	16	63	180	0.941	14.55	1.44	3.93
147	TSA0160063cR0.747	A	16	63	210	0.747	18.33	1.82	4.95
148	TSA(C)0200020cR2.22	A & C	20	20	30	22.2	0.62	0.16	0.17
149	TSA(C)0200020cR11.2	A & C	20	20	60	11.2	1.22	0.31	0.33
150	TSA(C)0200020cR6.66	A & C	20	20	90	6.66	2.06	0.52	0.56
151	TSA(C)0200020cR4.72	A & C	20	20	120	4.72	2.9	0.73	0.78
152	TSA(C)0200020cR3.75	A & C	20	20	150	3.75	3.65	0.91	0.99
153	TSA0200020cR2.97	A	20	20	180	2.97	4.61	1.15	1.25
154	TSA0200020cR2.49	A	20	20	210	2.49	5.5	1.38	1.49
155	TSA(C)0200025cR18.7	A & C	20	25	30	18.7	0.73	0.15	0.2
156	TSA(C)0200025cR8.88	A & C	20	25	60	8.88	1.54	0.31	0.42
157	TSA(C)0200025cR5.61	A & C	20	25	90	5.61	2.44	0.49	0.66
158	TSA(C)0200025cR3.97	A & C	20	25	120	3.97	3.45	0.69	0.93
159	TSA0200025cR2.97	A	20	25	150	2.97	4.61	0.92	1.25
160	TSA0200025cR2.49	A	20	25	180	2.49	5.5	1.10	1.49
161	TSA0200025cR1.98	A	20	25	210	1.98	6.91	1.38	1.87
162	TSA(C)0200032cR14.1	A & C	20	32	30	14.1	0.97	0.15	0.26
163	TSA(C)0200032cR7.05	A & C	20	32	60	7.05	1.94	0.30	0.52
164	TSA(C)0200032cR4.21	A & C	20	32	90	4.21	3.25	0.51	0.88
165	TSA0200032cR2.97	A	20	32	120	2.97	4.61	0.72	1.25
166	TSA0200032cR2.35	A	20	32	150	2.35	5.83	0.91	1.58
167	TSA0200032cR1.87	A	20	32	180	1.87	7.32	1.14	1.98
168	TSA0200032cR1.58	A	20	32	210	1.58	8.66	1.35	2.34
169	TSA(C)0200040cR11.2	A & C	20	40	30	11.2	1.22	0.15	0.33
170	TSA(C)0200040cR5.61	A & C	20	40	60	5.61	2.44	0.31	0.66
171	TSA0200040cR3.34	A	20	40	90	3.34	4.1	0.51	1.11
172	TSA0200040cR2.49	A	20	40	120	2.49	5.5	0.69	1.49
173	TSA0200040cR1.87	A	20	40	150	1.87	7.32	0.92	1.98
174	TSA0200040cR1.49	A	20	40	180	1.49	9.19	1.15	2.48
175	TSA0200040cR1.26	A	20	40	210	1.26	10.87	1.36	2.94
176	TSA(C)0200050cR8.88	A & C	20	50	30	8.88	1.54	0.15	0.42
177	TSA(C)0200050cR4.46	A & C	20	50	60	4.46	3.07	0.31	0.83
178	TSA0200050cR2.64	A	20	50	90	2.64	5.19	0.52	1.4
179	TSA0200050cR1.98	A	20	50	120	1.98	6.91	0.69	1.87
180	TSA0200050cR1.49	A	20	50	150	1.49	9.19	0.92	2.48
181	TSA0200050cR1.19	A	20	50	180	1.19	11.5	1.15	3.11
182	TSA0200050cR1	A	20	50	210	1	13.69	1.37	3.7
183	TSA(C)0200063cR7.05	A & C	20	63	30	7.05	1.94	0.15	0.52
184	TSA0200063cR3.54	A	20	63	60	3.54	3.87	0.31	1.05
185	TSA0200063cR2.22	A	20	63	90	2.22	6.17	0.49	1.67
186	TSA0200063cR1.58	A	20	63	120	1.58	8.66	0.69	2.34
187	TSA0200063cR1.19	A	20	63	150	1.19	11.5	0.91	3.11
188	TSA0200063cR0.941	A	20	63	180	0.941	14.55	1.15	3.93
189	TSA0200063cR0.791	A	20	63	210	0.791	17.31	1.37	4.68
190	TSA(C)0200080cR5.61	A & C	20	80	30	5.61	2.44	0.15	0.66
191	TSA0200080cR2.8	A	20	80	60	2.8	4.89	0.31	1.32
192	TSA0200080cR1.67	A	20	80	90	1.67	8.2	0.51	2.22
193	TSA0200080cR1.19	A	20	80	120	1.19	11.5	0.72	3.11
194	TSA0200080cR0.941	A	20	80	150	0.941	14.55	0.91	3.93
195	TSA0200080cR0.747	A	20	80	180	0.747	18.33	1.15	4.95
196	TSA0200080cR0.629	A	20	80	210	0.629	21.76	1.36	5.88
197	TSA(C)0250025cR14.9	A & C	25	25	30	14.9	0.92	0.15	0.25
198	TSA(C)0250025cR7.47	A & C	25	25	60	7.47	1.83	0.29	0.49
199	TSA(C)0250025cR4.46	A & C	25	25	90	4.46	3.07	0.49	0.83
200	TSA(C)0250025cR3.15	A & C	25	25	120	3.15	4.35	0.70	1.18
201	TSA0250025cR2.49	A	25	25	150	2.49	5.5	0.88	1.49
202	TSA0250025cR2.1	A	25	25	180	2.1	6.52	1.04	1.76
203	TSA0250025cR1.67	A	25	25	210	1.67	8.2	1.31	2.22
204	TSA(C)0250032cR11.9	A & C	25	32	30	11.9	1.15	0.14	0.31
205	TSA(C)0250032cR5.61	A & C	25	32	60	5.61	2.44	0.31	0.66
206	TSA(C)0250032cR3.54	A & C	25	32	90	3.54	3.87	0.48	1.05
207	TSA0250032cR2.49	A	25	32	120	2.49	5.5	0.69	1.49
208	TSA0250032cR1.98	A	25	32	150	1.98	6.91	0.86	1.87
209	TSA0250032cR1.58	A	25	32	180	1.58	8.66	1.08	2.34
210	TSA0250032cR1.33	A	25	32	210	1.33	10.29	1.29	2.78
211	TSA(C)0250040cR9.41	A & C	25	40	30	9.41	1.45	0.15	0.39
212	TSA(C)0250040cR4.46	A & C	25	40	60	4.46	3.07	0.31	0.83
213	TSA0250040cR2.8	A	25	40	90	2.8	4.89	0.49	1.32
214	TSA0250040cR1.98	A	25	40	120	1.98	6.91	0.69	1.87
215	TSA0250040cR1.58	A	25	40	150	1.58	8.66	0.87	2.34
216	TSA0250040cR1.26	A	25	40	180	1.26	10.87	1.09	2.94
217	TSA0250040cR1.06	A	25	40	210	1.06	12.92	1.29	3.49

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
218	TSA(C)0250050cR7.47	A & C	25	50	30	7.47	1.83	0.15	0.49
219	TSA(C)0250050cR3.75	A & C	25	50	60	3.75	3.65	0.29	0.99
220	TSA0250050cR2.22	A	25	50	90	2.22	6.17	0.49	1.67
221	TSA0250050cR1.58	A	25	50	120	1.58	8.66	0.69	2.34
222	TSA0250050cR1.26	A	25	50	150	1.26	10.87	0.87	2.94
223	TSA0250050cR1	A	25	50	180	1	13.69	1.10	3.7
224	TSA0250050cR0.838	A	25	50	210	0.838	16.34	1.31	4.42
225	TSA(C)0250063cR5.94	A & C	25	63	30	5.94	2.3	0.15	0.62
226	TSA0250063cR2.97	A	25	63	60	2.97	4.61	0.29	1.25
227	TSA0250063cR1.77	A	25	63	90	1.77	7.73	0.49	2.09
228	TSA0250063cR1.26	A	25	63	120	1.26	10.87	0.69	2.94
229	TSA0250063cR1	A	25	63	150	1	13.69	0.87	3.7
230	TSA0250063cR0.791	A	25	63	180	0.791	17.31	1.10	4.68
231	TSA(C)0250080cR4.72	A & C	25	80	30	4.72	2.9	0.15	0.78
232	TSA0250080cR2.35	A	25	80	60	2.35	5.83	0.29	1.58
233	TSA0250063cR0.666	A	25	63	210	0.666	20.56	1.31	5.56
234	TSA0250080cR1.41	A	25	80	90	1.41	9.71	0.49	2.62
235	TSA0250080cR1	A	25	80	120	1	13.69	0.68	3.7
236	TSA0250080cR0.791	A	25	80	150	0.791	17.31	0.87	4.68
237	TSA0250080cR0.629	A	25	80	180	0.629	21.76	1.09	5.88
238	TSA0250080cR0.53	A	25	80	210	0.53	25.83	1.29	6.98
239	TSA(C)0250100cR3.75	A & C	25	100	30	3.75	3.65	0.15	0.99
240	TSA0250100cR1.87	A	25	100	60	1.87	7.32	0.29	1.98
241	TSA0250100cR1.12	A	25	100	90	1.12	12.22	0.49	3.3
242	TSA0250100cR0.791	A	25	100	120	0.791	17.31	0.69	4.68
243	TSA0250100cR0.629	A	25	100	150	0.629	21.76	0.87	5.88
244	TSA0250100cR0.5	A	25	100	180	0.5	27.38	1.10	7.4
245	TSA0250100cR0.421	A	25	100	210	0.421	32.52	1.30	8.79
246	TSA(C)0320032cR10	A & C	32	32	30	10	1.37	0.13	0.37
247	TSA(C)0320032cR4.72	A & C	32	32	60	4.72	2.9	0.28	0.78
248	TSA0320032cR2.97	A	32	32	90	2.97	4.61	0.45	1.25
249	TSA0320032cR1.21	A	32	32	120	2.1	6.52	0.64	1.76
250	TSA0320032cR1.67	A	32	32	150	1.67	8.2	0.80	2.22
251	TSA0320032cR1.33	A	32	32	180	1.33	10.29	1.00	2.78
252	TSA0320032cR1.12	A	32	32	210	1.12	12.22	1.19	3.3
253	TSA(C)0320040cR7.91	A & C	32	40	30	7.91	1.73	0.14	0.47
254	TSA(C)0320040cR3.75	A & C	32	40	60	3.75	3.65	0.29	0.99
255	TSA0320040cR2.35	A	32	40	90	2.35	5.83	0.46	1.58
256	TSA0320040cR1.67	A	32	40	120	1.67	8.2	0.64	2.22
257	TSA0320040cR1.33	A	32	40	150	1.33	10.29	0.80	2.78
258	TSA0320040cR1.06	A	32	40	180	1.06	12.92	1.01	3.49
259	TSA0320040cR0.888	A	32	40	210	0.888	15.42	1.20	4.17
260	TSA(C)0320050cR6.29	A & C	32	50	30	6.29	2.18	0.14	0.59
261	TSA0320050cR2.97	A	32	50	60	2.97	4.61	0.29	1.25
262	TSA0320050cR1.87	A	32	50	90	1.87	7.32	0.46	1.98
263	TSA0320050cR1.33	A	32	50	120	1.33	10.29	0.64	2.78
264	TSA0320050cR1.06	A	32	50	150	1.06	12.92	0.81	3.49
265	TSA0320050cR0.838	A	32	50	180	0.838	16.34	1.02	4.42
266	TSA0320050cR0.705	A	32	50	210	0.705	19.42	1.21	5.25
267	TSA(C)0320063cR5	A & C	32	63	30	5	2.74	0.14	0.74
268	TSA0320063cR2.35	A	32	63	60	2.35	5.83	0.29	1.58



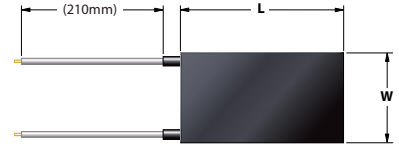


# STANDARD | Rectangular 3.7V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
291	TSA0320125cR0.53	A	32	125	120	0.53	25.83	0.65	6.98
292	TSA0320125cR0.421	A	32	125	150	0.421	32.52	0.81	8.79
293	TSA0320125cR0.334	A	32	125	180	0.334	40.99	1.02	11.08
294	TSA0320125cR0.297	A	32	125	210	0.297	46.09	1.15	12.46
295	TSA(C)0400040cR6.66	A & C	40	40	30	6.66	2.06	0.13	0.56
296	TSA(C)0400040cR3.15	A & C	40	40	60	3.15	4.35	0.27	1.18
297	TSA0400040cR1.98	A	40	40	90	1.98	6.91	0.43	1.87
298	TSA0400040cR1.41	A	40	40	120	1.41	9.71	0.61	2.62
299	TSA0400040cR1.12	A	40	40	150	1.12	12.22	0.76	3.3
300	TSA0400040cR0.888	A	40	40	180	0.888	15.42	0.96	4.17
301	TSA0400040cR0.747	A	40	40	210	0.747	18.33	1.15	4.95
302	TSA(C)0400050cR5.3	A & C	40	50	30	5.3	2.58	0.13	0.7
303	TSA0400050cR2.49	A	40	50	60	2.49	5.5	0.28	1.49
304	TSA0400050cR1.58	A	40	50	90	1.58	8.66	0.43	2.34
305	TSA0400050cR1.12	A	40	50	120	1.12	12.22	0.61	3.3
306	TSA0400050cR0.888	A	40	50	150	0.888	15.42	0.77	4.17
307	TSA0400050cR0.705	A	40	50	180	0.705	19.42	0.97	5.25
308	TSA0400050cR0.594	A	40	50	210	0.594	23.05	1.15	6.23
309	TSA(C)0400063cR4.21	A & C	40	63	30	4.21	3.25	0.13	0.88
310	TSA0400063cR1.98	A	40	63	60	1.98	6.91	0.27	1.87
311	TSA0400063cR1.26	A	40	63	90	1.26	10.87	0.43	2.94
312	TSA0400063cR0.888	A	40	63	120	0.888	15.42	0.61	4.17
313	TSA0400063cR0.705	A	40	63	150	0.705	19.42	0.77	5.25
314	TSA0400063cR0.561	A	40	63	180	0.561	24.4	0.97	6.59
315	TSA0400063cR0.472	A	40	63	210	0.472	29	1.15	7.84
316	TSA(C)0400080cR3.34	A & C	40	80	30	3.34	4.1	0.13	1.11
317	TSA0400080cR1.58	A	40	80	60	1.58	8.66	0.27	2.34
318	TSA0400080cR1	A	40	80	90	1	13.69	0.43	3.7
319	TSA0400080cR0.705	A	40	80	120	0.705	19.42	0.61	5.25
320	TSA0400080cR0.561	A	40	80	150	0.561	24.4	0.76	6.59
321	TSA0400080cR0.446	A	40	80	180	0.446	30.7	0.96	8.3
322	TSA0400080cR0.375	A	40	80	210	0.375	36.51	1.14	9.87
323	TSA0400100cR2.64	A	40	100	30	2.64	5.19	0.13	1.4
324	TSA0400100cR1.26	A	40	100	60	1.26	10.87	0.27	2.94
325	TSA0400100cR0.791	A	40	100	90	0.791	17.31	0.43	4.68
326	TSA0400100cR0.561	A	40	100	120	0.561	24.4	0.61	6.59
327	TSA0400100cR0.446	A	40	100	150	0.446	30.7	0.77	8.3
328	TSA0400100cR0.354	A	40	100	180	0.354	38.67	0.97	10.45
329	TSA0400100cR0.297	A	40	100	210	0.297	46.09	1.15	12.46
330	TSA0400125cR2.1	A	40	125	30	2.1	6.52	0.13	1.76
331	TSA0400125cR1	A	40	125	60	1	13.69	0.27	3.7
332	TSA0400125cR0.629	A	40	125	90	0.629	21.76	0.44	5.88
333	TSA0400125cR0.446	A	40	125	120	0.446	30.7	0.61	8.3
334	TSA0400125cR0.354	A	40	125	150	0.354	38.67	0.77	10.45
335	TSA0400125cR0.28	A	40	125	180	0.28	48.89	0.98	13.21
336	TSA0400125cR0.249	A	40	125	210	0.249	54.98	1.10	14.86
337	TSA0400160cR1.67	A	40	160	30	1.67	8.2	0.13	2.22
338	TSA0400160cR0.791	A	40	160	60	0.791	17.31	0.27	4.68
339	TSA0400160cR0.5	A	40	160	90	0.5	27.38	0.43	7.4
340	TSA0400160cR0.354	A	40	160	120	0.354	38.67	0.60	10.45
341	TSA0400160cR0.28	A	40	160	150	0.28	48.89	0.76	13.21
342	TSA(C)0500050cR4.46	A & C	50	50	30	4.46	3.07	0.12	0.83
343	TSA0500050cR2.1	A	50	50	60	2.1	6.52	0.26	1.76
344	TSA0500050cR1.33	A	50	50	90	1.33	10.29	0.41	2.78
345	TSA0500050cR0.941	A	50	50	120	0.941	14.55	0.58	3.93
346	TSA0500050cR0.747	A	50	50	150	0.747	18.33	0.73	4.95
347	TSA0500050cR0.629	A	50	50	180	0.629	21.76	0.87	5.88
348	TSA0500050cR0.53	A	50	50	210	0.53	25.83	1.03	6.98
349	TSA(C)0500063cR3.54	A & C	50	63	30	3.54	3.87	0.12	1.05
350	TSA0500063cR1.67	A	50	63	60	1.67	8.2	0.26	2.22
351	TSA0500063cR1.06	A	50	63	90	1.06	12.92	0.41	3.49
352	TSA0500063cR0.747	A	50	63	120	0.747	18.33	0.58	4.95
353	TSA0500063cR0.594	A	50	63	150	0.594	23.05	0.73	6.23
354	TSA0500063cR0.5	A	50	63	180	0.5	27.38	0.87	7.4
355	TSA0500063cR0.397	A	50	63	210	0.397	34.48	1.09	9.32
356	TSA0500080cR2.8	A	50	80	30	2.8	4.89	0.12	1.32
357	TSA0500080cR1.33	A	50	80	60	1.33	10.29	0.26	2.78
358	TSA0500080cR0.838	A	50	80	90	0.838	16.34	0.41	4.42
359	TSA0500080cR0.594	A	50	80	120	0.594	23.05	0.58	6.23
360	TSA0500080cR0.472	A	50	80	150	0.472	29	0.73	7.84
361	TSA0500080cR0.375	A	50	80	180	0.375	36.51	0.91	9.87
362	TSA0500080cR0.315	A	50	80	210	0.315	43.46	1.09	11.75
363	TSA0500100cR2.22	A	50	100	30	2.22	6.17	0.12	1.67

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
364	TSA0500100cR1.06	A	50	100	60	1.06	12.92	0.26	3.49
365	TSA0500100cR0.666	A	50	100	90	0.666	20.56	0.41	5.56
366	TSA0500100cR0.472	A	50	100	120	0.472	29	0.58	7.84
367	TSA0500100cR0.375	A	50	100	150	0.375	36.51	0.73	9.87
368	TSA0500100cR0.315	A	50	100	180	0.315	43.46	0.87	11.75
369	TSA0500100cR0.264	A	50	100	210	0.264	51.86	1.04	14.02
370	TSA0500125cR1.77	A	50	125	30	1.77	7.73	0.12	2.09
371	TSA0500125cR0.838	A	50	125	60	0.838	16.34	0.26	4.42
372	TSA0500125cR0.53	A	50	125	90	0.53	25.83	0.41	6.98
373	TSA0500125cR0.397	A	50	125	120	0.397	34.48	0.55	9.32
374	TSA0500125cR0.297	A	50	125	150	0.297	46.09	0.74	12.46
375	TSA0500125cR0.249	A	50	125	180	0.249	54.98	0.88	14.86
376	TSA0500160cR1.41	A	50	160	30	1.41	9.71	0.12	2.62
377	TSA0500160cR0.666	A	50	160	60	0.666	20.56	0.26	5.56
378	TSA0500160cR0.421	A	50	160	90	0.421	32.52	0.41	8.79
379	TSA0500160cR0.297	A	50	160	120	0.297	46.09	0.58	12.46
380	TSA0500200cR1.12	A	50	200	30	1.12	12.22	0.12	3.3
381	TSA0500200cR0.53	A	50	200	60	0.53	25.83	0.26	6.98
382	TSA0500200cR0.334	A	50	200	90	0.334	40.99	0.41	11.08
383	TSA0500200cR0.235	A	50	200	120	0.235	58.26	0.58	15.75
384	TSA0630063cR2.97	A	63	63	30	2.97	4.61	0.12	1.25
385	TSA0630063cR1.41	A	63	63	60	1.41	9.71	0.24	2.62
386	TSA0630063cR0.941	A	63	63	90	0.941	14.55	0.37	3.93
387	TSA0630063cR0.629	A	63	63	120	0.629	21.76	0.55	5.88
388	TSA0630063cR0.5	A	63	63	150	0.5	27.38	0.69	7.4
389	TSA0630063cR0.421	A	63	63	180	0.421	32.52	0.82	8.79
390	TSA0630063cR0.334	A	63	63	210	0.334	40.99	1.03	11.08
391	TSA0630080cR2.35	A	63	80	30	2.35	5.83	0.12	1.58
392	TSA0630080cR1.12	A	63	80	60	1.12	12.22	0.24	3.3
393	TSA0630080cR0.705	A	63	80	90	0.705	19.42	0.39	5.25
394	TSA0630080cR0.5	A	63	80	120	0.5	27.38	0.54	7.4
395	TSA0630080cR0.397	A	63	80	150	0.397	34.48	0.68	9.32
396	TSA0630080cR0.315	A	63	80	180	0.315	43.46	0.86	11.75
397	TSA0630080cR0.264	A	63	80	210	0.264	51.86	1.03	14.02
398	TSA0630100cR1.87	A	63	100	30	1.87	7.32	0.12	1.98
399	TSA0630100cR0.888	A	63	100	60	0.888	15.42	0.24	4.17
400	TSA0630100cR0.594	A	63	100	90	0.594	23.05	0.37	6.23
401	TSA0630100cR0.397	A	63	100	120	0.397	34.48	0.55	9.32
402	TSA0630100cR0.315	A	63	100	150	0.315	43.46	0.69	11.75
403	TSA0630100cR0.264	A	63	100	180	0.264	51.86	0.82	14.02
404	TSA0630125cR1.49	A	63	125	30	1.49	9.19	0.12	2.48
405	TSA0630125cR0.747	A	63	125	60	0.747	18.33	0.23	4.95
406	TSA0630125cR0.472	A	63	125	90	0.472	29	0.37	7.84
407	TSA0630125cR0.334	A	63	125	120	0.334	40.99	0.52	11.08
408	TSA0630125cR0.249	A	63	125	150	0.249	54.98	0.70	14.86
409	TSA0630160cR1.19	A	63	160	30	1.19	11.5	0.11	3.11
410	TSA0630160cR0.561	A	63	160	60	0.561	24.4	0.24	6.59
411	TSA0630160cR0.354	A	63	160	90	0.354	38.67	0.38	10.45
412	TSA0630160cR0.249	A	63	160	120	0.249	54.98	0.55	14.86
413	TSA0630200cR0.941	A	63	200	30	0.941	14.55	0.12	3.93
414	TSA0630200cR0.446								

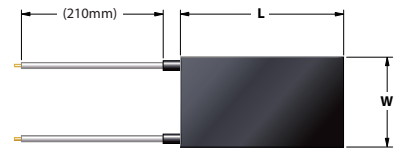
# STANDARD | Rectangular 3.7V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
437	TSA0800200cR0.397	A	80	200	60	0.397	34.48	0.22	9.32
438	TSA0800200cR0.249	A	80	200	90	0.249	54.98	0.34	14.86
439	TSA0800250cR0.629	A	80	250	30	0.629	21.76	0.11	5.88
440	TSA0800250cR0.315	A	80	250	60	0.315	43.46	0.22	11.75
441	TSA0800300cR0.53	A	80	300	30	0.53	25.83	0.11	6.98
442	TSA0800300cR0.264	A	80	300	60	0.264	51.86	0.22	14.02
443	TSA1000100cR1.49	A	100	100	30	1.49	9.19	0.09	2.48
444	TSA1000100cR0.747	A	100	100	60	0.747	18.33	0.18	4.95
445	TSA1000100cR0.446	A	100	100	90	0.446	30.7	0.31	8.3
446	TSA1000100cR0.315	A	100	100	120	0.315	43.46	0.43	11.75
447	TSA1000100cR0.235	A	100	100	150	0.235	58.26	0.58	15.75
448	TSA1000125cR1.19	A	100	125	30	1.19	11.5	0.09	3.11
449	TSA1000125cR0.594	A	100	125	60	0.594	23.05	0.18	6.23
450	TSA1000125cR0.375	A	100	125	90	0.375	36.51	0.29	9.87
451	TSA1000125cR0.249	A	100	125	120	0.249	54.98	0.44	14.86
452	TSA1000160cR0.888	A	100	160	30	0.888	15.42	0.10	4.17
453	TSA1000160cR0.446	A	100	160	60	0.446	30.7	0.19	8.3
454	TSA1000160cR0.28	A	100	160	90	0.28	48.89	0.31	13.21
455	TSA1000200cR0.747	A	100	200	30	0.747	18.33	0.09	4.95
456	TSA1000200cR0.375	A	100	200	60	0.375	36.51	0.18	9.87
457	TSA1000250cR0.594	A	100	250	30	0.594	23.05	0.09	6.23
458	TSA1000250cR0.297	A	100	250	60	0.297	46.09	0.18	12.46
459	TSA1000300cR0.5	A	100	300	30	0.5	27.38	0.09	7.4
460	TSA1000300cR0.249	A	100	300	60	0.249	54.98	0.18	14.86

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape : **RECTANGULAR**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Length(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Width(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



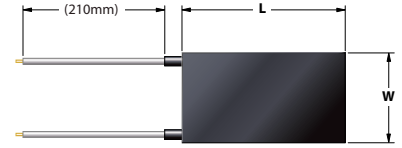
# STANDARD | Rectangular 4.2V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010dR70.5	C	10	10	30	70.5	0.25	0.25	0.06
2	TSA(C)0100010dR31.5	A & C	10	10	60	31.5	0.56	0.56	0.13
3	TSA(C)0100010dR21	A & C	10	10	90	21	0.84	0.84	0.2
4	TSA(C)0100010dR14.9	A & C	10	10	120	14.9	1.18	1.18	0.28
5	TSA(C)0100010dR11.2	A & C	10	10	150	11.2	1.58	1.58	0.38
6	TSA(C)0100010dR8.88	A & C	10	10	180	8.88	1.99	1.99	0.47
7	TSA100010dR7.47	A	10	10	210	7.47	2.36	2.36	0.56
8	TSA(C)0100013dR53	A & C	10	13	30	53	0.33	0.25	0.08
9	TSA(C)0100013dR24.9	A & C	10	13	60	24.9	0.71	0.55	0.17
10	TSA(C)0100013dR15.8	A & C	10	13	90	15.8	1.12	0.86	0.27
11	TSA(C)0100013dR11.2	A & C	10	13	120	11.2	1.58	1.22	0.38
12	TSA(C)0100013dR8.38	A & C	10	13	150	8.38	2.11	1.62	0.5
13	TSA0100013dR6.66	A	10	13	180	6.66	2.65	2.04	0.63
14	TSA0100013dR5.61	A	10	13	210	5.61	3.14	2.42	0.75
15	TSA(C)0100016dR42.1	A & C	10	16	30	42.1	0.42	0.26	0.1
16	TSA(C)0100016dR19.8	A & C	10	16	60	19.8	0.89	0.56	0.21
17	TSA(C)0100016dR12.6	A & C	10	16	90	12.6	1.4	0.88	0.33
18	TSA(C)0100016dR9.41	A & C	10	16	120	9.41	1.87	1.17	0.45
19	TSA0100016dR7.05	A	10	16	150	7.05	2.5	1.56	0.6
20	TSA0100016dR5.61	A	10	16	180	5.61	3.14	1.96	0.75
21	TSA0100016dR4.46	A	10	16	210	4.46	3.96	2.48	0.94
22	TSA(C)0100020dR33.4	A & C	10	20	30	33.4	0.53	0.27	0.13
23	TSA(C)0100020dR15.8	A & C	10	20	60	15.8	1.12	0.56	0.27
24	TSA(C)0100020dR10	A & C	10	20	90	10	1.76	0.88	0.42
25	TSA0100020dR7.47	A	10	20	120	7.47	2.36	1.18	0.56
26	TSA0100020dR5.61	A	10	20	150	5.61	3.14	1.57	0.75
27	TSA0100020dR4.46	A	10	20	180	4.46	3.96	1.98	0.94
28	TSA0100020dR3.54	A	10	20	210	3.54	4.98	2.49	1.19
29	TSA(C)0100025dR28	A & C	10	25	30	28	0.63	0.25	0.15
30	TSA(C)0100025dR12.6	A & C	10	25	60	12.6	1.4	0.56	0.33
31	TSA(C)0100025dR8.38	A & C	10	25	90	8.38	2.11	0.84	0.5
32	TSA0100025dR5.94	A	10	25	120	5.94	2.97	1.19	0.71
33	TSA0100025dR4.46	A	10	25	150	4.46	3.96	1.58	0.94
34	TSA0100025dR3.54	A	10	25	180	3.54	4.98	1.99	1.19
35	TSA0100025dR2.97	A	10	25	210	2.97	5.94	2.38	1.41
36	TSA(C)0100032dR21	A & C	10	32	30	21	0.84	0.26	0.2

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
37	TSA(C)0100032dR10	A & C	10	32	60	10	1.76	0.55	0.42
38	TSA0100032dR6.29	A	10	32	90	6.29	2.8	0.88	0.67
39	TSA0100032dR4.72	A	10	32	120	4.72	3.74	1.17	0.89
40	TSA0100032dR3.54	A	10	32	150	3.54	4.98	1.56	1.19
41	TSA0100032dR2.8	A	10	32	180	2.8	6.3	1.97	1.5
42	TSA0100032dR2.22	A	10	32	210	2.22	7.95	2.48	1.89
43	TSA(C)0100040dR16.7	A & C	10	40	30	16.7	1.06	0.27	0.25
44	TSA(C)0100040dR7.91	A & C	10	40	60	7.91	2.23	0.56	0.53
45	TSA0100040dR5	A	10	40	90	5	3.53	0.88	0.84
46	TSA0100040dR3.75	A	10	40	120	3.75	4.7	1.18	1.12
47	TSA0100040dR2.8	A	10	40	150	2.8	6.3	1.58	1.5
48	TSA0100040dR2.22	A	10	40	180	2.22	7.95	1.99	1.89
49	TSA0100040dR1.77	A	10	40	210	1.77	9.97	2.49	2.37
50	TSA(C)0130013dR47.2	A & C	13	13	30	47.2	0.37	0.22	0.09
51	TSA(C)0130013dR22.2	A & C	13	13	60	22.2	0.79	0.47	0.19
52	TSA(C)0130013dR14.1	A & C	13	13	90	14.1	1.25	0.74	0.3
53	TSA(C)0130013dR10	A & C	13	13	120	10	1.76	1.04	0.42
54	TSA(C)0130013dR7.47	A & C	13	13	150	7.47	2.36	1.40	0.56
55	TSA0130013dR5.94	A	13	13	180	5.94	2.97	1.76	0.71
56	TSA0130013dR5	A	13	13	210	5	3.53	2.09	0.84
57	TSA(C)0130016dR37.5	A & C	13	16	30	37.5	0.47	0.23	0.11
58	TSA(C)0130016dR17.7	A & C	13	16	60	17.7	1	0.48	0.24
59	TSA(C)0130016dR11.2	A & C	13	16	90	11.2	1.58	0.76	0.38
60	TSA(C)0130016dR7.91	A & C	13	16	120	7.91	2.23	1.07	0.53
61	TSA(C)0130016dR6.29	A & C	13	16	150	6.29	2.8	1.35	0.67
62	TSA0130016dR5	A	13	16	180	5	3.53	1.70	0.84
63	TSA0130016dR3.97	A	13	16	210	3.97	4.44	2.13	1.06
64	TSA(C)0130020dR29.7	A & C	13	20	30	29.7	0.59	0.23	0.14
65	TSA(C)0130020dR14.1	A & C	13	20	60	14.1	1.25	0.48	0.3
66	TSA(C)0130020dR8.88	A & C	13	20	90	8.88	1.99	0.77	0.47
67	TSA(C)0130020dR6.29	A & C	13	20	120	6.29	2.8	1.08	0.67
68	TSA0130020dR5	A	13	20	150	5	3.53	1.36	0.84
69	TSA0130020dR3.97	A	13	20	180	3.97	4.44	1.71	1.06
70	TSA0130020dR3.15	A	13	20	210	3.15	5.6	2.15	1.33
71	TSA(C)0130025dR23.5	A & C	13	25	30	23.5	0.75	0.23	0.18
72	TSA(C)0130025dR11.2	A & C	13	25	60	11.2	1.58	0.49	0.38

Dimensions and specifications are subject to change without notice.

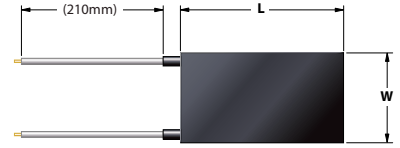
# STANDARD | Rectangular 4.2V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
73	TSA(C)0130025dR7.05	A & C	13	25	90	7.05	2.5	0.77	0.6
74	TSA0130025dR5.3	A	13	25	120	5.3	3.33	1.02	0.79
75	TSA0130025dR3.97	A	13	25	150	3.97	4.44	1.37	1.06
76	TSA0130025dR3.15	A	13	25	180	3.15	5.6	1.72	1.33
77	TSA0130025dR2.64	A	13	25	210	2.64	6.68	2.06	1.59
78	TSA(C)0130032dR18.7	A & C	13	32	30	18.7	0.94	0.23	0.22
79	TSA(C)0130032dR8.88	A & C	13	32	60	8.88	1.99	0.48	0.47
80	TSA0130032dR5.61	A	13	32	90	5.61	3.14	0.75	0.75
81	TSA0130032dR3.97	A	13	32	120	3.97	4.44	1.07	1.06
82	TSA0130032dR3.15	A	13	32	150	3.15	5.6	1.35	1.33
83	TSA0130032dR2.49	A	13	32	180	2.49	7.08	1.70	1.69
84	TSA0130032dR1.98	A	13	32	210	1.98	8.91	2.14	2.12
85	TSA(C)0130040dR14.9	A & C	13	40	30	14.9	1.18	0.23	0.28
86	TSA(C)0130040dR7.05	A & C	13	40	60	7.05	2.5	0.48	0.6
87	TSA0130040dR4.46	A	13	40	90	4.46	3.96	0.76	0.94
88	TSA0130040dR3.15	A	13	40	120	3.15	5.6	1.08	1.33
89	TSA0130040dR2.49	A	13	40	150	2.49	7.08	1.36	1.69
90	TSA0130040dR1.98	A	13	40	180	1.98	8.91	1.71	2.12
91	TSA0130040dR1.58	A	13	40	210	1.58	11.16	2.15	2.66
92	TSA(C)0130050dR11.9	A & C	13	50	30	11.9	1.48	0.23	0.35
93	TSA0130050dR5.61	A	13	50	60	5.61	3.14	0.48	0.75
94	TSA0130050dR3.54	A	13	50	90	3.54	4.98	0.77	1.19
95	TSA0130050dR2.64	A	13	50	120	2.64	6.68	1.03	1.59
96	TSA0130050dR1.98	A	13	50	150	1.98	8.91	1.37	2.12
97	TSA0130050dR1.58	A	13	50	180	1.58	11.16	1.72	2.66
98	TSA0130050dR1.26	A	13	50	210	1.26	14	2.15	3.33
99	TSA(C)0160016dR35.4	A & C	16	16	30	35.4	0.5	0.20	0.12
100	TSA(C)0160016dR16.7	A & C	16	16	60	16.7	1.06	0.41	0.25
101	TSA(C)0160016dR10.6	A & C	16	16	90	10.6	1.66	0.65	0.4
102	TSA(C)0160016dR7.47	A & C	16	16	120	7.47	2.36	0.92	0.56
103	TSA(C)0160016dR5.94	A & C	16	16	150	5.94	2.97	1.16	0.71
104	TSA0160016dR4.72	A	16	16	180	4.72	3.74	1.46	0.89
105	TSA0160016dR3.97	A	16	16	210	3.97	4.44	1.73	1.06
106	TSA(C)0160020dR28	A & C	16	20	30	28	0.63	0.20	0.15
107	TSA(C)0160020dR13.3	A & C	16	20	60	13.3	1.33	0.42	0.32
108	TSA(C)0160020dR8.88	A & C	16	20	90	8.88	2.11	0.66	0.5
109	TSA(C)0160020dR6.29	A & C	16	20	120	6.29	2.8	0.88	0.67
110	TSA0160020dR4.72	A	16	20	150	4.72	3.74	1.17	0.89
111	TSA0160020dR3.75	A	16	20	180	3.75	4.7	1.47	1.12
112	TSA0160020dR3.15	A	16	20	210	3.15	5.6	1.75	1.33
113	TSA(C)0160025dR23.5	A & C	16	25	30	23.5	0.75	0.19	0.18
114	TSA(C)0160025dR11.2	A & C	16	25	60	11.2	1.58	0.40	0.38
115	TSA(C)0160025dR6.66	A & C	16	25	90	6.66	2.65	0.66	0.63
116	TSA0160025dR5	A	16	25	120	5	3.53	0.88	0.84
117	TSA0160025dR3.75	A	16	25	150	3.75	4.7	1.18	1.12
118	TSA0160025dR2.97	A	16	25	180	2.97	5.94	1.49	1.41
119	TSA0160025dR2.49	A	16	25	210	2.49	7.08	1.77	1.69
120	TSA(C)0160032dR17.7	A & C	16	32	30	17.7	1	0.20	0.24
121	TSA(C)0160032dR8.38	A & C	16	32	60	8.38	2.11	0.41	0.5
122	TSA(C)0160032dR5.3	A & C	16	32	90	5.3	3.33	0.65	0.79
123	TSA0160032dR3.75	A	16	32	120	3.75	4.7	0.92	1.12
124	TSA0160032dR2.97	A	16	32	150	2.97	5.94	1.16	1.41
125	TSA0160032dR2.35	A	16	32	180	2.35	7.51	1.47	1.79
126	TSA0160032dR1.98	A	16	32	210	1.98	8.91	1.74	2.12
127	TSA(C)0160040dR14.1	A & C	16	40	30	14.1	1.25	0.20	0.3
128	TSA(C)0160040dR6.66	A & C	16	40	60	6.66	2.65	0.41	0.63
129	TSA0160040dR4.21	A	16	40	90	4.21	4.19	0.65	1
130	TSA0160040dR3.15	A	16	40	120	3.15	5.6	0.88	1.33
131	TSA0160040dR2.35	A	16	40	150	2.35	7.51	1.17	1.79
132	TSA0160040dR1.87	A	16	40	180	1.87	9.43	1.47	2.25
133	TSA0160040dR1.58	A	16	40	210	1.58	11.16	1.74	2.66
134	TSA(C)0160050dR11.2	A & C	16	50	30	11.2	1.58	0.20	0.38
135	TSA(C)0160050dR5.3	A & C	16	50	60	5.3	3.33	0.42	0.79
136	TSA0160050dR3.34	A	16	50	90	3.34	5.28	0.66	1.26
137	TSA0160050dR2.49	A	16	50	120	2.49	7.08	0.89	1.69
138	TSA0160050dR1.87	A	16	50	150	1.87	9.43	1.18	2.25
139	TSA0160050dR1.49	A	16	50	180	1.49	11.84	1.48	2.82
140	TSA0160050dR1.26	A	16	50	210	1.26	14	1.75	3.33
141	TSA(C)0160063dR8.88	A & C	16	63	30	8.88	1.99	0.20	0.47
142	TSA0160063dR4.21	A	16	63	60	4.21	4.19	0.42	1
143	TSA0160063dR2.64	A	16	63	90	2.64	6.68	0.66	1.59
144	TSA0160063dR1.98	A	16	63	120	1.98	8.91	0.88	2.12
145	TSA0160063dR1.49	A	16	63	150	1.49	11.84	1.17	2.82

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
146	TSA0160063dR1.19	A	16	63	180	1.19	14.82	1.47	3.53
147	TSA0160063dR1	A	16	63	210	1	17.64	1.75	4.2
148	TSA(C)0200020dR29.7	A & C	20	20	30	29.7	0.59	0.15	0.14
149	TSA(C)0200020dR14.1	A & C	20	20	60	14.1	1.25	0.31	0.3
150	TSA(C)0200020dR8.88	A & C	20	20	90	8.88	1.99	0.50	0.47
151	TSA(C)0200020dR6.29	A & C	20	20	120	6.29	2.8	0.70	0.67
152	TSA(C)0200020dR4.72	A & C	20	20	150	4.72	3.74	0.94	0.89
153	TSA0200020dR3.97	A	20	20	180	3.97	4.44	1.11	1.06
154	TSA0200020dR3.34	A	20	20	210	3.34	5.28	1.32	1.26
155	TSA(C)0200025dR23.5	A & C	20	25	30	23.5	0.75	0.15	0.18
156	TSA(C)0200025dR11.2	A & C	20	25	60	11.2	1.58	0.32	0.38
157	TSA(C)0200025dR7.05	A & C	20	25	90	7.05	2.5	0.50	0.6
158	TSA(C)0200025dR5	A & C	20	25	120	5	3.53	0.71	0.84
159	TSA0200025dR3.97	A	20	25	150	3.97	4.44	0.89	1.06
160	TSA0200025dR3.15	A	20	25	180	3.15	5.6	1.12	1.33
161	TSA0200025dR2.64	A	20	25	210	2.64	6.68	1.34	1.59
162	TSA(C)0200032dR18.7	A & C	20	32	30	18.7	0.94	0.15	0.22
163	TSA(C)0200032dR8.88	A & C	20	32	60	8.88	1.99	0.31	0.47
164	TSA(C)0200032dR5.61	A & C	20	32	90	5.61	3.14	0.49	0.75
165	TSA0200032dR3.97	A	20	32	120	3.97	4.44	0.69	1.06
166	TSA0200032dR2.97	A	20	32	150	2.97	5.94	0.93	1.41
167	TSA0200032dR2.49	A	20	32	180	2.49	7.08	1.11	1.69
168	TSA0200032dR2.1	A	20	32	210	2.1	8.4	1.31	2
169	TSA(C)0200040dR14.9	A & C	20	40	30	14.9	1.18	0.15	0.28
170	TSA(C)0200040dR7.05	A & C	20	40	60	7.05	2.5	0.31	0.6
171	TSA(C)0200040dR4.46	A & C	20	40	90	4.46	3.96	0.50	0.94
172	TSA0200040dR3.15	A	20	40	120	3.15	5.6	0.70	1.33
173	TSA(C)0200040dR2.35	A	20	40	150	2.35	7.51	0.94	1.79
174	TSA0200040dR1.98	A	20	40	180	1.98	8.91	1.11	2.12
175	TSA0200040dR1.67	A	20	40	210	1.67	10.56	1.32	2.51
176	TSA(C)0200050dR11.9	A & C	20	50	30	11.9	1.48	0.15	0.35
177	TSA(C)0200050dR5.61	A & C	20	50	60	5.61	3.14	0.31	0.75
178	TSA0200050dR3.54	A	20	50	90	3.54	4.98	0.50	1.19
179	TSA0200050dR2.49	A	20	50	120	2.49	7.08	0.71	1.69
180	TSA0200050dR1.98	A	20	50	150	1.98	8.91	0.89	2.12
181	TSA0200050dR1.58	A	20	50	180	1.58	11.16	1.12	2.66
182	TSA0200050dR1.33	A	20	50	210	1.33	13.26	1.33	3.16
183	TSA(C)0200063dR9.41	A & C	20	63	30	9.41	1.87	0.15	0.45
184	TSA(C)0200063dR4.46	A & C	20	63	60	4.46	3.96	0.31	0.94
185	TSA0200063dR2.8	A	20	63	90	2.8	6.3	0.50	1.5
186	TSA0200063dR1.98	A	20	63	120	1.98	8.91	0.71	2.12
187	TSA0200063dR1.49	A	20	63	150	1.49	11.84	0.94	2.82
188	TSA0200063dR1.26	A	20	63	180	1.26	14	1.11	3.33
189	TSA0200063dR1.06	A	20	63	210	1.06	16.64	1.32	3.96
190	TSA(C)0200080dR7.47	A & C	20	80	30	7.47	2.36	0.15	0.56
191	TSA0200080dR3.54	A	20	80	60	3.54	4.98	0.31	1.19
192	TSA0200080dR2.22	A	20	80	90	2.22	7.95	0.50	1.89
193	TSA0200080dR1.58	A	20	80	120	1.58	11.16	0.70	2.66
194	TSA0200080dR1.19	A	20	80	150	1.19	14.82	0.93	3.53
195	TSA0200080dR1	A	20	80	180	1	17.64	1.10	4.2
196	TSA0200080dR0.838	A	20	80	210	0.838	21.05	1.32	5.01
197	TSA(C)025								

# STANDARD | Rectangular 4.2V

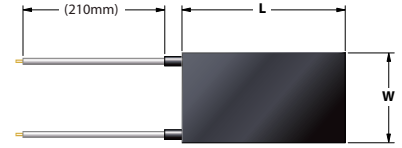


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
219	TSA(C)0250050dR4.72	A & C	25	50	60	4.72	3.74	0.30	0.89
220	TSA0250050dR2.97	A	25	50	90	2.97	5.94	0.48	1.41
221	TSA0250050dR2.1	A	25	50	120	2.1	8.4	0.67	2
222	TSA0250050dR1.58	A	25	50	150	1.58	11.16	0.89	2.66
223	TSA0250050dR1.33	A	25	50	180	1.33	13.26	1.06	3.16
224	TSA0250050dR1.12	A	25	50	210	1.12	15.75	1.26	3.75
225	TSA(C)0250063dR7.91	A & C	25	63	30	7.91	2.23	0.14	0.53
226	TSA(C)0250063dR3.75	A & C	25	63	60	3.75	4.7	0.30	1.12
227	TSA0250063dR2.35	A	25	63	90	2.35	7.51	0.48	1.79
228	TSA0250063dR1.67	A	25	63	120	1.67	10.56	0.67	2.51
229	TSA0250063dR1.26	A	25	63	150	1.26	14	0.89	3.33
230	TSA0250063dR1.06	A	25	63	180	1.06	16.64	1.06	3.96
231	TSA(C)0250080dR6.29	A & C	25	80	30	6.29	2.8	0.14	0.67
232	TSA0250080dR2.97	A	25	80	60	2.97	5.94	0.30	1.41
233	TSA0250080dR0.888	A	25	80	90	0.888	19.86	1.26	4.73
234	TSA0250080dR1.87	A	25	80	120	1.87	9.43	0.47	2.25
235	TSA0250080dR1.33	A	25	80	150	1.33	13.26	0.66	3.16
236	TSA0250080dR1	A	25	80	180	1	17.64	0.88	4.2
237	TSA0250080dR0.838	A	25	80	210	0.838	21.05	1.05	5.01
238	TSA0250080dR0.705	A	25	80	240	0.705	25.02	1.25	5.96
239	TSA(C)0250100dR5	A & C	25	100	30	5	3.53	0.14	0.84
240	TSA0250100dR2.35	A	25	100	60	2.35	7.51	0.30	1.79
241	TSA0250100dR1.49	A	25	100	90	1.49	11.84	0.47	2.82
242	TSA0250100dR1.06	A	25	100	120	1.06	16.64	0.67	3.96
243	TSA0250100dR0.791	A	25	100	150	0.791	22.3	0.89	5.31
244	TSA0250100dR0.666	A	25	100	180	0.666	26.49	1.06	6.31
245	TSA0250100dR0.561	A	25	100	210	0.561	31.44	1.26	7.49
246	TSA(C)0320032dR13.3	A & C	32	32	30	13.3	1.33	0.13	0.32
247	TSA(C)0320032dR5.94	A & C	32	32	60	5.94	2.97	0.29	0.71
248	TSA(C)0320032dR3.75	A & C	32	32	90	3.75	4.7	0.46	1.12
249	TSA0320032dR2.64	A	32	32	120	2.64	6.68	0.65	1.59
250	TSA0320032dR2.1	A	32	32	150	2.1	8.4	0.82	2
251	TSA0320032dR1.77	A	32	32	180	1.77	9.97	0.97	2.37
252	TSA0320032dR1.49	A	32	32	210	1.49	11.84	1.16	2.82
253	TSA(C)0320040dR10.6	A & C	32	40	30	10.6	1.66	0.13	0.4
254	TSA(C)0320040dR5	A & C	32	40	60	5	3.53	0.28	0.84
255	TSA0320040dR2.97	A	32	40	90	2.97	5.94	0.46	1.41
256	TSA0320040dR2.22	A	32	40	120	2.22	7.95	0.62	1.89
257	TSA0320040dR1.67	A	32	40	150	1.67	10.56	0.83	2.51
258	TSA0320040dR1.41	A	32	40	180	1.41	12.51	0.98	2.98
259	TSA0320040dR1.19	A	32	40	210	1.19	14.82	1.16	3.53
260	TSA(C)0320050dR8.38	A & C	32	50	30	8.38	2.11	0.13	0.5
261	TSA(C)0320050dR3.97	A & C	32	50	60	3.97	4.44	0.28	1.06
262	TSA0320050dR2.35	A	32	50	90	2.35	7.51	0.47	1.79
263	TSA0320050dR1.77	A	32	50	120	1.77	9.97	0.62	2.37
264	TSA0320050dR1.33	A	32	50	150	1.33	13.26	0.83	3.16
265	TSA0320050dR1.12	A	32	50	180	1.12	15.75	0.98	3.75
266	TSA0320050dR0.941	A	32	50	210	0.941	18.75	1.17	4.46
267	TSA(C)0320063dR6.66	A & C	32	63	30	6.66	2.65	0.13	0.63
268	TSA(C)0320063dR3.15	A & C	32	63	60	3.15	5.6	0.28	1.33
269	TSA0320063dR1.87	A	32	63	90	1.87	9.43	0.47	2.25
270	TSA0320063dR1.41	A	32	63	120	1.41	12.51	0.62	2.98
271	TSA0320063dR1.06	A	32	63	150	1.06	16.64	0.83	3.96
272	TSA0320063dR0.888	A	32	63	180	0.888	19.86	0.99	4.73
273	TSA0320063dR0.747	A	32	63	210	0.747	23.61	1.17	5.62
274	TSA(C)0320080dR5.3	A & C	32	80	30	5.3	3.33	0.13	0.79
275	TSA0320080dR2.49	A	32	80	60	2.49	7.08	0.28	1.69
276	TSA0320080dR1.49	A	32	80	90	1.49	11.84	0.46	2.82
277	TSA0320080dR1.06	A	32	80	120	1.06	16.64	0.65	3.96
278	TSA0320080dR0.838	A	32	80	150	0.838	21.05	0.82	5.01
279	TSA0320080dR0.705	A	32	80	180	0.705	25.02	0.98	5.96
280	TSA0320080dR0.594	A	32	80	210	0.594	29.7	1.16	7.07
281	TSA(C)0320100dR4.21	A & C	32	100	30	4.21	4.19	0.13	1
282	TSA0320100dR1.98	A	32	100	60	1.98	8.91	0.28	2.12
283	TSA0320100dR1.19	A	32	100	90	1.19	14.82	0.46	3.53
284	TSA0320100dR0.888	A	32	100	120	0.888	19.86	0.62	4.73
285	TSA0320100dR0.666	A	32	100	150	0.666	26.49	0.83	6.31
286	TSA0320100dR0.561	A	32	100	180	0.561	31.44	0.98	7.49
287	TSA0320100dR0.472	A	32	100	210	0.472	37.37	1.17	8.9
288	TSA(C)0320125dR3.34	A & C	32	125	30	3.34	5.28	0.13	1.26
289	TSA0320125dR1.58	A	32	125	60	1.58	11.16	0.28	2.66
290	TSA0320125dR0.941	A	32	125	90	0.941	18.75	0.47	4.46
291	TSA0320125dR0.705	A	32	125	120	0.705	25.02	0.63	5.96

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
292	TSA0320125dR0.53	A	32	125	150	0.53	33.28	0.83	7.92
293	TSA0320125dR0.446	A	32	125	180	0.446	39.55	0.99	9.42
294	TSA0320125dR0.375	A	32	125	210	0.375	47.04	1.18	11.2
295	TSA(C)0400040dR8.38	A & C	40	40	30	8.38	2.11	0.13	0.5
296	TSA(C)0400040dR3.97	A & C	40	40	60	3.97	4.44	0.28	1.06
297	TSA0400040dR2.49	A	40	40	90	2.49	7.08	0.44	1.69
298	TSA0400040dR1.87	A	40	40	120	1.87	9.43	0.59	2.25
299	TSA0400040dR1.41	A	40	40	150	1.41	12.51	0.78	2.98
300	TSA0400040dR1.19	A	40	40	180	1.19	14.82	0.93	3.53
301	TSA0400040dR1	A	40	40	210	1	17.64	1.10	4.2
302	TSA(C)0400050dR6.66	A & C	40	50	30	6.66	2.65	0.13	0.63
303	TSA(C)0400050dR3.34	A & C	40	50	60	3.34	5.28	0.26	1.26
304	TSA0400050dR1.98	A	40	50	90	1.98	8.91	0.45	2.12
305	TSA0400050dR1.49	A	40	50	120	1.49	11.84	0.59	2.82
306	TSA0400050dR1.12	A	40	50	150	1.12	15.75	0.79	3.75
307	TSA0400050dR0.941	A	40	50	180	0.941	18.75	0.94	4.46
308	TSA0400050dR0.791	A	40	50	210	0.791	22.3	1.12	5.31
309	TSA(C)0400063dR5.3	A & C	40	63	30	5.3	3.33	0.13	0.79
310	TSA0400063dR2.64	A	40	63	60	2.64	6.68	0.27	1.59
311	TSA0400063dR1.58	A	40	63	90	1.58	11.16	0.44	2.66
312	TSA0400063dR1.12	A	40	63	120	1.12	15.75	0.63	3.75
313	TSA0400063dR0.888	A	40	63	150	0.888	19.86	0.79	4.73
314	TSA0400063dR0.747	A	40	63	180	0.747	23.61	0.94	5.62
315	TSA0400063dR0.629	A	40	63	210	0.629	28.04	1.11	6.68
316	TSA(C)0400080dR4.21	A & C	40	80	30	4.21	4.19	0.13	1
317	TSA0400080dR1.98	A	40	80	60	1.98	8.91	0.28	2.12
318	TSA0400080dR1.26	A	40	80	90	1.26	14	0.44	3.33
319	TSA0400080dR0.888	A	40	80	120	0.888	19.86	0.62	4.73
320	TSA0400080dR0.705	A	40	80	150	0.705	25.02	0.78	5.96
321	TSA0400080dR0.594	A	40	80	180	0.594	29.7	0.93	7.07
322	TSA0400080dR0.5	A	40	80	210	0.5	35.28	1.10	8.4
323	TSA(C)0400100dR3.34	A & C	40	100	30	3.34	5.28	0.13	1.26
324	TSA0400100dR1.67	A	40	100	60	1.67	10.56	0.26	2.51
325	TSA0400100dR1	A	40	100	90	1	17.64	0.44	4.2
326	TSA0400100dR0.747	A	40	100	120	0.747	23.61	0.59	5.62
327	TSA0400100dR0.561	A	40	100	150	0.561	31.44	0.79	7.49
328	TSA0400100dR0.472	A	40	100	180	0.472	37.37	0.93	8.9
329	TSA0400100dR0.397	A	40	100	210	0.397	44.43	1.11	10.58
330	TSA0400125dR2.8	A	40	125	30	2.8	6.3	0.13	1.5
331	TSA0400125dR1.33	A	40	125	60	1.33	13.26	0.27	3.16
332	TSA0400125dR0.791	A	40	125	90	0.791	22.3	0.45	5.31
333	TSA0400125dR0.594	A	40	125	120	0.594	29.7	0.59	7.07
334	TSA0400125dR0.446	A	40	125	150	0.446	39.55	0.79	9.42
335	TSA0400125dR0.375	A	40	125	180	0.375	47.04	0.94	11.2
336	TSA0400125dR0.315	A	40	125	210	0.315	56	1.12	13.33
337	TSA0400160dR2.1	A	40	160	30	2.1	8.4	0.13	2
338	TSA0400160dR1	A	40	160	60	1	17.64	0.28	4.2
339	TSA0400160dR0.629	A	40	160	90	0.629	28.04	0.44	6.68
340	TSA0400160dR0.446	A	40	160	120	0.446	39.55	0.62	9.42
341	TSA0400160dR0.354	A	40	160	150	0.354	49.83	0.78	11.86
342	TSA0400160dR0.297	A	40	160	180	0.297	59.39	0.93	



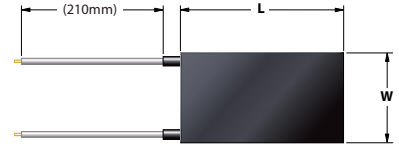
# STANDARD | Rectangular 4.2V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
365	TSA0500100dR1.41	A	50	100	60	1.41	12.51	0.25	2.98
366	TSA0500100dR0.888	A	50	100	90	0.888	19.86	0.40	4.73
367	TSA0500100dR0.629	A	50	100	120	0.629	28.04	0.56	6.68
368	TSA0500100dR0.472	A	50	100	150	0.472	37.37	0.75	8.9
369	TSA0500100dR0.397	A	50	100	180	0.397	44.43	0.89	10.58
370	TSA0500100dR0.334	A	50	100	210	0.334	52.81	1.06	12.57
371	TSA0500125dR2.22	A	50	125	30	2.22	7.95	0.13	1.89
372	TSA0500125dR1.12	A	50	125	60	1.12	15.75	0.25	3.75
373	TSA0500125dR0.705	A	50	125	90	0.705	25.02	0.40	5.96
374	TSA0500125dR0.5	A	50	125	120	0.5	35.28	0.56	8.4
375	TSA0500125dR0.375	A	50	125	150	0.375	47.04	0.75	11.2
376	TSA0500125dR0.315	A	50	125	180	0.315	56	0.90	13.33
377	TSA0500160dR1.77	A	50	160	30	1.77	9.97	0.12	2.37
378	TSA0500160dR0.838	A	50	160	60	0.838	21.05	0.26	5.01
379	TSA0500160dR0.561	A	50	160	90	0.561	31.44	0.39	7.49
380	TSA0500160dR0.397	A	50	160	120	0.397	44.43	0.56	10.58
381	TSA0500160dR0.297	A	50	160	150	0.297	59.39	0.74	14.14
382	TSA0500200dR1.41	A	50	200	30	1.41	12.51	0.13	2.98
383	TSA0500200dR0.705	A	50	200	60	0.705	25.02	0.25	5.96
384	TSA0500200dR0.446	A	50	200	90	0.446	39.55	0.40	9.42
385	TSA0500200dR0.315	A	50	200	120	0.315	56	0.56	13.33
386	TSA(C)0630063dR3.75	A & C	63	63	30	3.75	4.7	0.12	1.12
387	TSA0630063dR1.87	A	63	63	60	1.87	9.43	0.24	2.25
388	TSA0630063dR1.19	A	63	63	90	1.19	14.82	0.37	3.53
389	TSA0630063dR0.838	A	63	63	120	0.838	21.05	0.53	5.01
390	TSA0630063dR0.629	A	63	63	150	0.629	28.04	0.71	6.68
391	TSA0630063dR0.53	A	63	63	180	0.53	33.28	0.84	7.92
392	TSA0630063dR0.446	A	63	63	210	0.446	39.55	1.00	9.42
393	TSA0630080dR2.97	A	63	80	30	2.97	5.94	0.12	1.41
394	TSA0630080dR1.49	A	63	80	60	1.49	11.84	0.23	2.82
395	TSA0630080dR0.941	A	63	80	90	0.941	18.75	0.37	4.46
396	TSA0630080dR0.666	A	63	80	120	0.666	26.49	0.53	6.31
397	TSA0630080dR0.5	A	63	80	150	0.5	35.28	0.70	8.4
398	TSA0630080dR0.421	A	63	80	180	0.421	41.9	0.83	9.98
399	TSA0630080dR0.354	A	63	80	210	0.354	49.83	0.99	11.86
400	TSA0630100dR2.35	A	63	100	30	2.35	7.51	0.12	1.79
401	TSA0630100dR1.19	A	63	100	60	1.19	14.82	0.24	3.53
402	TSA0630100dR0.747	A	63	100	90	0.747	23.61	0.37	5.62
403	TSA0630100dR0.53	A	63	100	120	0.53	33.28	0.53	7.92
404	TSA0630100dR0.397	A	63	100	150	0.397	44.43	0.71	10.58
405	TSA0630100dR0.334	A	63	100	180	0.334	52.81	0.84	12.57
406	TSA0630100dR0.28	A	63	100	210	0.28	63	1.00	15
407	TSA0630125dR1.87	A	63	125	30	1.87	9.43	0.12	2.25
408	TSA0630125dR0.941	A	63	125	60	0.941	18.75	0.24	4.46
409	TSA0630125dR0.594	A	63	125	90	0.594	29.7	0.38	7.07
410	TSA0630125dR0.421	A	63	125	120	0.421	41.9	0.53	9.98
411	TSA0630125dR0.315	A	63	125	150	0.315	56	0.71	13.33
412	TSA0630160dR1.49	A	63	160	30	1.49	11.84	0.12	2.82
413	TSA0630160dR0.747	A	63	160	60	0.747	23.61	0.23	5.62
414	TSA0630160dR0.472	A	63	160	90	0.472	37.37	0.37	8.9
415	TSA0630160dR0.334	A	63	160	120	0.334	52.81	0.52	12.57
416	TSA0630200dR1.19	A	63	200	30	1.19	14.82	0.12	3.53
417	TSA0630200dR0.594	A	63	200	60	0.594	29.7	0.24	7.07
418	TSA0630200dR0.375	A	63	200	90	0.375	47.04	0.37	11.2
419	TSA0630250dR0.941	A	63	250	30	0.941	18.75	0.12	4.46
420	TSA0630250dR0.472	A	63	250	60	0.472	37.37	0.24	8.9
421	TSA0630250dR0.297	A	63	250	90	0.297	59.39	0.38	14.14
422	TSA0800080dR2.64	A	80	80	30	2.64	6.68	0.10	1.59
423	TSA0800080dR1.26	A	80	80	60	1.26	14	0.22	3.33
424	TSA0800080dR0.791	A	80	80	90	0.791	22.3	0.35	5.31
425	TSA0800080dR0.561	A	80	80	120	0.561	31.44	0.49	7.49
426	TSA0800080dR0.446	A	80	80	150	0.446	39.55	0.62	9.42
427	TSA0800080dR0.354	A	80	80	180	0.354	49.83	0.78	11.86
428	TSA0800080dR0.297	A	80	80	210	0.297	59.39	0.93	14.14
429	TSA0800100dR2.1	A	80	100	30	2.1	8.4	0.11	2
430	TSA0800100dR1	A	80	100	60	1	17.64	0.22	4.2
431	TSA0800100dR0.629	A	80	100	90	0.629	28.04	0.35	6.68

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
432	TSA0800100dR0.446	A	80	100	120	0.446	39.55	0.49	9.42
433	TSA0800100dR0.354	A	80	100	150	0.354	49.83	0.62	11.86
434	TSA0800100dR0.28	A	80	100	180	0.28	63	0.79	15
435	TSA0800125dR1.67	A	80	125	30	1.67	10.56	0.11	2.51
436	TSA0800125dR0.838	A	80	125	60	0.838	21.05	0.21	5.01
437	TSA0800125dR0.53	A	80	125	90	0.53	33.28	0.33	7.92
438	TSA0800125dR0.354	A	80	125	120	0.354	49.83	0.50	11.86
439	TSA0800125dR0.28	A	80	125	150	0.28	63	0.63	15
440	TSA0800160dR1.33	A	80	160	30	1.33	13.26	0.10	3.16
441	TSA0800160dR0.629	A	80	160	60	0.629	28.04	0.22	6.68
442	TSA0800160dR0.397	A	80	160	90	0.397	44.43	0.35	10.58
443	TSA0800160dR0.28	A	80	160	120	0.28	63	0.49	15
444	TSA0800200dR1.06	A	80	200	30	1.06	16.64	0.10	3.96
445	TSA0800200dR0.5	A	80	200	60	0.5	35.28	0.22	8.4
446	TSA0800200dR0.315	A	80	200	90	0.315	56	0.35	13.33
447	TSA0800250dR0.838	A	80	250	30	0.838	21.05	0.11	5.01
448	TSA0800250dR0.421	A	80	250	60	0.421	41.9	0.21	9.98
449	TSA0800300dR0.705	A	80	300	30	0.705	25.02	0.10	5.96
450	TSA0800300dR0.334	A	80	300	60	0.334	52.81	0.22	12.57
451	TSA1000125dR1.87	A	100	100	30	1.87	9.43	0.09	2.25
452	TSA1000100dR0.941	A	100	100	60	0.941	18.75	0.19	4.46
453	TSA1000100dR0.594	A	100	100	90	0.594	29.7	0.30	7.07
454	TSA1000100dR0.397	A	100	100	120	0.397	44.43	0.44	10.58
455	TSA1000250dR0.315	A	100	100	150	0.315	56	0.56	13.33
456	TSA1000125dR1.49	A	100	125	30	1.49	11.84	0.09	2.82
457	TSA1000125dR0.747	A	100	125	60	0.747	23.61	0.19	5.62
458	TSA1000125dR0.472	A	100	125	90	0.472	37.37	0.30	8.9
459	TSA1000250dR0.315	A	100	125	120	0.315	56	0.45	13.33
460	TSA1000160dR1.19	A	100	160	30	1.19	14.82	0.09	3.53
461	TSA1000160dR0.594	A	100	160	60	0.594	29.7	0.19	7.07
462	TSA1000160dR0.375	A	100	160	90	0.375	47.04	0.29	11.2
463	TSA1000200dR0.941	A	100	200	30	0.941	18.75	0.09	4.46
464	TSA1000200dR0.472	A	100	200	60	0.472	37.37	0.19	8.9
465	TSA1000200dR0.297	A	100	200	90	0.297	59.39	0.30	14.14
466	TSA1000250dR0.747	A	100	250	30	0.747	23.61	0.09	5.62
467	TSA1000250dR0.375	A	100	250	60	0.375	47.04	0.19	11.2
468	TSA1000300dR0.629	A	100	300	30	0.629	28.04	0.09	6.68
469	TSA1000300dR0.315	A	100	300	60	0.315	56	0.19	13.33
470	TSA1250125dR1.33	A	125	125	30	1.33	13.26	0.08	3.16
471	TSA1250125dR0.666	A	125	125	60	0.666	26.49	0.17	6.31
472	TSA1250125dR0.421	A	125	125	90	0.421	41.9	0.27	9.98
473	TSA1250125dR0.28	A	125	125	120	0.28	63	0.40	15
474	TSA1250160dR1	A	125	160	30	1	17.64	0.09	4.2
475	TSA1250160dR0.5	A	125	160	60	0.5	35.28	0.18	8.4
476	TSA1250160dR0.315	A	125	160	90	0.315	56	0.28	13.33
477	TSA1250200dR0.838	A	125	200	30	0.838	21.05	0.08	5.01
478	TSA1250200dR0.421	A	125	200	60	0.421	41.9	0.17	9.98
479	TSA1250250dR0.666	A	125	250	30	0.666	26.49	0.08	6.31
480	TSA1250250dR0.334	A	125	250	60	0.334	52.81	0.17	12.57
481	TSA1250300dR0.561	A	125	300	30	0.561	31.44	0.08	7.49
482	TSA1250300dR0.28	A	125	300	60	0.28	63	0.17	15
483	TSA1600160dR0.888	A	160	160	30	0.888	19.86	0.08	4.73
484	TSA1600160dR0.446	A	160	160	60	0.446	39.55	0.15	9.42
485	TSA1600160dR0.28	A	160	160	90	0.28	63	0.25	15
486	TSA1600200dR0.705	A	160	200	30	0.705	25.02	0.08	5.96
487	TSA1600200dR0.354	A	160	200	60	0.354	49.83	0.16	

# STANDARD | Rectangular 5V

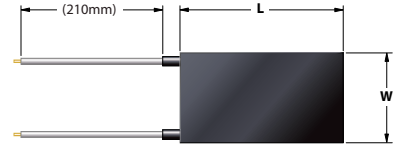


■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010eR100	C	10	10	30	100	0.25	0.25	0.05
2	TSA(C)0100010eR44.6	A & C	10	10	60	44.6	0.56	0.56	0.11
3	TSA(C)0100010eR29.7	A & C	10	10	90	29.7	0.84	0.84	0.17
4	TSA(C)0100010eR21	A & C	10	10	120	21	1.19	1.19	0.24
5	TSA(C)0100010eR15.8	A & C	10	10	150	15.8	1.58	1.58	0.32
6	TSA(C)0100010eR12.6	A & C	10	10	180	12.6	1.98	1.98	0.4
7	TSA(C)0100010eR10	A & C	10	10	210	10	2.5	2.50	0.5
8	TSA(C)0100013eR74.7	A & C	10	13	30	74.7	0.33	0.25	0.07
9	TSA(C)0100013eR35.4	A & C	10	13	60	35.4	0.71	0.55	0.14
10	TSA(C)0100013eR22.2	A & C	10	13	90	22.2	1.13	0.87	0.23
11	TSA(C)0100013eR15.8	A & C	10	13	120	15.8	1.58	1.22	0.32
12	TSA(C)0100013eR11.9	A & C	10	13	150	11.9	2.1	1.62	0.42
13	TSA(C)0100013eR9.41	A & C	10	13	180	9.41	2.66	2.05	0.53
14	TSA0100013eR7.91	A	10	13	210	7.91	3.16	2.43	0.63
15	TSA(C)0100016eR59.4	A & C	10	16	30	59.4	0.42	0.26	0.08
16	TSA(C)0100016eR28	A & C	10	16	60	28	0.89	0.56	0.18
17	TSA(C)0100016eR18.7	A & C	10	16	90	18.7	1.34	0.84	0.27
18	TSA(C)0100016eR13.3	A & C	10	16	120	13.3	1.88	1.18	0.38
19	TSA(C)0100016eR10	A & C	10	16	150	10	2.5	1.56	0.5
20	TSA0100016eR7.91	A	10	16	180	7.91	3.16	1.98	0.63
21	TSA0100016eR6.29	A	10	16	210	6.29	3.97	2.48	0.79
22	TSA(C)0100020eR50	A & C	10	20	30	50	0.5	0.25	0.1
23	TSA(C)0100020eR23.5	A & C	10	20	60	23.5	1.06	0.53	0.21
24	TSA(C)0100020eR14.9	A & C	10	20	90	14.9	1.68	0.84	0.34
25	TSA(C)0100020eR10.6	A & C	10	20	120	10.6	2.36	1.18	0.47
26	TSA0100020eR7.91	A	10	20	150	7.91	3.16	1.58	0.63
27	TSA0100020eR6.29	A	10	20	180	6.29	3.97	1.99	0.79
28	TSA0100020eR5	A	10	20	210	5	5	2.50	1
29	TSA(C)0100025eR39.7	A & C	10	25	30	39.7	0.63	0.25	0.13
30	TSA(C)0100025eR18.7	A & C	10	25	60	18.7	1.34	0.54	0.27
31	TSA(C)0100025eR11.9	A & C	10	25	90	11.9	2.1	0.84	0.42
32	TSA0100025eR8.38	A	10	25	120	8.38	2.98	1.19	0.6
33	TSA0100025eR6.29	A	10	25	150	6.29	3.97	1.59	0.79
34	TSA0100025eR5	A	10	25	180	5	5	2.00	1
35	TSA0100025eR4.21	A	10	25	210	4.21	5.94	2.38	1.19
36	TSA(C)0100032eR29.7	A & C	10	32	30	29.7	0.84	0.26	0.17
37	TSA(C)0100032eR14.1	A & C	10	32	60	14.1	1.77	0.55	0.35
38	TSA(C)0100032eR8.88	A & C	10	32	90	8.88	2.82	0.88	0.56
39	TSA0100032eR6.66	A	10	32	120	6.66	3.75	1.17	0.75
40	TSA0100032eR5	A	10	32	150	5	5	1.56	1
41	TSA0100032eR3.97	A	10	32	180	3.97	6.3	1.97	1.26
42	TSA0100032eR3.15	A	10	32	210	3.15	7.94	2.48	1.59
43	TSA(C)0100040eR24.9	A & C	10	40	30	24.9	1	0.25	0.2
44	TSA(C)0100040eR11.2	A & C	10	40	60	11.2	2.23	0.56	0.45
45	TSA0100040eR7.47	A	10	40	90	7.47	3.35	0.84	0.67
46	TSA0100040eR5.3	A	10	40	120	5.3	4.72	1.18	0.94
47	TSA0100040eR3.97	A	10	40	150	3.97	6.3	1.58	1.26
48	TSA0100040eR3.15	A	10	40	180	3.15	7.94	1.99	1.59
49	TSA0100040eR2.64	A	10	40	210	2.64	9.47	2.37	1.89
50	TSA(C)0130013eR66.6	A & C	13	13	30	66.6	0.38	0.22	0.08
51	TSA(C)0130013eR31.5	A & C	13	13	60	31.5	0.79	0.47	0.16
52	TSA(C)0130013eR19.8	A & C	13	13	90	19.8	1.26	0.75	0.25
53	TSA(C)0130013eR14.1	A & C	13	13	120	14.1	1.77	1.05	0.35
54	TSA(C)0130013eR10.6	A & C	13	13	150	10.6	2.36	1.40	0.47
55	TSA(C)0130013eR8.38	A & C	13	13	180	8.38	2.98	1.76	0.6
56	TSA0130013eR7.05	A	13	13	210	7.05	3.55	2.10	0.71
57	TSA(C)0130016eR53	A & C	13	16	30	53	0.47	0.23	0.09
58	TSA(C)0130016eR24.9	A & C	13	16	60	24.9	1	0.48	0.2
59	TSA(C)0130016eR15.8	A & C	13	16	90	15.8	1.58	0.76	0.32
60	TSA(C)0130016eR11.2	A & C	13	16	120	11.2	2.23	1.07	0.45
61	TSA(C)0130016eR8.88	A & C	13	16	150	8.88	2.82	1.36	0.56
62	TSA0130016eR7.05	A	13	16	180	7.05	3.55	1.71	0.71
63	TSA0130016eR5.61	A	13	16	210	5.61	4.46	2.14	0.89
64	TSA(C)0130020eR42.1	A & C	13	20	30	42.1	0.59	0.23	0.12
65	TSA(C)0130020eR19.8	A & C	13	20	60	19.8	1.26	0.48	0.25
66	TSA(C)0130020eR12.6	A & C	13	20	90	12.6	1.98	0.76	0.4
67	TSA(C)0130020eR9.41	A & C	13	20	120	9.41	2.66	1.02	0.53
68	TSA0130020eR7.05	A	13	20	150	7.05	3.55	1.37	0.71
69	TSA0130020eR5.61	A	13	20	180	5.61	4.46	1.72	0.89
70	TSA0130020eR4.46	A	13	20	210	4.46	5.61	2.16	1.12
71	TSA(C)0130025eR33.4	A & C	13	25	30	33.4	0.75	0.23	0.15
72	TSA(C)0130025eR15.8	A & C	13	25	60	15.8	1.58	0.49	0.32
73	TSA(C)0130025eR10	A & C	13	25	90	10	2.5	0.77	0.5

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)0130025eR7.47	A & C	13	25	120	7.47	3.35	1.03	0.67
75	TSA0130025eR5.61	A	13	25	150	5.61	4.46	1.37	0.89
76	TSA0130025eR4.46	A	13	25	180	4.46	5.61	1.73	1.12
77	TSA0130025eR3.75	A	13	25	210	3.75	6.67	2.05	1.33
78	TSA(C)0130032eR26.4	A & C	13	32	30	26.4	0.95	0.23	0.19
79	TSA(C)0130032eR12.6	A & C	13	32	60	12.6	1.98	0.48	0.4
80	TSA(C)0130032eR7.91	A & C	13	32	90	7.91	3.16	0.76	0.63
81	TSA0130032eR5.61	A	13	32	120	5.61	4.46	1.07	0.89
82	TSA0130032eR4.46	A	13	32	150	4.46	5.61	1.35	1.12
83	TSA0130032eR3.54	A	13	32	180	3.54	7.06	1.70	1.41
84	TSA(C)0130032eR2.8	A	13	32	210	2.8	8.93	2.15	1.79
85	TSA(C)0130040eR21	A & C	13	40	30	21	1.19	0.23	0.24
86	TSA(C)0130040eR10	A & C	13	40	60	10	2.5	0.48	0.5
87	TSA0130040eR6.29	A	13	40	90	6.29	3.97	0.76	0.79
88	TSA0130040eR4.72	A	13	40	120	4.72	5.3	1.02	1.06
89	TSA0130040eR3.54	A	13	40	150	3.54	7.06	1.36	1.41
90	TSA0130040eR2.8	A	13	40	180	2.8	8.93	1.72	1.79
91	TSA0130040eR2.35	A	13	40	210	2.35	10.64	2.05	2.13
92	TSA(C)0130050eR16.7	A & C	13	50	30	16.7	1.5	0.23	0.3
93	TSA(C)0130050eR7.91	A & C	13	50	60	7.91	3.16	0.49	0.63
94	TSA0130050eR5	A	13	50	90	5	5	0.77	1
95	TSA0130050eR3.75	A	13	50	120	3.75	6.67	1.03	1.33
96	TSA0130050eR2.8	A	13	50	150	2.8	8.93	1.37	1.79
97	TSA0130050eR2.22	A	13	50	180	2.22	11.26	1.73	2.25
98	TSA0130050eR1.87	A	13	50	210	1.87	13.37	2.06	2.67
99	TSA(C)0160016eR50	A & C	16	16	30	50	0.5	0.20	0.1
100	TSA(C)0160016eR23.5	A & C	16	16	60	23.5	1.06	0.41	0.21
101	TSA(C)0160016eR14.9	A & C	16	16	90	14.9	1.68	0.66	0.34
102	TSA(C)0160016eR10.6	A & C	16	16	120	10.6	2.36	0.92	0.47
103	TSA(C)0160016eR8.38	A & C	16	16	150	8.38	2.98	1.16	0.6
104	TSA(C)0160016eR6.66	A & C	16	16	180	6.66	3.75	1.46	0.75
105	TSA0160016eR5.61	A	16	16	210	5.61	4.46	1.74	0.89
106	TSA(C)0160020eR39.7	A & C	16	20	30	39.7	0.63	0.20	0.13
107	TSA(C)0160020eR19.8	A & C	16	20	60	19.8	1.26	0.39	0.25
108	TSA(C)0160020eR11.9	A & C	16	20	90	11.9	2.1	0.66	0.42
109	TSA(C)0160020eR8.88	A & C	16	20	120	8.88	2.82	0.88	0.56
110	TSA(C)0160020eR6.66	A & C	16	20	150	6.66	3.75	1.17	0.75
111	TSA0160020eR5.3	A	16	20	180	5.3	4.72	1.48	0.94
112	TSA0160020eR4.46	A	16	20	210	4.46	5.61	1.75	1.12
113	TSA(C)0160025eR31.5	A & C	16	25	30	31.5	0.79	0.20	0.16
114	TSA(C)0160025eR15.8	A & C	16	25	60	15.8	1.58	0.40	0.32
115	TSA(C)0160025eR9.41	A & C	16	25	90	9.41	2.66	0.67	0.53
116	TSA(C)0160025eR7.05	A & C	16	25	120	7.05	3.55	0.89	0.71
117	TSA0160025eR5.3	A	16	25	150	5.3	4.72	1.18	0.94
118	TSA0160025eR4.21	A	16	25	180	4.21	5.94	1.49	1.19
119	TSA0160025eR3.54	A	16	25	210	3.54	7.06	1.77	1.41
120	TSA(C)0160032eR24.9	A & C	16	32	30	24.9	1	0.20	0.2
121	TSA(C)0160032eR11.9	A & C	16	32	60	11.9	2.1	0.41	0.42
122	TSA(C)0160032eR7.47	A & C	16	32	90	7.47	3.35	0.65	0.67
123	TSA0160032eR5.3	A	16	32	120	5.3	4.72	0.92	0.94
124	TSA0160032eR4.21	A	16	32	150	4.21	5.94	1.16	1.1

# STANDARD | Rectangular 5V

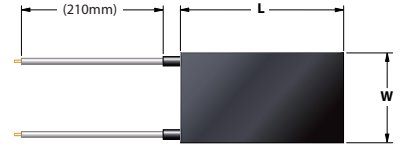


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA0160063eR1.41	A	16	63	210	1.41	17.73	1.76	3.55
148	TSA(C)0200020eR42.1	A & C	20	20	30	42.1	0.59	0.15	0.12
149	TSA(C)0200020eR19.8	A & C	20	20	60	19.8	1.26	0.32	0.25
150	TSA(C)0200020eR12.6	A & C	20	20	90	12.6	1.98	0.50	0.4
151	TSA(C)0200020eR8.88	A & C	20	20	120	8.88	2.82	0.71	0.56
152	TSA(C)0200020eR6.66	A & C	20	20	150	6.66	3.75	0.94	0.75
153	TSA0200020eR5.61	A & C	20	20	180	5.61	4.46	1.12	0.89
154	TSA0200020eR4.72	A	20	20	210	4.72	5.3	1.33	1.06
155	TSA(C)0200025eR33.4	A & C	20	25	30	33.4	0.75	0.15	0.15
156	TSA(C)0200025eR15.8	A & C	20	25	60	15.8	1.58	0.32	0.32
157	TSA(C)0200025eR10	A & C	20	25	90	10	2.5	0.50	0.5
158	TSA(C)0200025eR7.05	A & C	20	25	120	7.05	3.55	0.71	0.71
159	TSA(C)0200025eR5.61	A & C	20	25	150	5.61	4.46	0.89	0.89
160	TSA0200025eR4.46	A	20	25	180	4.46	5.61	1.12	1.12
161	TSA0200025eR3.75	A	20	25	210	3.75	6.67	1.33	1.33
162	TSA(C)0200032eR26.4	A & C	20	32	30	26.4	0.95	0.15	0.19
163	TSA(C)0200032eR12.6	A & C	20	32	60	12.6	1.98	0.31	0.4
164	TSA(C)0200032eR7.91	A & C	20	32	90	7.91	3.16	0.49	0.63
165	TSA(C)0200032eR5.61	A & C	20	32	120	5.61	4.46	0.70	0.89
166	TSA0200032eR4.21	A	20	32	150	4.21	5.94	0.93	1.19
167	TSA0200032eR3.54	A	20	32	180	3.54	7.06	1.10	1.41
168	TSA0200032eR2.97	A	20	32	210	2.97	8.42	1.32	1.68
169	TSA(C)0200040eR21	A & C	20	40	30	21	1.19	0.15	0.24
170	TSA(C)0200040eR10	A & C	20	40	60	10	2.5	0.31	0.5
171	TSA(C)0200040eR6.29	A & C	20	40	90	6.29	3.97	0.50	0.79
172	TSA0200040eR4.46	A	20	40	120	4.46	5.61	0.70	1.12
173	TSA0200040eR3.34	A	20	40	150	3.34	7.49	0.94	1.5
174	TSA0200040eR2.8	A	20	40	180	2.8	8.93	1.12	1.79
175	TSA0200040eR2.35	A	20	40	210	2.35	10.64	1.33	2.13
176	TSA(C)0200050eR16.7	A & C	20	50	30	16.7	1.5	0.15	0.3
177	TSA(C)0200050eR7.91	A & C	20	50	60	7.91	3.16	0.32	0.63
178	TSA(C)0200050eR5	A & C	20	50	90	5	5	0.50	1
179	TSA0200050eR3.54	A	20	50	120	3.54	7.06	0.71	1.41
180	TSA0200050eR2.8	A	20	50	150	2.8	8.93	0.89	1.79
181	TSA0200050eR2.22	A	20	50	180	2.22	11.26	1.13	2.25
182	TSA0200050eR1.87	A	20	50	210	1.87	13.37	1.34	2.67
183	TSA(C)0200063eR13.3	A & C	20	63	30	13.3	1.88	0.15	0.38
184	TSA(C)0200063eR6.29	A & C	20	63	60	6.29	3.97	0.32	0.79
185	TSA0200063eR3.97	A	20	63	90	3.97	6.3	0.50	1.26
186	TSA0200063eR2.8	A	20	63	120	2.8	8.93	0.71	1.79
187	TSA0200063eR2.22	A	20	63	150	2.22	11.26	0.89	2.25
188	TSA0200063eR1.77	A	20	63	180	1.77	14.12	1.12	2.82
189	TSA0200063eR1.49	A	20	63	210	1.49	16.78	1.33	3.36
190	TSA(C)0200080eR10.6	A & C	20	80	30	10.6	2.36	0.15	0.47
191	TSA(C)0200080eR5	A & C	20	80	60	5	5	0.31	1
192	TSA0200080eR3.15	A	20	80	90	3.15	7.94	0.50	1.59
193	TSA0200080eR2.22	A	20	80	120	2.22	11.26	0.70	2.25
194	TSA0200080eR1.67	A	20	80	150	1.67	14.97	0.94	2.99
195	TSA0200080eR1.41	A	20	80	180	1.41	17.73	1.11	3.55
196	TSA0200080eR1.19	A	20	80	210	1.19	21.01	1.31	4.2
197	TSA(C)0250025eR28	A & C	25	25	30	28	0.89	0.14	0.18
198	TSA(C)0250025eR13.3	A & C	25	25	60	13.3	1.88	0.30	0.38
199	TSA(C)0250025eR8.38	A & C	25	25	90	8.38	2.98	0.48	0.6
200	TSA(C)0250025eR5.94	A & C	25	25	120	5.94	4.21	0.67	0.84
201	TSA(C)0250025eR4.72	A & C	25	25	150	4.72	5.3	0.85	1.06
202	TSA(C)0250025eR3.75	A & C	25	25	180	3.75	6.67	1.07	1.33
203	TSA0250025eR3.15	A	25	25	210	3.15	7.94	1.27	1.59
204	TSA(C)0250032eR22.2	A & C	25	32	30	22.2	1.13	0.14	0.23
205	TSA(C)0250032eR10.6	A & C	25	32	60	10.6	2.36	0.30	0.47
206	TSA(C)0250032eR6.29	A & C	25	32	90	6.29	3.97	0.50	0.79
207	TSA(C)0250032eR4.72	A & C	25	32	120	4.72	5.3	0.66	1.06
208	TSA0250032eR3.54	A	25	32	150	3.54	7.06	0.88	1.41
209	TSA0250032eR2.97	A	25	32	180	2.97	8.42	1.05	1.68
210	TSA0250032eR2.49	A	25	32	210	2.49	10.04	1.26	2.01
211	TSA(C)0250040eR17.7	A & C	25	40	30	17.7	1.41	0.14	0.28
212	TSA(C)0250040eR8.38	A & C	25	40	60	8.38	2.98	0.30	0.6
213	TSA(C)0250040eR5.3	A & C	25	40	90	5.3	4.72	0.47	0.94
214	TSA(C)0250040eR3.75	A & C	25	40	120	3.75	6.67	0.67	1.33
215	TSA0250040eR2.8	A	25	40	150	2.8	8.93	0.89	1.79
216	TSA0250040eR2.35	A	25	40	180	2.35	10.64	1.06	2.13
217	TSA0250040eR1.98	A	25	40	210	1.98	12.63	1.26	2.53
218	TSA(C)0250050eR14.1	A & C	25	50	30	14.1	1.77	0.14	0.35
219	TSA(C)0250050eR6.66	A & C	25	50	60	6.66	3.75	0.30	0.75

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)0250050eR4.21	A & C	25	50	90	4.21	5.94	0.48	1.19
221	TSA0250050eR2.97	A	25	50	120	2.97	8.42	0.67	1.68
222	TSA0250050eR2.35	A	25	50	150	2.35	10.64	0.85	2.13
223	TSA0250050eR1.87	A	25	50	180	1.87	13.37	1.07	2.67
224	TSA0250050eR1.58	A	25	50	210	1.58	15.82	1.27	3.16
225	TSA(C)0250063eR11.2	A & C	25	63	30	11.2	2.23	0.14	0.45
226	TSA(C)0250063eR5.3	A & C	25	63	60	5.3	4.72	0.30	0.94
227	TSA0250063eR3.34	A	25	63	90	3.34	7.49	0.48	1.5
228	TSA0250063eR2.35	A	25	63	120	2.35	10.64	0.68	2.13
229	TSA0250063eR1.87	A	25	63	150	1.87	13.37	0.85	2.67
230	TSA(C)0250063eR1.49	A	25	63	180	1.49	16.78	1.07	3.36
231	TSA(C)0250080eR8.88	A & C	25	80	30	8.88	2.82	0.14	0.56
232	TSA(C)0250080eR4.21	A & C	25	80	60	4.21	5.94	0.30	1.19
233	TSA0250063eR1.26	A	25	63	210	1.26	19.84	1.26	3.97
234	TSA0250080eR2.64	A	25	80	90	2.64	9.47	0.47	1.89
235	TSA0250080eR1.87	A	25	80	120	1.87	13.37	0.67	2.67
236	TSA0250080eR1.41	A	25	80	150	1.41	17.73	0.89	3.55
237	TSA0250080eR1.19	A	25	80	180	1.19	21.01	1.05	4.2
238	TSA0250080eR1	A	25	80	210	1	25	1.25	5
239	TSA(C)0250100eR7.05	A & C	25	100	30	7.05	3.55	0.14	0.71
240	TSA0250100eR3.34	A	25	100	60	3.34	7.49	0.30	1.5
241	TSA0250100eR2.1	A	25	100	90	2.1	11.9	0.48	2.38
242	TSA0250100eR1.49	A	25	100	120	1.49	16.78	0.67	3.36
243	TSA0250100eR1.12	A	25	100	150	1.12	22.32	0.89	4.46
244	TSA0250100eR0.941	A	25	100	180	0.941	26.57	1.06	5.31
245	TSA0250100eR0.791	A	25	100	210	0.791	31.61	1.26	6.32
246	TSA(C)0320032eR18.7	A & C	32	32	30	18.7	1.34	0.13	0.27
247	TSA(C)0320032eR8.38	A & C	32	32	60	8.38	2.98	0.29	0.6
248	TSA(C)0320032eR5.3	A & C	32	32	90	5.3	4.72	0.46	0.94
249	TSA(C)0320032eR3.75	A & C	32	32	120	3.75	6.67	0.65	1.33
250	TSA0320032eR2.97	A	32	32	150	2.97	8.42	0.82	1.68
251	TSA0320032eR2.49	A	32	32	180	2.49	10.04	0.98	2.01
252	TSA0320032eR2.1	A	32	32	210	2.1	11.9	1.16	2.38
253	TSA(C)0320040eR14.9	A & C	32	40	30	14.9	1.68	0.13	0.34
254	TSA(C)0320040eR7.05	A & C	32	40	60	7.05	3.55	0.28	0.71
255	TSA(C)0320040eR4.21	A & C	32	40	90	4.21	5.94	0.46	1.19
256	TSA(C)0320040eR3.15	A & C	32	40	120	3.15	7.94	0.62	1.59
257	TSA0320040eR2.35	A	32	40	150	2.35	10.64	0.83	2.13
258	TSA0320040eR1.98	A	32	40	180	1.98	12.63	0.99	2.53
259	TSA0320040eR1.67	A	32	40	210	1.67	14.97	1.17	2.99
260	TSA(C)0320050eR11.9	A & C	32	50	30	11.9	2.1	0.13	0.42
261	TSA(C)0320050eR5.61	A & C	32	50	60	5.61	4.46	0.28	0.89
262	TSA(C)0320050eR3.34	A & C	32	50	90	3.34	7.49	0.47	1.5
263	TSA0320050eR2.49	A	32	50	120	2.49	10.04	0.63	2.01
264	TSA0320050eR1.98	A	32	50	150	1.98	12.63	0.79	2.53
265	TSA0320050eR1.58	A	32	50	180	1.58	15.82	0.99	3.16
266	TSA0320050eR1.33	A	32	50	210	1.33	18.8	1.18	3.76
267	TSA(C)0320063eR9.41	A & C	32	63	30	9.41	2.66	0.13	0.53
268	TSA(C)0320063eR4.46	A & C	32	63	60	4.46	5.61	0.28	1.12
269	TSA0320063eR2.64	A	32	63	90				



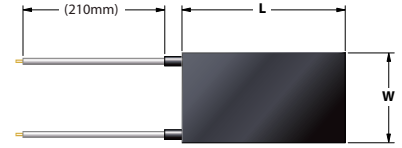
# STANDARD | Rectangular 5V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt Density (W/cm <sup>2</sup> )	Current (A)
293	TSA0320125eR0.629	A	32	125	180	0.629	39.75	0.99	7.95
294	TSA0320125eR0.53	A	32	125	210	0.53	47.17	1.18	9.43
295	TSA(C)0400040eR11.9	A & C	40	40	30	11.9	2.1	0.13	0.42
296	TSA(C)0400040eR5.61	A & C	40	40	60	5.61	4.46	0.28	0.89
297	TSA(C)0400040eR3.54	A & C	40	40	90	3.54	7.06	0.44	1.41
298	TSA0400040eR2.64	A	40	40	120	2.64	9.47	0.59	1.89
299	TSA0400040eR1.98	A	40	40	150	1.98	12.63	0.79	2.53
300	TSA0400040eR1.67	A	40	40	180	1.67	14.97	0.94	2.99
301	TSA0400040eR1.41	A	40	40	210	1.41	17.73	1.11	3.55
302	TSA(C)0400050eR9.41	A & C	40	50	30	9.41	2.66	0.13	0.53
303	TSA(C)0400050eR4.72	A & C	40	50	60	4.72	5.3	0.27	1.06
304	TSA0400050eR2.8	A	40	50	90	2.8	8.93	0.45	1.79
305	TSA0400050eR2.1	A	40	50	120	2.1	11.9	0.60	2.38
306	TSA0400050eR1.58	A	40	50	150	1.58	15.82	0.79	3.16
307	TSA0400050eR1.33	A	40	50	180	1.33	18.8	0.94	3.76
308	TSA0400050eR1.12	A	40	50	210	1.12	22.32	1.12	4.46
309	TSA(C)0400063eR3.91	A & C	40	63	30	3.91	3.16	0.13	0.63
310	TSA(C)0400063eR3.75	A & C	40	63	60	3.75	6.67	0.26	1.33
311	TSA0400063eR2.35	A	40	63	90	2.35	10.64	0.42	2.13
312	TSA0400063eR1.67	A	40	63	120	1.67	14.97	0.59	2.99
313	TSA0400063eR1.26	A	40	63	150	1.26	19.84	0.79	3.97
314	TSA0400063eR1.06	A	40	63	180	1.06	23.58	0.94	4.72
315	TSA0400063eR0.888	A	40	63	210	0.888	28.15	1.12	5.63
316	TSA(C)0400080eR5.94	A & C	40	80	30	5.94	4.21	0.13	0.84
317	TSA0400080eR2.8	A	40	80	60	2.8	8.93	0.28	1.79
318	TSA0400080eR1.77	A	40	80	90	1.77	14.12	0.44	2.82
319	TSA0400080eR1.26	A	40	80	120	1.26	19.84	0.62	3.97
320	TSA0400080eR1	A	40	80	150	1	25	0.78	5
321	TSA0400080eR0.838	A	40	80	180	0.838	29.83	0.93	5.97
322	TSA0400080eR0.705	A	40	80	210	0.705	35.46	1.11	7.09
323	TSA(C)0400100eR4.72	A & C	40	100	30	4.72	5.3	0.13	1.06
324	TSA0400100eR2.35	A	40	100	60	2.35	10.64	0.27	2.13
325	TSA0400100eR1.41	A	40	100	90	1.41	17.73	0.44	3.55
326	TSA0400100eR1.06	A	40	100	120	1.06	23.58	0.59	4.72
327	TSA0400100eR0.791	A	40	100	150	0.791	31.61	0.79	6.32
328	TSA0400100eR0.666	A	40	100	180	0.666	37.54	0.94	7.51
329	TSA0400100eR0.561	A	40	100	210	0.561	44.56	1.11	8.91
330	TSA(C)0400125eR3.97	A & C	40	125	30	3.97	6.3	0.13	1.26
331	TSA0400125eR1.87	A	40	125	60	1.87	13.37	0.27	2.67
332	TSA0400125eR1.12	A	40	125	90	1.12	22.32	0.45	4.46
333	TSA0400125eR0.838	A	40	125	120	0.838	29.83	0.60	5.97
334	TSA0400125eR0.629	A	40	125	150	0.629	39.75	0.80	7.95
335	TSA0400125eR0.53	A	40	125	180	0.53	47.17	0.94	9.43
336	TSA0400125eR0.446	A	40	125	210	0.446	56.05	1.12	11.21
337	TSA0400160eR2.97	A	40	160	30	2.97	8.42	0.13	1.68
338	TSA0400160eR1.41	A	40	160	60	1.41	17.73	0.28	3.55
339	TSA0400160eR0.888	A	40	160	90	0.888	28.15	0.44	5.63
340	TSA0400160eR0.629	A	40	160	120	0.629	39.75	0.62	7.95
341	TSA0400160eR0.5	A	40	160	150	0.5	50	0.78	10
342	TSA0400160eR0.421	A	40	160	180	0.421	59.38	0.93	11.88
343	TSA0400160eR0.354	A	40	160	210	0.354	70.62	1.10	14.12
344	TSA(C)0500050eR7.91	A & C	50	50	30	7.91	3.16	0.13	0.63
345	TSA(C)0500050eR3.97	A & C	50	50	60	3.97	6.3	0.25	1.26
346	TSA0500050eR2.49	A	50	50	90	2.49	10.04	0.40	2.01
347	TSA0500050eR1.77	A	50	50	120	1.77	14.12	0.56	2.82
348	TSA0500050eR1.33	A	50	50	150	1.33	18.8	0.75	3.76
349	TSA0500050eR1.12	A	50	50	180	1.12	22.32	0.89	4.46
350	TSA0500050eR0.941	A	50	50	210	0.941	26.57	1.06	5.31
351	TSA(C)0500063eR6.29	A & C	50	63	30	6.29	3.97	0.13	0.79
352	TSA(C)0500063eR3.15	A & C	50	63	60	3.15	7.94	0.25	1.59
353	TSA0500063eR1.98	A	50	63	90	1.98	12.63	0.40	2.53
354	TSA0500063eR1.41	A	50	63	120	1.41	17.73	0.56	3.55
355	TSA0500063eR1.06	A	50	63	150	1.06	23.58	0.75	4.72
356	TSA0500063eR0.888	A	50	63	180	0.888	28.15	0.89	5.63
357	TSA0500063eR0.747	A	50	63	210	0.747	33.47	1.06	6.69
358	TSA(C)0500080eR5	A & C	50	80	30	5	5	0.13	1
359	TSA0500080eR2.49	A	50	80	60	2.49	10.04	0.25	2.01
360	TSA0500080eR1.58	A	50	80	90	1.58	15.82	0.40	3.16
361	TSA0500080eR1.12	A	50	80	120	1.12	22.32	0.56	4.46
362	TSA0500080eR0.838	A	50	80	150	0.838	29.83	0.75	5.97
363	TSA0500080eR0.705	A	50	80	180	0.705	35.46	0.89	7.09
364	TSA0500080eR0.594	A	50	80	210	0.594	42.09	1.05	8.42
365	TSA(C)0500100eR3.97	A & C	50	100	30	3.97	6.3	0.13	1.26

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt Density (W/cm <sup>2</sup> )	Current (A)
366	TSA0500100eR1.98	A	50	100	60	1.98	12.63	0.25	2.53
367	TSA0500100eR1.26	A	50	100	90	1.26	19.84	0.40	3.97
368	TSA0500100eR0.888	A	50	100	120	0.888	28.15	0.56	5.63
369	TSA0500100eR0.666	A	50	100	150	0.666	37.54	0.75	7.51
370	TSA0500100eR0.561	A	50	100	180	0.561	44.56	0.89	8.91
371	TSA0500100eR0.472	A	50	100	210	0.472	52.97	1.06	10.59
372	TSA(C)0500125eR3.15	A & C	50	125	30	3.15	7.94	0.13	1.59
373	TSA0500125eR1.58	A	50	125	60	1.58	15.82	0.25	3.16
374	TSA0500125eR1	A	50	125	90	1	25	0.40	5
375	TSA0500125eR0.705	A	50	125	120	0.705	35.46	0.57	7.09
376	TSA0500125eR0.561	A	50	125	150	0.561	44.56	0.71	8.91
377	TSA0500125eR0.446	A	50	125	180	0.446	56.05	0.90	11.21
378	TSA0500125eR0.375	A	50	125	210	0.375	66.67	1.07	13.33
379	TSA0500160eR2.49	A	50	160	30	2.49	10.04	0.13	2.01
380	TSA0500160eR1.19	A	50	160	60	1.19	21.01	0.26	4.2
381	TSA0500160eR0.791	A	50	160	90	0.791	31.61	0.40	6.32
382	TSA0500160eR0.561	A	50	160	120	0.561	44.56	0.56	8.91
383	TSA0500160eR0.421	A	50	160	150	0.421	59.38	0.74	11.88
384	TSA0500160eR0.354	A	50	160	180	0.354	70.62	0.88	14.12
385	TSA0500200eR1.98	A	50	200	30	1.98	12.63	0.13	2.53
386	TSA0500200eR1	A	50	200	60	1	25	0.25	5
387	TSA0500200eR0.629	A	50	200	90	0.629	39.75	0.40	7.95
388	TSA0500200eR0.446	A	50	200	120	0.446	56.05	0.56	11.21
389	TSA0500200eR0.334	A	50	200	150	0.334	74.85	0.75	14.97
390	TSA(C)0630063eR5.3	A & C	63	63	30	5.3	4.72	0.12	0.94
391	TSA0630063eR2.64	A	63	63	60	2.64	9.47	0.24	1.89
392	TSA0630063eR1.67	A	63	63	90	1.67	14.97	0.38	2.99
393	TSA0630063eR1.19	A	63	63	120	1.19	21.01	0.53	4.2
394	TSA0630063eR0.888	A	63	63	150	0.888	28.15	0.71	5.63
395	TSA0630063eR0.747	A	63	63	180	0.747	33.47	0.84	6.69
396	TSA0630063eR0.629	A	63	63	210	0.629	39.75	1.00	7.95
397	TSA(C)0630080eR4.21	A & C	63	80	30	4.21	5.94	0.12	1.19
398	TSA0630080eR2.1	A	63	80	60	2.1	11.9	0.24	2.38
399	TSA0630080eR1.33	A	63	80	90	1.33	18.8	0.37	3.76
400	TSA0630080eR0.941	A	63	80	120	0.941	26.57	0.53	5.31
401	TSA0630080eR0.705	A	63	80	150	0.705	35.46	0.70	7.09
402	TSA0630080eR0.594	A	63	80	180	0.594	42.09	0.84	8.42
403	TSA0630080eR0.5	A	63	80	210	0.5	50	0.99	10
404	TSA(C)0630100eR3.34	A & C	63	100	30	3.34	7.49	0.12	1.5
405	TSA0630100eR1.67	A	63	100	60	1.67	14.97	0.24	2.99
406	TSA0630100eR1.06	A	63	100	90	1.06	23.58	0.37	4.72
407	TSA0630100eR0.747	A	63	100	120	0.747	33.47	0.53	6.69
408	TSA0630100eR0.561	A	63	100	150	0.561	44.56	0.71	8.91
409	TSA0630100eR0.472	A	63	100	180	0.472	52.97	0.84	10.59
410	TSA0630100eR0.397	A	63	100	210	0.397	62.97	1.00	12.59
411	TSA0630125eR2.8	A	63	125	30	2.8	8.93	0.11	1.79
412	TSA0630125eR1.33	A	63	125	60	1.33	18.8	0.24	3.76
413	TSA0630125eR0.838	A	63	125	90	0.838	29.83	0.38	5.97
414	TSA0630125eR0.594	A	63	125	120	0.594	42.09	0.53	8.42
415	TSA0630125eR0.472	A	63	125	150	0.472	52.97	0.67	10.59
416	TSA0630125eR0.375	A	63</						

# STANDARD | Rectangular 5V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA0800100eR0.629	A	80	100	120	0.629	39.75	0.50	7.95
440	TSA0800100eR0.5	A	80	100	150	0.5	50	0.63	10
441	TSA0800100eR0.397	A	80	100	180	0.397	62.97	0.79	12.59
442	TSA0800100eR0.334	A	80	100	210	0.334	74.85	0.94	14.97
443	TSA0800125eR2.35	A	80	125	30	2.35	10.64	0.11	2.13
444	TSA0800125eR1.19	A	80	125	60	1.19	21.01	0.21	4.2
445	TSA0800125eR0.747	A	80	125	90	0.747	33.47	0.33	6.69
446	TSA0800125eR0.5	A	80	125	120	0.5	50	0.50	10
447	TSA0800125eR0.397	A	80	125	150	0.397	62.97	0.63	12.59
448	TSA0800160eR1.87	A	80	160	30	1.87	13.37	0.10	2.67
449	TSA0800160eR0.888	A	80	160	60	0.888	28.15	0.22	5.63
450	TSA0800160eR0.561	A	80	160	90	0.561	44.56	0.35	8.91
451	TSA0800160eR0.397	A	80	160	120	0.397	62.97	0.49	12.59
452	TSA0800200eR1.49	A	80	200	30	1.49	16.78	0.10	3.36
453	TSA0800200eR0.705	A	80	200	60	0.705	35.46	0.22	7.09
454	TSA0800200eR0.446	A	80	200	90	0.446	56.05	0.35	11.21
455	TSA0800250eR1.19	A	80	250	30	1.19	21.01	0.11	4.2
456	TSA0800250eR0.594	A	80	250	60	0.594	42.09	0.21	8.42
457	TSA0800250eR0.375	A	80	250	90	0.375	66.67	0.33	13.33
458	TSA0800300eR1	A	80	300	30	1	25	0.10	5
459	TSA0800300eR0.472	A	80	300	60	0.472	52.97	0.22	10.59
460	TSA1000100eR2.64	A	100	100	30	2.64	9.47	0.09	1.89
461	TSA1000100eR1.33	A	100	100	60	1.33	18.8	0.19	3.76
462	TSA1000100eR0.838	A	100	100	90	0.838	29.83	0.30	5.97
463	TSA1000100eR0.561	A	100	100	120	0.561	44.56	0.45	8.91
464	TSA1000100eR0.446	A	100	100	150	0.446	56.05	0.56	11.21
465	TSA1000100eR0.354	A	100	100	180	0.354	70.62	0.71	14.12
466	TSA1000125eR2.1	A	100	125	30	2.1	11.9	0.10	2.38
467	TSA1000125eR1.06	A	100	125	60	1.06	23.58	0.19	4.72
468	TSA1000125eR0.666	A	100	125	90	0.666	37.54	0.30	7.51
469	TSA1000125eR0.446	A	100	125	120	0.446	56.05	0.45	11.21
470	TSA1000125eR0.354	A	100	125	150	0.354	70.62	0.56	14.12
471	TSA1000160eR1.67	A	100	160	30	1.67	14.97	0.09	2.99
472	TSA1000160eR0.838	A	100	160	60	0.838	29.83	0.19	5.97
473	TSA1000160eR0.53	A	100	160	90	0.53	47.17	0.29	9.43
474	TSA1000160eR0.354	A	100	160	120	0.354	70.62	0.44	14.12
475	TSA1000200eR1.33	A	100	200	30	1.33	18.8	0.09	3.76
476	TSA1000200eR0.666	A	100	200	60	0.666	37.54	0.19	7.51

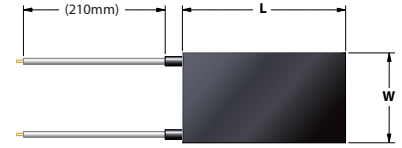
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
477	TSA1000200eR0.421	A	100	200	90	0.421	59.38	0.30	11.88
478	TSA1000250eR1.06	A	100	250	30	1.06	23.58	0.09	4.72
479	TSA1000250eR0.53	A	100	250	60	0.53	47.17	0.19	9.43
480	TSA1000250eR0.334	A	100	250	90	0.334	74.85	0.30	14.97
481	TSA1000300eR0.888	A	100	300	30	0.888	28.15	0.09	5.63
482	TSA1000300eR0.446	A	100	300	60	0.446	56.05	0.19	11.21
483	TSA1250125eR1.87	A	125	125	30	1.87	13.37	0.09	2.67
484	TSA1250125eR0.941	A	125	125	60	0.941	26.57	0.17	5.31
485	TSA1250125eR0.594	A	125	125	90	0.594	42.09	0.27	8.42
486	TSA1250125eR0.397	A	125	125	120	0.397	62.97	0.40	12.59
487	TSA1250160eR1.49	A	125	160	30	1.49	16.78	0.08	3.36
488	TSA1250160eR0.705	A	125	160	60	0.705	35.46	0.18	7.09
489	TSA1250160eR0.446	A	125	160	90	0.446	56.05	0.28	11.21
490	TSA1250200eR1.19	A	125	200	30	1.19	21.01	0.08	4.2
491	TSA1250200eR0.594	A	125	200	60	0.594	42.09	0.17	8.42
492	TSA1250200eR0.354	A	125	200	90	0.354	70.62	0.28	14.12
493	TSA1250250eR0.941	A	125	250	30	0.941	26.57	0.09	5.31
494	TSA1250250eR0.472	A	125	250	60	0.472	52.97	0.17	10.59
495	TSA1250300eR0.791	A	125	300	30	0.791	31.61	0.08	6.32
496	TSA1250300eR0.397	A	125	300	60	0.397	62.97	0.17	12.59
497	TSA1600160eR1.26	A	160	160	30	1.26	19.84	0.08	3.97
498	TSA1600160eR0.629	A	160	160	60	0.629	39.75	0.16	7.95
499	TSA1600160eR0.397	A	160	160	90	0.397	62.97	0.25	12.59
500	TSA1600200eR1	A	160	200	30	1	25	0.08	5
501	TSA1600200eR0.5	A	160	200	60	0.5	50	0.16	10
502	TSA1600250eR0.791	A	160	250	30	0.791	31.61	0.08	6.32
503	TSA1600250eR0.397	A	160	250	60	0.397	62.97	0.16	12.59
504	TSA1600300eR0.666	A	160	300	30	0.666	37.54	0.08	7.51
505	TSA1600300eR0.334	A	160	300	60	0.334	74.85	0.16	14.97
506	TSA2000200eR0.888	A	200	200	30	0.888	28.15	0.07	5.63
507	TSA2000200eR0.446	A	200	200	60	0.446	56.05	0.14	11.21
508	TSA2000250eR0.705	A	200	250	30	0.705	35.46	0.07	7.09
509	TSA2000250eR0.354	A	200	250	60	0.354	70.62	0.14	14.12
510	TSA2000300eR0.594	A	200	300	30	0.594	42.09	0.07	8.42
511	TSA2500250eR0.629	A	250	250	30	0.629	39.75	0.06	7.95
512	TSA2500300eR0.5	A	250	300	30	0.5	50	0.07	10
513	TSA3000300eR0.446	A	300	300	30	0.446	56.05	0.06	11.21

Dimensions and specifications are subject to change without notice.

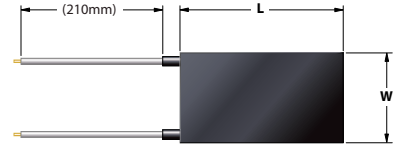
## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape	: RECTANGULAR
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Length(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Width(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

# STANDARD | Rectangular 9V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010FR315	C	10	10	30	315	0.26	0.26	0.03	74	TSA(C)0130025FR23.5	A & C	13	25	120	23.5	3.45	1.06	0.38
2	TSC0100010FR149	C	10	10	60	149	0.54	0.54	0.06	75	TSA(C)0130025FR17.7	A & C	13	25	150	17.7	4.58	1.41	0.51
3	TSC0100010FR94.1	C	10	10	90	94.1	0.86	0.86	0.1	76	TSA(C)0130025FR14.1	A & C	13	25	180	14.1	5.74	1.77	0.64
4	TSC0100010FR66.6	C	10	10	120	66.6	1.22	1.22	0.14	77	TSA0130025FR11.9	A	13	25	210	11.9	6.81	2.10	0.76
5	TSA(C)0100010FR50	A & C	10	10	150	50	1.62	1.62	0.18	78	TSA(C)0130032FR88.8	A & C	13	32	30	88.8	0.91	0.22	0.1
6	TSA(C)0100010FR39.7	A & C	10	10	180	39.7	2.04	2.04	0.23	79	TSA(C)0130032FR42.1	A & C	13	32	60	42.1	1.92	0.46	0.21
7	TSA(C)0100010FR33.4	A & C	10	10	210	33.4	2.43	2.43	0.27	80	TSA(C)0130032FR26.4	A & C	13	32	90	26.4	3.07	0.74	0.34
8	TSC0100013FR249	C	10	13	30	249	0.33	0.25	0.04	81	TSA(C)0130032FR18.7	A & C	13	32	120	18.7	4.33	1.04	0.48
9	TSC0100013FR112	C	10	13	60	112	0.72	0.55	0.08	82	TSA(C)0130032FR14.1	A & C	13	32	150	14.1	5.74	1.38	0.64
10	TSA(C)0100013FR74.7	A & C	10	13	90	74.7	1.08	0.83	0.12	83	TSA0130032FR11.2	A	13	32	180	11.2	7.23	1.74	0.8
11	TSA(C)0100013FR53	A & C	10	13	120	53	1.53	1.18	0.17	84	TSA0130032FR9.41	A	13	32	210	9.41	8.61	2.07	0.96
12	TSA(C)0100013FR39.7	A & C	10	13	150	39.7	2.04	1.57	0.23	85	TSA(C)0130040FR70.5	A & C	13	40	30	70.5	1.15	0.22	0.13
13	TSA(C)0100013FR31.5	A & C	10	13	180	31.5	2.57	1.98	0.29	86	TSA(C)0130040FR33.4	A & C	13	40	60	33.4	2.43	0.47	0.27
14	TSA(C)0100013FR24.9	A & C	10	13	210	24.9	3.25	2.50	0.36	87	TSA(C)0130040FR21	A & C	13	40	90	21	3.86	0.74	0.43
15	TSC0100016FR198	C	10	16	30	198	0.41	0.26	0.05	88	TSA(C)0130040FR14.9	A & C	13	40	120	14.9	5.44	1.05	0.6
16	TSA(C)0100016FR94.1	A & C	10	16	60	94.1	0.86	0.54	0.1	89	TSA0130040FR11.2	A	13	40	150	11.2	7.23	1.39	0.8
17	TSA(C)0100016FR59.4	A & C	10	16	90	59.4	1.36	0.85	0.15	90	TSA0130040FR8.88	A	13	40	180	8.88	9.12	1.75	1.01
18	TSA(C)0100016FR42.1	A & C	10	16	120	42.1	1.92	1.20	0.21	91	TSA0130040FR7.47	A	13	40	210	7.47	10.84	2.08	1.2
19	TSA(C)0100016FR31.5	A & C	10	16	150	31.5	2.57	1.61	0.29	92	TSA(C)0130050FR56.1	A & C	13	50	30	56.1	1.44	0.22	0.16
20	TSA(C)0100016FR24.9	A & C	10	16	180	24.9	3.25	2.03	0.36	93	TSA(C)0130050FR26.4	A & C	13	50	60	26.4	3.07	0.47	0.34
21	TSA(C)0100016FR21	A & C	10	16	210	21	3.86	2.41	0.43	94	TSA(C)0130050FR16.7	A & C	13	50	90	16.7	4.85	0.75	0.54
22	TSC0100020FR158	C	10	20	30	158	0.51	0.26	0.06	95	TSA0130050FR11.9	A	13	50	120	11.9	6.81	1.05	0.76
23	TSA(C)0100020FR74.7	A & C	10	20	60	74.7	1.08	0.54	0.12	96	TSA0130050FR8.88	A	13	50	150	8.88	9.12	1.40	1.01
24	TSA(C)0100020FR47.2	A & C	10	20	90	47.2	1.72	0.86	0.19	97	TSA0130050FR7.05	A	13	50	180	7.05	11.49	1.77	1.28
25	TSA(C)0100020FR33.4	A & C	10	20	120	33.4	2.43	1.22	0.27	98	TSA0130050FR5.94	A	13	50	210	5.94	13.64	2.10	1.52
26	TSA(C)0100020FR24.9	A & C	10	20	150	24.9	3.25	1.63	0.36	99	TSC0160016FR167	C	16	16	30	167	0.49	0.19	0.05
27	TSA(C)0100020FR19.8	A & C	10	20	180	19.8	4.09	2.05	0.45	100	TSA(C)0160016FR79.1	A & C	16	16	60	79.1	1.02	0.40	0.11
28	TSA(C)0100020FR16.7	A & C	10	20	210	16.7	4.85	2.43	0.54	101	TSA(C)0160016FR50	A & C	16	16	90	50	1.62	0.63	0.18
29	TSA(C)0100025FR126	A & C	10	25	30	126	0.64	0.26	0.07	102	TSA(C)0160016FR35.4	A & C	16	16	120	35.4	2.29	0.89	0.25
30	TSA(C)0100025FR59.4	A & C	10	25	60	59.4	1.36	0.54	0.15	103	TSA(C)0160016FR26.4	A & C	16	16	150	26.4	3.07	1.20	0.34
31	TSA(C)0100025FR37.5	A & C	10	25	90	37.5	2.16	0.86	0.24	104	TSA(C)0160016FR21	A & C	16	16	180	21	3.86	1.51	0.43
32	TSA(C)0100025FR26.4	A & C	10	25	120	26.4	3.07	1.23	0.34	105	TSA(C)0160016FR17.7	A & C	16	16	210	17.7	4.58	1.79	0.51
33	TSA(C)0100025FR19.8	A & C	10	25	150	19.8	4.09	1.64	0.45	106	TSA(C)0160020FR133	A & C	16	20	30	133	0.61	0.19	0.07
34	TSA0100025FR15.8	A	10	25	180	15.8	5.13	2.05	0.57	107	TSA(C)0160020FR62.9	A & C	16	20	60	62.9	1.29	0.40	0.14
35	TSA0100025FR13.3	A	10	25	210	13.3	6.09	2.44	0.68	108	TSA(C)0160020FR39.7	A & C	16	20	90	39.7	2.04	0.64	0.23
36	TSA(C)0100032FR100	A & C	10	32	30	100	0.81	0.25	0.09	109	TSA(C)0160020FR28	A & C	16	20	120	28	2.89	0.90	0.32
37	TSA(C)0100032FR47.2	A & C	10	32	60	47.2	1.72	0.54	0.19	110	TSA(C)0160020FR21	A & C	16	20	150	21	3.86	1.21	0.43
38	TSA(C)0100032FR29.7	A & C	10	32	90	29.7	2.73	0.85	0.3	111	TSA(C)0160020FR16.7	A & C	16	20	180	16.7	4.85	1.52	0.54
39	TSA(C)0100032FR21	A & C	10	32	120	21	3.86	1.21	0.43	112	TSA(C)0160020FR14.1	A & C	16	20	210	14.1	5.74	1.79	0.64
40	TSA0100032FR15.8	A	10	32	150	15.8	5.13	1.60	0.57	113	TSA(C)0160025FR106	A & C	16	25	30	106	0.76	0.19	0.08
41	TSA0100032FR12.6	A	10	32	180	12.6	6.43	2.01	0.71	114	TSA(C)0160025FR50	A & C	16	25	60	50	1.62	0.41	0.18
42	TSA0100032FR10.6	A	10	32	210	10.6	7.64	2.39	0.85	115	TSA(C)0160025FR31.5	A & C	16	25	90	31.5	2.57	0.64	0.29
43	TSA(C)0100040FR79.1	A & C	10	40	30	79.1	1.02	0.26	0.11	116	TSA(C)0160025FR22.2	A & C	16	25	120	22.2	3.65	0.91	0.41
44	TSA(C)0100040FR37.5	A & C	10	40	60	37.5	2.16	0.54	0.24	117	TSA(C)0160025FR16.7	A & C	16	25	150	16.7	4.85	1.21	0.54
45	TSA(C)0100040FR23.5	A & C	10	40	90	23.5	3.45	0.86	0.38	118	TSA(C)0160025FR14.1	A & C	16	25	180	14.1	5.74	1.44	0.64
46	TSA(C)0100040FR16.7	A & C	10	40	120	16.7	4.85	1.21	0.54	119	TSA(C)0160025FR11.2	A & C	16	25	210	11.2	7.23	1.81	0.8
47	TSA0100040FR12.6	A	10	40	150	12.6	6.43	1.61	0.71	120	TSA(C)0160032FR83.8	A & C	16	32	30	83.8	0.97	0.19	0.11
48	TSA0100040FR10	A	10	40	180	10	8.1	2.03	0.9	121	TSA(C)0160032FR39.7	A & C	16	32	60	39.7	2.04	0.40	0.23
49	TSA0100040FR8.38	A	10	40	210	8.38	9.67	2.42	1.07	122	TSA(C)0160032FR24.9	A & C	16	32	90	24.9	3.25	0.63	0.36
50	TSC0130013FR210	C	13	13	30	210	0.39	0.23	0.04	123	TSA(C)0160032FR17.7	A & C	16	32	120	17.7	4.58	0.89	0.51
51	TSA(C)0130013FR100	A & C	13	13	60	100	0.81	0.48	0.09	124	TSA(C)0160032FR13.3	A & C	16	32	150	13.3	6.09	1.19	0.68
52	TSA(C)0130013FR62.9	A & C	13	13	90	62.9	1.29	0.76	0.14	125	TSA0160032FR10.6	A	16	32	180	10.6	7.64	1.49	0.85
53	TSA(C)0130013FR44.6	A & C	13	13	120	44.6	1.82	1.08	0.2	126	TSA0160032FR8.88	A	16	32	210	8.88	9.12	1.78	1.01
54	TSA(C)0130013FR35.4	A & C	13	13	150	35.4	2.29	1.36	0.25	127	TSA(C)0160040FR66.6	A & C	16	40	30	66.6	1.22	0.19	0.14
55	TSA(C)0130013FR28	A & C	13	13	180	28	2.89	1.71	0.32	128	TSA(C)0160040FR31.5	A & C	16	40	60	31.5	2.57	0.40	0.29
56	TSA(C)0130013FR22.2	A & C	13	13	210	22.2	3.65	2.16	0.41	129	TSA(C)0160040FR19.8	A & C	16	40	90	19.8	4.09	0.64	0.45
57	TSC0130016FR177	C	13	16	30	177	0.46	0.22	0.05	130	TSA(C)0160040FR14.1	A & C	16	40	120	14.1	5.74	0.90	0.64
58	TSA(C)0130016FR83.8	A & C	13	16	60	83.8	0.97	0.47	0.11	131	TSA0160040FR10.6	A	16	40	150	10.6	7.64	1.19	0.85
59	TSA(C)0130016FR53	A & C	13	16	90	53	1.53	0.74	0.17	132	TSA0160040FR8.38	A	16	40	180	8.38	9.67	1.51	1.07
60	TSA(C)0130016FR37.5	A & C	13	16	120	37.5	2.16	1.04	0.24	133	TSA0160040FR7.05	A	16	40	210	7.05	11.49	1.80	1.28
61	TSA(C)0130016FR28	A & C	13	16	150	28	2.89	1.39	0.32	134	TSA(C)0160050FR53	A & C	16	50	30	53	1.53	0.19	0.17
62	TSA(C)0130016FR22.2	A & C	13	16	180	22.2	3.65	1.75	0.41	135	TSA(C)0160050FR24.9	A & C	16	50	60	24.9	3.25	0.41	0.36
63	TSA(C)0130016FR18.7	A & C	13	16	210	18.7	4.33	2.08	0.48	136	TSA(C)0160050FR15.8	A & C	16	50	90	15.8	5.13	0.64	0.57
64	TSA(C)0130020FR141	A & C	13	20	30	141	0.57	0.22	0.06	137	TSA(C)0160050FR11.2	A & C	16	50	120	11.2	7.23	0.90	0.8

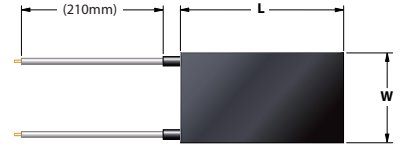


# STANDARD | Rectangular 9V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA0160063FR4.46	A	16	63	210	4.46	18.16	1.80	2.02	220	TSA(C)0250050FR13.3	A & C	25	50	90	13.3	6.09	0.49	0.68
148	TSA(C)0200020FR133	A & C	20	20	30	133	0.61	0.15	0.07	221	TSA(C)0250050FR9.41	A & C	25	50	120	9.41	8.61	0.69	0.96
149	TSA(C)0200020FR66.6	A & C	20	20	60	66.6	1.22	0.31	0.14	222	TSA(C)0250050FR7.47	A & C	25	50	150	7.47	10.84	0.87	1.2
150	TSA(C)0200020FR39.7	A & C	20	20	90	39.7	2.04	0.51	0.23	223	TSA0250050FR5.94	A	25	50	180	5.94	13.64	1.09	1.52
151	TSA(C)0200020FR28	A & C	20	20	120	28	2.89	0.72	0.32	224	TSA0250050FR5	A	25	50	210	5	16.2	1.30	1.8
152	TSA(C)0200020FR22.2	A & C	20	20	150	22.2	3.65	0.91	0.41	225	TSA(C)0250063FR35.4	A & C	25	63	30	35.4	2.29	0.15	0.25
153	TSA(C)0200020FR17.7	A & C	20	20	180	17.7	4.58	1.15	0.51	226	TSA(C)0250063FR16.7	A & C	25	63	60	16.7	4.85	0.31	0.54
154	TSA(C)0200020FR14.9	A & C	20	20	210	14.9	5.44	1.36	0.6	227	TSA(C)0250063FR10.6	A & C	25	63	90	10.6	7.64	0.49	0.85
155	TSA(C)0200025FR106	A & C	20	25	30	106	0.76	0.15	0.08	228	TSA(C)0250063FR7.47	A & C	25	63	120	7.47	10.84	0.69	1.2
156	TSA(C)0200025FR53	A & C	20	25	60	53	1.53	0.31	0.17	229	TSA0250063FR5.94	A	25	63	150	5.94	13.64	0.87	1.52
157	TSA(C)0200025FR31.5	A & C	20	25	90	31.5	2.57	0.51	0.29	230	TSA0250063FR4.72	A	25	63	180	4.72	17.16	1.09	1.91
158	TSA(C)0200025FR23.5	A & C	20	25	120	23.5	3.45	0.69	0.38	231	TSA(C)0250080FR28	A & C	25	80	30	28	2.89	0.14	0.32
159	TSA(C)0200025FR17.7	A & C	20	25	150	17.7	4.58	0.92	0.51	232	TSA(C)0250080FR13.3	A & C	25	80	60	13.3	6.09	0.30	0.68
160	TSA(C)0200025FR14.1	A & C	20	25	180	14.1	5.74	1.15	0.64	233	TSA0250063FR3.97	A	25	63	210	3.97	20.4	1.30	2.27
161	TSA(C)0200025FR11.9	A & C	20	25	210	11.9	6.81	1.36	0.76	234	TSA(C)0250080FR8.38	A & C	25	80	90	8.38	9.67	0.48	1.07
162	TSA(C)0200032FR83.8	A & C	20	32	30	83.8	0.97	0.15	0.11	235	TSA0250080FR5.94	A	25	80	120	5.94	13.64	0.68	1.52
163	TSA(C)0200032FR39.7	A & C	20	32	60	39.7	2.04	0.32	0.23	236	TSA0250080FR4.72	A	25	80	150	4.72	17.16	0.86	1.91
164	TSA(C)0200032FR24.9	A & C	20	32	90	24.9	3.25	0.51	0.36	237	TSA0250080FR3.75	A	25	80	180	3.75	21.6	1.08	2.4
165	TSA(C)0200032FR17.7	A & C	20	32	120	17.7	4.58	0.72	0.51	238	TSA0250080FR3.15	A	25	80	210	3.15	25.71	1.29	2.86
166	TSA(C)0200032FR14.1	A & C	20	32	150	14.1	5.74	0.90	0.64	239	TSA(C)0250100FR22.2	A & C	25	100	30	22.2	3.65	0.15	0.41
167	TSA(C)0200032FR11.2	A & C	20	32	180	11.2	7.23	1.13	0.8	240	TSA(C)0250100FR10.6	A & C	25	100	60	10.6	7.64	0.31	0.85
168	TSA(C)0200032FR9.41	A & C	20	32	210	9.41	8.61	1.35	0.96	241	TSA(C)0250100FR6.66	A & C	25	100	90	6.66	12.16	0.49	1.35
169	TSA(C)0200040FR66.6	A & C	20	40	30	66.6	1.22	0.15	0.14	242	TSA0250100FR4.72	A	25	100	120	4.72	17.16	0.69	1.91
170	TSA(C)0200040FR33.4	A & C	20	40	60	33.4	2.43	0.30	0.27	243	TSA0250100FR3.75	A	25	100	150	3.75	21.6	0.86	2.4
171	TSA(C)0200040FR19.8	A & C	20	40	90	19.8	4.09	0.51	0.45	244	TSA0250100FR2.97	A	25	100	180	2.97	27.27	1.09	3.03
172	TSA(C)0200040FR14.1	A & C	20	40	120	14.1	5.74	0.72	0.64	245	TSA0250100FR2.49	A	25	100	210	2.49	32.53	1.30	3.61
173	TSA(C)0200040FR11.2	A & C	20	40	150	11.2	7.23	0.90	0.8	246	TSA(C)0320032FR59.4	A & C	32	32	30	59.4	1.36	0.13	0.15
174	TSA(C)0200040FR8.88	A & C	20	40	180	8.88	9.12	1.14	1.01	247	TSA(C)0320032FR28	A & C	32	32	60	28	2.89	0.28	0.32
175	TSA0200040FR7.47	A	20	40	210	7.47	10.84	1.36	1.2	248	TSA(C)0320032FR17.7	A & C	32	32	90	17.7	4.58	0.45	0.51
176	TSA(C)0200050FR53	A & C	20	50	30	53	1.53	0.15	0.17	249	TSA(C)0320032FR12.6	A & C	32	32	120	12.6	6.43	0.63	0.71
177	TSA(C)0200050FR26.4	A & C	20	50	60	26.4	3.07	0.31	0.34	250	TSA(C)0320032FR10	A & C	32	32	150	10	8.1	0.79	0.9
178	TSA(C)0200050FR15.8	A & C	20	50	90	15.8	5.13	0.51	0.57	251	TSA(C)0320032FR7.91	A & C	32	32	180	7.91	10.24	1.00	1.14
179	TSA(C)0200050FR11.2	A & C	20	50	120	11.2	7.23	0.72	0.8	252	TSA(C)0320032FR6.66	A & C	32	32	210	6.66	12.16	1.19	1.35
180	TSA(C)0200050FR8.88	A & C	20	50	150	8.88	9.12	0.91	1.01	253	TSA(C)0320040FR47.2	A & C	32	40	30	47.2	1.72	0.13	0.19
181	TSA0200050FR7.05	A	20	50	180	7.05	11.49	1.15	1.28	254	TSA(C)0320040FR22.2	A & C	32	40	60	22.2	3.65	0.29	0.41
182	TSA0200050FR5.94	A	20	50	210	5.94	13.64	1.36	1.52	255	TSA(C)0320040FR14.1	A & C	32	40	90	14.1	5.74	0.45	0.64
183	TSA(C)0200063FR42.1	A & C	20	63	30	42.1	1.92	0.15	0.21	256	TSA(C)0320040FR10	A & C	32	40	120	10	8.1	0.63	0.9
184	TSA(C)0200063FR21	A & C	20	63	60	21	3.86	0.31	0.43	257	TSA(C)0320040FR7.91	A & C	32	40	150	7.91	10.24	0.80	1.14
185	TSA(C)0200063FR12.6	A & C	20	63	90	12.6	6.43	0.51	0.71	258	TSA(C)0320040FR6.29	A & C	32	40	180	6.29	12.88	1.01	1.43
186	TSA(C)0200063FR8.88	A & C	20	63	120	8.88	9.12	0.72	1.01	259	TSA(C)0320040FR5.3	A & C	32	40	210	5.3	15.28	1.19	1.7
187	TSA0200063FR7.05	A	20	63	150	7.05	11.49	0.91	1.28	260	TSA(C)0320050FR37.5	A & C	32	50	30	37.5	2.16	0.14	0.24
188	TSA0200063FR5.61	A	20	63	180	5.61	14.44	1.15	1.6	261	TSA(C)0320050FR17.7	A & C	32	50	60	17.7	4.58	0.29	0.51
189	TSA0200063FR4.72	A	20	63	210	4.72	17.16	1.36	1.91	262	TSA(C)0320050FR11.2	A & C	32	50	90	11.2	7.23	0.45	0.8
190	TSA(C)0200080FR33.4	A & C	20	80	30	33.4	2.43	0.15	0.27	263	TSA(C)0320050FR7.91	A & C	32	50	120	7.91	10.24	0.64	1.14
191	TSA(C)0200080FR16.7	A & C	20	80	60	16.7	4.85	0.30	0.54	264	TSA(C)0320050FR6.29	A & C	32	50	150	6.29	12.88	0.81	1.43
192	TSA(C)0200080FR10	A & C	20	80	90	10	8.1	0.51	0.9	265	TSA0320050FR5	A	32	50	180	5	16.2	1.01	1.8
193	TSA0200080FR7.05	A	20	80	120	7.05	11.49	0.72	1.28	266	TSA0320050FR4.21	A	32	50	210	4.21	19.24	1.20	2.14
194	TSA0200080FR5.61	A	20	80	150	5.61	14.44	0.90	1.6	267	TSA(C)0320063FR29.7	A & C	32	63	30	29.7	2.73	0.14	0.3
195	TSA0200080FR4.46	A	20	80	180	4.46	18.16	1.14	2.02	268	TSA(C)0320063FR14.1	A & C	32	63	60	14.1	5.74	0.28	0.64
196	TSA0200080FR3.75	A	20	80	210	3.75	21.6	1.35	2.4	269	TSA(C)0320063FR8.88	A & C	32	63	90	8.88	9.12	0.45	1.01
197	TSA(C)0250025FR88.8	A & C	25	25	30	88.8	0.91	0.15	0.1	270	TSA(C)0320063FR6.29	A & C	32	63	120	6.29	12.88	0.64	1.43
198	TSA(C)0250025FR42.1	A & C	25	25	60	42.1	1.92	0.31	0.21	271	TSA0320063FR5	A	32	63	150	5	16.2	0.80	1.8
199	TSA(C)0250025FR26.4	A & C	25	25	90	26.4	3.07	0.49	0.34	272	TSA(C)0320063FR3.97	A	32	63	180	3.97	20.4	1.01	2.27
200	TSA(C)0250025FR18.7	A & C	25	25	120	18.7	4.33	0.69	0.48	273	TSA0320063FR3.34	A	32	63	210	3.34	24.25	1.20	2.69
201	TSA(C)0250025FR14.9	A & C	25	25	150	14.9	5.44	0.87	0.6	274	TSA(C)0320080FR23.5	A & C	32	80	30	23.5	3.45	0.13	0.38
202	TSA(C)0250025FR11.9	A & C	25	25	180	11.9	6.81	1.09	0.76	275	TSA(C)0320080FR11.2	A & C	32	80	60	11.2	7.23	0.28	0.8
203	TSA(C)0250025FR10	A & C	25	25	210	10	8.1	1.30	0.9	276	TSA(C)0320080FR7.05	A & C	32	80	90	7.05	11.49	0.45	1.28
204	TSA(C)0250032FR70.5	A & C	25	32	30	70.5	1.15	0.14	0.13	277	TSA0320080FR5	A	32	80	120	5	16.2	0.63	1.8
205	TSA(C)0250032FR33.4	A & C	25	32	60	33.4	2.43	0.30	0.27	278	TSA0320080FR3.97	A	32	80	150	3.97	20.4	0.80	2.27
206	TSA(C)0250032FR21	A & C	25	32	90	21	3.86	0.48	0.43	279	TSA0320080FR3.15	A	32	80	180	3.15	25.71	1.00	2.86
207	TSA(C)0250032FR14.9	A & C	25	32	120	14.9	5.44	0.68	0.6	280	TSA0320080FR2.64	A	32	80	210	2.64	30.68	1.20	3.41
208	TSA(C)0250032FR11.9	A & C	25	32	150	11.9	6.81	0.85	0.76	281	TSA(C)0320100FR18.7	A & C	32	100	30	18.7	4.33	0.14	0.48
209	TSA(C)0250032FR9.41	A & C	25	32	180	9.41	8.61	1.08	0.96	282	TSA(C)0320100FR8.88	A & C	32	100	60	8.88	9.12	0.29	1.01
210	TSA(C)0250032FR7.91	A & C	25	32															

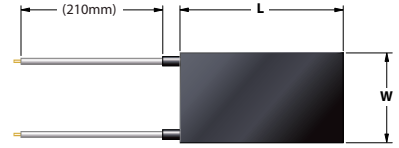


# STANDARD | Rectangular 9V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA0320125fR1.98	A	32	125	180	1.98	40.91	1.02	4.55
294	TSA0320125fR1.67	A	32	125	210	1.67	48.5	1.21	5.39
295	TSA(C)0400040fR39.7	A & C	40	40	30	39.7	2.04	0.13	0.23
296	TSA(C)0400040fR18.7	A & C	40	40	60	18.7	4.33	0.27	0.48
297	TSA(C)0400040fR11.9	A & C	40	40	90	11.9	6.81	0.43	0.76
298	TSA(C)0400040fR8.38	A & C	40	40	120	8.38	9.67	0.60	1.07
299	TSA(C)0400040fR6.66	A & C	40	40	150	6.66	12.16	0.76	1.35
300	TSA(C)0400040fR5.3	A & C	40	40	180	5.3	15.28	0.96	1.7
301	TSA(C)0400040fR4.46	A & C	40	40	210	4.46	18.16	1.14	2.02
302	TSA(C)0400050fR31.5	A & C	40	50	30	31.5	2.57	0.13	0.29
303	TSA(C)0400050fR14.9	A & C	40	50	60	14.9	5.44	0.27	0.6
304	TSA(C)0400050fR9.41	A & C	40	50	90	9.41	8.61	0.43	0.96
305	TSA(C)0400050fR6.66	A & C	40	50	120	6.66	12.16	0.61	1.35
306	TSA(C)0400050fR5.3	A & C	40	50	150	5.3	15.28	0.76	1.7
307	TSA(C)0400050fR4.21	A & C	40	50	180	4.21	19.24	0.96	2.14
308	TSA0400050fR3.54	A	40	50	210	3.54	22.88	1.14	2.54
309	TSA(C)0400063fR24.9	A & C	40	63	30	24.9	3.25	0.13	0.36
310	TSA(C)0400063fR11.9	A & C	40	63	60	11.9	6.81	0.27	0.76
311	TSA(C)0400063fR7.47	A & C	40	63	90	7.47	10.84	0.43	1.2
312	TSA(C)0400063fR5.3	A & C	40	63	120	5.3	15.28	0.61	1.7
313	TSA(C)0400063fR4.21	A & C	40	63	150	4.21	19.24	0.76	2.14
314	TSA0400063fR3.34	A	40	63	180	3.34	24.25	0.96	2.69
315	TSA0400063fR2.8	A	40	63	210	2.8	28.93	1.15	3.21
316	TSA(C)0400080fR19.8	A & C	40	80	30	19.8	4.09	0.13	0.45
317	TSA(C)0400080fR9.41	A & C	40	80	60	9.41	8.61	0.27	0.96
318	TSA(C)0400080fR5.94	A & C	40	80	90	5.94	13.64	0.43	1.52
319	TSA(C)0400080fR4.21	A & C	40	80	120	4.21	19.24	0.60	2.14
320	TSA0400080fR3.34	A	40	80	150	3.34	24.25	0.76	2.69
321	TSA0400080fR2.64	A	40	80	180	2.64	30.68	0.96	3.41
322	TSA0400080fR2.22	A	40	80	210	2.22	36.49	1.14	4.05
323	TSA(C)0400100fR15.8	A & C	40	100	30	15.8	5.13	0.13	0.57
324	TSA(C)0400100fR7.47	A & C	40	100	60	7.47	10.84	0.27	1.2
325	TSA(C)0400100fR4.72	A & C	40	100	90	4.72	17.16	0.43	1.91
326	TSA0400100fR3.34	A	40	100	120	3.34	24.25	0.61	2.69
327	TSA0400100fR2.64	A	40	100	150	2.64	30.68	0.77	3.41
328	TSA0400100fR2.1	A	40	100	180	2.1	38.57	0.96	4.29
329	TSA0400100fR1.77	A	40	100	210	1.77	45.76	1.14	5.08
330	TSA(C)0400125fR12.6	A & C	40	125	30	12.6	6.43	0.13	0.71
331	TSA(C)0400125fR5.94	A & C	40	125	60	5.94	13.64	0.27	1.52
332	TSA0400125fR3.75	A	40	125	90	3.75	21.6	0.43	2.4
333	TSA0400125fR2.64	A	40	125	120	2.64	30.68	0.61	3.41
334	TSA0400125fR2.1	A	40	125	150	2.1	38.57	0.77	4.29
335	TSA0400125fR1.67	A	40	125	180	1.67	48.5	0.97	5.39
336	TSA0400125fR1.41	A	40	125	210	1.41	57.45	1.15	6.38
337	TSA(C)0400160fR10	A & C	40	160	30	10	8.1	0.13	0.9
338	TSA(C)0400160fR4.72	A & C	40	160	60	4.72	17.16	0.27	1.91
339	TSA0400160fR2.97	A	40	160	90	2.97	27.27	0.43	3.03
340	TSA0400160fR2.1	A	40	160	120	2.1	38.57	0.60	4.29
341	TSA0400160fR1.67	A	40	160	150	1.67	48.5	0.76	5.39
342	TSA0400160fR1.33	A	40	160	180	1.33	60.9	0.95	6.77
343	TSA0400160fR1.12	A	40	160	210	1.12	72.32	1.13	8.04
344	TSA(C)0500050fR26.4	A & C	50	50	30	26.4	3.07	0.12	0.34
345	TSA(C)0500050fR12.6	A & C	50	50	60	12.6	6.43	0.26	0.71
346	TSA(C)0500050fR7.91	A & C	50	50	90	7.91	10.24	0.41	1.14
347	TSA(C)0500050fR5.61	A & C	50	50	120	5.61	14.44	0.58	1.6
348	TSA(C)0500050fR4.46	A & C	50	50	150	4.46	18.16	0.73	2.02
349	TSA(C)0500050fR3.54	A & C	50	50	180	3.54	22.88	0.92	2.54
350	TSA0500050fR2.97	A	50	50	210	2.97	27.27	1.09	3.03
351	TSA(C)0500063fR21	A & C	50	63	30	21	3.86	0.12	0.43
352	TSA(C)0500063fR10	A & C	50	63	60	10	8.1	0.26	0.9
353	TSA(C)0500063fR6.29	A & C	50	63	90	6.29	12.88	0.41	1.43
354	TSA(C)0500063fR4.46	A & C	50	63	120	4.46	18.16	0.58	2.02
355	TSA(C)0500063fR3.54	A & C	50	63	150	3.54	22.88	0.73	2.54
356	TSA0500063fR2.8	A	50	63	180	2.8	28.93	0.92	3.21
357	TSA0500063fR2.49	A	50	63	210	2.49	32.53	1.03	3.61
358	TSA(C)0500080fR16.7	A & C	50	80	30	16.7	4.85	0.12	0.54
359	TSA(C)0500080fR7.91	A & C	50	80	60	7.91	10.24	0.26	1.14
360	TSA(C)0500080fR5	A & C	50	80	90	5	16.2	0.41	1.8
361	TSA(C)0500080fR3.54	A & C	50	80	120	3.54	22.88	0.57	2.54
362	TSA0500080fR2.8	A	50	80	150	2.8	28.93	0.72	3.21
363	TSA0500080fR2.22	A	50	80	180	2.22	36.49	0.91	4.05
364	TSA0500080fR1.87	A	50	80	210	1.87	43.32	1.08	4.81
365	TSA(C)0500100fR13.3	A & C	50	100	30	13.3	6.09	0.12	0.68

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)0500100fR6.29	A & C	50	100	60	6.29	12.88	0.26	1.43
367	TSA(C)0500100fR3.97	A & C	50	100	90	3.97	20.4	0.41	2.27
368	TSA0500100fR2.8	A	50	100	120	2.8	28.93	0.58	3.21
369	TSA0500100fR2.22	A	50	100	150	2.22	36.49	0.73	4.05
370	TSA0500100fR1.77	A	50	100	180	1.77	45.76	0.92	5.08
371	TSA0500100fR1.49	A	50	100	210	1.49	54.36	1.09	6.04
372	TSA0500125fR10.6	A & C	50	125	30	10.6	7.64	0.12	0.85
373	TSA(C)0500125fR5	A & C	50	125	60	5	16.2	0.26	1.8
374	TSA(C)0500125fR3.15	A & C	50	125	90	3.15	25.71	0.41	2.86
375	TSA0500125fR2.35	A	50	125	120	2.35	34.47	0.55	3.83
376	TSA0500125fR1.77	A	50	125	150	1.77	45.76	0.73	5.08
377	TSA0500125fR1.49	A	50	125	180	1.49	54.36	0.87	6.04
378	TSA0500125fR1.19	A	50	125	210	1.19	68.07	1.09	7.56
379	TSA(C)0500160fR7.91	A & C	50	160	30	7.91	10.24	0.13	1.14
380	TSA(C)0500160fR3.97	A & C	50	160	60	3.97	20.4	0.26	2.27
381	TSA0500160fR2.49	A	50	160	90	2.49	32.53	0.41	3.61
382	TSA0500160fR1.77	A	50	160	120	1.77	45.76	0.57	5.08
383	TSA0500160fR1.41	A	50	160	150	1.41	57.45	0.72	6.38
384	TSA0500160fR1.12	A	50	160	180	1.12	72.32	0.90	8.04
385	TSA0500160fR0.941	A	50	160	210	0.941	86.08	1.08	9.56
386	TSA(C)0500200fR6.66	A & C	50	200	30	6.66	12.16	0.12	1.35
387	TSA0500200fR3.15	A	50	200	60	3.15	25.71	0.26	2.86
388	TSA0500200fR1.98	A	50	200	90	1.98	40.91	0.41	4.55
389	TSA0500200fR1.41	A	50	200	120	1.41	57.45	0.57	6.38
390	TSA0500200fR1.12	A	50	200	150	1.12	72.32	0.72	8.04
391	TSA0500200fR0.888	A	50	200	180	0.888	91.22	0.91	10.14
392	TSA0500200fR0.747	A	50	200	210	0.747	108.43	1.08	12.05
393	TSA(C)0630063fR17.7	A & C	63	63	30	17.7	4.58	0.12	0.51
394	TSA(C)0630063fR8.38	A & C	63	63	60	8.38	9.67	0.24	1.07
395	TSA(C)0630063fR5.3	A & C	63	63	90	5.3	15.28	0.38	1.7
396	TSA(C)0630063fR3.75	A & C	63	63	120	3.75	21.6	0.54	2.4
397	TSA0630063fR2.97	A	63	63	150	2.97	27.27	0.69	3.03
398	TSA0630063fR2.49	A	63	63	180	2.49	32.53	0.82	3.61
399	TSA0630063fR1.98	A	63	63	210	1.98	40.91	1.03	4.55
400	TSA(C)0630080fR14.1	A & C	63	80	30	14.1	5.74	0.11	0.64
401	TSA(C)0630080fR6.66	A & C	63	80	60	6.66	12.16	0.24	1.35
402	TSA(C)0630080fR4.21	A & C	63	80	90	4.21	19.24	0.38	2.14
403	TSA0630080fR2.97	A	63	80	120	2.97	27.27	0.54	3.03
404	TSA0630080fR2.35	A	63	80	150	2.35	34.47	0.68	3.83
405	TSA0630080fR1.87	A	63	80	180	1.87	43.32	0.86	4.81
406	TSA0630080fR1.58	A	63	80	210	1.58	51.27	1.02	5.7
407	TSA(C)0630100fR11.2	A & C	63	100	30	11.2	7.23	0.11	0.8
408	TSA(C)0630100fR5.3	A & C	63	100	60	5.3	15.28	0.24	1.7
409	TSA(C)0630100fR3.34	A & C	63	100	90	3.34	24.25	0.38	2.69
410	TSA0630100fR2.35	A	63	100	120	2.35	34.47	0.55	3.83
411	TSA0630100fR1.87	A	63	100	150	1.87	43.32	0.69	4.81
412	TSA0630100fR1.49	A	63	100	180	1.49	54.36	0.86	6.04
413	TSA0630100fR1.26	A	63	100	210	1.26	64.29	1.02	7.14
414	TSA(C)0630125fR8.88	A & C	63	125	3				



# STANDARD | Rectangular 9V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA0630250fR0.747	A	63	250	150	0.747	108.43	0.69	12.05
440	TSA0630250fR0.629	A	63	250	180	0.629	128.78	0.82	14.31
441	TSA(C)0800080fR11.9	A & C	80	80	30	11.9	6.81	0.11	0.76
442	TSA(C)0800080fR5.94	A & C	80	80	60	5.94	13.64	0.21	1.52
443	TSA(C)0800080fR3.75	A & C	80	80	90	3.75	21.6	0.34	2.4
444	TSA0800080fR2.64	A	80	80	120	2.64	30.68	0.48	3.41
445	TSA0800080fR1.98	A	80	80	150	1.98	40.91	0.64	4.55
446	TSA0800080fR1.67	A	80	80	180	1.67	48.5	0.76	5.39
447	TSA0800080fR1.33	A	80	80	210	1.33	60.9	0.95	6.77
448	TSA(C)0800100fR9.41	A & C	80	100	30	9.41	8.61	0.11	0.96
449	TSA(C)0800100fR4.72	A & C	80	100	60	4.72	17.16	0.21	1.91
450	TSA0800100fR2.97	A	80	100	90	2.97	27.27	0.34	3.03
451	TSA0800100fR2.1	A	80	100	120	2.1	38.57	0.48	4.29
452	TSA0800100fR1.58	A	80	100	150	1.58	51.27	0.64	5.7
453	TSA0800100fR1.33	A	80	100	180	1.33	60.9	0.76	6.77
454	TSA0800100fR1.06	A	80	100	210	1.06	76.42	0.96	8.49
455	TSA(C)0800125fR7.47	A & C	80	125	30	7.47	10.84	0.11	1.2
456	TSA(C)0800125fR3.75	A & C	80	125	60	3.75	21.6	0.22	2.4
457	TSA0800125fR2.35	A	80	125	90	2.35	34.47	0.34	3.83
458	TSA0800125fR1.67	A	80	125	120	1.67	48.5	0.49	5.39
459	TSA0800125fR1.26	A	80	125	150	1.26	64.29	0.64	7.14
460	TSA0800125fR1.06	A	80	125	180	1.06	76.42	0.76	8.49
461	TSA0800125fR0.888	A	80	125	210	0.888	91.22	0.91	10.14
462	TSA(C)0800160fR5.94	A & C	80	160	30	5.94	13.64	0.11	1.52
463	TSA0800160fR2.97	A	80	160	60	2.97	27.27	0.21	3.03
464	TSA0800160fR1.87	A	80	160	90	1.87	43.32	0.34	4.81
465	TSA0800160fR1.26	A	80	160	120	1.26	64.29	0.50	7.14
466	TSA0800160fR1	A	80	160	150	1	81	0.63	9
467	TSA0800160fR0.838	A	80	160	180	0.838	96.66	0.76	10.74
468	TSA0800160fR0.666	A	80	160	210	0.666	121.62	0.95	13.51
469	TSA(C)0800200fR4.72	A & C	80	200	30	4.72	17.16	0.11	1.91
470	TSA0800200fR2.35	A	80	200	60	2.35	34.47	0.22	3.83
471	TSA0800200fR1.49	A	80	200	90	1.49	54.36	0.34	6.04
472	TSA0800200fR1.06	A	80	200	120	1.06	76.42	0.48	8.49
473	TSA0800200fR0.791	A	80	200	150	0.791	102.4	0.64	11.38
474	TSA0800200fR0.666	A	80	200	180	0.666	121.62	0.76	13.51
475	TSA(C)0800250fR3.75	A & C	80	250	30	3.75	21.6	0.11	2.4
476	TSA0800250fR1.87	A	80	250	60	1.87	43.32	0.22	4.81
477	TSA0800250fR1.19	A	80	250	90	1.19	68.07	0.34	7.56
478	TSA0800250fR0.838	A	80	250	120	0.838	96.66	0.48	10.74
479	TSA0800250fR0.629	A	80	250	150	0.629	128.78	0.64	14.31
480	TSA(C)0800300fR3.15	A & C	80	300	30	3.15	25.71	0.11	2.86
481	TSA0800300fR1.58	A	80	300	60	1.58	51.27	0.21	5.7
482	TSA0800300fR1	A	80	300	90	1	81	0.34	9
483	TSA0800300fR0.705	A	80	300	120	0.705	114.89	0.48	12.77
484	TSA(C)1000100fR8.88	A & C	100	100	30	8.88	9.12	0.09	1.01
485	TSA(C)1000100fR4.21	A & C	100	100	60	4.21	19.24	0.19	2.14
486	TSA1000100fR2.64	A	100	100	90	2.64	30.68	0.31	3.41
487	TSA1000100fR1.87	A	100	100	120	1.87	43.32	0.43	4.81
488	TSA1000100fR1.41	A	100	100	150	1.41	57.45	0.57	6.38
489	TSA1000100fR1.19	A	100	100	180	1.19	68.07	0.68	7.56
490	TSA1000100fR0.941	A	100	100	210	0.941	86.08	0.86	9.56
491	TSA(C)1000125fR7.05	A & C	100	125	30	7.05	11.49	0.09	1.28
492	TSA(C)1000125fR3.54	A & C	100	125	60	3.54	22.88	0.18	2.54
493	TSA1000125fR2.22	A	100	125	90	2.22	36.49	0.29	4.05
494	TSA1000125fR1.49	A	100	125	120	1.49	54.36	0.43	6.04
495	TSA1000125fR1.12	A	100	125	150	1.12	72.32	0.58	8.04
496	TSA1000125fR0.941	A	100	125	180	0.941	86.08	0.69	9.56
497	TSA1000125fR0.747	A	100	125	210	0.747	108.43	0.87	12.05
498	TSA(C)1000160fR5.3	A & C	100	160	30	5.3	15.28	0.10	1.7
499	TSA1000160fR2.64	A	100	160	60	2.64	30.68	0.19	3.41
500	TSA1000160fR1.67	A	100	160	90	1.67	48.5	0.30	5.39
501	TSA1000160fR1.12	A	100	160	120	1.12	72.32	0.45	8.04
502	TSA1000160fR0.888	A	100	160	150	0.888	91.22	0.57	10.14
503	TSA1000160fR0.747	A	100	160	180	0.747	108.43	0.68	12.05
504	TSA1000160fR0.594	A	100	160	210	0.594	136.36	0.85	15.15
505	TSA(C)1000200fR4.21	A & C	100	200	30	4.21	19.24	0.10	2.14
506	TSA1000200fR2.22	A	100	200	60	2.22	36.49	0.18	4.05

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
507	TSA1000200fR1.33	A	100	200	90	1.33	60.9	0.30	6.77
508	TSA1000200fR0.941	A	100	200	120	0.941	86.08	0.43	9.56
509	TSA1000200fR0.705	A	100	200	150	0.705	114.89	0.57	12.77
510	TSA(C)1000250fR3.54	A & C	100	250	30	3.54	22.88	0.09	2.54
511	TSA1000250fR1.77	A	100	250	60	1.77	45.76	0.18	5.08
512	TSA1000250fR1.06	A	100	250	90	1.06	76.42	0.31	8.49
513	TSA12500250fR0.747	A	100	250	120	0.747	108.43	0.43	12.05
514	TSA1000300fR2.8	A	100	300	30	2.8	28.93	0.10	3.21
515	TSA1000300fR1.41	A	100	300	60	1.41	57.45	0.19	6.38
516	TSA1000300fR0.888	A	100	300	90	0.888	91.22	0.30	10.14
517	TSA1000300fR0.629	A	100	300	120	0.629	128.78	0.43	14.31
518	TSA(C)1250125fR5.94	A & C	125	125	30	5.94	13.64	0.09	1.52
519	TSA1250125fR2.97	A	125	125	60	2.97	27.27	0.17	3.03
520	TSA1250125fR1.87	A	125	125	90	1.87	43.32	0.28	4.81
521	TSA1250125fR1.26	A	125	125	120	1.26	64.29	0.41	7.14
522	TSA1250125fR1	A	125	125	150	1	81	0.52	9
523	TSA1250125fR0.791	A	125	125	180	0.791	102.4	0.66	11.38
524	TSA1250125fR0.666	A	125	125	210	0.666	121.62	0.78	13.51
525	TSA(C)1250160fR4.72	A & C	125	160	30	4.72	17.16	0.09	1.91
526	TSA1250160fR2.35	A	125	160	60	2.35	34.47	0.17	3.83
527	TSA1250160fR1.49	A	125	160	90	1.49	54.36	0.27	6.04
528	TSA1250160fR1	A	125	160	120	1	81	0.41	9
529	TSA1250160fR0.791	A	125	160	150	0.791	102.4	0.51	11.38
530	TSA1250160fR0.629	A	125	160	180	0.629	128.78	0.64	14.31
531	TSA(C)1250200fR3.75	A & C	125	200	30	3.75	21.6	0.09	2.4
532	TSA1250200fR1.87	A	125	200	60	1.87	43.32	0.17	4.81
533	TSA1250200fR1.19	A	125	200	90	1.19	68.07	0.27	7.56
534	TSA1250200fR0.791	A	125	200	120	0.791	102.4	0.41	11.38
535	TSA1250200fR0.629	A	125	200	150	0.629	128.78	0.52	14.31
536	TSA1250250fR2.97	A	125	250	30	2.97	27.27	0.09	3.03
537	TSA1250250fR1.49	A	125	250	60	1.49	54.36	0.17	6.04
538	TSA1250250fR0.941	A	125	250	90	0.941	86.08	0.28	9.56
539	TSA1250250fR0.629	A	125	250	120	0.629	128.78	0.41	14.31
540	TSA1250300fR2.49	A	125	300	30	2.49	32.53	0.09	3.61
541	TSA1250300fR1.26	A	125	300	60	1.26	64.29	0.17	7.14
542	TSA1250300fR0.791	A	125	300	90	0.791	102.4	0.27	11.38
543	TSA(C)1600160fR3.97	A & C	160	160	30	3.97	20.4	0.08	2.27
544	TSA1600160fR2.1	A	160	160	60	2.1	38.57	0.15	4.29
545	TSA1600160fR1.26	A	160	160	90	1.26	64.29	0.25	7.14
546	TSA1600160fR0.888	A	160	160	120	0.888	91.22	0.36	10.14
547	TSA1600160fR0.666	A	160	160	150	0.666	121.62	0.48	13.51
548	TSA(C)1600200fR3.34	A & C	160	200	30	3.34	24.25	0.08	2.69
549	TSA1600200fR1.67	A	160	200	60	1.67	48.5	0.15	5.39
550	TSA1600200fR1	A	160	200	90	1	81	0.25	9
551	TSA1600200fR0.705	A	160	200	120	0.705	114.89	0.36	12.77
552	TSA1600250fR2.64	A	160	250	30	2.64	30.68	0.08	3.41
553	TSA1600250fR1.33	A	160	250	60	1.33	60.9	0.15	6.77
554	TSA1600250fR0.838	A	160	250	90	0.838	96.66	0.24	10.74
555	TSA1600300fR2.22	A	160	300	30	2.22	36.49	0.08	4.05
556	TSA1600300fR1.12	A	160	300	60	1.12	72.32	0.15	8.04
557	TSA1600300fR0.666	A	160	300	90	0.666	121.62	0.25	13.51
558	TSA2000200fR2.8	A	200	200	30	2.8	28.93	0.07	3.21
559	TSA2000200fR1.41	A	200	200	60	1.41	57.45	0.14	6.38
560	TSA2000200fR0.888	A	200	200	90	0.			

# STANDARD | Rectangular 12V



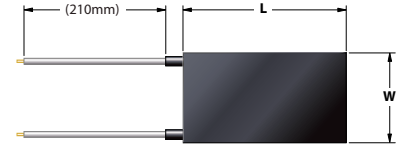
■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010gR561	C	10	10	30	561	0.26	0.26	0.02
2	TSC0100010gR264	C	10	10	60	264	0.55	0.55	0.05
3	TSC0100010gR167	C	10	10	90	167	0.86	0.86	0.07
4	TSC0100010gR119	C	10	10	120	119	1.21	1.21	0.1
5	TSC0100010gR88.8	C	10	10	150	88.8	1.62	1.62	0.14
6	TSC0100010gR70.5	C	10	10	180	70.5	2.04	2.04	0.17
7	TSA(C)0100010gR59.4	A & C	10	10	210	59.4	2.42	2.42	0.2
8	TSC0100013gR446	C	10	13	30	446	0.32	0.25	0.03
9	TSC0100013gR198	C	10	13	60	198	0.73	0.56	0.06
10	TSC0100013gR133	C	10	13	90	133	1.08	0.83	0.09
11	TSC0100013gR94.1	C	10	13	120	94.1	1.53	1.18	0.13
12	TSA(C)0100013gR70.5	A & C	10	13	150	70.5	2.04	1.57	0.17
13	TSA(C)0100013gR56.1	A & C	10	13	180	56.1	2.57	1.98	0.21
14	TSA(C)0100013gR44.6	A & C	10	13	210	44.6	3.23	2.48	0.27
15	TSC0100016gR354	C	10	16	30	354	0.41	0.26	0.03
16	TSC0100016gR167	C	10	16	60	167	0.86	0.54	0.07
17	TSC0100016gR106	C	10	16	90	106	1.36	0.85	0.11
18	TSA(C)0100016gR74.7	A & C	10	16	120	74.7	1.93	1.21	0.16
19	TSA(C)0100016gR56.1	A & C	10	16	150	56.1	2.57	1.61	0.21
20	TSA(C)0100016gR44.6	A & C	10	16	180	44.6	3.23	2.02	0.27
21	TSA(C)0100016gR37.5	A & C	10	16	210	37.5	3.84	2.40	0.32
22	TSC0100020gR280	C	10	20	30	280	0.51	0.26	0.04
23	TSC0100020gR133	C	10	20	60	133	1.08	0.54	0.09
24	TSA(C)0100020gR83.8	A & C	10	20	90	83.8	1.72	0.86	0.14
25	TSA(C)0100020gR59.4	A & C	10	20	120	59.4	2.42	1.21	0.2
26	TSA(C)0100020gR44.6	A & C	10	20	150	44.6	3.23	1.62	0.27
27	TSA(C)0100020gR35.4	A & C	10	20	180	35.4	4.07	2.04	0.34
28	TSA(C)0100020gR29.7	A & C	10	20	210	29.7	4.85	2.43	0.4
29	TSC0100025gR222	C	10	25	30	222	0.65	0.26	0.05
30	TSA(C)0100025gR106	A & C	10	25	60	106	1.36	0.54	0.11
31	TSA(C)0100025gR66.6	A & C	10	25	90	66.6	2.16	0.86	0.18
32	TSA(C)0100025gR47.2	A & C	10	25	120	47.2	3.05	1.22	0.25
33	TSA(C)0100025gR35.4	A & C	10	25	150	35.4	4.07	1.63	0.34
34	TSA(C)0100025gR28	A & C	10	25	180	28	5.14	2.06	0.43
35	TSA(C)0100025gR23.5	A & C	10	25	210	23.5	6.13	2.45	0.51
36	TSA(C)0100032gR177	A & C	10	32	30	177	0.81	0.25	0.07
37	TSA(C)0100032gR83.8	A & C	10	32	60	83.8	1.72	0.54	0.14
38	TSA(C)0100032gR53	A & C	10	32	90	53	2.72	0.85	0.23
39	TSA(C)0100032gR37.5	A & C	10	32	120	37.5	3.84	1.20	0.32
40	TSA(C)0100032gR28	A & C	10	32	150	28	5.14	1.61	0.43
41	TSA(C)0100032gR22.2	A & C	10	32	180	22.2	6.49	2.03	0.54
42	TSA0100032gR18.7	A	10	32	210	18.7	7.7	2.41	0.64
43	TSA(C)0100040gR141	A & C	10	40	30	141	1.02	0.26	0.09
44	TSA(C)0100040gR66.6	A & C	10	40	60	66.6	2.16	0.54	0.18
45	TSA(C)0100040gR42.1	A & C	10	40	90	42.1	3.42	0.86	0.29
46	TSA(C)0100040gR29.7	A & C	10	40	120	29.7	4.85	1.21	0.4
47	TSA(C)0100040gR22.2	A & C	10	40	150	22.2	6.49	1.62	0.54
48	TSA0100040gR17.7	A	10	40	180	17.7	8.14	2.04	0.68
49	TSA0100040gR14.9	A	10	40	210	14.9	9.66	2.42	0.81
50	TSC0130013gR375	C	13	13	30	375	0.38	0.22	0.03
51	TSC0130013gR177	C	13	13	60	177	0.81	0.48	0.07
52	TSC0130013gR112	C	13	13	90	112	1.29	0.76	0.11
53	TSA(C)0130013gR79.1	A & C	13	13	120	79.1	1.82	1.08	0.15
54	TSA(C)0130013gR62.9	A & C	13	13	150	62.9	2.29	1.36	0.19
55	TSA(C)0130013gR50	A & C	13	13	180	50	2.88	1.70	0.24
56	TSA(C)0130013gR39.7	A & C	13	13	210	39.7	3.63	2.15	0.3
57	TSC0130016gR315	C	13	16	30	315	0.46	0.22	0.04
58	TSC0130016gR149	C	13	16	60	149	0.97	0.47	0.08
59	TSA(C)0130016gR94.1	A & C	13	16	90	94.1	1.53	0.74	0.13
60	TSA(C)0130016gR66.6	A & C	13	16	120	66.6	2.16	1.04	0.18
61	TSA(C)0130016gR50	A & C	13	16	150	50	2.88	1.38	0.24
62	TSA(C)0130016gR39.7	A & C	13	16	180	39.7	3.63	1.75	0.3
63	TSA(C)0130016gR33.4	A & C	13	16	210	33.4	4.31	2.07	0.36
64	TSC0130020gR249	C	13	20	30	249	0.58	0.22	0.05
65	TSA(C)0130020gR119	A & C	13	20	60	119	1.21	0.47	0.1
66	TSA(C)0130020gR74.7	A & C	13	20	90	74.7	1.93	0.74	0.16
67	TSA(C)0130020gR53	A & C	13	20	120	53	2.72	1.05	0.23
68	TSA(C)0130020gR39.7	A & C	13	20	150	39.7	3.63	1.40	0.3
69	TSA(C)0130020gR31.5	A & C	13	20	180	31.5	4.57	1.76	0.38
70	TSA(C)0130020gR26.4	A & C	13	20	210	26.4	5.45	2.10	0.45
71	TSC0130025gR198	C	13	25	30	198	0.73	0.22	0.06
72	TSA(C)0130025gR94.1	A & C	13	25	60	94.1	1.53	0.47	0.13
73	TSA(C)0130025gR59.4	A & C	13	25	90	59.4	2.42	0.74	0.2

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)0130025gR42.1	A & C	13	25	120	42.1	3.42	1.05	0.29
75	TSA(C)0130025gR31.5	A & C	13	25	150	31.5	4.57	1.41	0.38
76	TSA(C)0130025gR24.9	A & C	13	25	180	24.9	5.78	1.78	0.48
77	TSA(C)0130025gR21	A & C	13	25	210	21	6.86	2.11	0.57
78	TSA(C)0130032gR158	A & C	13	32	30	158	0.91	0.22	0.08
79	TSA(C)0130032gR74.7	A & C	13	32	60	74.7	1.93	0.46	0.16
80	TSA(C)0130032gR47.2	A & C	13	32	90	47.2	3.05	0.73	0.25
81	TSA(C)0130032gR33.4	A & C	13	32	120	33.4	4.31	1.04	0.36
82	TSA(C)0130032gR24.9	A & C	13	32	150	24.9	5.78	1.39	0.48
83	TSA(C)0130032gR19.8	A & C	13	32	180	19.8	7.27	1.75	0.61
84	TSA0130032gR16.7	A	13	32	210	16.7	8.62	2.07	0.72
85	TSA(C)0130040gR126	A & C	13	40	30	126	1.14	0.22	0.1
86	TSA(C)0130040gR59.4	A & C	13	40	60	59.4	2.42	0.47	0.2
87	TSA(C)0130040gR37.5	A & C	13	40	90	37.5	3.84	0.74	0.32
88	TSA(C)0130040gR26.4	A & C	13	40	120	26.4	5.45	1.05	0.45
89	TSA(C)0130040gR19.8	A & C	13	40	150	19.8	7.27	1.40	0.61
90	TSA0130040gR15.8	A	13	40	180	15.8	9.11	1.75	0.76
91	TSA0130040gR13.3	A	13	40	210	13.3	10.83	2.08	0.9
92	TSA(C)0130050gR100	A & C	13	50	30	100	1.44	0.22	0.12
93	TSA(C)0130050gR47.2	A & C	13	50	60	47.2	3.05	0.47	0.25
94	TSA(C)0130050gR29.7	A & C	13	50	90	29.7	4.85	0.75	0.4
95	TSA(C)0130050gR21	A & C	13	50	120	21	6.86	1.06	0.57
96	TSA0130050gR15.8	A	13	50	150	15.8	9.11	1.40	0.76
97	TSA0130050gR12.6	A	13	50	180	12.6	11.43	1.76	0.95
98	TSA0130050gR10.6	A	13	50	210	10.6	13.58	2.09	1.13
99	TSC0160016gR297	C	16	16	30	297	0.48	0.19	0.04
100	TSA(C)0160016gR141	A & C	16	16	60	141	1.02	0.40	0.09
101	TSA(C)0160016gR88.8	A & C	16	16	90	88.8	1.62	0.63	0.14
102	TSA(C)0160016gR62.9	A & C	16	16	120	62.9	2.29	0.89	0.19
103	TSA(C)0160016gR47.2	A & C	16	16	150	47.2	3.05	1.19	0.25
104	TSA(C)0160016gR37.5	A & C	16	16	180	37.5	3.84	1.50	0.32
105	TSA(C)0160016gR31.5	A & C	16	16	210	31.5	4.57	1.79	0.38
106	TSC0160020gR235	C	16	20	30	235	0.61	0.19	0.05
107	TSA(C)0160020gR112	A & C	16	20	60	112	1.29	0.40	0.11
108	TSA(C)0160020gR70.5	A & C	16	20	90	70.5	2.04	0.64	0.17
109	TSA(C)0160020gR50	A & C	16	20	120	50	2.88	0.90	0.24
110	TSA(C)0160020gR37.5	A & C	16	20	150	37.5	3.84	1.20	0.32
111	TSA(C)0160020gR29.7	A & C	16	20	180	29.7	4.85	1.52	0.4
112	TSA(C)0160020gR24.9	A & C	16	20	210	24.9	5.78	1.81	0.48
113	TSA(C)0160025gR187	A & C	16	25	30	187	0.77	0.19	0.06
114	TSA(C)0160025gR88.8	A & C	16	25	60	88.8	1.62	0.41	0.14
115	TSA(C)0160025gR56.1	A & C	16	25	90	56.1	2.57	0.64	0.21
116	TSA(C)0160025gR39.7	A & C	16	25	120	39.7	3.63	0.91	0.3
117	TSA(C)0160025gR29.7	A & C	16	25	150	29.7	4.85	1.21	0.4
118	TSA(C)0160025gR24.9	A & C	16	25	180	24.9	5.78	1.45	0.48
119	TSA(C)0160025gR19.8	A & C	16	25	210	19.8	7.27	1.82	0.61
120	TSA(C)0160032gR149	A & C	16	32	30	149	0.97	0.19	0.08
121	TSA(C)0160032gR70.5	A & C	16	32	60	70.5	2.04	0.40	0.17
122	TSA(C)0160032gR44.6	A & C	16	32	90	44.6	3.23	0.63	0.27
123	TSA(C)0160032gR31.5	A & C	16	32	120				

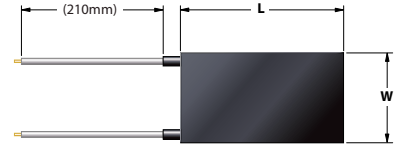


# STANDARD | Rectangular 12V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA0160063gR7.91	A	16	63	210	7.91	18.2	1.81	1.52	220	TSA(C)0250050gR23.5	A & C	25	50	90	23.5	6.13	0.49	0.51
148	TSA(C)0200020gR235	A & C	20	20	30	235	0.61	0.15	0.05	221	TSA(C)0250050gR16.7	A & C	25	50	120	16.7	8.62	0.69	0.72
149	TSA(C)0200020gR119	A & C	20	20	60	119	1.21	0.30	0.1	222	TSA(C)0250050gR13.3	A & C	25	50	150	13.3	10.83	0.87	0.9
150	TSA(C)0200020gR70.5	A & C	20	20	90	70.5	2.04	0.51	0.17	223	TSA(C)0250050gR10.6	A & C	25	50	180	10.6	13.58	1.09	1.13
151	TSA(C)0200020gR50	A & C	20	20	120	50	2.88	0.72	0.24	224	TSA(C)0250050gR8.88	A & C	25	50	210	8.88	16.22	1.30	1.35
152	TSA(C)0200020gR39.7	A & C	20	20	150	39.7	3.63	0.91	0.3	225	TSA(C)0250063gR62.9	A & C	25	63	30	62.9	2.29	0.15	0.19
153	TSA(C)0200020gR31.5	A & C	20	20	180	31.5	4.57	1.14	0.38	226	TSA(C)0250063gR29.7	A & C	25	63	60	29.7	4.85	0.31	0.4
154	TSA(C)0200020gR26.4	A & C	20	20	210	26.4	5.45	1.36	0.45	227	TSA(C)0250063gR18.7	A & C	25	63	90	18.7	7.7	0.49	0.64
155	TSA(C)0200025gR187	A & C	20	25	30	187	0.77	0.15	0.06	228	TSA(C)0250063gR13.3	A & C	25	63	120	13.3	10.83	0.69	0.9
156	TSA(C)0200025gR94.1	A & C	20	25	60	94.1	1.53	0.31	0.13	229	TSA(C)0250063gR10.6	A & C	25	63	150	10.6	13.58	0.86	1.13
157	TSA(C)0200025gR56.1	A & C	20	25	90	56.1	2.57	0.51	0.21	230	TSA0250063gR8.38	A	25	63	180	8.38	17.18	1.09	1.43
158	TSA(C)0200025gR39.7	A & C	20	25	120	39.7	3.63	0.73	0.3	231	TSA0250063gR7.05	A	25	63	210	7.05	20.43	1.30	1.7
159	TSA(C)0200025gR31.5	A & C	20	25	150	31.5	4.57	0.91	0.38	232	TSA(C)0250080gR50	A & C	25	80	30	50	2.88	0.14	0.24
160	TSA(C)0200025gR26.4	A & C	20	25	180	26.4	5.45	1.09	0.45	233	TSA(C)0250080gR23.5	A & C	25	80	60	23.5	6.13	0.31	0.51
161	TSA(C)0200025gR21	A & C	20	25	210	21	6.86	1.37	0.57	234	TSA(C)0250080gR14.9	A & C	25	80	90	14.9	9.66	0.48	0.81
162	TSA(C)0200032gR149	A & C	20	32	30	149	0.97	0.15	0.08	235	TSA(C)0250080gR10.6	A & C	25	80	120	10.6	13.58	0.68	1.13
163	TSA(C)0200032gR70.5	A & C	20	32	60	70.5	2.04	0.32	0.17	236	TSA0250080gR8.38	A	25	80	150	8.38	17.18	0.86	1.43
164	TSA(C)0200032gR44.6	A & C	20	32	90	44.6	3.23	0.50	0.27	237	TSA0250080gR6.66	A	25	80	180	6.66	21.62	1.08	1.8
165	TSA(C)0200032gR31.5	A & C	20	32	120	31.5	4.57	0.71	0.38	238	TSA0250080gR5.61	A	25	80	210	5.61	25.67	1.28	2.14
166	TSA(C)0200032gR24.9	A & C	20	32	150	24.9	5.78	0.90	0.48	239	TSA(C)0250100gR39.7	A & C	25	100	30	39.7	3.63	0.15	0.3
167	TSA(C)0200032gR19.8	A & C	20	32	180	19.8	7.27	1.14	0.61	240	TSA(C)0250100gR19.8	A & C	25	100	60	19.8	7.27	0.29	0.61
168	TSA(C)0200032gR16.7	A & C	20	32	210	16.7	8.62	1.35	0.72	241	TSA(C)0250100gR11.9	A & C	25	100	90	11.9	12.1	0.48	1.01
169	TSA(C)0200040gR119	A & C	20	40	30	119	1.21	0.15	0.1	242	TSA0250100gR8.38	A	25	100	120	8.38	17.18	0.69	1.43
170	TSA(C)0200040gR59.4	A & C	20	40	60	59.4	2.42	0.30	0.2	243	TSA0250100gR6.66	A	25	100	150	6.66	21.62	0.86	1.8
171	TSA(C)0200040gR35.4	A & C	20	40	90	35.4	4.07	0.51	0.34	244	TSA0250100gR5.3	A	25	100	180	5.3	27.17	1.09	2.26
172	TSA(C)0200040gR24.9	A & C	20	40	120	24.9	5.78	0.72	0.48	245	TSA0250100gR4.46	A	25	100	210	4.46	32.29	1.29	2.69
173	TSA(C)0200040gR19.8	A & C	20	40	150	19.8	7.27	0.91	0.61	246	TSA(C)0320032gR106	A & C	32	32	30	106	1.36	0.13	0.11
174	TSA(C)0200040gR15.8	A & C	20	40	180	15.8	9.11	1.14	0.76	247	TSA(C)0320032gR50	A & C	32	32	60	50	2.88	0.28	0.24
175	TSA(C)0200040gR13.3	A & C	20	40	210	13.3	10.83	1.35	0.9	248	TSA(C)0320032gR31.5	A & C	32	32	90	31.5	4.57	0.45	0.38
176	TSA(C)0200050gR94.1	A & C	20	50	30	94.1	1.53	0.15	0.13	249	TSA(C)0320032gR22.2	A & C	32	32	120	22.2	6.49	0.63	0.54
177	TSA(C)0200050gR47.2	A & C	20	50	60	47.2	3.05	0.31	0.25	250	TSA(C)0320032gR17.7	A & C	32	32	150	17.7	8.14	0.79	0.68
178	TSA(C)0200050gR28	A & C	20	50	90	28	5.14	0.51	0.43	251	TSA(C)0320032gR14.1	A & C	32	32	180	14.1	10.21	1.00	0.85
179	TSA(C)0200050gR19.8	A & C	20	50	120	19.8	7.27	0.73	0.61	252	TSA(C)0320032gR11.9	A & C	32	32	210	11.9	12.1	1.18	1.01
180	TSA(C)0200050gR15.8	A & C	20	50	150	15.8	9.11	0.91	0.76	253	TSA(C)0320040gR83.8	A & C	32	40	30	83.8	1.72	0.13	0.14
181	TSA(C)0200050gR12.6	A & C	20	50	180	12.6	11.43	1.14	0.95	254	TSA(C)0320040gR39.7	A & C	32	40	60	39.7	3.63	0.28	0.3
182	TSA0200050gR10.6	A	20	50	210	10.6	13.58	1.36	1.13	255	TSA(C)0320040gR24.9	A & C	32	40	90	24.9	5.78	0.45	0.48
183	TSA(C)0200063gR74.7	A & C	20	63	30	74.7	1.93	0.15	0.16	256	TSA(C)0320040gR17.7	A & C	32	40	120	17.7	8.14	0.64	0.68
184	TSA(C)0200063gR37.5	A & C	20	63	60	37.5	3.84	0.30	0.32	257	TSA(C)0320040gR14.1	A & C	32	40	150	14.1	10.21	0.80	0.85
185	TSA(C)0200063gR22.2	A & C	20	63	90	22.2	6.49	0.52	0.54	258	TSA(C)0320040gR11.2	A & C	32	40	180	11.2	12.86	1.00	1.07
186	TSA(C)0200063gR15.8	A & C	20	63	120	15.8	9.11	0.72	0.76	259	TSA(C)0320040gR9.41	A & C	32	40	210	9.41	15.3	1.20	1.28
187	TSA(C)0200063gR12.6	A & C	20	63	150	12.6	11.43	0.91	0.95	260	TSA(C)0320050gR66.6	A & C	32	50	30	66.6	2.16	0.14	0.18
188	TSA0200063gR10	A	20	63	180	10	14.4	1.14	1.2	261	TSA(C)0320050gR31.5	A & C	32	50	60	31.5	4.57	0.29	0.38
189	TSA0200063gR8.38	A	20	63	210	8.38	17.18	1.36	1.43	262	TSA(C)0320050gR19.8	A & C	32	50	90	19.8	7.27	0.45	0.61
190	TSA(C)0200080gR59.4	A & C	20	80	30	59.4	2.42	0.15	0.2	263	TSA(C)0320050gR14.1	A & C	32	50	120	14.1	10.21	0.64	0.85
191	TSA(C)0200080gR29.7	A & C	20	80	60	29.7	4.85	0.30	0.4	264	TSA(C)0320050gR11.2	A & C	32	50	150	11.2	12.86	0.80	1.07
192	TSA(C)0200080gR17.7	A & C	20	80	90	17.7	8.14	0.51	0.68	265	TSA(C)0320050gR8.88	A & C	32	50	180	8.88	16.22	1.01	1.35
193	TSA(C)0200080gR12.6	A & C	20	80	120	12.6	11.43	0.71	0.95	266	TSA(C)0320050gR7.47	A & C	32	50	210	7.47	19.28	1.21	1.61
194	TSA0200080gR10	A	20	80	150	10	14.4	0.90	1.2	267	TSA(C)0320063gR53	A & C	32	63	30	53	2.72	0.13	0.23
195	TSA0200080gR7.91	A	20	80	180	7.91	18.2	1.14	1.52	268	TSA(C)0320063gR24.9	A & C	32	63	60	24.9	5.78	0.29	0.48
196	TSA0200080gR6.66	A	20	80	210	6.66	21.62	1.35	1.8	269	TSA(C)0320063gR15.8	A & C	32	63	90	15.8	9.11	0.45	0.76
197	TSA(C)0250025gR158	A & C	25	25	30	158	0.91	0.15	0.08	270	TSA(C)0320063gR11.2	A & C	32	63	120	11.2	12.86	0.64	1.07
198	TSA(C)0250025gR79.1	A & C	25	25	60	79.1	1.82	0.29	0.15	271	TSA(C)0320063gR8.88	A & C	32	63	150	8.88	16.22	0.80	1.35
199	TSA(C)0250025gR47.2	A & C	25	25	90	47.2	3.05	0.49	0.25	272	TSA(C)0320063gR7.05	A & C	32	63	180	7.05	20.43	1.01	1.7
200	TSA(C)0250025gR33.4	A & C	25	25	120	33.4	4.31	0.69	0.36	273	TSA0320063gR5.94	A	32	63	210	5.94	24.24	1.20	2.02
201	TSA(C)0250025gR26.4	A & C	25	25	150	26.4	5.45	0.87	0.45	274	TSA(C)0320080gR42.1	A & C	32	80	30	42.1	3.42	0.13	0.29
202	TSA(C)0250025gR21	A & C	25	25	180	21	6.86	1.10	0.57	275	TSA(C)0320080gR19.8	A & C	32	80	60	19.8	7.27	0.28	0.61
203	TSA(C)0250025gR17.7	A & C	25	25	210	17.7	8.14	1.30	0.68	276	TSA(C)0320080gR12.6	A & C	32	80	90	12.6	11.43	0.45	0.95
204	TSA(C)0250032gR126	A & C	25	32	30	126	1.14	0.14	0.1	277	TSA(C)0320080gR8.88	A & C	32	80	120	8.88	16.22	0.63	1.35
205	TSA(C)0250032gR59.4	A & C	25	32	60	59.4	2.42	0.30	0.2	278	TSA0320080gR7.05	A	32	80	150	7.05	20.43	0.80	1.7
206	TSA(C)0250032gR37.5	A & C	25	32	90	37.5	3.84	0.48	0.32	279	TSA0320080gR5.61	A	32	80	180	5.61	25.67	1.00	2.14
207	TSA(C)0250032gR26.4	A & C	25	32	120	26.4	5.45	0.68	0.45	280	TSA0320080gR4.72	A	32	80	210	4.72	30.51	1.19	2.54
208	TSA(C)0250032gR21	A & C	25	32	150	21	6.86	0.86	0.57	281	TSA(C)032010								

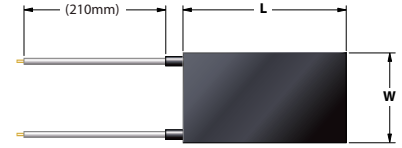
# STANDARD | Rectangular 12V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA0320125gR3.54	A	32	125	180	3.54	40.68	1.02	3.39
294	TSA0320125gR2.97	A	32	125	210	2.97	48.48	1.21	4.04
295	TSA(C)0400040gR70.5	A & C	40	40	30	70.5	2.04	0.13	0.17
296	TSA(C)0400040gR33.4	A & C	40	40	60	33.4	4.31	0.27	0.36
297	TSA(C)0400040gR21	A & C	40	40	90	21	6.86	0.43	0.57
298	TSA(C)0400040gR14.9	A & C	40	40	120	14.9	9.66	0.60	0.81
299	TSA(C)0400040gR11.9	A & C	40	40	150	11.9	12.1	0.76	1.01
300	TSA(C)0400040gR9.41	A & C	40	40	180	9.41	15.3	0.96	1.28
301	TSA(C)0400040gR7.91	A & C	40	40	210	7.91	18.2	1.14	1.52
302	TSA(C)0400050gR56.1	A & C	40	50	30	56.1	2.57	0.13	0.21
303	TSA(C)0400050gR26.4	A & C	40	50	60	26.4	5.45	0.27	0.45
304	TSA(C)0400050gR16.7	A & C	40	50	90	16.7	8.62	0.43	0.72
305	TSA(C)0400050gR11.9	A & C	40	50	120	11.9	12.1	0.61	1.01
306	TSA(C)0400050gR9.41	A & C	40	50	150	9.41	15.3	0.77	1.28
307	TSA(C)0400050gR7.47	A & C	40	50	180	7.47	19.28	0.96	1.61
308	TSA(C)0400050gR6.29	A & C	40	50	210	6.29	22.89	1.14	1.91
309	TSA(C)0400063gR44.6	A & C	40	63	30	44.6	3.23	0.13	0.27
310	TSA(C)0400063gR21	A & C	40	63	60	21	6.86	0.27	0.57
311	TSA(C)0400063gR13.3	A & C	40	63	90	13.3	10.83	0.43	0.9
312	TSA(C)0400063gR9.41	A & C	40	63	120	9.41	15.3	0.61	1.28
313	TSA(C)0400063gR7.47	A & C	40	63	150	7.47	19.28	0.77	1.61
314	TSA(C)0400063gR5.94	A & C	40	63	180	5.94	24.24	0.96	2.02
315	TSA0400063gR5	A	40	63	210	5	28.8	1.14	2.4
316	TSA(C)0400080gR35.4	A & C	40	80	30	35.4	4.07	0.13	0.34
317	TSA(C)0400080gR16.7	A & C	40	80	60	16.7	8.62	0.27	0.72
318	TSA(C)0400080gR10.6	A & C	40	80	90	10.6	13.58	0.42	1.13
319	TSA(C)0400080gR7.47	A & C	40	80	120	7.47	19.28	0.60	1.61
320	TSA(C)0400080gR5.94	A & C	40	80	150	5.94	24.24	0.76	2.02
321	TSA0400080gR4.72	A	40	80	180	4.72	30.51	0.95	2.54
322	TSA0400080gR3.97	A	40	80	210	3.97	36.27	1.13	3.02
323	TSA(C)0400100gR28	A & C	40	100	30	28	5.14	0.13	0.43
324	TSA(C)0400100gR13.3	A & C	40	100	60	13.3	10.83	0.27	0.9
325	TSA(C)0400100gR8.38	A & C	40	100	90	8.38	17.18	0.43	1.43
326	TSA(C)0400100gR5.94	A & C	40	100	120	5.94	24.24	0.61	2.02
327	TSA0400100gR4.72	A	40	100	150	4.72	30.51	0.76	2.54
328	TSA0400100gR3.75	A	40	100	180	3.75	38.4	0.96	3.2
329	TSA0400100gR3.15	A	40	100	210	3.15	45.71	1.14	3.81
330	TSA(C)0400125gR22.2	A & C	40	125	30	22.2	6.49	0.13	0.54
331	TSA(C)0400125gR10.6	A & C	40	125	60	10.6	13.58	0.27	1.13
332	TSA(C)0400125gR6.66	A & C	40	125	90	6.66	21.62	0.43	1.8
333	TSA0400125gR4.72	A	40	125	120	4.72	30.51	0.61	2.54
334	TSA0400125gR3.75	A	40	125	150	3.75	38.4	0.77	3.2
335	TSA0400125gR2.97	A	40	125	180	2.97	48.48	0.97	4.04
336	TSA0400125gR2.49	A	40	125	210	2.49	57.83	1.16	4.82
337	TSA(C)0400160gR17.7	A & C	40	160	30	17.7	8.14	0.13	0.68
338	TSA(C)0400160gR8.38	A & C	40	160	60	8.38	17.18	0.27	1.43
339	TSA0400160gR5.3	A	40	160	90	5.3	27.17	0.42	2.26
340	TSA0400160gR3.75	A	40	160	120	3.75	38.4	0.60	3.2
341	TSA0400160gR2.97	A	40	160	150	2.97	48.48	0.76	4.04
342	TSA0400160gR2.35	A	40	160	180	2.35	61.28	0.96	5.11
343	TSA0400160gR1.98	A	40	160	210	1.98	72.73	1.14	6.06
344	TSA(C)0500050gR47.2	A & C	50	50	30	47.2	3.05	0.12	0.25
345	TSA(C)0500050gR22.2	A & C	50	50	60	22.2	6.49	0.26	0.54
346	TSA(C)0500050gR14.1	A & C	50	50	90	14.1	10.21	0.41	0.85
347	TSA(C)0500050gR10	A & C	50	50	120	10	14.4	0.58	1.2
348	TSA(C)0500050gR7.91	A & C	50	50	150	7.91	18.2	0.73	1.52
349	TSA(C)0500050gR6.29	A & C	50	50	180	6.29	22.89	0.92	1.91
350	TSA(C)0500050gR5.3	A & C	50	50	210	5.3	27.17	1.09	2.26
351	TSA(C)0500063gR37.5	A & C	50	63	30	37.5	3.84	0.12	0.32
352	TSA(C)0500063gR17.7	A & C	50	63	60	17.7	8.14	0.26	0.68
353	TSA(C)0500063gR11.2	A & C	50	63	90	11.2	12.86	0.41	1.07
354	TSA(C)0500063gR7.91	A & C	50	63	120	7.91	18.2	0.58	1.52
355	TSA(C)0500063gR6.29	A & C	50	63	150	6.29	22.89	0.73	1.91
356	TSA(C)0500063gR5	A & C	50	63	180	5	28.8	0.91	2.4
357	TSA(C)0500063gR4.21	A & C	50	63	210	4.21	34.2	1.09	2.85
358	TSA(C)0500080gR29.7	A & C	50	80	30	29.7	4.85	0.12	0.4
359	TSA(C)0500080gR14.1	A & C	50	80	60	14.1	10.21	0.26	0.85
360	TSA(C)0500080gR8.88	A & C	50	80	90	8.88	16.22	0.41	1.35
361	TSA(C)0500080gR6.29	A & C	50	80	120	6.29	22.89	0.57	1.91
362	TSA(C)0500080gR5	A & C	50	80	150	5	28.8	0.72	2.4
363	TSA0500080gR3.97	A	50	80	180	3.97	36.27	0.91	3.02
364	TSA0500080gR3.34	A	50	80	210	3.34	43.11	1.08	3.59
365	TSA(C)0500100gR23.5	A & C	50	100	30	23.5	6.13	0.12	0.51

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)0500100gR11.2	A & C	50	100	60	11.2	12.86	0.26	1.07
367	TSA(C)0500100gR7.05	A & C	50	100	90	7.05	20.43	0.41	1.7
368	TSA(C)0500100gR5	A & C	50	100	120	5	28.8	0.58	2.4
369	TSA0500100gR3.97	A	50	100	150	3.97	36.27	0.73	3.02
370	TSA0500100gR3.15	A	50	100	180	3.15	45.71	0.91	3.81
371	TSA0500100gR2.64	A	50	100	210	2.64	54.55	1.09	4.55
372	TSA(C)0500125gR18.7	A & C	50	125	30	18.7	7.7	0.12	0.64
373	TSA(C)0500125gR8.88	A & C	50	125	60	8.88	16.22	0.26	1.35
374	TSA(C)0500125gR5.61	A & C	50	125	90	5.61	25.67	0.41	2.14
375	TSA0500125gR3.97	A	50	125	120	3.97	36.27	0.58	3.02
376	TSA0500125gR3.15	A	50	125	150	3.15	45.71	0.73	3.81
377	TSA0500125gR2.64	A	50	125	180	2.64	54.55	0.87	4.55
378	TSA0500125gR2.22	A	50	125	210	2.22	64.86	1.04	5.41
379	TSA(C)0500160gR14.1	A & C	50	160	30	14.1	10.21	0.13	0.85
380	TSA(C)0500160gR7.05	A & C	50	160	60	7.05	20.43	0.26	1.7
381	TSA(C)0500160gR4.46	A & C	50	160	90	4.46	32.29	0.40	2.69
382	TSA0500160gR3.15	A	50	160	120	3.15	45.71	0.57	3.81
383	TSA0500160gR2.49	A	50	160	150	2.49	57.83	0.72	4.82
384	TSA0500160gR1.98	A	50	160	180	1.98	72.73	0.91	6.06
385	TSA0500160gR1.67	A	50	160	210	1.67	86.23	1.08	7.19
386	TSA(C)0500200gR11.9	A & C	50	200	30	11.9	12.1	0.12	1.01
387	TSA(C)0500200gR5.61	A & C	50	200	60	5.61	25.67	0.26	2.14
388	TSA0500200gR3.54	A	50	200	90	3.54	40.68	0.41	3.39
389	TSA0500200gR2.49	A	50	200	120	2.49	57.83	0.58	4.82
390	TSA0500200gR1.98	A	50	200	150	1.98	72.73	0.73	6.06
391	TSA0500200gR1.58	A	50	200	180	1.58	91.14	0.91	7.6
392	TSA0500200gR1.33	A	50	200	210	1.33	108.27	1.08	9.02
393	TSA(C)0630063gR31.5	A & C	63	63	30	31.5	4.57	0.12	0.38
394	TSA(C)0630063gR14.9	A & C	63	63	60	14.9	9.66	0.24	0.81
395	TSA(C)0630063gR9.41	A & C	63	63	90	9.41	15.3	0.39	1.28
396	TSA(C)0630063gR6.66	A & C	63	63	120	6.66	21.62	0.54	1.8
397	TSA(C)0630063gR5.3	A & C	63	63	150	5.3	27.17	0.68	2.26
398	TSA(C)0630063gR4.21	A & C	63	63	180	4.21	34.2	0.86	2.85
399	TSA(C)0630063gR3.54	A & C	63	63	210	3.54	40.68	1.02	3.39
400	TSA(C)0630080gR24.9	A & C	63	80	30	24.9	5.78	0.11	0.48
401	TSA(C)0630080gR11.9	A & C	63	80	60	11.9	12.1	0.24	1.01
402	TSA(C)0630080gR7.47	A & C	63	80	90	7.47	19.28	0.38	1.61
403	TSA(C)0630080gR5.3	A & C	63	80	120	5.3	27.17	0.54	2.26
404	TSA(C)0630080gR4.21	A & C	63	80	150	4.21	34.2	0.68	2.85
405	TSA(C)0630080gR3.34	A & C	63	80	180	3.34	43.11	0.86	3.59
406	TSA0630080gR2.8	A	63	80	210	2.8	51.43	1.02	4.29
407	TSA(C)0630100gR19.8	A & C	63	100	30	19.8	7.27	0.12	0.61
408	TSA(C)0630100gR9.41	A & C	63	100	60	9.41	15.3	0.24	1.28
409	TSA(C)0630100gR5.94	A & C	63	100	90	5.94	24.24	0.38	2.02
410	TSA(C)0630100gR4.21	A & C	63	100	120	4.21	34.2	0.54	2.85
411	TSA0630100gR3.34	A	63	100	150	3.34	43.11	0.68	3.59
412	TSA0630100gR2.64	A	63	100	180	2.64	54.55	0.87	4.55
413	TSA0630100gR2.22	A	63	100	210	2.22			

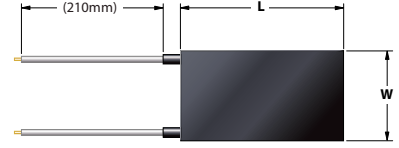
# STANDARD | Rectangular 12V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA0630250gR1.33	A	63	250	150	1.33	108.27	0.69	9.02	512	TSA1000200gR1.67	A	100	200	120	1.67	86.23	0.43	7.19
440	TSA0630250gR1.06	A	63	250	180	1.06	135.85	0.86	11.32	513	TSA1000200gR1.26	A	100	200	150	1.26	114.29	0.57	9.52
441	TSA0630250gR0.888	A	63	250	210	0.888	162.16	1.03	13.51	514	TSA1000200gR1.06	A	100	200	180	1.06	135.85	0.68	11.32
442	TSA(C)0800080gR21	A & C	80	80	30	21	6.86	0.11	0.57	515	TSA1000200gR0.838	A	100	200	210	0.838	171.84	0.86	14.32
443	TSA(C)0800080gR10.6	A & C	80	80	60	10.6	13.58	0.21	1.13	516	TSA(C)1000250gR6.29	A & C	100	250	30	6.29	22.89	0.09	1.91
444	TSA(C)0800080gR6.66	A & C	80	80	90	6.66	21.62	0.34	1.8	517	TSA(C)1000250gR3.15	A & C	100	250	60	3.15	45.71	0.18	3.81
445	TSA(C)0800080gR4.46	A & C	80	80	120	4.46	32.29	0.50	2.69	518	TSA1000300gR1.87	A	100	250	90	1.87	77.01	0.31	6.42
446	TSA(C)0800080gR3.54	A & C	80	80	150	3.54	40.68	0.64	3.39	519	TSA1000250gR1.33	A	100	250	120	1.33	108.27	0.43	9.02
447	TSA0800080gR2.97	A	80	80	180	2.97	48.48	0.76	4.04	520	TSA1000250gR1	A	100	250	150	1	144	0.58	12
448	TSA0800080gR2.35	A	80	80	210	2.35	61.28	0.96	5.11	521	TSA1000250gR0.838	A	100	250	180	0.838	171.84	0.69	14.32
449	TSA(C)0800100gR16.7	A & C	80	100	30	16.7	8.62	0.11	0.72	522	TSA(C)1000300gR5	A & C	100	300	30	5	28.8	0.10	2.4
450	TSA(C)0800100gR8.38	A & C	80	100	60	8.38	17.18	0.21	1.43	523	TSA1000300gR2.49	A	100	300	60	2.49	57.83	0.19	4.82
451	TSA(C)0800100gR5.3	A & C	80	100	90	5.3	27.17	0.34	2.26	524	TSA1000300gR1.58	A	100	300	90	1.58	91.14	0.30	7.6
452	TSA(C)0800100gR3.75	A & C	80	100	120	3.75	38.4	0.48	3.2	525	TSA1000300gR1.12	A	100	300	120	1.12	128.57	0.43	10.71
453	TSA0800100gR2.8	A	80	100	150	2.8	51.43	0.64	4.29	526	TSA(C)1250160gR0.838	A	100	300	150	0.838	171.84	0.57	14.32
454	TSA0800100gR2.35	A	80	100	180	2.35	61.28	0.77	5.11	527	TSA(C)1250125gR10.6	A & C	125	125	30	10.6	13.58	0.09	1.13
455	TSA0800100gR1.98	A	80	100	210	1.98	72.73	0.91	6.06	528	TSA(C)1250125gR5.3	A & C	125	125	60	5.3	27.17	0.17	2.26
456	TSA(C)0800125gR13.3	A & C	80	125	30	13.3	10.83	0.11	0.9	529	TSA(C)1250125gR3.34	A & C	125	125	90	3.34	43.11	0.28	3.59
457	TSA(C)0800125gR6.66	A & C	80	125	60	6.66	21.62	0.22	1.8	530	TSA1250125gR2.22	A	125	125	120	2.22	64.86	0.42	5.41
458	TSA(C)0800125gR4.21	A & C	80	125	90	4.21	34.2	0.34	2.85	531	TSA1250125gR1.77	A	125	125	150	1.77	81.36	0.52	6.78
459	TSA0800125gR2.97	A	80	125	120	2.97	48.48	0.48	4.04	532	TSA1250125gR1.41	A	125	125	180	1.41	102.13	0.65	8.51
460	TSA0800125gR2.22	A	80	125	150	2.22	64.86	0.65	5.41	533	TSA1250125gR1.19	A	125	125	210	1.19	121.01	0.77	10.08
461	TSA0800125gR1.87	A	80	125	180	1.87	77.01	0.77	6.42	534	TSA(C)1250160gR8.38	A & C	125	160	30	8.38	17.18	0.09	1.43
462	TSA0800125gR1.58	A	80	125	210	1.58	91.14	0.91	7.6	535	TSA(C)1250160gR4.21	A & C	125	160	60	4.21	34.2	0.17	2.85
463	TSA(C)0800160gR10.6	A & C	80	160	30	10.6	13.58	0.11	1.13	536	TSA1250160gR2.64	A	125	160	90	2.64	54.55	0.27	4.55
464	TSA(C)0800160gR5.3	A & C	80	160	60	5.3	27.17	0.21	2.26	537	TSA1250160gR1.77	A	125	160	120	1.77	81.36	0.41	6.78
465	TSA(C)0800160gR3.34	A & C	80	160	90	3.34	43.11	0.34	3.59	538	TSA1250160gR1.41	A	125	160	150	1.41	102.13	0.51	8.51
466	TSA0800160gR2.35	A	80	160	120	2.35	61.28	0.48	5.11	539	TSA1250160gR1.12	A	125	160	180	1.12	128.57	0.64	10.71
467	TSA0800160gR1.77	A	80	160	150	1.77	81.36	0.64	6.78	540	TSA1250160gR0.941	A	125	160	210	0.941	153.03	0.77	12.75
468	TSA0800160gR1.49	A	80	160	180	1.49	96.64	0.76	8.05	541	TSA(C)1250200gR6.66	A & C	125	200	30	6.66	21.62	0.09	1.8
469	TSA0800160gR1.19	A	80	160	210	1.19	121.01	0.95	10.08	542	TSA(C)1250200gR3.34	A & C	125	200	60	3.34	43.11	0.17	3.59
470	TSA(C)0800200gR8.38	A & C	80	200	30	8.38	17.18	0.11	1.43	543	TSA(C)1250200gR2.1	A	125	200	90	2.1	68.57	0.27	5.71
471	TSA(C)0800200gR4.21	A & C	80	200	60	4.21	34.2	0.21	2.85	544	TSA1250200gR1.41	A	125	200	120	1.41	102.13	0.41	8.51
472	TSA0800200gR2.64	A	80	200	90	2.64	54.55	0.34	4.55	545	TSA1250200gR1.12	A	125	200	150	1.12	128.57	0.51	10.71
473	TSA0800200gR1.87	A	80	200	120	1.87	77.01	0.48	6.42	546	TSA1250200gR0.888	A	125	200	180	0.888	162.16	0.65	13.51
474	TSA0800200gR1.41	A	80	200	150	1.41	102.13	0.64	8.51	547	TSA(C)1250250gR5.3	A & C	125	250	30	5.3	27.17	0.09	2.26
475	TSA0800200gR1.19	A	80	200	180	1.19	121.01	0.76	10.08	548	TSA1250250gR2.64	A	125	250	60	2.64	54.55	0.17	4.55
476	TSA0800200gR0.941	A	80	200	210	0.941	153.03	0.96	12.75	549	TSA1250250gR1.67	A	125	250	90	1.67	86.23	0.28	7.19
477	TSA(C)0800250gR6.66	A & C	80	250	30	6.66	21.62	0.11	1.8	550	TSA1250250gR1.12	A	125	250	120	1.12	128.57	0.41	10.71
478	TSA(C)0800250gR3.34	A & C	80	250	60	3.34	43.11	0.22	3.59	551	TSA1250250gR0.888	A	125	250	150	0.888	162.16	0.52	13.51
479	TSA0800250gR2.1	A	80	250	90	2.1	68.57	0.34	5.71	552	TSA(C)1250300gR4.46	A & C	125	300	30	4.46	32.29	0.09	2.69
480	TSA0800250gR1.49	A	80	250	120	1.49	96.64	0.48	8.05	553	TSA1250300gR2.22	A	125	300	60	2.22	64.86	0.17	5.41
481	TSA0800250gR1.12	A	80	250	150	1.12	128.57	0.64	10.71	554	TSA1250300gR1.41	A	125	300	90	1.41	102.13	0.27	8.51
482	TSA0800250gR0.941	A	80	250	180	0.941	153.03	0.77	12.75	555	TSA1250300gR0.941	A	125	300	120	0.941	153.03	0.41	12.75
483	TSA(C)0800300gR5.61	A & C	80	300	30	5.61	25.67	0.11	2.14	556	TSA(C)1600160gR7.47	A & C	160	160	30	7.47	19.28	0.08	1.61
484	TSA0800300gR2.8	A	80	300	60	2.8	51.43	0.21	4.29	557	TSA(C)1600160gR3.54	A & C	160	160	60	3.54	40.68	0.16	3.39
485	TSA0800300gR1.77	A	80	300	90	1.77	81.36	0.34	6.78	558	TSA1600160gR2.22	A	160	160	90	2.22	64.86	0.25	5.41
486	TSA0800300gR1.19	A	80	300	120	1.19	121.01	0.50	10.08	559	TSA1600160gR1.58	A	160	160	120	1.58	91.14	0.36	7.6
487	TSA0800300gR0.941	A	80	300	150	0.941	153.03	0.64	12.75	560	TSA1600160gR1.19	A	160	160	150	1.19	121.01	0.47	10.08
488	TSA(C)1000100gR15.8	A & C	100	100	30	15.8	9.11	0.09	0.76	561	TSA1600160gR1	A	160	160	180	1	144	0.56	12
489	TSA(C)1000100gR7.47	A & C	100	100	60	7.47	19.28	0.19	1.61	562	TSA1600160gR0.791	A	160	160	210	0.791	182.05	0.71	15.17
490	TSA(C)1000100gR4.72	A & C	100	100	90	4.72	30.51	0.31	2.54	563	TSA(C)1600200gR5.94	A & C	160	200	30	5.94	24.24	0.08	2.02
491	TSA(C)1000100gR3.34	A & C	100	100	120	3.34	43.11	0.43	3.59	564	TSA1600200gR2.97	A	160	200	60	2.97	48.48	0.15	4.04
492	TSA1000100gR2.49	A	100	100	150	2.49	57.83	0.58	4.82	565	TSA1600200gR1.87	A	160	200	90	1.87	77.01	0.24	6.42
493	TSA1000100gR2.1	A	100	100	180	2.1	68.57	0.69	5.71	566	TSA1600200gR1.26	A	160	200	120	1.26	114.29	0.36	9.52
494	TSA1000100gR1.67	A	100	100	210	1.67	86.23	0.86	7.19	567	TSA1600200gR0.941	A	160	200	150	0.941	153.03	0.48	12.75
495	TSA(C)1000125gR12.6	A & C	100	125	30	12.6	11.43	0.09	0.95	568	TSA1600200gR0.791	A	160	200	180	0.791	182.05	0.57	15.17
496	TSA(C)1000125gR6.29	A & C	100	125	60	6.29	22.89	0.18	1.91	569	TSA(C)1600250gR4.72	A & C	160	250	30	4.72	30.51	0.08	2.54
497	TSA(C)1000125gR3.75	A & C	100	125	90	3.75	38.4	0.31	3.2	570	TSA1600250gR2.35	A	160	250	60	2.35	61.28	0.15	5.11
498	TSA1000125gR2.64	A	100	125	120	2.64	54.55	0.44	4.55	571	TSA1600250gR1.49	A	160	250	90	1.49	96.64	0.24	8.05
499	TSA1000125gR1.98	A	100	125	150	1.98	72.73	0.58	6.06	572	TSA1600250gR1	A	160	250	120	1	144	0.36	12
500	TSA1000125gR1.67	A	100	125	180	1.67	86.23	0.69	7.19	573	TSA(C)1600300gR3.97	A & C	160	300	30				



# STANDARD | Rectangular 12V

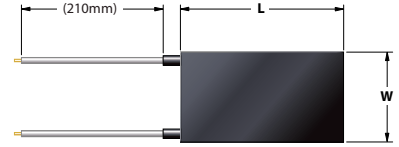


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA2000250gR0.838	A	200	250	120	0.838	171.84	0.34	14.32
586	TSA(C)2000300gR3.34	A & C	200	300	30	3.34	43.11	0.07	3.59
587	TSA2000300gR1.67	A	200	300	60	1.67	86.23	0.14	7.19
588	TSA2000300gR1.06	A	200	300	90	1.06	135.85	0.23	11.32
589	TSA(C)2500250gR3.54	A & C	250	250	30	3.54	40.68	0.07	3.39
590	TSA2500250gR1.77	A	250	250	60	1.77	81.36	0.13	6.78
591	TSA2500250gR1.12	A	250	250	90	1.12	128.57	0.21	10.71

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
592	TSA2500300gR2.97	A	250	300	30	2.97	48.48	0.06	4.04
593	TSA2500300gR1.49	A	250	300	60	1.49	96.64	0.13	8.05
594	TSA2500300gR0.941	A	250	300	90	0.941	153.03	0.20	12.75
595	TSA3000300gR2.49	A	300	300	30	2.49	57.83	0.06	4.82
596	TSA3000300gR1.26	A	300	300	60	1.26	114.29	0.13	9.52
597	TSA3000300gR0.791	A	300	300	90	0.791	182.05	0.20	15.17

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape : **RECTANGULAR**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Length(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Width(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



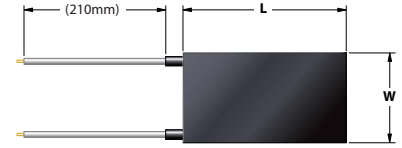
# STANDARD | Rectangular 24V

■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010hR2220	C	10	10	30	2220	0.26	0.26	0.01
2	TSC0100010hR1060	C	10	10	60	1060	0.54	0.54	0.02
3	TSC0100010hR666	C	10	10	90	666	0.86	0.86	0.04
4	TSC0100010hR472	C	10	10	120	472	1.22	1.22	0.05
5	TSC0100010hR354	C	10	10	150	354	1.63	1.63	0.07
6	TSC0100010hR280	C	10	10	180	280	2.06	2.06	0.09
7	TSC0100010hR235	C	10	10	210	235	2.45	2.45	0.1
8	TSC0100013hR1770	C	10	13	30	1770	0.33	0.25	0.01
9	TSC0100013hR791	C	10	13	60	791	0.73	0.56	0.03
10	TSC0100013hR530	C	10	13	90	530	1.09	0.84	0.05
11	TSC0100013hR375	C	10	13	120	375	1.54	1.18	0.06
12	TSC0100013hR280	C	10	13	150	280	2.06	1.58	0.09
13	TSC0100013hR222	C	10	13	180	222	2.59	1.99	0.11
14	TSC0100013hR187	C	10	13	210	187	3.08	2.37	0.13
15	TSC0100016hR1410	C	10	16	30	1410	0.41	0.26	0.02
16	TSC0100016hR666	C	10	16	60	666	0.86	0.54	0.04
17	TSC0100016hR421	C	10	16	90	421	1.37	0.86	0.06
18	TSC0100016hR297	C	10	16	120	297	1.94	1.21	0.08
19	TSC0100016hR222	C	10	16	150	222	2.59	1.62	0.11
20	TSC0100016hR177	C	10	16	180	177	3.25	2.03	0.14
21	TSC0100016hR149	C	10	16	210	149	3.87	2.42	0.16
22	TSC0100020hR1120	C	10	20	30	1120	0.51	0.26	0.02
23	TSC0100020hR530	C	10	20	60	530	1.09	0.55	0.05
24	TSC0100020hR334	C	10	20	90	334	1.72	0.86	0.07
25	TSC0100020hR235	C	10	20	120	235	2.45	1.23	0.1
26	TSC0100020hR177	C	10	20	150	177	3.25	1.63	0.14
27	TSC0100020hR141	C	10	20	180	141	4.09	2.05	0.17
28	TSA(C)0100020hR119	A & C	10	20	210	119	4.84	2.42	0.2
29	TSC0100025hR888	C	10	25	30	888	0.65	0.26	0.03
30	TSC0100025hR421	C	10	25	60	421	1.37	0.55	0.06
31	TSC0100025hR264	C	10	25	90	264	2.18	0.87	0.09
32	TSC0100025hR198	C	10	25	120	198	2.91	1.16	0.12
33	TSA(C)0100025hR149	A & C	10	25	150	149	3.87	1.55	0.16
34	TSA(C)0100025hR112	A & C	10	25	180	112	5.14	2.06	0.21
35	TSA(C)0100025hR94.1	A & C	10	25	210	94.1	6.12	2.45	0.26
36	TSC0100032hR705	C	10	32	30	705	0.82	0.26	0.03
37	TSC0100032hR334	C	10	32	60	334	1.72	0.54	0.07
38	TSC0100032hR210	C	10	32	90	210	2.74	0.86	0.11
39	TSA(C)0100032hR149	A & C	10	32	120	149	3.87	1.21	0.16
40	TSA(C)0100032hR112	A & C	10	32	150	112	5.14	1.61	0.21
41	TSA(C)0100032hR88.8	A & C	10	32	180	88.8	6.49	2.03	0.27
42	TSA(C)0100032hR74.7	A & C	10	32	210	74.7	7.71	2.41	0.32
43	TSC0100040hR561	C	10	40	30	561	1.03	0.26	0.04
44	TSC0100040hR264	C	10	40	60	264	2.18	0.55	0.09
45	TSA(C)0100040hR167	A & C	10	40	90	167	3.45	0.86	0.14
46	TSA(C)0100040hR119	A & C	10	40	120	119	4.84	1.21	0.2
47	TSA(C)0100040hR88.8	A & C	10	40	150	88.8	6.49	1.62	0.27
48	TSA(C)0100040hR70.5	A & C	10	40	180	70.5	8.17	2.04	0.34
49	TSA(C)0100040hR59.4	A & C	10	40	210	59.4	9.7	2.43	0.4
50	TSC0130013hR1490	C	13	13	30	1490	0.39	0.23	0.02
51	TSC0130013hR705	C	13	13	60	705	0.82	0.49	0.03
52	TSC0130013hR446	C	13	13	90	446	1.29	0.76	0.05

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
53	TSC0130013hR334	C	13	13	120	334	1.72	1.02	0.07
54	TSC0130013hR249	C	13	13	150	249	2.31	1.37	0.1
55	TSC0130013hR198	C	13	13	180	198	2.91	1.72	0.12
56	TSC0130013hR158	C	13	13	210	158	3.65	2.16	0.15
57	TSC0130016hR1260	C	13	16	30	1260	0.46	0.22	0.02
58	TSC0130016hR954	C	13	16	60	954	0.97	0.47	0.04
59	TSC0130016hR375	C	13	16	90	375	1.54	0.74	0.06
60	TSC0130016hR264	C	13	16	120	264	2.18	1.05	0.09
61	TSC0130016hR198	C	13	16	150	198	2.91	1.40	0.12
62	TSC0130016hR158	C	13	16	180	158	3.65	1.75	0.15
63	TSC0130016hR133	C	13	16	210	133	4.33	2.08	0.18
64	TSC0130020hR1000	C	13	20	30	1000	0.58	0.22	0.02
65	TSC0130020hR472	C	13	20	60	472	1.22	0.47	0.05
66	TSC0130020hR297	C	13	20	90	297	1.94	0.75	0.08
67	TSC0130020hR210	C	13	20	120	210	2.74	1.05	0.11
68	TSC0130020hR158	C	13	20	150	158	3.65	1.40	0.15
69	TSA(C)0130020hR126	A & C	13	20	180	126	4.57	1.76	0.19
70	TSA(C)0130020hR106	A & C	13	20	210	106	5.43	2.09	0.23
71	TSC0130025hR791	C	13	25	30	791	0.73	0.22	0.03
72	TSC0130025hR375	C	13	25	60	375	1.54	0.47	0.06
73	TSC0130025hR235	C	13	25	90	235	2.45	0.75	0.1
74	TSA(C)0130025hR167	A & C	13	25	120	167	3.45	1.06	0.14
75	TSA(C)0130025hR126	A & C	13	25	150	126	4.57	1.41	0.19
76	TSA(C)0130025hR100	A & C	13	25	180	100	5.76	1.77	0.24
77	TSA(C)0130025hR83.8	A & C	13	25	210	83.8	6.87	2.11	0.29
78	TSC0130032hR629	C	13	32	30	629	0.92	0.22	0.04
79	TSC0130032hR297	C	13	32	60	297	1.94	0.47	0.08
80	TSA(C)0130032hR187	A & C	13	32	90	187	3.08	0.74	0.13
81	TSA(C)0130032hR133	A & C	13	32	120	133	4.33	1.04	0.18
82	TSA(C)0130032hR100	A & C	13	32	150	100	5.76	1.38	0.24
83	TSA(C)0130032hR79.1	A & C	13	32	180	79.1	7.28	1.75	0.3
84	TSA(C)0130032hR66.6	A & C	13	32	210	66.6	8.65	2.08	0.36
85	TSC0130040hR500	C	13	40	30	500	1.15	0.22	0.05
86	TSA(C)0130040hR235	A & C	13	40	60	235	2.45	0.47	0.1
87	TSA(C)0130040hR149	A & C	13	40	90	149	3.87	0.74	0.16
88	TSA(C)0130040hR106	A & C	13	40	120	106	5.43	1.04	0.23
89	TSA(C)0130040hR79.1	A & C	13	40	150	79.1	7.28	1.40	0.3
90	TSA(C)0130040hR62.9	A & C	13	40	180	62.9	9.16	1.76	0.38
91	TSA(C)0130040hR53	A & C	13	40	210	53	10.87	2.09	0.45
92	TSC0130050hR397	C	13	50	30	397	1.45	0.22	0.06
93	TSA(C)0130050hR187	A & C	13	50	60	187	3.08	0.47	0.13
94	TSA(C)0130050hR119	A & C	13	50	90	119	4.84	0.74	0.2
95	TSA(C)0130050hR83.8	A & C	13	50	120	83.8	6.87	1.06	0.29
96	TSA(C)0130050hR62.9	A & C	13	50	150	62.9	9.16	1.41	0.38
97	TSA(C)0130050hR50	A & C	13	50	180	50	11.52	1.77	0.48
98	TSA(C)0130050hR42.1	A & C	13	50	210	42.1	13.68	2.10	0.57
99	TSC0160016hR1190	C	16	16	30	1190	0.48	0.19	0.02
100	TSC0160016hR561	C	16	16	60	561	1.03	0.40	0.04
101	TSC0160016hR354	C	16	16	90	354	1.63	0.64	0.07
102	TSC0160016hR249	C	16	16	120	249	2.31	0.90	0.1
103	TSC0160016hR187	C	16	16	150	187	3.08	1.20	0.13
104	TSA(C)0160016hR149	A & C	16	16	180	149	3.87	1.51	0.16

# STANDARD | Rectangular 24V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
105	TSA(C)0160016hR126	A & C	16	16	210	126	4.57	1.79	0.19	178	TSA(C)0200050hR112	A & C	20	50	90	112	5.14	0.51	0.21
106	TSC0160020hR941	C	16	20	30	941	0.61	0.19	0.03	179	TSA(C)0200050hR83.8	A & C	20	50	120	83.8	6.87	0.69	0.29
107	TSC0160020hR446	C	16	20	60	446	1.29	0.40	0.05	180	TSA(C)0200050hR62.9	A & C	20	50	150	62.9	9.16	0.92	0.38
108	TSC0160020hR280	C	16	20	90	280	2.06	0.64	0.09	181	TSA(C)0200050hR50	A & C	20	50	180	50	11.52	1.15	0.48
109	TSC0160020hR198	C	16	20	120	198	2.91	0.91	0.12	182	TSA(C)0200050hR42.1	A & C	20	50	210	42.1	13.68	1.37	0.57
110	TSA(C)0160020hR149	A & C	16	20	150	149	3.87	1.21	0.16	183	TSA(C)0200063hR297	A & C	20	63	30	297	1.94	0.15	0.08
111	TSA(C)0160020hR119	A & C	16	20	180	119	4.84	1.51	0.2	184	TSA(C)0200063hR149	A & C	20	63	60	149	3.87	0.31	0.16
112	TSA(C)0160020hR100	A & C	16	20	210	100	5.76	1.80	0.24	185	TSA(C)0200063hR88.8	A & C	20	63	90	88.8	6.49	0.52	0.27
113	TSC0160025hR747	C	16	25	30	747	0.77	0.19	0.03	186	TSA(C)0200063hR62.9	A & C	20	63	120	62.9	9.16	0.73	0.38
114	TSC0160025hR354	C	16	25	60	354	1.63	0.41	0.07	187	TSA(C)0200063hR50	A & C	20	63	150	50	11.52	0.91	0.48
115	TSA(C)0160025hR222	A & C	16	25	90	222	2.59	0.65	0.11	188	TSA(C)0200063hR39.7	A & C	20	63	180	39.7	14.51	1.15	0.6
116	TSA(C)0160025hR158	A & C	16	25	120	158	3.65	0.91	0.15	189	TSA(C)0200063hR33.4	A & C	20	63	210	33.4	17.25	1.37	0.72
117	TSA(C)0160025hR119	A & C	16	25	150	119	4.84	1.21	0.2	190	TSA(C)0200080hR235	A & C	20	80	30	235	2.45	0.15	0.1
118	TSA(C)0160025hR100	A & C	16	25	180	100	5.76	1.44	0.24	191	TSA(C)0200080hR119	A & C	20	80	60	119	4.84	0.30	0.2
119	TSA(C)0160025hR79.1	A & C	16	25	210	79.1	7.28	1.82	0.3	192	TSA(C)0200080hR70.5	A & C	20	80	90	70.5	8.17	0.51	0.34
120	TSC0160032hR594	C	16	32	30	594	0.97	0.19	0.04	193	TSA(C)0200080hR50	A & C	20	80	120	50	11.52	0.72	0.48
121	TSA(C)0160032hR280	A & C	16	32	60	280	2.06	0.40	0.09	194	TSA(C)0200080hR39.7	A & C	20	80	150	39.7	14.51	0.91	0.6
122	TSA(C)0160032hR177	A & C	16	32	90	177	3.25	0.63	0.14	195	TSA(C)0200080hR31.5	A & C	20	80	180	31.5	18.29	1.14	0.76
123	TSA(C)0160032hR126	A & C	16	32	120	126	4.57	0.89	0.19	196	TSA(C)0200080hR26.4	A & C	20	80	210	26.4	21.82	1.36	0.91
124	TSA(C)0160032hR94.1	A & C	16	32	150	94.1	6.12	1.20	0.26	197	TSC0250025hR629	C	25	25	30	629	0.92	0.15	0.04
125	TSA(C)0160032hR74.7	A & C	16	32	180	74.7	7.71	1.51	0.32	198	TSA(C)0250025hR315	A & C	25	25	60	315	1.83	0.29	0.08
126	TSA(C)0160032hR62.9	A & C	16	32	210	62.9	9.16	1.79	0.38	199	TSA(C)0250025hR187	A & C	25	25	90	187	3.08	0.49	0.13
127	TSC0160040hR472	C	16	40	30	472	1.22	0.19	0.05	200	TSA(C)0250025hR133	A & C	25	25	120	133	4.33	0.69	0.18
128	TSA(C)0160040hR222	A & C	16	40	60	222	2.59	0.40	0.11	201	TSA(C)0250025hR106	A & C	25	25	150	106	5.43	0.87	0.23
129	TSA(C)0160040hR141	A & C	16	40	90	141	4.09	0.64	0.17	202	TSA(C)0250025hR83.8	A & C	25	25	180	83.8	6.87	1.10	0.29
130	TSA(C)0160040hR100	A & C	16	40	120	100	5.76	0.90	0.24	203	TSA(C)0250025hR70.5	A & C	25	25	210	70.5	8.17	1.31	0.34
131	TSA(C)0160040hR74.7	A & C	16	40	150	74.7	7.71	1.20	0.32	204	TSC0250032hR500	C	25	32	30	500	1.15	0.14	0.05
132	TSA(C)0160040hR59.4	A & C	16	40	180	59.4	9.7	1.52	0.4	205	TSA(C)0250032hR235	A & C	25	32	60	235	2.45	0.31	0.1
133	TSA(C)0160040hR50	A & C	16	40	210	50	11.52	1.80	0.48	206	TSA(C)0250032hR149	A & C	25	32	90	149	3.87	0.48	0.16
134	TSA(C)0160050hR375	A & C	16	50	30	375	1.54	0.19	0.06	207	TSA(C)0250032hR106	A & C	25	32	120	106	5.43	0.68	0.23
135	TSA(C)0160050hR177	A & C	16	50	60	177	3.25	0.41	0.14	208	TSA(C)0250032hR83.8	A & C	25	32	150	83.8	6.87	0.86	0.29
136	TSA(C)0160050hR112	A & C	16	50	90	112	5.14	0.64	0.21	209	TSA(C)0250032hR66.6	A & C	25	32	180	66.6	8.65	1.08	0.36
137	TSA(C)0160050hR79.1	A & C	16	50	120	79.1	7.28	0.91	0.3	210	TSA(C)0250032hR56.1	A & C	25	32	210	56.1	10.27	1.28	0.43
138	TSA(C)0160050hR59.4	A & C	16	50	150	59.4	9.7	1.21	0.4	211	TSA(C)0250040hR397	A & C	25	40	30	397	1.45	0.15	0.06
139	TSA(C)0160050hR50	A & C	16	50	180	50	11.52	1.44	0.48	212	TSA(C)0250040hR187	A & C	25	40	60	187	3.08	0.31	0.13
140	TSA(C)0160050hR39.7	A & C	16	50	210	39.7	14.51	1.81	0.6	213	TSA(C)0250040hR119	A & C	25	40	90	119	4.84	0.48	0.2
141	TSA(C)0160063hR297	A & C	16	63	30	297	1.94	0.19	0.08	214	TSA(C)0250040hR83.8	A & C	25	40	120	83.8	6.87	0.69	0.29
142	TSA(C)0160063hR141	A & C	16	63	60	141	4.09	0.41	0.17	215	TSA(C)0250040hR66.6	A & C	25	40	150	66.6	8.65	0.87	0.36
143	TSA(C)0160063hR88.8	A & C	16	63	90	88.8	6.49	0.64	0.27	216	TSA(C)0250040hR53	A & C	25	40	180	53	10.87	1.09	0.45
144	TSA(C)0160063hR62.9	A & C	16	63	120	62.9	9.16	0.91	0.38	217	TSA(C)0250040hR44.6	A & C	25	40	210	44.6	12.91	1.29	0.54
145	TSA(C)0160063hR47.2	A & C	16	63	150	47.2	12.2	1.21	0.51	218	TSA(C)0250050hR315	A & C	25	50	30	315	1.83	0.15	0.08
146	TSA(C)0160063hR39.7	A & C	16	63	180	39.7	14.51	1.44	0.6	219	TSA(C)0250050hR158	A & C	25	50	60	158	3.65	0.29	0.15
147	TSA(C)0160063hR31.5	A & C	16	63	210	31.5	18.29	1.81	0.76	220	TSA(C)0250050hR94.1	A & C	25	50	90	94.1	6.12	0.49	0.26
148	TSC0200020hR941	C	20	20	30	941	0.61	0.15	0.03	221	TSA(C)0250050hR66.6	A & C	25	50	120	66.6	8.65	0.69	0.36
149	TSC0200020hR472	C	20	20	60	472	1.22	0.31	0.05	222	TSA(C)0250050hR53	A & C	25	50	150	53	10.87	0.87	0.45
150	TSC0200020hR280	C	20	20	90	280	2.06	0.52	0.09	223	TSA(C)0250050hR42.1	A & C	25	50	180	42.1	13.68	1.09	0.57
151	TSA(C)0200020hR198	A & C	20	20	120	198	2.91	0.73	0.12	224	TSA(C)0250050hR35.4	A & C	25	50	210	35.4	16.27	1.30	0.68
152	TSA(C)0200020hR158	A & C	20	20	150	158	3.65	0.91	0.15	225	TSA(C)0250063hR249	A & C	25	63	30	249	2.31	0.15	0.1
153	TSA(C)0200020hR126	A & C	20	20	180	126	4.57	1.14	0.19	226	TSA(C)0250063hR119	A & C	25	63	60	119	4.84	0.31	0.2
154	TSA(C)0200020hR106	A & C	20	20	210	106	5.43	1.36	0.23	227	TSA(C)0250063hR74.7	A & C	25	63	90	74.7	7.71	0.49	0.32
155	TSC0200025hR747	C	20	25	30	747	0.77	0.15	0.03	228	TSA(C)0250063hR53	A & C	25	63	120	53	10.87	0.69	0.45
156	TSC0200025hR375	C	20	25	60	375	1.54	0.31	0.06	229	TSA(C)0250063hR42.1	A & C	25	63	150	42.1	13.68	0.87	0.57
157	TSA(C)0200025hR235	A & C	20	25	90	235	2.45	0.49	0.1	230	TSA(C)0250063hR33.4	A & C	25	63	180	33.4	17.25	1.10	0.72
158	TSA(C)0200025hR167	A & C	20	25	120	167	3.45	0.69	0.14	231	TSA(C)0250063hR28	A & C	25	63	210	28	20.57	1.31	0.86
159	TSA(C)0200025hR126	A & C	20	25	150	126	4.57	0.91	0.19	232	TSA(C)0250080hR198	A & C	25	80	30	198	2.91	0.15	0.12
160	TSA(C)0200025hR100	A & C	20	25	180	100	5.76	1.15	0.24	233	TSA(C)0250080hR94.1	A & C	25	80	60	94.1	6.12	0.31	0.26
161	TSA(C)0200025hR83.8	A & C	20	25	210	83.8	6.87	1.37	0.29	234	TSA(C)0250080hR59.4	A & C	25	80	90	59.4	9.7	0.49	0.4
162	TSC0200032hR594	C	20	32	30	594	0.97	0.15	0.04	235	TSA(C)0250080hR42.1	A & C	25	80	120	42.1	13.68	0.68	0.57
163	TSA(C)0200032hR297	A & C	20	32	60	297	1.94	0.30	0.08	236	TSA(C)0250080hR33.4	A & C	25	80	150	33.4	17.25	0.86	0.72
164	TSA(C)0200032hR177	A & C	20	32	90	177	3.25	0.51	0.14	237	TSA(C)0250080hR26.4	A & C	25	80	180	26.4	21.82	1.09	0.91
165	TSA(C)0200032hR126	A & C	20	32	120	126	4.57	0.71	0.19	238	TSA(C)0250080hR22.2	A & C	25	80	210	22.2	25.95	1.30	1.08
166	TSA(C)0200032hR100	A & C	20	32	150	100	5.76	0.90	0.24	239	TSA(C)0250100hR158	A & C	25	100	30	158	3.65	0.15	0.15
167	TSA(C)0200032hR																		

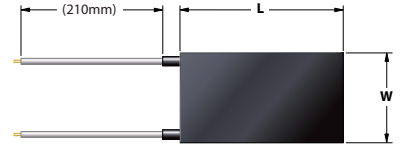
# STANDARD | Rectangular 24V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
251	TSA(C)0320032hr56.1	A & C	32	32	180	56.1	10.27	1.00	0.43
252	TSA(C)0320032hr47.2	A & C	32	32	210	47.2	12.2	1.19	0.51
253	TSA(C)0320040hrR334	A & C	32	40	30	334	1.72	0.13	0.07
254	TSA(C)0320040hrR158	A & C	32	40	60	158	3.65	0.29	0.15
255	TSA(C)0320040hrR100	A & C	32	40	90	100	5.76	0.45	0.24
256	TSA(C)0320040hrR70.5	A & C	32	40	120	70.5	8.17	0.64	0.34
257	TSA(C)0320040hrR56.1	A & C	32	40	150	56.1	10.27	0.80	0.43
258	TSA(C)0320040hrR44.6	A & C	32	40	180	44.6	12.91	1.01	0.54
259	TSA(C)0320040hrR37.5	A & C	32	40	210	37.5	15.36	1.20	0.64
260	TSA(C)0320050hrR264	A & C	32	50	30	264	2.18	0.14	0.09
261	TSA(C)0320050hrR126	A & C	32	50	60	126	4.57	0.29	0.19
262	TSA(C)0320050hrR79.1	A & C	32	50	90	79.1	7.28	0.46	0.3
263	TSA(C)0320050hrR56.1	A & C	32	50	120	56.1	10.27	0.64	0.43
264	TSA(C)0320050hrR44.6	A & C	32	50	150	44.6	12.91	0.81	0.54
265	TSA(C)0320050hrR35.4	A & C	32	50	180	35.4	16.27	1.02	0.68
266	TSA(C)0320050hrR29.7	A & C	32	50	210	29.7	19.39	1.21	0.81
267	TSA(C)0320063hrR210	A & C	32	63	30	210	2.74	0.14	0.11
268	TSA(C)0320063hrR100	A & C	32	63	60	100	5.76	0.29	0.24
269	TSA(C)0320063hrR62.9	A & C	32	63	90	62.9	9.16	0.45	0.38
270	TSA(C)0320063hrR44.6	A & C	32	63	120	44.6	12.91	0.64	0.54
271	TSA(C)0320063hrR35.4	A & C	32	63	150	35.4	16.27	0.81	0.68
272	TSA(C)0320063hrR28	A & C	32	63	180	28	20.57	1.02	0.86
273	TSA(C)0320063hrR23.5	A & C	32	63	210	23.5	24.51	1.22	1.02
274	TSA(C)0320080hrR167	A & C	32	80	30	167	3.45	0.13	0.14
275	TSA(C)0320080hrR79.1	A & C	32	80	60	79.1	7.28	0.28	0.3
276	TSA(C)0320080hrR50	A & C	32	80	90	50	11.52	0.45	0.48
277	TSA(C)0320080hrR35.4	A & C	32	80	120	35.4	16.27	0.64	0.68
278	TSA(C)0320080hrR28	A & C	32	80	150	28	20.57	0.80	0.86
279	TSA(C)0320080hrR22.2	A & C	32	80	180	22.2	25.95	1.01	1.08
280	TSA(C)0320080hrR18.7	A & C	32	80	210	18.7	30.8	1.20	1.28
281	TSA(C)0320100hrR133	A & C	32	100	30	133	4.33	0.14	0.18
282	TSA(C)0320100hrR62.9	A & C	32	100	60	62.9	9.16	0.29	0.38
283	TSA(C)0320100hrR39.7	A & C	32	100	90	39.7	14.51	0.45	0.6
284	TSA(C)0320100hrR28	A & C	32	100	120	28	20.57	0.64	0.86
285	TSA(C)0320100hrR22.2	A & C	32	100	150	22.2	25.95	0.81	1.08
286	TSA(C)0320100hrR17.7	A & C	32	100	180	17.7	32.54	1.02	1.36
287	TSA(C)0320100hrR14.9	A & C	32	100	210	14.9	38.66	1.21	1.61
288	TSA(C)0320125hrR106	A & C	32	125	30	106	5.43	0.14	0.23
289	TSA(C)0320125hrR50	A & C	32	125	60	50	11.52	0.29	0.48
290	TSA(C)0320125hrR31.5	A & C	32	125	90	31.5	18.29	0.46	0.76
291	TSA(C)0320125hrR22.2	A & C	32	125	120	22.2	25.95	0.65	1.08
292	TSA(C)0320125hrR17.7	A & C	32	125	150	17.7	32.54	0.81	1.36
293	TSA(C)0320125hrR14.1	A & C	32	125	180	14.1	40.85	1.02	1.7
294	TSA0320125hrR11.9	A	32	125	210	11.9	48.4	1.21	2.02
295	TSA(C)0400040hrR280	A & C	40	40	30	280	2.06	0.13	0.09
296	TSA(C)0400040hrR133	A & C	40	40	60	133	4.33	0.27	0.18
297	TSA(C)0400040hrR83.8	A & C	40	40	90	83.8	6.87	0.43	0.29
298	TSA(C)0400040hrR59.4	A & C	40	40	120	59.4	9.7	0.61	0.4
299	TSA(C)0400040hrR47.2	A & C	40	40	150	47.2	12.2	0.76	0.51
300	TSA(C)0400040hrR37.5	A & C	40	40	180	37.5	15.36	0.96	0.64
301	TSA(C)0400040hrR31.5	A & C	40	40	210	31.5	18.29	1.14	0.76
302	TSA(C)0400050hrR222	A & C	40	50	30	222	2.59	0.13	0.11
303	TSA(C)0400050hrR106	A & C	40	50	60	106	5.43	0.27	0.23
304	TSA(C)0400050hrR66.6	A & C	40	50	90	66.6	8.65	0.43	0.36
305	TSA(C)0400050hrR47.2	A & C	40	50	120	47.2	12.2	0.61	0.51
306	TSA(C)0400050hrR37.5	A & C	40	50	150	37.5	15.36	0.77	0.64
307	TSA(C)0400050hrR29.7	A & C	40	50	180	29.7	19.39	0.97	0.81
308	TSA(C)0400050hrR24.9	A & C	40	50	210	24.9	23.13	1.16	0.96
309	TSA(C)0400063hrR177	A & C	40	63	30	177	3.25	0.13	0.14
310	TSA(C)0400063hrR83.8	A & C	40	63	60	83.8	6.87	0.27	0.29
311	TSA(C)0400063hrR53	A & C	40	63	90	53	10.87	0.43	0.45
312	TSA(C)0400063hrR37.5	A & C	40	63	120	37.5	15.36	0.61	0.64
313	TSA(C)0400063hrR29.7	A & C	40	63	150	29.7	19.39	0.77	0.81
314	TSA(C)0400063hrR23.5	A & C	40	63	180	23.5	24.51	0.97	1.02
315	TSA(C)0400063hrR19.8	A & C	40	63	210	19.8	29.09	1.15	1.21
316	TSA(C)0400080hrR141	A & C	40	80	30	141	4.09	0.13	0.17
317	TSA(C)0400080hrR66.6	A & C	40	80	60	66.6	8.65	0.27	0.36
318	TSA(C)0400080hrR42.1	A & C	40	80	90	42.1	13.68	0.43	0.57
319	TSA(C)0400080hrR29.7	A & C	40	80	120	29.7	19.39	0.61	0.81
320	TSA(C)0400080hrR23.5	A & C	40	80	150	23.5	24.51	0.77	1.02
321	TSA(C)0400080hrR18.7	A & C	40	80	180	18.7	30.8	0.96	1.28
322	TSA(C)0400080hrR15.8	A & C	40	80	210	15.8	36.46	1.14	1.52
323	TSA(C)0400100hrR112	A & C	40	100	30	112	5.14	0.13	0.21

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
324	TSA(C)0400100hrR53	A & C	40	100	60	53	10.87	0.27	0.45
325	TSA(C)0400100hrR33.4	A & C	40	100	90	33.4	17.25	0.43	0.72
326	TSA(C)0400100hrR23.5	A & C	40	100	120	23.5	24.51	0.61	1.02
327	TSA(C)0400100hrR18.7	A & C	40	100	150	18.7	30.8	0.77	1.28
328	TSA(C)0400100hrR14.9	A & C	40	100	180	14.9	38.66	0.97	1.61
329	TSA(C)0400100hrR12.6	A & C	40	100	210	12.6	45.71	1.14	1.9
330	TSA(C)0400125hrR88.8	A & C	40	125	30	88.8	6.49	0.13	0.27
331	TSA(C)0400125hrR42.1	A & C	40	125	60	42.1	13.68	0.27	0.57
332	TSA(C)0400125hrR26.4	A & C	40	125	90	26.4	21.82	0.44	0.91
333	TSA(C)0400125hrR18.7	A & C	40	125	120	18.7	30.8	0.62	1.28
334	TSA(C)0400125hrR14.9	A & C	40	125	150	14.9	38.66	0.77	1.61
335	TSA(C)0400125hrR11.9	A & C	40	125	180	11.9	48.4	0.97	2.02
336	TSA0400125hrR10	A	40	125	210	10	57.6	1.15	2.4
337	TSA(C)0400160hrR70.5	A & C	40	160	30	70.5	8.17	0.13	0.34
338	TSA(C)0400160hrR33.4	A & C	40	160	60	33.4	17.25	0.27	0.72
339	TSA(C)0400160hrR21	A & C	40	160	90	21	27.43	0.43	1.14
340	TSA(C)0400160hrR14.9	A & C	40	160	120	14.9	38.66	0.60	1.61
341	TSA(C)0400160hrR11.9	A & C	40	160	150	11.9	48.4	0.76	2.02
342	TSA0400160hrR9.41	A	40	160	180	9.41	61.21	0.96	2.55
343	TSA0400160hrR7.91	A	40	160	210	7.91	72.82	1.14	3.03
344	TSA(C)0500050hrR187	A & C	50	50	30	187	3.08	0.12	0.13
345	TSA(C)0500050hrR88.8	A & C	50	50	60	88.8	6.49	0.26	0.27
346	TSA(C)0500050hrR56.1	A & C	50	50	90	56.1	10.27	0.41	0.43
347	TSA(C)0500050hrR39.7	A & C	50	50	120	39.7	14.51	0.58	0.6
348	TSA(C)0500050hrR31.5	A & C	50	50	150	31.5	18.29	0.73	0.76
349	TSA(C)0500050hrR26.4	A & C	50	50	180	26.4	21.82	0.87	0.91
350	TSA(C)0500050hrR22.2	A & C	50	50	210	22.2	25.95	1.04	1.08
351	TSA(C)0500063hrR149	A & C	50	63	30	149	3.87	0.12	0.16
352	TSA(C)0500063hrR70.5	A & C	50	63	60	70.5	8.17	0.26	0.34
353	TSA(C)0500063hrR44.6	A & C	50	63	90	44.6	12.91	0.41	0.54
354	TSA(C)0500063hrR31.5	A & C	50	63	120	31.5	18.29	0.58	0.76
355	TSA(C)0500063hrR24.9	A & C	50	63	150	24.9	23.13	0.73	0.96
356	TSA(C)0500063hrR21	A & C	50	63	180	21	27.43	0.87	1.14
357	TSA(C)0500063hrR17.7	A & C	50	63	210	17.7	32.54	1.03	1.36
358	TSA(C)0500080hrR119	A & C	50	80	30	119	4.84	0.12	0.2
359	TSA(C)0500080hrR56.1	A & C	50	80	60	56.1	10.27	0.26	0.43
360	TSA(C)0500080hrR35.4	A & C	50	80	90	35.4	16.27	0.41	0.68
361	TSA(C)0500080hrR24.9	A & C	50	80	120	24.9	23.13	0.58	0.96
362	TSA(C)0500080hrR19.8	A & C	50	80	150	19.8	29.09	0.73	1.21
363	TSA(C)0500080hrR15.8	A & C	50	80	180	15.8	36.46	0.91	1.52
364	TSA(C)0500080hrR13.3	A & C	50	80	210	13.3	43.31	1.08	1.8
365	TSA(C)0500100hrR94.1	A & C	50	100	30	94.1	6.12	0.12	0.26
366	TSA(C)0500100hrR44.6	A & C	50	100	60	44.6	12.91	0.26	0.54
367	TSA(C)0500100hrR28	A & C	50	100	90	28	20.57	0.41	0.86
368	TSA(C)0500100hrR19.8	A & C	50	100	120	19.8	29.09	0.58	1.21
369	TSA(C)0500100hrR15.8	A & C	50	100	150	15.8	36.46	0.73	1.52
370									





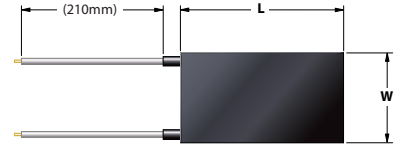
# STANDARD | Rectangular 24V

Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
397	TSA(C)0630063hR21	A & C	63	63	150	21	27.43	0.69	1.14	470	TSA(C)0800200hR33.4	A & C	80	200	30	33.4	17.25	0.11	0.72
398	TSA(C)0630063hR17.7	A & C	63	63	180	17.7	32.54	0.82	1.36	471	TSA(C)0800200hR16.7	A & C	80	200	60	16.7	34.49	0.22	1.44
399	TSA(C)0630063hR14.1	A & C	63	63	210	14.1	40.85	1.03	1.7	472	TSA(C)0800200hR10.6	A & C	80	200	90	10.6	54.34	0.34	2.26
400	TSA(C)0630080hR100	A & C	63	80	30	100	5.76	0.11	0.24	473	TSA(C)0800200hR7.47	A & C	80	200	120	7.47	77.11	0.48	3.21
401	TSA(C)0630080hR47.2	A & C	63	80	60	47.2	12.2	0.24	0.51	474	TSA0800200hR5.61	A	80	200	150	5.61	102.67	0.64	4.28
402	TSA(C)0630080hR29.7	A & C	63	80	90	29.7	19.39	0.38	0.81	475	TSA0800200hR4.72	A	80	200	180	4.72	122.03	0.76	5.08
403	TSA(C)0630080hR21	A & C	63	80	120	21	27.43	0.54	1.14	476	TSA0800200hR3.97	A	80	200	210	3.97	145.09	0.91	6.05
404	TSA(C)0630080hR16.7	A & C	63	80	150	16.7	34.49	0.68	1.44	477	TSA(C)0800250hR26.4	A & C	80	250	30	26.4	21.82	0.11	0.91
405	TSA(C)0630080hR13.3	A & C	63	80	180	13.3	43.31	0.86	1.8	478	TSA(C)0800250hR13.3	A & C	80	250	60	13.3	43.31	0.22	1.8
406	TSA(C)0630080hR11.2	A & C	63	80	210	11.2	51.43	1.02	2.14	479	TSA(C)0800250hR8.38	A & C	80	250	90	8.38	68.74	0.34	2.86
407	TSA(C)0630100hR79.1	A & C	63	100	30	79.1	7.28	0.12	0.3	480	TSA(C)0800250hR5.94	A & C	80	250	120	5.94	96.97	0.48	4.04
408	TSA(C)0630100hR37.5	A & C	63	100	60	37.5	15.36	0.24	0.64	481	TSA0800250hR4.46	A	80	250	150	4.46	129.15	0.65	5.38
409	TSA(C)0630100hR24.9	A & C	63	100	90	24.9	23.13	0.37	0.96	482	TSA0800250hR3.75	A	80	250	180	3.75	153.6	0.77	6.4
410	TSA(C)0630100hR16.7	A & C	63	100	120	16.7	34.49	0.55	1.44	483	TSA0800250hR3.15	A	80	250	210	3.15	182.86	0.91	7.62
411	TSA(C)0630100hR13.3	A & C	63	100	150	13.3	43.31	0.69	1.8	484	TSA(C)0800300hR22.2	A & C	80	300	30	22.2	25.95	0.11	1.08
412	TSA(C)0630100hR10.6	A & C	63	100	180	10.6	54.34	0.86	2.26	485	TSA(C)0800300hR11.2	A & C	80	300	60	11.2	51.43	0.21	2.14
413	TSA(C)0630100hR8.88	A & C	63	100	210	8.88	64.86	1.03	2.7	486	TSA(C)0800300hR7.05	A & C	80	300	90	7.05	81.7	0.34	3.4
414	TSA(C)0630125hR62.9	A & C	63	125	30	62.9	9.16	0.12	0.38	487	TSA0800300hR5	A	80	300	120	5	115.2	0.48	4.8
415	TSA(C)0630125hR29.7	A & C	63	125	60	29.7	19.39	0.25	0.81	488	TSA0800300hR3.75	A	80	300	150	3.75	153.6	0.64	6.4
416	TSA(C)0630125hR19.8	A & C	63	125	90	19.8	29.09	0.37	1.21	489	TSA0800300hR3.15	A	80	300	180	3.15	182.86	0.76	7.62
417	TSA(C)0630125hR13.3	A & C	63	125	120	13.3	43.31	0.55	1.8	490	TSA0800300hR2.64	A	80	300	210	2.64	218.18	0.91	9.09
418	TSA(C)0630125hR10.6	A & C	63	125	150	10.6	54.34	0.69	2.26	491	TSA(C)1000100hR62.9	A & C	100	100	30	62.9	9.16	0.09	0.38
419	TSA(C)0630125hR8.88	A & C	63	125	180	8.88	64.86	0.82	2.7	492	TSA(C)1000100hR31.5	A & C	100	100	60	31.5	18.29	0.18	0.76
420	TSA(C)0630125hR7.47	A & C	63	125	210	7.47	77.11	0.98	3.21	493	TSA(C)1000100hR19.8	A & C	100	100	90	19.8	29.09	0.29	1.21
421	TSA(C)0630160hR50	A & C	63	160	30	50	11.52	0.11	0.48	494	TSA(C)1000100hR13.3	A & C	100	100	120	13.3	43.31	0.43	1.8
422	TSA(C)0630160hR23.5	A & C	63	160	60	23.5	24.51	0.24	1.02	495	TSA(C)1000100hR10	A & C	100	100	150	10	57.6	0.58	2.4
423	TSA(C)0630160hR14.9	A & C	63	160	90	14.9	38.66	0.38	1.61	496	TSA(C)1000100hR8.38	A & C	100	100	180	8.38	68.74	0.69	2.86
424	TSA(C)0630160hR10.6	A & C	63	160	120	10.6	54.34	0.54	2.26	497	TSA(C)1000100hR6.66	A & C	100	100	210	6.66	86.49	0.86	3.6
425	TSA(C)0630160hR8.38	A & C	63	160	150	8.38	68.74	0.68	2.86	498	TSA(C)1000125hR50	A & C	100	125	30	50	11.52	0.09	0.48
426	TSA(C)0630160hR6.66	A & C	63	160	180	6.66	86.49	0.86	3.6	499	TSA(C)1000125hR24.9	A & C	100	125	60	24.9	23.13	0.19	0.96
427	TSA0630160hR5.61	A	63	160	210	5.61	102.67	1.02	4.28	500	TSA(C)1000125hR15.8	A & C	100	125	90	15.8	36.46	0.29	1.52
428	TSA(C)0630200hR39.7	A & C	63	200	30	39.7	14.51	0.12	0.6	501	TSA(C)1000125hR10.6	A & C	100	125	120	10.6	54.34	0.43	2.26
429	TSA(C)0630200hR18.7	A & C	63	200	60	18.7	30.8	0.24	1.28	502	TSA(C)1000125hR7.91	A & C	100	125	150	7.91	72.82	0.58	3.03
430	TSA(C)0630200hR11.9	A & C	63	200	90	11.9	48.4	0.38	2.02	503	TSA(C)1000125hR6.66	A & C	100	125	180	6.66	86.49	0.69	3.6
431	TSA(C)0630200hR8.38	A & C	63	200	120	8.38	68.74	0.55	2.86	504	TSA(C)1000125hR5.61	A & C	100	125	210	5.61	102.67	0.82	4.28
432	TSA0630200hR6.66	A	63	200	150	6.66	86.49	0.69	3.6	505	TSA(C)1000160hR37.5	A & C	100	160	30	37.5	15.36	0.10	0.64
433	TSA0630200hR5.3	A	63	200	180	5.3	108.68	0.86	4.53	506	TSA(C)1000160hR18.7	A & C	100	160	60	18.7	30.8	0.19	1.28
434	TSA0630200hR4.46	A	63	200	210	4.46	129.15	1.03	5.38	507	TSA(C)1000160hR11.9	A & C	100	160	90	11.9	48.4	0.30	2.02
435	TSA(C)0630250hR31.5	A & C	63	250	30	31.5	18.29	0.12	0.76	508	TSA(C)1000160hR8.38	A & C	100	160	120	8.38	68.74	0.43	2.86
436	TSA(C)0630250hR14.9	A & C	63	250	60	14.9	38.66	0.25	1.61	509	TSA(C)1000160hR6.29	A & C	100	160	150	6.29	91.57	0.57	3.82
437	TSA(C)0630250hR10	A & C	63	250	90	10	57.6	0.37	2.4	510	TSA1000160hR5.3	A	100	160	180	5.3	108.68	0.68	4.53
438	TSA(C)0630250hR6.66	A & C	63	250	120	6.66	86.49	0.55	3.6	511	TSA1000160hR4.21	A	100	160	210	4.21	136.82	0.86	5.7
439	TSA0630250hR5.3	A	63	250	150	5.3	108.68	0.69	4.53	512	TSA(C)1000200hR31.5	A & C	100	200	30	31.5	18.29	0.09	0.76
440	TSA0630250hR4.46	A	63	250	180	4.46	129.15	0.82	5.38	513	TSA(C)1000200hR15.8	A & C	100	200	60	15.8	36.46	0.18	1.52
441	TSA0630250hR3.54	A	63	250	210	3.54	162.71	1.03	6.78	514	TSA(C)1000200hR9.41	A & C	100	200	90	9.41	61.21	0.31	2.55
442	TSA(C)0800080hR83.8	A & C	80	80	30	83.8	6.87	0.11	0.29	515	TSA(C)1000200hR6.66	A & C	100	200	120	6.66	86.49	0.43	3.6
443	TSA(C)0800080hR42.1	A & C	80	80	60	42.1	13.68	0.21	0.57	516	TSA1000200hR5	A	100	200	150	5	115.2	0.58	4.8
444	TSA(C)0800080hR26.4	A & C	80	80	90	26.4	21.82	0.34	0.91	517	TSA1000200hR4.21	A	100	200	180	4.21	136.82	0.68	5.7
445	TSA(C)0800080hR18.7	A & C	80	80	120	18.7	30.8	0.48	1.28	518	TSA1000200hR3.34	A	100	200	210	3.34	172.46	0.86	7.19
446	TSA(C)0800080hR14.1	A & C	80	80	150	14.1	40.85	0.64	1.7	519	TSA(C)1000250hR24.9	A & C	100	250	30	24.9	23.13	0.09	0.96
447	TSA(C)0800080hR11.9	A & C	80	80	180	11.9	48.4	0.76	2.02	520	TSA(C)1000250hR12.6	A & C	100	250	60	12.6	45.71	0.18	1.9
448	TSA(C)0800080hR9.41	A & C	80	80	210	9.41	61.21	0.96	2.55	521	TSA(C)1000250hR7.91	A & C	100	250	90	7.91	72.82	0.29	3.03
449	TSA(C)0800100hR66.6	A & C	80	100	30	66.6	8.65	0.11	0.36	522	TSA1000250hR5.3	A	100	250	120	5.3	108.68	0.43	4.53
450	TSA(C)0800100hR33.4	A & C	80	100	60	33.4	17.25	0.22	0.72	523	TSA1000250hR3.97	A	100	250	150	3.97	145.09	0.58	6.05
451	TSA(C)0800100hR21	A & C	80	100	90	21	27.43	0.34	1.14	524	TSA1000250hR3.34	A	100	250	180	3.34	172.46	0.69	7.19
452	TSA(C)0800100hR14.9	A & C	80	100	120	14.9	38.66	0.48	1.61	525	TSA1000250hR2.8	A	100	250	210	2.8	205.71	0.82	8.57
453	TSA(C)0800100hR11.2	A & C	80	100	150	11.2	51.43	0.64	2.14	526	TSA(C)1000300hR21	A & C	100	300	30	21	27.43	0.09	1.14
454	TSA(C)0800100hR9.41	A & C	80	100	180	9.41	61.21	0.77	2.55	527	TSA(C)1000300hR10	A & C	100	300	60	10	57.6	0.19	2.4
455	TSA(C)0800100hR7.91	A & C	80	100	210	7.91	72.82	0.91	3.03	528	TSA(C)1000300hR6.29	A & C	100	300	90	6.29	91.57	0.31	3.82
456	TSA(C)0800125hR53	A & C	80	125	30	53	10.87	0.11	0.45	529	TSA1000300hR4.46	A	100	300	120	4.46	129.15	0.43	5.38
457	TSA(C)0800125hR26.4	A & C	80	125	60	26.4	21.82	0.22	0.91	530	TSA1000300hR3.34	A	100	300	150	3.34	172.46	0.57	



# STANDARD | Rectangular 24V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
543	TSA(C)1250160hR7.05	A & C	125	160	120	7.05	81.7	0.41	3.4
544	TSA(C)1250160hR5.61	A & C	125	160	150	5.61	102.67	0.51	4.28
545	TSA1250160hR4.46	A	125	160	180	4.46	129.15	0.65	5.38
546	TSA1250160hR3.75	A	125	160	210	3.75	153.6	0.77	6.4
547	TSA(C)1250200hR26.4	A & C	125	200	30	26.4	21.82	0.09	0.91
548	TSA(C)1250200hR13.3	A & C	125	200	60	13.3	43.31	0.17	1.8
549	TSA(C)1250200hR8.38	A & C	125	200	90	8.38	68.74	0.27	2.86
550	TSA(C)1250200hR5.61	A & C	125	200	120	5.61	102.67	0.41	4.28
551	TSA1250200hR4.46	A	125	200	150	4.46	129.15	0.52	5.38
552	TSA1250200hR3.54	A	125	200	180	3.54	162.71	0.65	6.78
553	TSA(C)1250200hR2.97	A	125	200	210	2.97	193.94	0.78	8.08
554	TSA(C)1250250hR21	A & C	125	250	30	21	27.43	0.09	1.14
555	TSA(C)1250250hR10.6	A & C	125	250	60	10.6	54.34	0.17	2.26
556	TSA(C)1250250hR6.66	A & C	125	250	90	6.66	86.49	0.28	3.6
557	TSA1250250hR4.46	A	125	250	120	4.46	129.15	0.41	5.38
558	TSA1250250hR3.54	A	125	250	150	3.54	162.71	0.52	6.78
559	TSA1250250hR2.8	A	125	250	180	2.8	205.71	0.66	8.57
560	TSA1250250hR2.35	A	125	250	210	2.35	245.11	0.78	10.21
561	TSA(C)1250300hR17.7	A & C	125	300	30	17.7	32.54	0.09	1.36
562	TSA(C)1250300hR8.88	A & C	125	300	60	8.88	64.86	0.17	2.7
563	TSA(C)1250300hR5.61	A & C	125	300	90	5.61	102.67	0.27	4.28
564	TSA1250300hR3.75	A	125	300	120	3.75	153.6	0.41	6.4
565	TSA1250300hR2.97	A	125	300	150	2.97	193.94	0.52	8.08
566	TSA1250300hR2.35	A	125	300	180	2.35	245.11	0.65	10.21
567	TSA1250300hR1.98	A	125	300	210	1.98	290.91	0.78	12.12
568	TSA(C)1600160hR29.7	A & C	160	160	30	29.7	19.39	0.08	0.81
569	TSA(C)1600160hR14.9	A & C	160	160	60	14.9	38.66	0.15	1.61
570	TSA(C)1600160hR8.88	A & C	160	160	90	8.88	64.86	0.25	2.7
571	TSA(C)1600160hR6.29	A & C	160	160	120	6.29	91.57	0.36	3.82
572	TSA(C)1600160hR4.72	A & C	160	160	150	4.72	122.03	0.48	5.08
573	TSA1600160hR3.97	A	160	160	180	3.97	145.09	0.57	6.05
574	TSA1600160hR3.15	A	160	160	210	3.15	182.86	0.71	7.62
575	TSA(C)1600200hR23.5	A & C	160	200	30	23.5	24.51	0.08	1.02
576	TSA(C)1600200hR11.9	A & C	160	200	60	11.9	48.4	0.15	2.02
577	TSA(C)1600200hR7.47	A & C	160	200	90	7.47	77.11	0.24	3.21
578	TSA(C)1600200hR5	A & C	160	200	120	5	115.2	0.36	4.8
579	TSA1600200hR3.75	A	160	200	150	3.75	153.6	0.48	6.4
580	TSA1600200hR3.15	A	160	200	180	3.15	182.86	0.57	7.62
581	TSA1600200hR2.64	A	160	200	210	2.64	218.18	0.68	9.09
582	TSA(C)1600250hR18.7	A & C	160	250	30	18.7	30.8	0.08	1.28
583	TSA(C)1600250hR9.41	A & C	160	250	60	9.41	61.21	0.15	2.55
584	TSA(C)1600250hR5.94	A & C	160	250	90	5.94	96.97	0.24	4.04
585	TSA1600250hR3.97	A	160	250	120	3.97	145.09	0.36	6.05
586	TSA1600250hR3.15	A	160	250	150	3.15	182.86	0.46	7.62
587	TSA1600250hR2.49	A	160	250	180	2.49	231.33	0.58	9.64
588	TSA1600250hR2.1	A	160	250	210	2.1	274.29	0.69	11.43

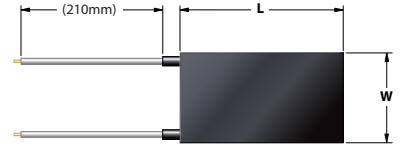
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
589	TSA(C)1600300hR15.8	A & C	160	300	30	15.8	36.46	0.08	1.52
590	TSA(C)1600300hR7.91	A & C	160	300	60	7.91	72.82	0.15	3.03
591	TSA(C)1600300hR4.72	A & C	160	300	90	4.72	122.03	0.25	5.08
592	TSA1600300hR3.34	A	160	300	120	3.34	172.46	0.36	7.19
593	TSA1600300hR2.49	A	160	300	150	2.49	231.33	0.48	9.64
594	TSA1600300hR2.1	A	160	300	180	2.1	274.29	0.57	11.43
595	TSA1600300hR1.77	A	160	300	210	1.77	325.42	0.68	13.56
596	TSA(C)2000200hR19.8	A & C	200	200	30	19.8	29.09	0.07	1.21
597	TSA(C)2000200hR10	A & C	200	200	60	10	57.6	0.14	2.4
598	TSA(C)2000200hR6.29	A & C	200	200	90	6.29	91.57	0.23	3.82
599	TSA(C)2000200hR4.21	A & C	200	200	120	4.21	136.82	0.34	5.7
600	TSA2000200hR3.34	A	200	200	150	3.34	172.46	0.43	7.19
601	TSA2000200hR2.64	A	200	200	180	2.64	218.18	0.55	9.09
602	TSA2000200hR2.22	A	200	200	210	2.22	259.46	0.65	10.81
603	TSA(C)2000250hR15.8	A & C	200	250	30	15.8	36.46	0.07	1.52
604	TSA(C)2000250hR7.91	A & C	200	250	60	7.91	72.82	0.15	3.03
605	TSA(C)2000250hR5	A & C	200	250	90	5	115.2	0.23	4.8
606	TSA2000250hR3.54	A	200	250	120	3.54	162.71	0.33	6.78
607	TSA2000250hR2.64	A	200	250	150	2.64	218.18	0.44	9.09
608	TSA2000250hR2.22	A	200	250	180	2.22	259.46	0.52	10.81
609	TSA2000250hR1.77	A	200	250	210	1.77	325.42	0.65	13.56
610	TSA(C)2000300hR13.3	A & C	200	300	30	13.3	43.31	0.07	1.8
611	TSA(C)2000300hR6.66	A & C	200	300	60	6.66	86.49	0.14	3.6
612	TSA(C)2000300hR4.21	A & C	200	300	90	4.21	136.82	0.23	5.7
613	TSA2000300hR2.8	A	200	300	120	2.8	205.71	0.34	8.57
614	TSA2000300hR2.22	A	200	300	150	2.22	259.46	0.43	10.81
615	TSA2000300hR1.77	A	200	300	180	1.77	325.42	0.54	13.56
616	TSA(C)2500250hR14.1	A & C	250	250	30	14.1	40.85	0.07	1.7
617	TSA(C)2500250hR7.05	A & C	250	250	60	7.05	81.7	0.13	3.4
618	TSA(C)2500250hR4.46	A & C	250	250	90	4.46	129.15	0.21	5.38
619	TSA2500250hR2.97	A	250	250	120	2.97	193.94	0.31	8.08
620	TSA2500250hR2.35	A	250	250	150	2.35	245.11	0.39	10.21
621	TSA2500250hR1.87	A	250	250	180	1.87	308.02	0.49	12.83
622	TSA2500250hR1.58	A	250	250	210	1.58	364.56	0.58	15.19
623	TSA(C)2500300hR11.9	A & C	250	300	30	11.9	48.4	0.06	2.02
624	TSA(C)2500300hR5.94	A & C	250	300	60	5.94	96.97	0.13	4.04
625	TSA(C)2500300hR3.75	A & C	250	300	90	3.75	153.6	0.20	6.4
626	TSA2500300hR2.49	A	250	300	120	2.49	231.33	0.31	9.64
627	TSA2500300hR1.98	A	250	300	150	1.98	290.91	0.39	12.12
628	TSA2500300hR1.58	A	250	300	180	1.58	364.56	0.49	15.19
629	TSA(C)3000300hR10	A & C	300	300	30	10	57.6	0.06	2.4
630	TSA(C)3000300hR5	A & C	300	300	60	5	115.2	0.13	4.8
631	TSA(C)3000300hR3.15	A & C	300	300	90	3.15	182.86	0.20	7.62
632	TSA3000300hR2.22	A	300	300	120	2.22	259.46	0.29	10.81
633	TSA3000300hR1.67	A	300	300	150	1.67	344.91	0.38	14.37

Dimensions and specifications are subject to change without notice.

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape	: RECTANGULAR
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Length(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200, 250, 300mm
Width(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200, 250, 300mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5,3,3.7,4.2,5,9,12,24,42,48,72,100,110,120, 200,220,230,240VAC/DC

Ultra-Thin Flexible Heaters



# STANDARD | Rectangular 42V

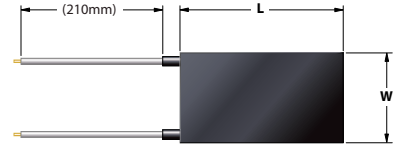
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010IR7050	C	10	10	30	7050	0.25	0.25	0.01	74	TSC0130025IR530	C	13	25	120	530	3.33	1.02	0.08
2	TSC0100010IR3150	C	10	10	60	3150	0.56	0.56	0.01	75	TSC0130025IR397	C	13	25	150	397	4.44	1.37	0.11
3	TSC0100010IR2100	C	10	10	90	2100	0.84	0.84	0.02	76	TSC0130025IR315	C	13	25	180	315	5.6	1.72	0.13
4	TSC0100010IR1490	C	10	10	120	1490	1.18	1.18	0.03	77	TSC0130025IR264	C	13	25	210	264	6.68	2.06	0.16
5	TSC0100010IR1120	C	10	10	150	1120	1.58	1.58	0.04	78	TSC0130032IR1870	C	13	32	30	1870	0.94	0.23	0.02
6	TSC0100010IR888	C	10	10	180	888	1.99	1.99	0.05	79	TSC0130032IR888	C	13	32	60	888	1.99	0.48	0.05
7	TSC0100010IR747	C	10	10	210	747	2.36	2.36	0.06	80	TSC0130032IR561	C	13	32	90	561	3.14	0.75	0.07
8	TSC0100013IR5300	C	10	13	30	5300	0.33	0.25	0.01	81	TSC0130032IR397	C	13	32	120	397	4.44	1.07	0.11
9	TSC0100013IR2490	C	10	13	60	2490	0.71	0.55	0.02	82	TSC0130032IR315	C	13	32	150	315	5.6	1.35	0.13
10	TSC0100013IR1580	C	10	13	90	1580	1.12	0.86	0.03	83	TSA(C)0130032IR249	A & C	13	32	180	249	7.08	1.70	0.17
11	TSC0100013IR1120	C	10	13	120	1120	1.58	1.22	0.04	84	TSA(C)0130032IR198	A & C	13	32	210	198	8.91	2.14	0.21
12	TSC0100013IR838	C	10	13	150	838	2.11	1.62	0.05	85	TSC0130040IR1490	C	13	40	30	1490	1.18	0.23	0.03
13	TSC0100013IR666	C	10	13	180	666	2.65	2.04	0.06	86	TSC0130040IR705	C	13	40	60	705	2.5	0.48	0.06
14	TSC0100013IR561	C	10	13	210	561	3.14	2.42	0.07	87	TSC0130040IR446	C	13	40	90	446	3.96	0.76	0.09
15	TSC0100016IR4210	C	10	16	30	4210	0.42	0.26	0.01	88	TSC0130040IR315	C	13	40	120	315	5.6	1.08	0.13
16	TSC0100016IR1980	C	10	16	60	1980	0.89	0.56	0.02	89	TSA(C)0130040IR249	A & C	13	40	150	249	7.08	1.36	0.17
17	TSC0100016IR1260	C	10	16	90	1260	1.4	0.88	0.03	90	TSA(C)0130040IR198	A & C	13	40	180	198	8.91	1.71	0.21
18	TSC0100016IR941	C	10	16	120	941	1.87	1.17	0.04	91	TSA(C)0130040IR158	A & C	13	40	210	158	11.16	2.15	0.27
19	TSC0100016IR705	C	10	16	150	705	2.5	1.56	0.06	92	TSC0130050IR1190	C	13	50	30	1190	1.48	0.23	0.04
20	TSC0100016IR561	C	10	16	180	561	3.14	1.96	0.07	93	TSC0130050IR561	C	13	50	60	561	3.14	0.48	0.07
21	TSC0100016IR446	C	10	16	210	446	3.96	2.48	0.09	94	TSA(C)0130050IR354	A & C	13	50	90	354	4.98	0.77	0.12
22	TSC0100020IR3340	C	10	20	30	3340	0.53	0.27	0.01	95	TSA(C)0130050IR264	A & C	13	50	120	264	6.68	1.03	0.16
23	TSC0100020IR1580	C	10	20	60	1580	1.12	0.56	0.03	96	TSA(C)0130050IR198	A & C	13	50	150	198	8.91	1.37	0.21
24	TSC0100020IR1000	C	10	20	90	1000	1.76	0.88	0.04	97	TSA(C)0130050IR158	A & C	13	50	180	158	11.16	1.72	0.27
25	TSC0100020IR747	C	10	20	120	747	2.36	1.18	0.06	98	TSA(C)0130050IR126	A & C	13	50	210	126	14	2.15	0.33
26	TSC0100020IR561	C	10	20	150	561	3.14	1.57	0.07	99	TSC0160016IR3540	C	16	16	30	3540	0.5	0.20	0.01
27	TSC0100020IR446	C	10	20	180	446	3.96	1.98	0.09	100	TSC0160016IR1670	C	16	16	60	1670	1.06	0.41	0.03
28	TSC0100020IR354	C	10	20	210	354	4.98	2.49	0.12	101	TSC0160016IR1060	C	16	16	90	1060	1.66	0.65	0.04
29	TSC0100025IR2800	C	10	25	30	2800	0.63	0.25	0.02	102	TSC0160016IR747	C	16	16	120	747	2.36	0.92	0.06
30	TSC0100025IR1260	C	10	25	60	1260	1.4	0.56	0.03	103	TSC0160016IR594	C	16	16	150	594	2.97	1.16	0.07
31	TSC0100025IR838	C	10	25	90	838	2.11	0.84	0.05	104	TSC0160016IR472	C	16	16	180	472	3.74	1.46	0.09
32	TSC0100025IR594	C	10	25	120	594	2.97	1.19	0.07	105	TSC0160016IR397	C	16	16	210	397	4.44	1.73	0.11
33	TSC0100025IR446	C	10	25	150	446	3.96	1.58	0.09	106	TSC0160020IR2800	C	16	20	30	2800	0.63	0.20	0.02
34	TSC0100025IR354	C	10	25	180	354	4.98	1.99	0.12	107	TSC0160020IR1330	C	16	20	60	1330	1.33	0.42	0.03
35	TSC0100025IR297	C	10	25	210	297	5.94	2.38	0.14	108	TSC0160020IR838	C	16	20	90	838	2.11	0.66	0.05
36	TSC0100032IR2100	C	10	32	30	2100	0.84	0.26	0.02	109	TSC0160020IR629	C	16	20	120	629	2.8	0.88	0.07
37	TSC0100032IR1000	C	10	32	60	1000	1.76	0.55	0.04	110	TSC0160020IR472	C	16	20	150	472	3.74	1.17	0.09
38	TSC0100032IR629	C	10	32	90	629	2.8	0.88	0.07	111	TSC0160020IR375	C	16	20	180	375	4.7	1.47	0.11
39	TSC0100032IR472	C	10	32	120	472	3.74	1.17	0.09	112	TSC0160020IR315	C	16	20	210	315	5.6	1.75	0.13
40	TSC0100032IR354	C	10	32	150	354	4.98	1.56	0.12	113	TSC0160025IR2350	C	16	25	30	2350	0.75	0.19	0.02
41	TSC0100032IR280	C	10	32	180	280	6.3	1.97	0.15	114	TSC0160025IR1120	C	16	25	60	1120	1.58	0.40	0.04
42	TSC0100032IR222	C	10	32	210	222	7.95	2.48	0.19	115	TSC0160025IR666	C	16	25	90	666	2.65	0.66	0.06
43	TSC0100040IR1670	C	10	40	30	1670	1.06	0.27	0.03	116	TSC0160025IR500	C	16	25	120	500	3.53	0.88	0.08
44	TSC0100040IR791	C	10	40	60	791	2.23	0.56	0.05	117	TSC0160025IR375	C	16	25	150	375	4.7	1.18	0.11
45	TSC0100040IR500	C	10	40	90	500	3.53	0.88	0.08	118	TSC0160025IR297	C	16	25	180	297	5.94	1.49	0.14
46	TSC0100040IR375	C	10	40	120	375	4.7	1.18	0.11	119	TSC0160025IR249	C	16	25	210	249	7.08	1.77	0.17
47	TSC0100040IR280	C	10	40	150	280	6.3	1.58	0.15	120	TSC0160032IR1770	C	16	32	30	1770	1	0.20	0.02
48	TSA(C)0100040IR222	A & C	10	40	180	222	7.95	1.99	0.19	121	TSC0160032IR838	C	16	32	60	838	2.11	0.41	0.05
49	TSA(C)0100040IR177	A & C	10	40	210	177	9.97	2.49	0.24	122	TSC0160032IR530	C	16	32	90	530	3.33	0.65	0.08
50	TSC0130013IR4720	C	13	13	30	4720	0.37	0.22	0.01	123	TSC0160032IR375	C	16	32	120	375	4.7	0.92	0.11
51	TSC0130013IR2220	C	13	13	60	2220	0.79	0.47	0.02	124	TSA(C)0160032IR297	A & C	16	32	150	297	5.94	1.16	0.14
52	TSC0130013IR1410	C	13	13	90	1410	1.25	0.74	0.03	125	TSA(C)0160032IR235	A & C	16	32	180	235	7.51	1.47	0.18
53	TSC0130013IR1000	C	13	13	120	1000	1.76	1.04	0.04	126	TSA(C)0160032IR198	A & C	16	32	210	198	8.91	1.74	0.21
54	TSC0130013IR747	C	13	13	150	747	2.36	1.40	0.06	127	TSC0160040IR1410	C	16	40	30	1410	1.25	0.20	0.03
55	TSC0130013IR594	C	13	13	180	594	2.97	1.76	0.07	128	TSC0160040IR666	C	16	40	60	666	2.65	0.41	0.06
56	TSC0130013IR500	C	13	13	210	500	3.53	2.09	0.08	129	TSC0160040IR421	C	16	40	90	421	4.19	0.65	0.1
57	TSC0130016IR3750	C	13	16	30	3750	0.47	0.23	0.01	130	TSA(C)0160040IR315	A & C	16	40	120	315	5.6	0.88	0.13
58	TSC0130016IR1770	C	13	16	60	1770	1	0.48	0.02	131	TSA(C)0160040IR235	A & C	16	40	150	235	7.51	1.17	0.18
59	TSC0130016IR1120	C	13	16	90	1120	1.58	0.76	0.04	132	TSA(C)0160040IR187	A & C	16	40	180	187	9.43	1.47	0.22
60	TSC0130016IR791	C	13	16	120	791	2.23	1.07	0.05	133	TSA(C)0160040IR158	A & C	16	40	210	158	11.16	1.74	0.27
61	TSC0130016IR629	C	13	16	150	629	2.8	1.35	0.07	134	TSC0160050IR1120	C	16	50	30	1120	1.58	0.20	0.04
62	TSC0130016IR500	C	13	16	180	500	3.53	1.70	0.08	135	TSC0160050IR530	C	16	50	60	530	3.33	0.42	0.08
63	TSC0130016IR397	C	13	16	210	397	4.44	2.13	0.11	136	TSA(C)0160050IR334	A & C	16	50	90	334	5.28	0.66	0.13
64	TSC0130020IR2970	C	13	20	30	2970	0.59	0.23	0.01	137	TSA(C)0160050IR249	A & C	16	50	120	249	7.08	0.89	0.17
65	TSC0130020IR1410	C	13	20	60	1410	1.25	0.48	0.03	138	TSA(C)0160050IR187	A & C	16	50	150	187	9.43	1.18	0.22
66	TSC0130020IR888	C	13	20	90	888	1.99	0.77	0.05	139	TSA(C)0160050IR149	A & C	16	50	180	149	11.84	1.48	0.28
67	TSC0130020IR629	C	13	20	120	629	2.8	1.08	0.07	140	TSA(C)0160050IR126	A & C	16	50	210	126	14	1.7	

# STANDARD | Rectangular 42V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)0160063iR100	A & C	16	63	210	100	17.64	1.75	0.42
148	TSC0200020iR2970	C	20	20	30	2970	0.59	0.15	0.01
149	TSC0200020iR1410	C	20	20	60	1410	1.25	0.31	0.03
150	TSC0200020iR888	C	20	20	90	888	1.99	0.50	0.05
151	TSC0200020iR629	C	20	20	120	629	2.8	0.70	0.07
152	TSC0200020iR472	C	20	20	150	472	3.74	0.94	0.09
153	TSC0200020iR397	C	20	20	180	397	4.44	1.11	0.11
154	TSC0200020iR334	C	20	20	210	334	5.28	1.32	0.13
155	TSC0200025iR2350	C	20	25	30	2350	0.75	0.15	0.02
156	TSC0200025iR1120	C	20	25	60	1120	1.58	0.32	0.04
157	TSC0200025iR705	C	20	25	90	705	2.5	0.50	0.06
158	TSC0200025iR500	C	20	25	120	500	3.53	0.71	0.08
159	TSC0200025iR397	C	20	25	150	397	4.44	0.89	0.11
160	TSC0200025iR315	C	20	25	180	315	5.6	1.12	0.13
161	TSA(C)0200025iR264	A & C	20	25	210	264	6.68	1.34	0.16
162	TSC0200032iR1870	C	20	32	30	1870	0.94	0.15	0.02
163	TSC0200032iR888	C	20	32	60	888	1.99	0.31	0.05
164	TSC0200032iR561	C	20	32	90	561	3.14	0.49	0.07
165	TSC0200032iR397	C	20	32	120	397	4.44	0.69	0.11
166	TSA(C)0200032iR297	A & C	20	32	150	297	5.94	0.93	0.14
167	TSA(C)0200032iR249	A & C	20	32	180	249	7.08	1.11	0.17
168	TSA(C)0200032iR210	A & C	20	32	210	210	8.4	1.31	0.2
169	TSC0200040iR1490	C	20	40	30	1490	1.18	0.15	0.03
170	TSC0200040iR705	C	20	40	60	705	2.5	0.31	0.06
171	TSA(C)0200040iR446	A & C	20	40	90	446	3.96	0.50	0.09
172	TSA(C)0200040iR315	A & C	20	40	120	315	5.6	0.70	0.13
173	TSA(C)0200040iR235	A & C	20	40	150	235	7.51	0.94	0.18
174	TSA(C)0200040iR198	A & C	20	40	180	198	8.91	1.11	0.21
175	TSA(C)0200040iR167	A & C	20	40	210	167	10.56	1.32	0.25
176	TSC0200050iR1190	C	20	50	30	1190	1.48	0.15	0.04
177	TSA(C)0200050iR561	A & C	20	50	60	561	3.14	0.31	0.07
178	TSA(C)0200050iR354	A & C	20	50	90	354	4.98	0.50	0.12
179	TSA(C)0200050iR249	A & C	20	50	120	249	7.08	0.71	0.17
180	TSA(C)0200050iR198	A & C	20	50	150	198	8.91	0.89	0.21
181	TSA(C)0200050iR158	A & C	20	50	180	158	11.16	1.12	0.27
182	TSA(C)0200050iR133	A & C	20	50	210	133	13.26	1.33	0.32
183	TSC0200063iR941	C	20	63	30	941	1.87	0.15	0.04
184	TSA(C)0200063iR446	A & C	20	63	60	446	3.96	0.31	0.09
185	TSA(C)0200063iR280	A & C	20	63	90	280	6.3	0.50	0.15
186	TSA(C)0200063iR198	A & C	20	63	120	198	8.91	0.71	0.21
187	TSA(C)0200063iR149	A & C	20	63	150	149	11.84	0.94	0.28
188	TSA(C)0200063iR126	A & C	20	63	180	126	14	1.11	0.33
189	TSA(C)0200063iR106	A & C	20	63	210	106	16.64	1.32	0.4
190	TSA(C)0200080iR747	A & C	20	80	30	747	2.36	0.15	0.06
191	TSA(C)0200080iR354	A & C	20	80	60	354	4.98	0.31	0.12
192	TSA(C)0200080iR222	A & C	20	80	90	222	7.95	0.50	0.19
193	TSA(C)0200080iR158	A & C	20	80	120	158	11.16	0.70	0.27
194	TSA(C)0200080iR119	A & C	20	80	150	119	14.82	0.93	0.35
195	TSA(C)0200080iR100	A & C	20	80	180	100	17.64	1.10	0.42
196	TSA(C)0200080iR83.8	A & C	20	80	210	83.8	21.05	1.32	0.5
197	TSC0250025iR1980	C	25	25	30	1980	0.89	0.14	0.02
198	TSC0250025iR941	C	25	25	60	941	1.87	0.30	0.04
199	TSC0250025iR594	C	25	25	90	594	2.97	0.48	0.07
200	TSC0250025iR421	C	25	25	120	421	4.19	0.67	0.1
201	TSA(C)0250025iR315	A & C	25	25	150	315	5.6	0.90	0.13
202	TSA(C)0250025iR264	A & C	25	25	180	264	6.68	1.07	0.16
203	TSA(C)0250025iR222	A & C	25	25	210	222	7.95	1.27	0.19
204	TSC0250032iR1580	C	25	32	30	1580	1.12	0.14	0.03
205	TSC0250032iR747	C	25	32	60	747	2.36	0.30	0.06
206	TSA(C)0250032iR446	A & C	25	32	90	446	3.96	0.50	0.09
207	TSA(C)0250032iR334	A & C	25	32	120	334	5.28	0.66	0.13
208	TSA(C)0250032iR249	A & C	25	32	150	249	7.08	0.89	0.17
209	TSA(C)0250032iR210	A & C	25	32	180	210	8.4	1.05	0.2
210	TSA(C)0250032iR177	A & C	25	32	210	177	9.97	1.25	0.24
211	TSC0250040iR1260	C	25	40	30	1260	1.4	0.14	0.03
212	TSA(C)0250040iR594	A & C	25	40	60	594	2.97	0.30	0.07
213	TSA(C)0250040iR354	A & C	25	40	90	354	4.98	0.50	0.12
214	TSA(C)0250040iR264	A & C	25	40	120	264	6.68	0.67	0.16
215	TSA(C)0250040iR198	A & C	25	40	150	198	8.91	0.89	0.21
216	TSA(C)0250040iR167	A & C	25	40	180	167	10.56	1.06	0.25
217	TSA(C)0250040iR141	A & C	25	40	210	141	12.51	1.25	0.3
218	TSC0250050iR1000	C	25	50	30	1000	1.76	0.14	0.04
219	TSA(C)0250050iR472	A & C	25	50	60	472	3.74	0.30	0.09

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)0250050iR297	A & C	25	50	90	297	5.94	0.48	0.14
221	TSA(C)0250050iR210	A & C	25	50	120	210	8.4	0.67	0.2
222	TSA(C)0250050iR158	A & C	25	50	150	158	11.16	0.89	0.27
223	TSA(C)0250050iR133	A & C	25	50	180	133	13.26	1.06	0.32
224	TSA(C)0250050iR112	A & C	25	50	210	112	15.75	1.26	0.38
225	TSA(C)0250063iR791	A & C	25	63	30	791	2.23	0.14	0.05
226	TSA(C)0250063iR375	A & C	25	63	60	375	4.7	0.30	0.11
227	TSA(C)0250063iR235	A & C	25	63	90	235	7.51	0.48	0.18
228	TSA(C)0250063iR167	A & C	25	63	120	167	10.56	0.67	0.25
229	TSA(C)0250063iR126	A & C	25	63	150	126	14	0.89	0.33
230	TSA(C)0250063iR106	A & C	25	63	180	106	16.64	1.06	0.4
234	TSA(C)0250063iR88.8	A & C	25	63	210	88.8	19.86	1.26	0.47
232	TSA(C)0250080iR629	A & C	25	80	30	629	2.8	0.14	0.07
233	TSA(C)0250080iR297	A & C	25	80	60	297	5.94	0.30	0.14
234	TSA(C)0250080iR187	A & C	25	80	90	187	9.43	0.47	0.22
235	TSA(C)0250080iR133	A & C	25	80	120	133	13.26	0.66	0.32
236	TSA(C)0250080iR100	A & C	25	80	150	100	17.64	0.88	0.42
237	TSA(C)0250080iR83.8	A & C	25	80	180	83.8	21.05	1.05	0.5
238	TSA(C)0250080iR70.5	A & C	25	80	210	70.5	25.02	1.25	0.6
239	TSA(C)0250100iR500	A & C	25	100	30	500	3.53	0.14	0.08
240	TSA(C)0250100iR235	A & C	25	100	60	235	7.51	0.30	0.18
241	TSA(C)0250100iR149	A & C	25	100	90	149	11.84	0.47	0.28
242	TSA(C)0250100iR106	A & C	25	100	120	106	16.64	0.67	0.4
243	TSA(C)0250100iR79.1	A & C	25	100	150	79.1	22.3	0.89	0.53
244	TSA(C)0250100iR66.6	A & C	25	100	180	66.6	26.49	1.06	0.63
245	TSA(C)0250100iR56.1	A & C	25	100	210	56.1	31.44	1.26	0.75
246	TSC0320032iR1330	C	32	32	30	1330	1.33	0.13	0.03
247	TSA(C)0320032iR594	A & C	32	32	60	594	2.97	0.29	0.07
248	TSA(C)0320032iR375	A & C	32	32	90	375	4.7	0.46	0.11
249	TSA(C)0320032iR264	A & C	32	32	120	264	6.68	0.65	0.16
250	TSA(C)0320032iR210	A & C	32	32	150	210	8.4	0.82	0.2
251	TSA(C)0320032iR177	A & C	32	32	180	177	9.97	0.97	0.24
252	TSA(C)0320032iR149	A & C	32	32	210	149	11.84	1.16	0.28
253	TSC0320040iR1060	C	32	40	30	1060	1.66	0.13	0.04
254	TSA(C)0320040iR500	A & C	32	40	60	500	3.53	0.28	0.08
255	TSA(C)0320040iR297	A & C	32	40	90	297	5.94	0.46	0.14
256	TSA(C)0320040iR222	A & C	32	40	120	222	7.95	0.62	0.19
257	TSA(C)0320040iR167	A & C	32	40	150	167	10.56	0.83	0.25
258	TSA(C)0320040iR141	A & C	32	40	180	141	12.51	0.98	0.3
259	TSA(C)0320040iR119	A & C	32	40	210	119	14.82	1.16	0.35
260	TSA(C)0320050iR838	A & C	32	50	30	838	2.11	0.13	0.05
261	TSA(C)0320050iR397	A & C	32	50	60	397	4.44	0.28	0.11
262	TSA(C)0320050iR235	A & C	32	50	90	235	7.51	0.47	0.18
263	TSA(C)0320050iR177	A & C	32	50	120	177	9.97	0.62	0.24
264	TSA(C)0320050iR133	A & C	32	50	150	133	13.26	0.83	0.32
265	TSA(C)0320050iR112	A & C	32	50	180	112	15.75	0.98	0.38
266	TSA(C)0320050iR94.1	A & C	32	50	210	94.1	18.75	1.17	0.45
267	TSA(C)0320063iR666	A & C	32	63	30	666	2.65	0.13	0.06
268	TSA(C)0320063iR315	A & C	32	63	60	315	5.6	0.28	0.13
269	TSA(C)0320063iR187	A & C	32	63	90	187	9.43	0.4	

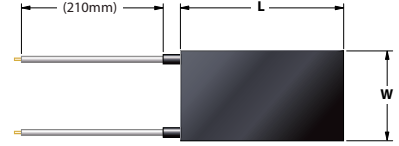


# STANDARD | Rectangular 42V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125iR44.6	A & C	32	125	180	44.6	39.55	0.99	0.94	366	TSA(C)0500100iR141	A & C	50	100	60	141	12.51	0.25	0.3
294	TSA(C)0320125iR37.5	A & C	32	125	210	37.5	47.04	1.18	1.12	367	TSA(C)0500100iR88.8	A & C	50	100	90	88.8	19.86	0.40	0.47
295	TSA(C)0400040iR838	A & C	40	40	30	838	2.11	0.13	0.05	368	TSA(C)0500100iR62.9	A & C	50	100	120	62.9	28.04	0.56	0.67
296	TSA(C)0400040iR397	A & C	40	40	60	397	4.44	0.28	0.11	369	TSA(C)0500100iR47.2	A & C	50	100	150	47.2	37.37	0.75	0.89
297	TSA(C)0400040iR249	A & C	40	40	90	249	7.08	0.44	0.17	370	TSA(C)0500100iR39.7	A & C	50	100	180	39.7	44.43	0.89	1.06
298	TSA(C)0400040iR187	A & C	40	40	120	187	9.43	0.59	0.22	371	TSA(C)0500100iR33.4	A & C	50	100	210	33.4	52.81	1.06	1.26
299	TSA(C)0400040iR141	A & C	40	40	150	141	12.51	0.78	0.3	372	TSA(C)0500125iR222	A & C	50	125	30	222	7.95	0.13	0.19
300	TSA(C)0400040iR119	A & C	40	40	180	119	14.82	0.93	0.35	373	TSA(C)0500125iR112	A & C	50	125	60	112	15.75	0.25	0.38
301	TSA(C)0400040iR100	A & C	40	40	210	100	17.64	1.10	0.42	374	TSA(C)0500125iR70.5	A & C	50	125	90	70.5	25.02	0.40	0.6
302	TSA(C)0400050iR666	A & C	40	50	30	666	2.65	0.13	0.06	375	TSA(C)0500125iR50	A & C	50	125	120	50	35.28	0.56	0.84
303	TSA(C)0400050iR334	A & C	40	50	60	334	5.28	0.26	0.13	376	TSA(C)0500125iR37.5	A & C	50	125	150	37.5	47.04	0.75	1.12
304	TSA(C)0400050iR198	A & C	40	50	90	198	8.91	0.45	0.21	377	TSA(C)0500125iR31.5	A & C	50	125	180	31.5	56	0.90	1.33
305	TSA(C)0400050iR149	A & C	40	50	120	149	11.84	0.59	0.28	378	TSA(C)0500125iR26.4	A & C	50	125	210	26.4	66.82	1.07	1.59
306	TSA(C)0400050iR112	A & C	40	50	150	112	15.75	0.79	0.38	379	TSA(C)0500160iR177	A & C	50	160	30	177	9.97	0.12	0.24
307	TSA(C)0400050iR94.1	A & C	40	50	180	94.1	18.75	0.94	0.45	380	TSA(C)0500160iR83.8	A & C	50	160	60	83.8	21.05	0.26	0.5
308	TSA(C)0400050iR79.1	A & C	40	50	210	79.1	22.3	1.12	0.53	381	TSA(C)0500160iR56.1	A & C	50	160	90	56.1	31.44	0.39	0.75
309	TSA(C)0400063iR530	A & C	40	63	30	530	3.33	0.13	0.08	382	TSA(C)0500160iR39.7	A & C	50	160	120	39.7	44.43	0.56	1.06
310	TSA(C)0400063iR264	A & C	40	63	60	264	6.68	0.27	0.16	383	TSA(C)0500160iR29.7	A & C	50	160	150	29.7	59.39	0.74	1.41
311	TSA(C)0400063iR158	A & C	40	63	90	158	11.16	0.44	0.27	384	TSA(C)0500160iR24.9	A & C	50	160	180	24.9	70.84	0.89	1.69
312	TSA(C)0400063iR112	A & C	40	63	120	112	15.75	0.63	0.38	385	TSA(C)0500160iR21	A & C	50	160	210	21	84	1.05	2
313	TSA(C)0400063iR88.8	A & C	40	63	150	88.8	19.86	0.79	0.47	386	TSA(C)0500200iR141	A & C	50	200	30	141	12.51	0.13	0.3
314	TSA(C)0400063iR74.7	A & C	40	63	180	74.7	23.61	0.94	0.56	387	TSA(C)0500200iR70.5	A & C	50	200	60	70.5	25.02	0.25	0.6
315	TSA(C)0400063iR62.9	A & C	40	63	210	62.9	28.04	1.11	0.67	388	TSA(C)0500200iR44.6	A & C	50	200	90	44.6	39.55	0.40	0.94
316	TSA(C)0400080iR421	A & C	40	80	30	421	4.19	0.13	0.1	389	TSA(C)0500200iR31.5	A & C	50	200	120	31.5	56	0.56	1.33
317	TSA(C)0400080iR198	A & C	40	80	60	198	8.91	0.28	0.21	390	TSA(C)0500200iR23.5	A & C	50	200	150	23.5	75.06	0.75	1.79
318	TSA(C)0400080iR126	A & C	40	80	90	126	14	0.44	0.33	391	TSA(C)0500200iR19.8	A & C	50	200	180	19.8	89.09	0.89	2.12
319	TSA(C)0400080iR88.8	A & C	40	80	120	88.8	19.86	0.62	0.47	392	TSA(C)0500200iR16.7	A & C	50	200	210	16.7	105.63	1.06	2.52
320	TSA(C)0400080iR70.5	A & C	40	80	150	70.5	25.02	0.78	0.6	393	TSA(C)0630063iR375	A & C	63	63	30	375	4.7	0.12	0.11
321	TSA(C)0400080iR59.4	A & C	40	80	180	59.4	29.7	0.93	0.71	394	TSA(C)0630063iR187	A & C	63	63	60	187	9.43	0.24	0.22
322	TSA(C)0400080iR50	A & C	40	80	210	50	35.28	1.10	0.84	395	TSA(C)0630063iR119	A & C	63	63	90	119	14.82	0.37	0.35
323	TSA(C)0400100iR334	A & C	40	100	30	334	5.28	0.13	0.13	396	TSA(C)0630063iR83.8	A & C	63	63	120	83.8	21.05	0.53	0.5
324	TSA(C)0400100iR167	A & C	40	100	60	167	10.56	0.26	0.25	397	TSA(C)0630063iR62.9	A & C	63	63	150	62.9	28.04	0.71	0.67
325	TSA(C)0400100iR100	A & C	40	100	90	100	17.64	0.44	0.42	398	TSA(C)0630063iR53	A & C	63	63	180	53	33.28	0.84	0.79
326	TSA(C)0400100iR74.7	A & C	40	100	120	74.7	23.61	0.59	0.56	399	TSA(C)0630063iR44.6	A & C	63	63	210	44.6	39.55	1.00	0.94
327	TSA(C)0400100iR56.1	A & C	40	100	150	56.1	31.44	0.79	0.75	400	TSA(C)0630080iR297	A & C	63	80	30	297	5.94	0.12	0.14
328	TSA(C)0400100iR47.2	A & C	40	100	180	47.2	37.37	0.93	0.89	401	TSA(C)0630080iR149	A & C	63	80	60	149	11.84	0.23	0.28
329	TSA(C)0400100iR39.7	A & C	40	100	210	39.7	44.43	1.11	1.06	402	TSA(C)0630080iR94.1	A & C	63	80	90	94.1	18.75	0.37	0.45
330	TSA(C)0400125iR280	A & C	40	125	30	280	6.3	0.13	0.15	403	TSA(C)0630080iR66.6	A & C	63	80	120	66.6	26.49	0.53	0.63
331	TSA(C)0400125iR133	A & C	40	125	60	133	13.26	0.27	0.32	404	TSA(C)0630080iR50	A & C	63	80	150	50	35.28	0.70	0.84
332	TSA(C)0400125iR79.1	A & C	40	125	90	79.1	22.3	0.45	0.53	405	TSA(C)0630080iR42.1	A & C	63	80	180	42.1	41.9	0.83	1.1
333	TSA(C)0400125iR59.4	A & C	40	125	120	59.4	29.7	0.59	0.71	406	TSA(C)0630080iR35.4	A & C	63	80	210	35.4	49.83	0.99	1.19
334	TSA(C)0400125iR44.6	A & C	40	125	150	44.6	39.55	0.79	0.94	407	TSA(C)0630100iR235	A & C	63	100	30	235	7.51	0.12	0.18
335	TSA(C)0400125iR37.5	A & C	40	125	180	37.5	47.04	0.94	1.12	408	TSA(C)0630100iR119	A & C	63	100	60	119	14.82	0.24	0.35
336	TSA(C)0400125iR31.5	A & C	40	125	210	31.5	56	1.12	1.33	409	TSA(C)0630100iR74.7	A & C	63	100	90	74.7	23.61	0.37	0.56
337	TSA(C)0400160iR210	A & C	40	160	30	210	8.4	0.13	0.2	410	TSA(C)0630100iR53	A & C	63	100	120	53	33.28	0.53	0.79
338	TSA(C)0400160iR100	A & C	40	160	60	100	17.64	0.28	0.42	411	TSA(C)0630100iR39.7	A & C	63	100	150	39.7	44.43	0.71	1.06
339	TSA(C)0400160iR62.9	A & C	40	160	90	62.9	28.04	0.44	0.67	412	TSA(C)0630100iR33.4	A & C	63	100	180	33.4	52.81	0.84	1.26
340	TSA(C)0400160iR44.6	A & C	40	160	120	44.6	39.55	0.62	0.94	413	TSA(C)0630100iR28	A & C	63	100	210	28	63	1.00	1.5
341	TSA(C)0400160iR35.4	A & C	40	160	150	35.4	49.83	0.78	1.19	414	TSA(C)0630125iR187	A & C	63	125	30	187	9.43	0.12	0.22
342	TSA(C)0400160iR29.7	A & C	40	160	180	29.7	59.39	0.93	1.41	415	TSA(C)0630125iR94.1	A & C	63	125	60	94.1	18.75	0.24	0.45
343	TSA(C)0400160iR24.9	A & C	40	160	210	24.9	70.84	1.11	1.69	416	TSA(C)0630125iR59.4	A & C	63	125	90	59.4	29.7	0.38	0.71
344	TSA(C)0500050iR561	A & C	50	50	30	561	3.14	0.13	0.07	417	TSA(C)0630125iR42.1	A & C	63	125	120	42.1	41.9	0.53	1
345	TSA(C)0500050iR280	A & C	50	50	60	280	6.3	0.25	0.15	418	TSA(C)0630125iR31.5	A & C	63	125	150	31.5	56	0.71	1.33
346	TSA(C)0500050iR177	A & C	50	50	90	177	9.97	0.40	0.24	419	TSA(C)0630125iR26.4	A & C	63	125	180	26.4	66.82	0.85	1.59
347	TSA(C)0500050iR126	A & C	50	50	120	126	14	0.56	0.33	420	TSA(C)0630125iR22.2	A & C	63	125	210	22.2	79.46	1.01	1.89
348	TSA(C)0500050iR94.1	A & C	50	50	150	94.1	18.75	0.75	0.45	421	TSA(C)0630160iR149	A & C	63	160	30	149	11.84	0.12	0.28
349	TSA(C)0500050iR79.1	A & C	50	50	180	79.1	22.3	0.89	0.53	422	TSA(C)0630160iR74.7	A & C	63	160	60	74.7	23.61	0.23	0.56
350	TSA(C)0500050iR66.6	A & C	50	50	210	66.6	26.49	1.06	0.63	423	TSA(C)0630160iR47.2	A & C	63	160	90	47.2	37.37	0.37	0.89
351	TSA(C)0500063iR446	A & C	50	63	30	446	3.96	0.13	0.09	424	TSA(C)0630160iR33.4	A & C	63	160	120	33.4	52.81	0.52	1.26
352	TSA(C)0500063iR222	A & C	50	63	60	222	7.95	0.25	0.19	425	TSA(C)0630160iR24.9	A & C	63	160	150	24.9	70.84	0.70	1.69
353	TSA(C)0500063iR141	A & C	50	63	90	141	12.51	0.40	0.3	426	TSA(C)0630160iR21	A & C	63	160	180	21	84	0.83	2
354	TSA(C)0500063iR100	A & C	50	63	120	100	17.64	0											



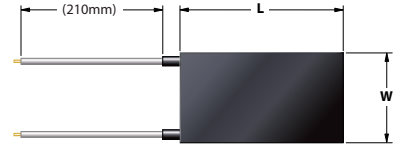
# STANDARD | Rectangular 42V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)0630250iR15.8	A & C	63	250	150	15.8	111.65	0.71	2.66
440	TSA(C)0630250iR13.3	A & C	63	250	180	13.3	132.63	0.84	3.16
441	TSA0630250iR11.2	A	63	250	210	11.2	157.5	1.00	3.75
442	TSA(C)0800080iR264	A & C	80	80	30	264	6.68	0.10	0.16
443	TSA(C)0800080iR126	A & C	80	80	60	126	14	0.22	0.33
444	TSA(C)0800080iR79.1	A & C	80	80	90	79.1	22.3	0.35	0.53
445	TSA(C)0800080iR56.1	A & C	80	80	120	56.1	31.44	0.49	0.75
446	TSA(C)0800080iR44.6	A & C	80	80	150	44.6	39.55	0.62	0.94
447	TSA(C)0800080iR35.4	A & C	80	80	180	35.4	49.83	0.78	1.19
448	TSA(C)0800080iR29.7	A & C	80	80	210	29.7	59.39	0.93	1.41
449	TSA(C)0800100iR210	A & C	80	100	30	210	8.4	0.11	0.2
450	TSA(C)0800100iR100	A & C	80	100	60	100	17.64	0.22	0.42
451	TSA(C)0800100iR62.9	A & C	80	100	90	62.9	28.04	0.35	0.67
452	TSA(C)0800100iR44.6	A & C	80	100	120	44.6	39.55	0.49	0.94
453	TSA(C)0800100iR35.4	A & C	80	100	150	35.4	49.83	0.62	1.19
454	TSA(C)0800100iR28	A & C	80	100	180	28	63	0.79	1.5
455	TSA(C)0800100iR23.5	A & C	80	100	210	23.5	75.06	0.94	1.79
456	TSA(C)0800125iR167	A & C	80	125	30	167	10.56	0.11	0.25
457	TSA(C)0800125iR83.8	A & C	80	125	60	83.8	21.05	0.21	0.5
458	TSA(C)0800125iR53	A & C	80	125	90	53	33.28	0.33	0.79
459	TSA(C)0800125iR35.4	A & C	80	125	120	35.4	49.83	0.50	1.19
460	TSA(C)0800125iR28	A & C	80	125	150	28	63	0.63	1.5
461	TSA(C)0800125iR22.2	A & C	80	125	180	22.2	79.46	0.79	1.89
462	TSA(C)0800125iR18.7	A & C	80	125	210	18.7	94.33	0.94	2.25
463	TSA(C)0800160iR133	A & C	80	160	30	133	13.26	0.10	0.32
464	TSA(C)0800160iR62.9	A & C	80	160	60	62.9	28.04	0.22	0.67
465	TSA(C)0800160iR39.7	A & C	80	160	90	39.7	44.43	0.35	1.06
466	TSA(C)0800160iR28	A & C	80	160	120	28	63	0.49	1.5
467	TSA(C)0800160iR22.2	A & C	80	160	150	22.2	79.46	0.62	1.89
468	TSA(C)0800160iR17.7	A & C	80	160	180	17.7	99.66	0.78	2.37
469	TSA(C)0800160iR14.9	A & C	80	160	210	14.9	118.39	0.92	2.82
470	TSA(C)0800200iR106	A & C	80	200	30	106	16.64	0.10	0.4
471	TSA(C)0800200iR50	A & C	80	200	60	50	35.28	0.22	0.84
472	TSA(C)0800200iR31.5	A & C	80	200	90	31.5	56	0.35	1.33
473	TSA(C)0800200iR22.2	A & C	80	200	120	22.2	79.46	0.50	1.89
474	TSA(C)0800200iR17.7	A & C	80	200	150	17.7	99.66	0.62	2.37
475	TSA(C)0800200iR14.1	A & C	80	200	180	14.1	125.11	0.78	2.98
476	TSA(C)0800200iR11.9	A & C	80	200	210	11.9	148.24	0.93	3.53
477	TSA(C)0800250iR83.8	A & C	80	250	30	83.8	21.05	0.11	0.5
478	TSA(C)0800250iR42.1	A & C	80	250	60	42.1	41.9	0.21	1
479	TSA(C)0800250iR26.4	A & C	80	250	90	26.4	66.82	0.33	1.59
480	TSA(C)0800250iR17.7	A & C	80	250	120	17.7	99.66	0.50	2.37
481	TSA(C)0800250iR14.1	A & C	80	250	150	14.1	125.11	0.63	2.98
482	TSA(C)0800250iR11.2	A & C	80	250	180	11.2	157.5	0.79	3.75
483	TSA0800250iR9.41	A	80	250	210	9.41	187.46	0.94	4.46
484	TSA(C)0800300iR70.5	A & C	80	300	30	70.5	25.02	0.10	0.6
485	TSA(C)0800300iR33.4	A & C	80	300	60	33.4	52.81	0.22	1.26
486	TSA(C)0800300iR21	A & C	80	300	90	21	84	0.35	2
487	TSA(C)0800300iR14.9	A & C	80	300	120	14.9	118.39	0.49	2.82
488	TSA(C)0800300iR11.9	A & C	80	300	150	11.9	148.24	0.62	3.53
489	TSA0800300iR9.41	A	80	300	180	9.41	187.46	0.78	4.46
490	TSA0800300iR7.91	A	80	300	210	7.91	223.01	0.93	5.31
491	TSA(C)1000100iR187	A & C	100	100	30	187	9.43	0.09	0.22
492	TSA(C)1000100iR94.1	A & C	100	100	60	94.1	18.75	0.19	0.45
493	TSA(C)1000100iR59.4	A & C	100	100	90	59.4	29.7	0.30	0.71
494	TSA(C)1000100iR39.7	A & C	100	100	120	39.7	44.43	0.44	1.06
495	TSA(C)1000100iR31.5	A & C	100	100	150	31.5	56	0.56	1.33
496	TSA(C)1000100iR24.9	A & C	100	100	180	24.9	70.84	0.71	1.69
497	TSA(C)1000100iR21	A & C	100	100	210	21	84	0.84	2
498	TSA(C)1000125iR149	A & C	100	125	30	149	11.84	0.09	0.28
499	TSA(C)1000125iR74.7	A & C	100	125	60	74.7	23.61	0.19	0.56
500	TSA(C)1000125iR47.2	A & C	100	125	90	47.2	37.37	0.30	0.89
501	TSA(C)1000125iR31.5	A & C	100	125	120	31.5	56	0.45	1.33
502	TSA(C)1000125iR24.9	A & C	100	125	150	24.9	70.84	0.57	1.69
503	TSA(C)1000125iR19.8	A & C	100	125	180	19.8	89.09	0.71	2.12
504	TSA(C)1000125iR16.7	A & C	100	125	210	16.7	105.63	0.85	2.52
505	TSA(C)1000160iR119	A & C	100	160	30	119	14.82	0.09	0.35
506	TSA(C)1000160iR59.4	A & C	100	160	60	59.4	29.7	0.19	0.71
507	TSA(C)1000160iR37.5	A & C	100	160	90	37.5	47.04	0.29	1.12
508	TSA(C)1000160iR24.9	A & C	100	160	120	24.9	70.84	0.44	1.69
509	TSA(C)1000160iR19.8	A & C	100	160	150	19.8	89.09	0.56	2.12
510	TSA(C)1000160iR15.8	A & C	100	160	180	15.8	111.65	0.70	2.66
511	TSA(C)1000160iR13.3	A & C	100	160	210	13.3	132.63	0.83	3.16

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
512	TSA(C)1000200iR94.1	A & C	100	200	30	94.1	18.75	0.09	0.45
513	TSA(C)1000200iR47.2	A & C	100	200	60	47.2	37.37	0.19	0.89
514	TSA(C)1000200iR29.7	A & C	100	200	90	29.7	59.39	0.30	1.41
515	TSA(C)1000200iR19.8	A & C	100	200	120	19.8	89.09	0.45	2.12
516	TSA(C)1000200iR15.8	A & C	100	200	150	15.8	111.65	0.56	2.66
517	TSA(C)1000200iR12.6	A & C	100	200	180	12.6	140	0.70	3.33
518	TSA(C)1000200iR10.6	A & C	100	200	210	10.6	166.42	0.83	3.96
519	TSA(C)1000250iR74.7	A & C	100	250	30	74.7	23.61	0.09	0.56
520	TSA(C)1000250iR37.5	A & C	100	250	60	37.5	47.04	0.19	1.12
521	TSA(C)1000250iR23.5	A & C	100	250	90	23.5	75.06	0.30	1.79
522	TSA(C)1000250iR15.8	A & C	100	250	120	15.8	111.65	0.45	2.66
523	TSA(C)1000250iR12.6	A & C	100	250	150	12.6	140	0.56	3.33
524	TSA(C)1000250iR10	A & C	100	250	180	10	176.4	0.71	4.2
525	TSA1000250iR8.38	A	100	250	210	8.38	210.5	0.84	5.01
526	TSA(C)1000300iR62.9	A & C	100	300	30	62.9	28.04	0.09	0.67
527	TSA(C)1000300iR31.5	A & C	100	300	60	31.5	56	0.19	1.33
528	TSA(C)1000300iR19.8	A & C	100	300	90	19.8	89.09	0.30	2.12
529	TSA(C)1000300iR13.3	A & C	100	300	120	13.3	132.63	0.44	3.16
530	TSA(C)1000300iR10.6	A & C	100	300	150	10.6	166.42	0.55	3.96
531	TSA1000300iR8.38	A	100	300	180	8.38	210.5	0.70	5.01
532	TSA1000300iR7.05	A	100	300	210	7.05	250.21	0.83	5.96
533	TSA(C)1250125iR133	A & C	125	125	30	133	13.26	0.08	0.32
534	TSA(C)1250125iR66.6	A & C	125	125	60	66.6	26.49	0.17	0.63
535	TSA(C)1250125iR42.1	A & C	125	125	90	42.1	41.9	0.27	1
536	TSA(C)1250125iR28	A & C	125	125	120	28	63	0.40	1.5
537	TSA(C)1250125iR22.2	A & C	125	125	150	22.2	79.46	0.51	1.89
538	TSA(C)1250125iR17.7	A & C	125	125	180	17.7	99.66	0.64	2.37
539	TSA(C)1250125iR14.9	A & C	125	125	210	14.9	118.39	0.76	2.82
540	TSA(C)1250160iR100	A & C	125	160	30	100	17.64	0.09	0.42
541	TSA(C)1250160iR50	A & C	125	160	60	50	35.28	0.18	0.84
542	TSA(C)1250160iR31.5	A & C	125	160	90	31.5	56	0.28	1.33
543	TSA(C)1250160iR22.2	A & C	125	160	120	22.2	79.46	0.40	1.89
544	TSA(C)1250160iR16.7	A & C	125	160	150	16.7	105.63	0.53	2.52
545	TSA(C)1250160iR14.1	A & C	125	160	180	14.1	125.11	0.63	2.98
546	TSA(C)1250160iR11.2	A & C	125	160	210	11.2	157.5	0.79	3.75
547	TSA(C)1250200iR83.8	A & C	125	200	30	83.8	21.05	0.08	0.5
548	TSA(C)1250200iR42.1	A & C	125	200	60	42.1	41.9	0.17	1
549	TSA(C)1250200iR24.9	A & C	125	200	90	24.9	70.84	0.28	1.69
550	TSA(C)1250200iR17.7	A & C	125	200	120	17.7	99.66	0.40	2.37
551	TSA(C)1250200iR13.3	A & C	125	200	150	13.3	132.63	0.53	3.16
552	TSA(C)1250200iR11.2	A & C	125	200	180	11.2	157.5	0.63	3.75
553	TSA(C)1250200iR8.88	A & C	125	200	210	8.88	198.65	0.79	4.73
554	TSA(C)1250250iR66.6	A & C	125	250	30	66.6	26.49	0.08	0.63
555	TSA(C)1250250iR33.4	A & C	125	250	60	33.4	52.81	0.17	1.26
556	TSA(C)1250250iR21	A & C	125	250	90				

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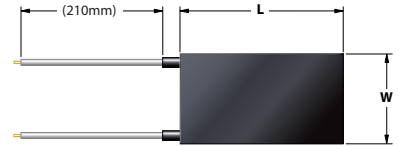


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250iR11.9	A & C	160	250	120	11.9	148.24	0.37	3.53
586	TSA(C)1600250iR9.41	A & C	160	250	150	9.41	187.46	0.47	4.46
587	TSA(C)1600250iR7.47	A & C	160	250	180	7.47	236.14	0.59	5.62
588	TSA1600250iR6.29	A	160	250	210	6.29	280.45	0.70	6.68
589	TSA(C)1600300iR47.2	A & C	160	300	30	47.2	37.37	0.08	0.89
590	TSA(C)1600300iR23.5	A & C	160	300	60	23.5	75.06	0.16	1.79
591	TSA(C)1600300iR14.9	A & C	160	300	90	14.9	118.39	0.25	2.82
592	TSA(C)1600300iR10	A & C	160	300	120	10	176.4	0.37	4.2
593	TSA(C)1600300iR7.91	A & C	160	300	150	7.91	223.01	0.46	5.31
594	TSA1600300iR6.29	A	160	300	180	6.29	280.45	0.58	6.68
595	TSA1600300iR5.3	A	160	300	210	5.3	332.83	0.69	7.92
596	TSA(C)2000200iR62.9	A & C	200	200	30	62.9	28.04	0.07	0.67
597	TSA(C)2000200iR31.5	A & C	200	200	60	31.5	56	0.14	1.33
598	TSA(C)2000200iR19.8	A & C	200	200	90	19.8	89.09	0.22	2.12
599	TSA(C)2000200iR13.3	A & C	200	200	120	13.3	132.63	0.33	3.16
600	TSA(C)2000200iR10	A & C	200	200	150	10	176.4	0.44	4.2
601	TSA(C)2000200iR8.38	A & C	200	200	180	8.38	210.5	0.53	5.01
602	TSA(C)2000200iR7.05	A & C	200	200	210	7.05	250.21	0.63	5.96
603	TSA(C)2000250iR50	A & C	200	250	30	50	35.28	0.07	0.84
604	TSA(C)2000250iR24.9	A & C	200	250	60	24.9	70.84	0.14	1.69
605	TSA(C)2000250iR15.8	A & C	200	250	90	15.8	111.65	0.22	2.66
606	TSA(C)2000250iR10.6	A & C	200	250	120	10.6	166.42	0.33	3.96
607	TSA(C)2000250iR8.38	A & C	200	250	150	8.38	210.5	0.42	5.01
608	TSA(C)2000250iR6.66	A & C	200	250	180	6.66	264.86	0.53	6.31
609	TSA2000250iR5.61	A	200	250	210	5.61	314.44	0.63	7.49
610	TSA(C)2000300iR42.1	A & C	200	300	30	42.1	41.9	0.07	1
611	TSA(C)2000300iR21	A & C	200	300	60	21	84	0.14	2

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
612	TSA(C)2000300iR13.3	A & C	200	300	90	13.3	132.63	0.22	3.16
613	TSA(C)2000300iR8.88	A & C	200	300	120	8.88	198.65	0.33	4.73
614	TSA(C)2000300iR6.66	A & C	200	300	150	6.66	264.86	0.44	6.31
615	TSA2000300iR5.61	A	200	300	180	5.61	314.44	0.52	7.49
616	TSA2000300iR4.72	A	200	300	210	4.72	373.73	0.62	8.9
617	TSA(C)2500250iR42.1	A & C	250	250	30	42.1	41.9	0.07	1
618	TSA(C)2500250iR21	A & C	250	250	60	21	84	0.13	2
619	TSA(C)2500250iR13.3	A & C	250	250	90	13.3	132.63	0.21	3.16
620	TSA(C)2500250iR9.41	A & C	250	250	120	9.41	187.46	0.30	4.46
621	TSA(C)2500250iR7.05	A & C	250	250	150	7.05	250.21	0.40	5.96
622	TSA(C)2500250iR5.94	A & C	250	250	180	5.94	296.97	0.48	7.07
623	TSA2500250iR4.72	A	250	250	210	4.72	373.73	0.60	8.9
624	TSA(C)2500300iR35.4	A & C	250	300	30	35.4	49.83	0.07	1.19
625	TSA(C)2500300iR17.7	A & C	250	300	60	17.7	99.66	0.13	2.37
626	TSA(C)2500300iR11.2	A & C	250	300	90	11.2	157.5	0.21	3.75
627	TSA(C)2500300iR7.47	A & C	250	300	120	7.47	236.14	0.31	5.62
628	TSA(C)2500300iR5.94	A & C	250	300	150	5.94	296.97	0.40	7.07
629	TSA2500300iR4.72	A	250	300	180	4.72	373.73	0.50	8.9
630	TSA2500300iR3.97	A	250	300	210	3.97	444.33	0.59	10.58
631	TSA(C)3000300iR31.5	A & C	300	300	30	31.5	56	0.06	1.33
632	TSA(C)3000300iR15.8	A & C	300	300	60	15.8	111.65	0.12	2.66
633	TSA(C)3000300iR10	A & C	300	300	90	10	176.4	0.20	4.2
634	TSA(C)3000300iR6.66	A & C	300	300	120	6.66	264.86	0.29	6.31
635	TSA(C)3000300iR5.3	A & C	300	300	150	5.3	332.83	0.37	7.92
636	TSA3000300iR4.21	A	300	300	180	4.21	419	0.47	9.98
637	TSA3000300iR3.54	A	300	300	210	3.54	498.31	0.55	11.86

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

- Shape : **RECTANGULAR**
- Materials/Type : TSA (Etched); TSC (Nano-Carbon)
- Length(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
- Width(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
- Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C
- Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



# STANDARD | Rectangular 48V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010jR8880	C	10	10	30	8880	0.26	0.26	0.01
2	TSC0100010jR4210	C	10	10	60	4210	0.55	0.55	0.01
3	TSC0100010jR2640	C	10	10	90	2640	0.87	0.87	0.02
4	TSC0100010jR1980	C	10	10	120	1980	1.16	1.16	0.02
5	TSC0100010jR1490	C	10	10	150	1490	1.55	1.55	0.03
6	TSC0100010jR1120	C	10	10	180	1120	2.06	2.06	0.04
7	TSC0100010jR941	C	10	10	210	941	2.45	2.45	0.05
8	TSC0100013jR7050	C	10	13	30	7050	0.33	0.25	0.01
9	TSC0100013jR3150	C	10	13	60	3150	0.73	0.56	0.02
10	TSC0100013jR2100	C	10	13	90	2100	1.1	0.85	0.02
11	TSC0100013jR1490	C	10	13	120	1490	1.55	1.19	0.03
12	TSC0100013jR1120	C	10	13	150	1120	2.06	1.58	0.04
13	TSC0100013jR888	C	10	13	180	888	2.59	1.99	0.05
14	TSC0100013jR747	C	10	13	210	747	3.08	2.37	0.06
15	TSC0100016jR5610	C	10	16	30	5610	0.41	0.26	0.01
16	TSC0100016jR2640	C	10	16	60	2640	0.87	0.54	0.02
17	TSC0100016jR1670	C	10	16	90	1670	1.38	0.86	0.03
18	TSC0100016jR1190	C	10	16	120	1190	1.94	1.21	0.04
19	TSC0100016jR888	C	10	16	150	888	2.59	1.62	0.05
20	TSC0100016jR705	C	10	16	180	705	3.27	2.04	0.07
21	TSC0100016jR594	C	10	16	210	594	3.88	2.43	0.08
22	TSC0100020jR4460	C	10	20	30	4460	0.52	0.26	0.01
23	TSC0100020jR2100	C	10	20	60	2100	1.1	0.55	0.02
24	TSC0100020jR1330	C	10	20	90	1330	1.73	0.87	0.04
25	TSC0100020jR941	C	10	20	120	941	2.45	1.23	0.05
26	TSC0100020jR705	C	10	20	150	705	3.27	1.64	0.07
27	TSC0100020jR561	C	10	20	180	561	4.11	2.06	0.09
28	TSC0100020jR472	C	10	20	210	472	4.88	2.44	0.1
29	TSC0100025jR3540	C	10	25	30	3540	0.65	0.26	0.01
30	TSC0100025jR1670	C	10	25	60	1670	1.38	0.55	0.03
31	TSC0100025jR1060	C	10	25	90	1060	2.17	0.87	0.05

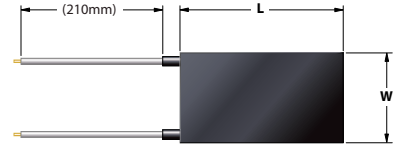
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
32	TSC0100025jR791	C	10	25	120	791	2.91	1.16	0.06
33	TSC0100025jR594	C	10	25	150	594	3.88	1.55	0.08
34	TSC0100025jR472	C	10	25	180	472	4.88	1.95	0.1
35	TSC0100025jR375	C	10	25	210	375	6.14	2.46	0.13
36	TSC0100032jR2800	C	10	32	30	2800	0.82	0.26	0.02
37	TSC0100032jR1330	C	10	32	60	1330	1.73	0.54	0.04
38	TSC0100032jR838	C	10	32	90	838	2.75	0.86	0.06
39	TSC0100032jR594	C	10	32	120	594	3.88	1.21	0.08
40	TSC0100032jR446	C	10	32	150	446	5.17	1.62	0.11
41	TSC0100032jR354	C	10	32	180	354	6.51	2.03	0.14
42	TSC0100032jR297	C	10	32	210	297	7.76	2.43	0.16
43	TSC0100040jR2220	C	10	40	30	2220	1.04	0.26	0.02
44	TSC0100040jR1060	C	10	40	60	1060	2.17	0.54	0.05
45	TSC0100040jR666	C	10	40	90	666	3.46	0.87	0.07
46	TSC0100040jR472	C	10	40	120	472	4.88	1.22	0.1
47	TSC0100040jR354	C	10	40	150	354	6.51	1.63	0.14
48	TSC0100040jR280	C	10	40	180	280	8.23	2.06	0.17
49	TSA(C)0100040jR235	A & C	10	40	210	235	9.8	2.45	0.2
50	TSC0130013jR5940	C	13	13	30	5940	0.39	0.23	0.01
51	TSC0130013jR2800	C	13	13	60	2800	0.82	0.49	0.02
52	TSC0130013jR1870	C	13	13	90	1870	1.23	0.73	0.03
53	TSC0130013jR1330	C	13	13	120	1330	1.73	1.02	0.04
54	TSC0130013jR1000	C	13	13	150	1000	2.3	1.36	0.05
55	TSC0130013jR791	C	13	13	180	791	2.91	1.72	0.06
56	TSC0130013jR666	C	13	13	210	666	3.46	2.05	0.07
57	TSC0130016jR5000	C	13	16	30	5000	0.46	0.22	0.01
58	TSC0130016jR2350	C	13	16	60	2350	0.98	0.47	0.02
59	TSC0130016jR1490	C	13	16	90	1490	1.55	0.75	0.03
60	TSC0130016jR1060	C	13	16	120	1060	2.17	1.04	0.05
61	TSC0130016jR791	C	13	16	150	791	2.91	1.40	0.06
62	TSC0130016jR62								

# STANDARD | Rectangular 48V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
63	TSC0130016JR530	C	13	16	210	530	4.35	2.09	0.09
64	TSC0130020JR3970	C	13	20	30	3970	0.58	0.22	0.01
65	TSC0130020JR1870	C	13	20	60	1870	1.23	0.47	0.03
66	TSC0130020JR1190	C	13	20	90	1190	1.94	0.75	0.04
67	TSC0130020JR838	C	13	20	120	838	2.75	1.06	0.06
68	TSC0130020JR629	C	13	20	150	629	3.66	1.41	0.08
69	TSC0130020JR500	C	13	20	180	500	4.61	1.77	0.1
70	TSC0130020JR421	C	13	20	210	421	5.47	2.10	0.11
71	TSC0130025JR3150	C	13	25	30	3150	0.73	0.22	0.02
72	TSC0130025JR1490	C	13	25	60	1490	1.55	0.48	0.03
73	TSC0130025JR941	C	13	25	90	941	2.45	0.75	0.05
74	TSC0130025JR666	C	13	25	120	666	3.46	1.06	0.07
75	TSC0130025JR500	C	13	25	150	500	4.61	1.42	0.1
76	TSC0130025JR397	C	13	25	180	397	5.8	1.78	0.12
77	TSC0130025JR334	C	13	25	210	334	6.9	2.12	0.14
78	TSC0130032JR2490	C	13	32	30	2490	0.93	0.22	0.02
79	TSC0130032JR1190	C	13	32	60	1190	1.94	0.47	0.04
80	TSC0130032JR747	C	13	32	90	747	3.08	0.74	0.06
81	TSC0130032JR530	C	13	32	120	530	4.35	1.05	0.09
82	TSC0130032JR397	C	13	32	150	397	5.8	1.39	0.12
83	TSC0130032JR315	C	13	32	180	315	7.31	1.76	0.15
84	TSC0130032JR264	C	13	32	210	264	8.73	2.10	0.18
85	TSC0130040JR1980	C	13	40	30	1980	1.16	0.22	0.02
86	TSC0130040JR941	C	13	40	60	941	2.45	0.47	0.05
87	TSC0130040JR594	C	13	40	90	594	3.88	0.75	0.08
88	TSC0130040JR421	C	13	40	120	421	5.47	1.05	0.11
89	TSC0130040JR315	C	13	40	150	315	7.31	1.41	0.15
90	TSA(C)0130040JR249	A & C	13	40	180	249	9.25	1.78	0.19
91	TSA(C)0130040JR210	A & C	13	40	210	210	10.97	2.11	0.23
92	TSC0130050JR1580	C	13	50	30	1580	1.46	0.22	0.03
93	TSC0130050JR747	C	13	50	60	747	3.08	0.47	0.06
94	TSC0130050JR472	C	13	50	90	472	4.88	0.75	0.1
95	TSA(C)0130050JR334	A & C	13	50	120	334	6.9	1.06	0.14
96	TSA(C)0130050JR249	A & C	13	50	150	249	9.25	1.42	0.19
97	TSA(C)0130050JR210	A & C	13	50	180	210	10.97	1.69	0.23
98	TSA(C)0130050JR167	A & C	13	50	210	167	13.8	2.12	0.29
99	TSC0160016JR4720	C	16	16	30	4720	0.49	0.19	0.01
100	TSC0160016JR2220	C	16	16	60	2220	1.04	0.41	0.02
101	TSC0160016JR1410	C	16	16	90	1410	1.63	0.64	0.03
102	TSC0160016JR1000	C	16	16	120	1000	2.3	0.90	0.05
103	TSC0160016JR747	C	16	16	150	747	3.08	1.20	0.06
104	TSC0160016JR594	C	16	16	180	594	3.88	1.52	0.08
105	TSC0160016JR500	C	16	16	210	500	4.61	1.80	0.1
106	TSC0160020JR3750	C	16	20	30	3750	0.61	0.19	0.01
107	TSC0160020JR1770	C	16	20	60	1770	1.3	0.41	0.03
108	TSC0160020JR1120	C	16	20	90	1120	2.06	0.64	0.04
109	TSC0160020JR791	C	16	20	120	791	2.91	0.91	0.06
110	TSC0160020JR594	C	16	20	150	594	3.88	1.21	0.08
111	TSC0160020JR500	C	16	20	180	500	4.61	1.44	0.1
112	TSC0160020JR397	C	16	20	210	397	5.8	1.81	0.12
113	TSC0160025JR2970	C	16	25	30	2970	0.78	0.20	0.02
114	TSC0160025JR1410	C	16	25	60	1410	1.63	0.41	0.03
115	TSC0160025JR888	C	16	25	90	888	2.59	0.65	0.05
116	TSC0160025JR629	C	16	25	120	629	3.66	0.92	0.08
117	TSC0160025JR500	C	16	25	150	500	4.61	1.15	0.1
118	TSC0160025JR397	C	16	25	180	397	5.8	1.45	0.12
119	TSC0160025JR315	C	16	25	210	315	7.31	1.83	0.15
120	TSC0160032JR2350	C	16	32	30	2350	0.98	0.19	0.02
121	TSC0160032JR1120	C	16	32	60	1120	2.06	0.40	0.04
122	TSC0160032JR705	C	16	32	90	705	3.27	0.64	0.07
123	TSC0160032JR500	C	16	32	120	500	4.61	0.90	0.1
124	TSC0160032JR375	C	16	32	150	375	6.14	1.20	0.13
125	TSA(C)0160032JR297	A & C	16	32	180	297	7.76	1.52	0.16
126	TSA(C)0160032JR249	A & C	16	32	210	249	9.25	1.81	0.19
127	TSC0160040JR1870	C	16	40	30	1870	1.23	0.19	0.03
128	TSC0160040JR888	C	16	40	60	888	2.59	0.40	0.05
129	TSC0160040JR561	C	16	40	90	561	4.11	0.64	0.09
130	TSC0160040JR397	C	16	40	120	397	5.8	0.91	0.12
131	TSA(C)0160040JR297	A & C	16	40	150	297	7.76	1.21	0.16
132	TSA(C)0160040JR249	A & C	16	40	180	249	9.25	1.45	0.19
133	TSA(C)0160040JR198	A & C	16	40	210	198	11.64	1.82	0.24
134	TSC0160050JR1490	C	16	50	30	1490	1.55	0.19	0.03
135	TSC0160050JR705	C	16	50	60	705	3.27	0.41	0.07

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
136	TSA(C)0160050JR446	A & C	16	50	90	446	5.17	0.65	0.11
137	TSA(C)0160050JR315	A & C	16	50	120	315	7.31	0.91	0.15
138	TSA(C)0160050JR249	A & C	16	50	150	249	9.25	1.16	0.19
139	TSA(C)0160050JR198	A & C	16	50	180	198	11.64	1.46	0.24
140	TSA(C)0160050JR158	A & C	16	50	210	158	14.58	1.82	0.3
141	TSC0160063JR1190	C	16	63	30	1190	1.94	0.19	0.04
142	TSA(C)0160063JR561	A & C	16	63	60	561	4.11	0.41	0.09
143	TSA(C)0160063JR354	A & C	16	63	90	354	6.51	0.65	0.14
144	TSA(C)0160063JR249	A & C	16	63	120	249	9.25	0.92	0.19
145	TSA(C)0160063JR198	A & C	16	63	150	198	11.64	1.15	0.24
146	TSA(C)0160063JR158	A & C	16	63	180	158	14.58	1.45	0.3
147	TSA(C)0160063JR126	A & C	16	63	210	126	18.29	1.81	0.38
148	TSC0200020JR3750	C	20	20	30	3750	0.61	0.15	0.01
149	TSC0200020JR1870	C	20	20	60	1870	1.23	0.31	0.03
150	TSC0200020JR1120	C	20	20	90	1120	2.06	0.52	0.04
151	TSC0200020JR791	C	20	20	120	791	2.91	0.73	0.06
152	TSC0200020JR629	C	20	20	150	629	3.66	0.92	0.08
153	TSC0200020JR500	C	20	20	180	500	4.61	1.15	0.1
154	TSC0200020JR421	C	20	20	210	421	5.47	1.37	0.11
155	TSC0200025JR3150	C	20	25	30	3150	0.73	0.15	0.02
156	TSC0200025JR1490	C	20	25	60	1490	1.55	0.31	0.03
157	TSC0200025JR941	C	20	25	90	941	2.45	0.49	0.05
158	TSC0200025JR666	C	20	25	120	666	3.46	0.69	0.07
159	TSC0200025JR500	C	20	25	150	500	4.61	0.92	0.1
160	TSC0200025JR421	C	20	25	180	421	5.47	1.09	0.11
161	TSC0200025JR334	C	20	25	210	334	6.9	1.38	0.14
162	TSC0200032JR2350	C	20	32	30	2350	0.98	0.15	0.02
163	TSC0200032JR1190	C	20	32	60	1190	1.94	0.30	0.04
164	TSC0200032JR705	C	20	32	90	705	3.27	0.51	0.07
165	TSC0200032JR500	C	20	32	120	500	4.61	0.72	0.1
166	TSC0200032JR397	C	20	32	150	397	5.8	0.91	0.12
167	TSA(C)0200032JR315	A & C	20	32	180	315	7.31	1.14	0.15
168	TSA(C)0200032JR264	A & C	20	32	210	264	8.73	1.36	0.18
169	TSC0200040JR1870	C	20	40	30	1870	1.23	0.15	0.03
170	TSC0200040JR941	C	20	40	60	941	2.45	0.31	0.05
171	TSC0200040JR561	C	20	40	90	561	4.11	0.51	0.09
172	TSA(C)0200040JR397	A & C	20	40	120	397	5.8	0.73	0.12
173	TSA(C)0200040JR315	A & C	20	40	150	315	7.31	0.91	0.15
174	TSA(C)0200040JR249	A & C	20	40	180	249	9.25	1.16	0.19
175	TSA(C)0200040JR210	A & C	20	40	210	210	10.97	1.37	0.23
176	TSC0200050JR1490	C	20	50	30	1490	1.55	0.16	0.03
177	TSC0200050JR747	C	20	50	60	747	3.08	0.31	0.06
178	TSA(C)0200050JR446	A & C	20	50	90	446	5.17	0.52	0.11
179	TSA(C)0200050JR334	A & C	20	50	120	334	6.9	0.69	0.14
180	TSA(C)0200050JR249	A & C	20	50	150	249	9.25	0.93	0.19
181	TSA(C)0200050JR210	A & C	20	50	180	210	10.97	1.10	0.23
182	TSA(C)0200050JR167	A & C	20	50	210	167	13.8	1.38	0.29
183	TSC0200063JR1190	C	20	63	30	1190	1.94	0.15	0.04
184	TSA(C)0200063JR594	A & C	20	63	60	594	3.88	0.31	0.08
185	TSA(C)0200063JR354	A & C	20	63	90	354	6.51	0.52	0.14
186	TSA(C)0200063JR264	A & C	20	63	120	264	8.73	0.69	0.18
187	TSA(C)0200063JR198	A & C	20	63	150	198	11.64	0.92	0.24
188	TSA(C)0200063JR167	A & C	20	63	180	167	13.8	1.10	0.29
189	TSA(C)0200063JR133	A & C	20	63	210	133	17.32	1.37	0.36
190	TSA(C)0200080JR941	A & C	20	80	30	941	2.45	0.15	

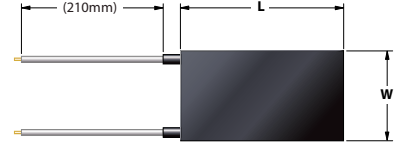


# STANDARD | Rectangular 48V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
209	TSA(C)0250032JR264	A & C	25	32	180	264	8.73	1.09	0.18	282	TSA(C)0320100JR249	A & C	32	100	60	249	9.25	0.29	0.19
210	TSA(C)0250032JR222	A & C	25	32	210	222	10.38	1.30	0.22	283	TSA(C)0320100JR158	A & C	32	100	90	158	14.58	0.46	0.3
211	TSC0250040JR1580	C	25	40	30	1580	1.46	0.15	0.03	284	TSA(C)0320100JR112	A & C	32	100	120	112	20.57	0.64	0.43
212	TSC0250040JR791	C	25	40	60	791	2.91	0.29	0.06	285	TSA(C)0320100JR88.8	A & C	32	100	150	88.8	25.95	0.81	0.54
213	TSA(C)0250040JR472	A & C	25	40	90	472	4.88	0.49	0.1	286	TSA(C)0320100JR70.5	A & C	32	100	180	70.5	32.68	1.02	0.68
214	TSA(C)0250040JR334	A & C	25	40	120	334	6.9	0.69	0.14	287	TSA(C)0320100JR59.4	A & C	32	100	210	59.4	38.79	1.21	0.81
215	TSA(C)0250040JR264	A & C	25	40	150	264	8.73	0.87	0.18	288	TSA(C)0320125JR446	A & C	32	125	30	446	5.17	0.13	0.11
216	TSA(C)0250040JR210	A & C	25	40	180	210	10.97	1.10	0.23	289	TSA(C)0320125JR198	A & C	32	125	60	198	11.64	0.29	0.24
217	TSA(C)0250040JR177	A & C	25	40	210	177	13.02	1.30	0.27	290	TSA(C)0320125JR126	A & C	32	125	90	126	18.29	0.46	0.38
218	TSC0250050JR1260	C	25	50	30	1260	1.83	0.15	0.04	291	TSA(C)0320125JR88.8	A & C	32	125	120	88.8	25.95	0.65	0.54
219	TSA(C)0250050JR629	A & C	25	50	60	629	3.66	0.29	0.08	292	TSA(C)0320125JR70.5	A & C	32	125	150	70.5	32.68	0.82	0.68
220	TSA(C)0250050JR375	A & C	25	50	90	375	6.14	0.49	0.13	293	TSA(C)0320125JR50	A & C	32	125	180	50	38.79	0.97	0.81
221	TSA(C)0250050JR264	A & C	25	50	120	264	8.73	0.70	0.18	294	TSA(C)0320125JR90	A & C	32	125	210	90	46.08	1.15	0.96
222	TSA(C)0250050JR210	A & C	25	50	150	210	10.97	0.88	0.23	295	TSC0400040JR1120	C	40	40	30	1120	2.06	0.13	0.04
223	TSA(C)0250050JR177	A & C	25	50	180	177	13.02	1.04	0.27	296	TSA(C)0400040JR530	A & C	40	40	60	530	4.35	0.27	0.09
224	TSA(C)0250050JR141	A & C	25	50	210	141	16.34	1.31	0.34	297	TSA(C)0400040JR334	A & C	40	40	90	334	6.9	0.43	0.14
225	TSC0250063JR1000	C	25	63	30	1000	2.3	0.15	0.05	298	TSA(C)0400040JR235	A & C	40	40	120	235	9.8	0.61	0.2
226	TSA(C)0250063JR500	A & C	25	63	60	500	4.61	0.29	0.1	299	TSA(C)0400040JR187	A & C	40	40	150	187	12.32	0.77	0.26
227	TSA(C)0250063JR297	A & C	25	63	90	297	7.76	0.49	0.16	300	TSA(C)0400040JR149	A & C	40	40	180	149	15.46	0.97	0.32
228	TSA(C)0250063JR222	A & C	25	63	120	222	10.38	0.66	0.22	301	TSA(C)0400040JR126	A & C	40	40	210	126	18.29	1.14	0.38
229	TSA(C)0250063JR167	A & C	25	63	150	167	13.8	0.88	0.29	302	TSA(C)0400050JR888	A & C	40	50	30	888	2.59	0.13	0.05
230	TSA(C)0250063JR133	A & C	25	63	180	133	17.32	1.10	0.36	303	TSA(C)0400050JR421	A & C	40	50	60	421	5.47	0.27	0.11
231	TSA(C)0250063JR112	A & C	25	63	210	112	20.57	1.31	0.43	304	TSA(C)0400050JR264	A & C	40	50	90	264	8.73	0.44	0.18
232	TSA(C)0250080JR791	A & C	25	80	30	791	2.91	0.15	0.06	305	TSA(C)0400050JR187	A & C	40	50	120	187	12.32	0.62	0.26
233	TSA(C)0250080JR375	A & C	25	80	60	375	6.14	0.31	0.13	306	TSA(C)0400050JR149	A & C	40	50	150	149	15.46	0.77	0.32
234	TSA(C)0250080JR235	A & C	25	80	90	235	9.8	0.49	0.2	307	TSA(C)0400050JR119	A & C	40	50	180	119	19.36	0.97	0.4
235	TSA(C)0250080JR167	A & C	25	80	120	167	13.8	0.69	0.29	308	TSA(C)0400050JR100	A & C	40	50	210	100	23.04	1.15	0.48
236	TSA(C)0250080JR133	A & C	25	80	150	133	17.32	0.87	0.36	309	TSA(C)0400063JR705	A & C	40	63	30	705	3.27	0.13	0.07
237	TSA(C)0250080JR106	A & C	25	80	180	106	21.74	1.09	0.45	310	TSA(C)0400063JR334	A & C	40	63	60	334	6.9	0.27	0.14
238	TSA(C)0250080JR88.8	A & C	25	80	210	88.8	25.95	1.30	0.54	311	TSA(C)0400063JR210	A & C	40	63	90	210	10.97	0.44	0.23
239	TSA(C)0250100JR629	A & C	25	100	30	629	3.66	0.15	0.08	312	TSA(C)0400063JR149	A & C	40	63	120	149	15.46	0.61	0.32
240	TSA(C)0250100JR315	A & C	25	100	60	315	7.31	0.29	0.15	313	TSA(C)0400063JR119	A & C	40	63	150	119	19.36	0.77	0.4
241	TSA(C)0250100JR187	A & C	25	100	90	187	12.32	0.49	0.26	314	TSA(C)0400063JR94.1	A & C	40	63	180	94.1	24.48	0.97	0.51
242	TSA(C)0250100JR133	A & C	25	100	120	133	17.32	0.69	0.36	315	TSA(C)0400063JR79.1	A & C	40	63	210	79.1	29.13	1.16	0.61
243	TSA(C)0250100JR106	A & C	25	100	150	106	21.74	0.87	0.45	316	TSA(C)0400080JR561	A & C	40	80	30	561	4.11	0.13	0.09
244	TSA(C)0250100JR83.8	A & C	25	100	180	83.8	27.49	1.10	0.57	317	TSA(C)0400080JR264	A & C	40	80	60	264	8.73	0.27	0.18
245	TSA(C)0250100JR70.5	A & C	25	100	210	70.5	32.68	1.31	0.68	318	TSA(C)0400080JR167	A & C	40	80	90	167	13.8	0.43	0.29
246	TSC0320032JR1670	C	32	32	30	1670	1.38	0.13	0.03	319	TSA(C)0400080JR119	A & C	40	80	120	119	19.36	0.61	0.4
247	TSC0320032JR791	C	32	32	60	791	2.91	0.28	0.06	320	TSA(C)0400080JR94.1	A & C	40	80	150	94.1	24.48	0.77	0.51
248	TSA(C)0320032JR500	A & C	32	32	90	500	4.61	0.45	0.1	321	TSA(C)0400080JR74.7	A & C	40	80	180	74.7	30.84	0.96	0.64
249	TSA(C)0320032JR354	A & C	32	32	120	354	6.51	0.64	0.14	322	TSA(C)0400080JR62.9	A & C	40	80	210	62.9	36.63	1.14	0.76
250	TSA(C)0320032JR280	A & C	32	32	150	280	8.23	0.80	0.17	323	TSA(C)0400100JR446	A & C	40	100	30	446	5.17	0.13	0.11
251	TSA(C)0320032JR222	A & C	32	32	180	222	10.38	1.01	0.22	324	TSA(C)0400100JR210	A & C	40	100	60	210	10.97	0.27	0.23
252	TSA(C)0320032JR187	A & C	32	32	210	187	12.32	1.20	0.26	325	TSA(C)0400100JR133	A & C	40	100	90	133	17.32	0.43	0.36
253	TSC0320040JR1330	C	32	40	30	1330	1.73	0.14	0.04	326	TSA(C)0400100JR94.1	A & C	40	100	120	94.1	24.48	0.61	0.51
254	TSA(C)0320040JR629	A & C	32	40	60	629	3.66	0.29	0.08	327	TSA(C)0400100JR74.7	A & C	40	100	150	74.7	30.84	0.77	0.64
255	TSA(C)0320040JR397	A & C	32	40	90	397	5.8	0.45	0.12	328	TSA(C)0400100JR59.4	A & C	40	100	180	59.4	38.79	0.97	0.81
256	TSA(C)0320040JR280	A & C	32	40	120	280	8.23	0.64	0.17	329	TSA(C)0400100JR50	A & C	40	100	210	50	46.08	1.15	0.96
257	TSA(C)0320040JR222	A & C	32	40	150	222	10.38	0.81	0.22	330	TSA(C)0400125JR354	A & C	40	125	30	354	6.51	0.13	0.14
258	TSA(C)0320040JR177	A & C	32	40	180	177	13.02	1.02	0.27	331	TSA(C)0400125JR167	A & C	40	125	60	167	13.8	0.28	0.29
259	TSA(C)0320040JR149	A & C	32	40	210	149	15.46	1.21	0.32	332	TSA(C)0400125JR106	A & C	40	125	90	106	21.74	0.43	0.45
260	TSC0320050JR1060	C	32	50	30	1060	2.17	0.14	0.05	333	TSA(C)0400125JR74.7	A & C	40	125	120	74.7	30.84	0.62	0.64
261	TSA(C)0320050JR500	A & C	32	50	60	500	4.61	0.29	0.1	334	TSA(C)0400125JR59.4	A & C	40	125	150	59.4	38.79	0.78	0.81
262	TSA(C)0320050JR315	A & C	32	50	90	315	7.31	0.46	0.15	335	TSA(C)0400125JR47.2	A & C	40	125	180	47.2	48.81	0.98	1.02
263	TSA(C)0320050JR222	A & C	32	50	120	222	10.38	0.65	0.22	336	TSA(C)0400125JR39.7	A & C	40	125	210	39.7	58.04	1.16	1.21
264	TSA(C)0320050JR177	A & C	32	50	150	177	13.02	0.81	0.27	337	TSA(C)0400160JR280	A & C	40	160	30	280	8.23	0.13	0.17
265	TSA(C)0320050JR141	A & C	32	50	180	141	16.34	1.02	0.34	338	TSA(C)0400160JR133	A & C	40	160	60	133	17.32	0.27	0.36
266	TSA(C)0320050JR119	A & C	32	50	210	119	19.36	1.21	0.4	339	TSA(C)0400160JR83.8	A & C	40	160	90	83.8	27.49	0.43	0.57
267	TSA(C)0320063JR838	A & C	32	63	30	838	2.75	0.14	0.06	340	TSA(C)0400160JR59.4	A & C	40	160	120	59.4	38.79	0.61	0.81
268	TSA(C)0320063JR397	A & C	32	63	60	397	5.8	0.29	0.12	341	TSA(C)0400160JR47.2	A & C	40	160	150	47.2	48.81	0.76	1.02
269	TSA(C)0320063JR249	A & C	32	63	90	249	9.25	0.46	0.19	342	TSA(C)0400160JR37.5	A & C	40	160	180	37.5	61.44	0.96	1.28
270	TSA(C)0320063JR177	A & C	32	63	120	177	13.02	0.65	0.27	343	TSA(C)0400160JR31.5	A & C	40	160	210	31.5	73.14	1.14	1.52
271	TSA(C)0320063JR141	A & C	32	63	150	141	16.34	0.81	0.34	344	TSA(C)0500050JR747	A & C	50						



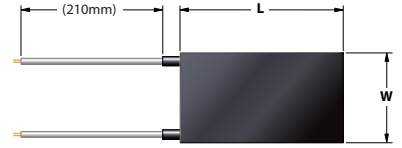
# STANDARD | Rectangular 48V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
355	TSA(C)0500063JR100	A & C	50	63	150	100	23.04	0.73	0.48
356	TSA(C)0500063JR83.8	A & C	50	63	180	83.8	27.49	0.87	0.57
357	TSA(C)0500063JR70.5	A & C	50	63	210	70.5	32.68	1.04	0.68
358	TSA(C)0500080JR472	A & C	50	80	30	472	4.88	0.12	0.1
359	TSA(C)0500080JR222	A & C	50	80	60	222	10.38	0.26	0.22
360	TSA(C)0500080JR141	A & C	50	80	90	141	16.34	0.41	0.34
361	TSA(C)0500080JR100	A & C	50	80	120	100	23.04	0.58	0.48
362	TSA(C)0500080JR79.1	A & C	50	80	150	79.1	29.13	0.73	0.61
363	TSA(C)0500080JR62.9	A & C	50	80	180	62.9	36.63	0.92	0.76
364	TSA(C)0500080JR53	A & C	50	80	210	53	43.47	1.09	0.91
365	TSA(C)0500100JR375	A & C	50	100	30	375	6.14	0.12	0.13
366	TSA(C)0500100JR177	A & C	50	100	60	177	13.02	0.26	0.27
367	TSA(C)0500100JR112	A & C	50	100	90	112	20.57	0.41	0.43
368	TSA(C)0500100JR79.1	A & C	50	100	120	79.1	29.13	0.58	0.61
369	TSA(C)0500100JR62.9	A & C	50	100	150	62.9	36.63	0.73	0.76
370	TSA(C)0500100JR53	A & C	50	100	180	53	43.47	0.87	0.91
371	TSA(C)0500100JR44.6	A & C	50	100	210	44.6	51.66	1.03	1.08
372	TSA(C)0500125JR297	A & C	50	125	30	297	7.76	0.12	0.16
373	TSA(C)0500125JR141	A & C	50	125	60	141	16.34	0.26	0.34
374	TSA(C)0500125JR94.1	A & C	50	125	90	94.1	24.48	0.39	0.51
375	TSA(C)0500125JR66.6	A & C	50	125	120	66.6	34.59	0.55	0.72
376	TSA(C)0500125JR50	A & C	50	125	150	50	46.08	0.74	0.96
377	TSA(C)0500125JR42.1	A & C	50	125	180	42.1	54.73	0.88	1.14
378	TSA(C)0500125JR35.4	A & C	50	125	210	35.4	65.08	1.04	1.36
379	TSA(C)0500160JR235	A & C	50	160	30	235	9.8	0.12	0.2
380	TSA(C)0500160JR112	A & C	50	160	60	112	20.57	0.26	0.43
381	TSA(C)0500160JR70.5	A & C	50	160	90	70.5	32.68	0.41	0.68
382	TSA(C)0500160JR50	A & C	50	160	120	50	46.08	0.58	0.96
383	TSA(C)0500160JR39.7	A & C	50	160	150	39.7	58.04	0.73	1.21
384	TSA(C)0500160JR31.5	A & C	50	160	180	31.5	73.14	0.91	1.52
385	TSA(C)0500160JR26.4	A & C	50	160	210	26.4	87.27	1.09	1.82
386	TSA(C)0500200JR187	A & C	50	200	30	187	12.32	0.12	0.26
387	TSA(C)0500200JR88.8	A & C	50	200	60	88.8	25.95	0.26	0.54
388	TSA(C)0500200JR56.1	A & C	50	200	90	56.1	41.07	0.41	0.86
389	TSA(C)0500200JR39.7	A & C	50	200	120	39.7	58.04	0.58	1.21
390	TSA(C)0500200JR31.5	A & C	50	200	150	31.5	73.14	0.73	1.52
391	TSA(C)0500200JR26.4	A & C	50	200	180	26.4	87.27	0.87	1.82
392	TSA(C)0500200JR22.2	A & C	50	200	210	22.2	103.78	1.04	2.16
393	TSA(C)0630063JR500	A & C	63	63	30	500	4.61	0.12	0.1
394	TSA(C)0630063JR249	A & C	63	63	60	249	9.25	0.23	0.19
395	TSA(C)0630063JR158	A & C	63	63	90	158	14.58	0.37	0.3
396	TSA(C)0630063JR106	A & C	63	63	120	106	21.74	0.55	0.45
397	TSA(C)0630063JR83.8	A & C	63	63	150	83.8	27.49	0.69	0.57
398	TSA(C)0630063JR70.5	A & C	63	63	180	70.5	32.68	0.82	0.68
399	TSA(C)0630063JR56.1	A & C	63	63	210	56.1	41.07	1.03	0.86
400	TSA(C)0630080JR397	A & C	63	80	30	397	5.8	0.12	0.12
401	TSA(C)0630080JR187	A & C	63	80	60	187	12.32	0.24	0.26
402	TSA(C)0630080JR119	A & C	63	80	90	119	19.36	0.38	0.4
403	TSA(C)0630080JR83.8	A & C	63	80	120	83.8	27.49	0.55	0.57
404	TSA(C)0630080JR66.6	A & C	63	80	150	66.6	34.59	0.69	0.72
405	TSA(C)0630080JR53	A & C	63	80	180	53	43.47	0.86	0.91
406	TSA(C)0630080JR44.6	A & C	63	80	210	44.6	51.66	1.03	1.08
407	TSA(C)0630100JR315	A & C	63	100	30	315	7.31	0.12	0.15
408	TSA(C)0630100JR149	A & C	63	100	60	149	15.46	0.25	0.32
409	TSA(C)0630100JR100	A & C	63	100	90	100	23.04	0.37	0.48
410	TSA(C)0630100JR66.6	A & C	63	100	120	66.6	34.59	0.55	0.72
411	TSA(C)0630100JR53	A & C	63	100	150	53	43.47	0.69	0.91
412	TSA(C)0630100JR44.6	A & C	63	100	180	44.6	51.66	0.82	1.08
413	TSA(C)0630100JR35.4	A & C	63	100	210	35.4	65.08	1.03	1.36
414	TSA(C)0630125JR249	A & C	63	125	30	249	9.25	0.12	0.19
415	TSA(C)0630125JR119	A & C	63	125	60	119	19.36	0.25	0.4
416	TSA(C)0630125JR79.1	A & C	63	125	90	79.1	29.13	0.37	0.61
417	TSA(C)0630125JR56.1	A & C	63	125	120	56.1	41.07	0.52	0.86
418	TSA(C)0630125JR42.1	A & C	63	125	150	42.1	54.73	0.69	1.14
419	TSA(C)0630125JR35.4	A & C	63	125	180	35.4	65.08	0.83	1.36
420	TSA(C)0630125JR29.7	A & C	63	125	210	29.7	77.58	0.99	1.62
421	TSA(C)0630160JR198	A & C	63	160	30	198	11.64	0.12	0.24
422	TSA(C)0630160JR94.1	A & C	63	160	60	94.1	24.48	0.24	0.51
423	TSA(C)0630160JR59.4	A & C	63	160	90	59.4	38.79	0.38	0.81
424	TSA(C)0630160JR42.1	A & C	63	160	120	42.1	54.73	0.54	1.14
425	TSA(C)0630160JR33.4	A & C	63	160	150	33.4	68.98	0.68	1.44
426	TSA(C)0630160JR26.4	A & C	63	160	180	26.4	87.27	0.87	1.82
427	TSA(C)0630160JR22.2	A & C	63	160	210	22.2	103.78	1.03	2.16

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
428	TSA(C)0630200JR158	A & C	63	200	30	158	14.58	0.12	0.3
429	TSA(C)0630200JR74.7	A & C	63	200	60	74.7	30.84	0.24	0.64
430	TSA(C)0630200JR50	A & C	63	200	90	50	46.08	0.37	0.96
431	TSA(C)0630200JR33.4	A & C	63	200	120	33.4	68.98	0.55	1.44
432	TSA(C)0630200JR26.4	A & C	63	200	150	26.4	87.27	0.69	1.82
433	TSA(C)0630200JR22.2	A & C	63	200	180	22.2	103.78	0.82	2.16
434	TSA(C)0630200JR18.7	A & C	63	200	210	18.7	123.21	0.98	2.57
435	TSA(C)0630250JR126	A & C	63	250	30	126	18.29	0.12	0.38
436	TSA(C)0630250JR62.9	A & C	63	250	60	62.9	36.63	0.23	0.76
437	TSA(C)0630250JR39.7	A & C	63	250	90	39.7	58.04	0.37	1.21
438	TSA(C)0630250JR28	A & C	63	250	120	28	82.29	0.52	1.71
439	TSA(C)0630250JR21	A & C	63	250	150	21	109.71	0.70	2.29
440	TSA(C)0630250JR17.7	A & C	63	250	180	17.7	130.17	0.83	2.71
441	TSA(C)0630250JR14.9	A & C	63	250	210	14.9	154.63	0.98	3.22
442	TSA(C)0800080JR334	A & C	80	80	30	334	6.9	0.11	0.14
443	TSA(C)0800080JR167	A & C	80	80	60	167	13.8	0.22	0.29
444	TSA(C)0800080JR106	A & C	80	80	90	106	21.74	0.34	0.45
445	TSA(C)0800080JR74.7	A & C	80	80	120	74.7	30.84	0.48	0.64
446	TSA(C)0800080JR56.1	A & C	80	80	150	56.1	41.07	0.64	0.86
447	TSA(C)0800080JR47.2	A & C	80	80	180	47.2	48.81	0.76	1.02
448	TSA(C)0800100JR39.7	A & C	80	80	210	39.7	58.04	0.91	1.21
449	TSA(C)0800100JR264	A & C	80	100	30	264	8.73	0.11	0.18
450	TSA(C)0800100JR133	A & C	80	100	60	133	17.32	0.22	0.36
451	TSA(C)0800100JR83.8	A & C	80	100	90	83.8	27.49	0.34	0.57
452	TSA(C)0800100JR59.4	A & C	80	100	120	59.4	38.79	0.48	0.81
453	TSA(C)0800100JR44.6	A & C	80	100	150	44.6	51.66	0.65	1.08
454	TSA(C)0800100JR37.5	A & C	80	100	180	37.5	61.44	0.77	1.28
455	TSA(C)0800100JR31.5	A & C	80	100	210	31.5	73.14	0.91	1.52
456	TSA(C)0800125JR222	A & C	80	125	30	222	10.38	0.10	0.22
457	TSA(C)0800125JR106	A & C	80	125	60	106	21.74	0.22	0.45
458	TSA(C)0800125JR66.6	A & C	80	125	90	66.6	34.59	0.35	0.72
459	TSA(C)0800125JR47.2	A & C	80	125	120	47.2	48.81	0.49	1.02
460	TSA(C)0800125JR35.4	A & C	80	125	150	35.4	65.08	0.65	1.36
461	TSA(C)0800125JR29.7	A & C	80	125	180	29.7	77.58	0.78	1.62
462	TSA(C)0800125JR24.9	A & C	80	125	210	24.9	92.53	0.93	1.93
463	TSA(C)0800160JR167	A & C	80	160	30	167	13.8	0.11	0.29
464	TSA(C)0800160JR83.8	A & C	80	160	60	83.8	27.49	0.21	0.57
465	TSA(C)0800160JR53	A & C	80	160	90	53	43.47	0.34	0.91
466	TSA(C)0800160JR37.5	A & C	80	160	120	37.5	61.44	0.48	1.28
467	TSA(C)0800160JR28	A & C	80	160	150	28	82.29	0.64	1.71
468	TSA(C)0800160JR23.5	A & C	80	160	180	23.5	98.04	0.77	2.04
469	TSA(C)0800160JR19.8	A & C	80	160	210	19.8	116.36	0.91	2.42
470	TSA(C)0800200JR133	A & C	80	200	30	133	17.32	0.11	0.36
471	TSA(C)0800200JR66.6	A & C	80	200	60	66.6	34.59	0.22	0.72
472	TSA(C)0800200JR42.1	A & C	80	200	90	42.1	54.73	0.34	1.14
473	TSA(C)0800200JR29.7	A & C	80	200	120	29.7	77.58	0.48	1.62
474	TSA(C)0800200JR22.2	A & C	8						

# STANDARD | Rectangular 48V



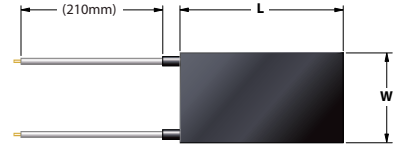
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
501	TSA(C)1000125JR42.1	A & C	100	125	120	42.1	54.73	0.44	1.14	570	TSA(C)1600160JR35.4	A & C	160	160	90	35.4	65.08	0.25	1.36
502	TSA(C)1000125JR33.4	A & C	100	125	150	33.4	68.98	0.55	1.44	571	TSA(C)1600160JR24.9	A & C	160	160	120	24.9	92.53	0.36	1.93
503	TSA(C)1000125JR26.4	A & C	100	125	180	26.4	87.27	0.70	1.82	572	TSA(C)1600160JR18.7	A & C	160	160	150	18.7	123.21	0.48	2.57
504	TSA(C)1000125JR22.2	A & C	100	125	210	22.2	103.78	0.83	2.16	573	TSA(C)1600160JR15.8	A & C	160	160	180	15.8	145.82	0.57	3.04
505	TSA(C)1000160JR158	A & C	100	160	30	158	14.58	0.09	0.3	574	TSA(C)1600160JR12.6	A & C	160	160	210	12.6	182.86	0.71	3.81
506	TSA(C)1000160JR74.7	A & C	100	160	60	74.7	30.84	0.19	0.64	575	TSA(C)1600200JR94.1	A & C	160	200	30	94.1	24.48	0.08	0.51
507	TSA(C)1000160JR47.2	A & C	100	160	90	47.2	48.81	0.31	1.02	576	TSA(C)1600200JR47.2	A & C	160	200	60	47.2	48.81	0.15	1.02
508	TSA(C)1000160JR33.4	A & C	100	160	120	33.4	68.98	0.43	1.44	577	TSA(C)1600200JR29.7	A & C	160	200	90	29.7	77.58	0.24	1.62
509	TSA(C)1000160JR24.9	A & C	100	160	150	24.9	92.53	0.58	1.93	578	TSA(C)1600200JR19.8	A & C	160	200	120	19.8	116.36	0.36	2.42
510	TSA(C)1000160JR21	A & C	100	160	180	21	109.71	0.69	2.29	579	TSA(C)1600200R15.8	A & C	160	200	150	15.8	145.82	0.46	3.04
511	TSA(C)1000160JR16.7	A & C	100	160	210	16.7	137.96	0.86	2.87	580	TSA(C)1600200JR12.6	A & C	160	200	180	12.6	182.86	0.57	3.81
512	TSA(C)1000200JR126	A & C	100	200	30	126	18.29	0.09	0.38	581	TSA(C)1600200R10.6	A & C	160	200	210	10.6	217.36	0.68	4.53
513	TSA(C)1000200JR62.9	A & C	100	200	60	62.9	36.63	0.18	0.76	582	TSA(C)1600250JR74.7	A & C	160	250	30	74.7	30.84	0.08	0.64
514	TSA(C)1000200JR37.5	A & C	100	200	90	37.5	61.44	0.31	1.28	583	TSA(C)1600250R37.5	A & C	160	250	60	37.5	61.44	0.15	1.28
515	TSA(C)1000200JR26.4	A & C	100	200	120	26.4	87.27	0.44	1.82	584	TSA(C)1600250JR23.5	A & C	160	250	90	23.5	98.04	0.25	2.04
516	TSA(C)1000200JR19.8	A & C	100	200	150	19.8	116.36	0.58	2.42	585	TSA(C)1600250JR15.8	A & C	160	250	120	15.8	145.82	0.36	3.04
517	TSA(C)1000200JR16.7	A & C	100	200	180	16.7	137.96	0.69	2.87	586	TSA(C)1600250JR12.6	A & C	160	250	150	12.6	182.86	0.46	3.81
518	TSA(C)1000200JR13.3	A & C	100	200	210	13.3	173.23	0.87	3.61	587	TSA(C)1600250JR10	A & C	160	250	180	10	230.4	0.58	4.8
519	TSA(C)1000250JR100	A & C	100	250	30	100	23.04	0.09	0.48	588	TSA(C)1600250JR8.38	A & C	160	250	210	8.38	274.94	0.69	5.73
520	TSA(C)1000250JR50	A & C	100	250	60	50	46.08	0.18	0.96	589	TSA(C)1600300JR62.9	A & C	160	300	30	62.9	36.63	0.08	0.76
521	TSA(C)1000250JR31.5	A & C	100	250	90	31.5	73.14	0.29	1.52	590	TSA(C)1600300JR31.5	A & C	160	300	60	31.5	73.14	0.15	1.52
522	TSA(C)1000250JR21	A & C	100	250	120	21	109.71	0.44	2.29	591	TSA(C)1600300JR19.8	A & C	160	300	90	19.8	116.36	0.24	2.42
523	TSA(C)1000250JR16.7	A & C	100	250	150	16.7	137.96	0.55	2.87	592	TSA(C)1600300JR13.3	A & C	160	300	120	13.3	173.23	0.36	3.61
524	TSA(C)1000250JR13.3	A & C	100	250	180	13.3	173.23	0.69	3.61	593	TSA(C)1600300JR10	A & C	160	300	150	10	230.4	0.48	4.8
525	TSA(C)1000250JR11.2	A & C	100	250	210	11.2	205.71	0.82	4.29	594	TSA(C)1600300R8.38	A & C	160	300	180	8.38	274.94	0.57	5.73
526	TSA(C)1000300JR83.8	A & C	100	300	30	83.8	27.49	0.09	0.57	595	TSA1600300JR7.05	A	160	300	210	7.05	326.81	0.68	6.81
527	TSA(C)1000300JR42.1	A & C	100	300	60	42.1	54.73	0.18	1.14	596	TSA(C)2000200JR79.1	A & C	200	200	30	79.1	29.13	0.07	0.61
528	TSA(C)1000300JR26.4	A & C	100	300	90	26.4	87.27	0.29	1.82	597	TSA(C)2000200JR39.7	A & C	200	200	60	39.7	58.04	0.15	1.21
529	TSA(C)1000300JR17.7	A & C	100	300	120	17.7	130.17	0.43	2.71	598	TSA(C)2000200JR24.9	A & C	200	200	90	24.9	92.53	0.23	1.93
530	TSA(C)1000300JR13.3	A & C	100	300	150	13.3	173.23	0.58	3.61	599	TSA(C)2000200JR17.7	A & C	200	200	120	17.7	130.17	0.33	2.71
531	TSA(C)1000300JR11.2	A & C	100	300	180	11.2	205.71	0.69	4.29	600	TSA(C)2000200R13.3	A & C	200	200	150	13.3	173.23	0.43	3.61
532	TSA1000300JR8.88	A	100	300	210	8.88	259.46	0.86	5.41	601	TSA(C)2000200JR10.6	A & C	200	200	180	10.6	217.36	0.54	4.53
533	TSA(C)1250125JR167	A & C	125	125	30	167	13.8	0.09	0.29	602	TSA(C)2000200R8.88	A & C	200	200	210	8.88	259.46	0.65	5.41
534	TSA(C)1250125JR83.8	A & C	125	125	60	83.8	27.49	0.18	0.57	603	TSA(C)2000250JR66.6	A & C	200	250	30	66.6	34.59	0.07	0.72
535	TSA(C)1250125JR53	A & C	125	125	90	53	43.47	0.28	0.91	604	TSA(C)2000250R31.5	A & C	200	250	60	31.5	73.14	0.15	1.52
536	TSA(C)1250125JR35.4	A & C	125	125	120	35.4	65.08	0.42	1.36	605	TSA(C)2000250JR19.8	A & C	200	250	90	19.8	116.36	0.23	2.42
537	TSA(C)1250125JR28	A & C	125	125	150	28	82.29	0.53	1.71	606	TSA(C)2000250R14.1	A & C	200	250	120	14.1	163.4	0.33	3.4
538	TSA(C)1250125JR23.5	A & C	125	125	180	23.5	98.04	0.63	2.04	607	TSA(C)2000250JR10.6	A & C	200	250	150	10.6	217.36	0.43	4.53
539	TSA(C)1250125JR18.7	A & C	125	125	210	18.7	123.21	0.79	2.57	608	TSA(C)2000250R8.88	A & C	200	250	180	8.88	259.46	0.52	5.41
540	TSA(C)1250160JR133	A & C	125	160	30	133	17.32	0.09	0.36	609	TSA2000250JR7.05	A	200	250	210	7.05	326.81	0.65	6.81
541	TSA(C)1250160JR66.6	A & C	125	160	60	66.6	34.59	0.17	0.72	610	TSA(C)2000300JR53	A & C	200	300	30	53	43.47	0.07	0.91
542	TSA(C)1250160JR42.1	A & C	125	160	90	42.1	54.73	0.27	1.14	611	TSA(C)2000300JR26.4	A & C	200	300	60	26.4	87.27	0.15	1.82
543	TSA(C)1250160JR28	A & C	125	160	120	28	82.29	0.41	1.71	612	TSA(C)2000300JR16.7	A & C	200	300	90	16.7	137.96	0.23	2.87
544	TSA(C)1250160JR22.2	A & C	125	160	150	22.2	103.78	0.52	2.16	613	TSA(C)2000300JR11.2	A & C	200	300	120	11.2	205.71	0.34	4.29
545	TSA(C)1250160JR17.7	A & C	125	160	180	17.7	130.17	0.65	2.71	614	TSA(C)2000300R8.88	A & C	200	300	150	8.88	259.46	0.43	5.41
546	TSA(C)1250160JR14.9	A & C	125	160	210	14.9	154.63	0.77	3.22	615	TSA2000300JR7.05	A	200	300	180	7.05	326.81	0.54	6.81
547	TSA(C)1250200JR106	A & C	125	200	30	106	21.74	0.09	0.45	616	TSA2000300JR5.94	A	200	300	210	5.94	387.88	0.65	8.08
548	TSA(C)1250200JR53	A & C	125	200	60	53	43.47	0.17	0.91	617	TSA(C)2500250JR56.1	A & C	250	250	30	56.1	41.07	0.07	0.86
549	TSA(C)1250200JR33.4	A & C	125	200	90	33.4	68.98	0.28	1.44	618	TSA(C)2500250JR28	A & C	250	250	60	28	82.29	0.13	1.71
550	TSA(C)1250200JR22.2	A & C	125	200	120	22.2	103.78	0.42	2.16	619	TSA(C)2500250JR17.7	A & C	250	250	90	17.7	130.17	0.21	2.71
551	TSA(C)1250200JR17.7	A & C	125	200	150	17.7	130.17	0.52	2.71	620	TSA(C)2500250JR11.9	A & C	250	250	120	11.9	193.61	0.31	4.03
552	TSA(C)1250200JR14.1	A & C	125	200	180	14.1	163.4	0.65	3.4	621	TSA(C)2500250JR9.41	A & C	250	250	150	9.41	244.85	0.39	5.1
553	TSA(C)1250200JR11.9	A & C	125	200	210	11.9	193.61	0.77	4.03	622	TSA(C)2500250JR7.47	A & C	250	250	180	7.47	308.43	0.49	6.43
554	TSA(C)1250250JR83.8	A & C	125	250	30	83.8	27.49	0.09	0.57	623	TSA2500250JR6.29	A	250	250	210	6.29	366.3	0.59	7.63
555	TSA(C)1250250JR42.1	A & C	125	250	60	42.1	54.73	0.18	1.14	624	TSA(C)2500300JR47.2	A & C	250	300	30	47.2	48.81	0.07	1.02
556	TSA(C)1250250JR26.4	A & C	125	250	90	26.4	87.27	0.28	1.82	625	TSA(C)2500300R23.5	A & C	250	300	60	23.5	98.04	0.13	2.04
557	TSA(C)1250250JR18.7	A & C	125	250	120	18.7	123.21	0.39	2.57	626	TSA(C)2500300JR14.9	A & C	250	300	90	14.9	154.63	0.21	3.22
558	TSA(C)1250250JR14.1	A & C	125	250	150	14.1	163.4	0.52	3.4	627	TSA(C)2500300R10	A & C	250	300	120	10	230.4	0.31	4.8
559	TSA(C)1250250JR11.2	A & C	125	250	180	11.2	205.71	0.66	4.29	628	TSA(C)2500300JR7.91	A & C	250	300	150	7.91	291.28	0.39	6.07
560	TSA(C)1250250JR9.41	A & C	125	250	210	9.41	244.85	0.78	5.1	629	TSA2500300JR6.29	A	250	300	180	6.29	366.3	0.49	7.63
561																			

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No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010kR11900	C	10	10	30	11900	0.26	0.26	0
2	TSC0100010kR5610	C	10	10	60	5610	0.56	0.56	0.01
3	TSC0100010kR3750	C	10	10	90	3750	0.84	0.84	0.02
4	TSC0100010kR2640	C	10	10	120	2640	1.19	1.19	0.02
5	TSC0100010kR1980	C	10	10	150	1980	1.58	1.58	0.03
6	TSC0100010kR1580	C	10	10	180	1580	1.98	1.98	0.04
7	TSC0100010kR1260	C	10	10	210	1260	2.49	2.49	0.04
8	TSC0100013kR9410	C	10	13	30	9410	0.33	0.25	0.01
9	TSC0100013kR4460	C	10	13	60	4460	0.7	0.54	0.01
10	TSC0100013kR2800	C	10	13	90	2800	1.12	0.86	0.02
11	TSC0100013kR1980	C	10	13	120	1980	1.58	1.22	0.03
12	TSC0100013kR1490	C	10	13	150	1490	2.1	1.62	0.04
13	TSC0100013kR1190	C	10	13	180	1190	2.64	2.03	0.05
14	TSC0100013kR1000	C	10	13	210	1000	3.14	2.42	0.06
15	TSC0100016kR7470	C	10	16	30	7470	0.42	0.26	0.01
16	TSC0100016kR3540	C	10	16	60	3540	0.89	0.56	0.02
17	TSC0100016kR2350	C	10	16	90	2350	1.33	0.83	0.02
18	TSC0100016kR1670	C	10	16	120	1670	1.88	1.18	0.03
19	TSC0100016kR1260	C	10	16	150	1260	2.49	1.56	0.04
20	TSC0100016kR1000	C	10	16	180	1000	3.14	1.96	0.06
21	TSC0100016kR791	C	10	16	210	791	3.96	2.48	0.07
22	TSC0100020kR5940	C	10	20	30	5940	0.53	0.27	0.01
23	TSC0100020kR2800	C	10	20	60	2800	1.12	0.56	0.02
24	TSC0100020kR1870	C	10	20	90	1870	1.68	0.84	0.03
25	TSC0100020kR1330	C	10	20	120	1330	2.36	1.18	0.04
26	TSC0100020kR1000	C	10	20	150	1000	3.14	1.57	0.06
27	TSC0100020kR791	C	10	20	180	791	3.96	1.98	0.07
28	TSC0100020kR629	C	10	20	210	629	4.99	2.5	0.09
29	TSC0100025kR5000	C	10	25	30	5000	0.63	0.25	0.01
30	TSC0100025kR2350	C	10	25	60	2350	1.33	0.53	0.02
31	TSC0100025kR1490	C	10	25	90	1490	2.1	0.84	0.04
32	TSC0100025kR1060	C	10	25	120	1060	2.96	1.18	0.05
33	TSC0100025kR791	C	10	25	150	791	3.96	1.58	0.07
34	TSC0100025kR629	C	10	25	180	629	4.99	2	0.09
35	TSC0100025kR530	C	10	25	210	530	5.92	2.37	0.11
36	TSC0100032kR3750	C	10	32	30	3750	0.84	0.26	0.02
37	TSC0100032kR1770	C	10	32	60	1770	1.77	0.55	0.03
38	TSC0100032kR1120	C	10	32	90	1120	2.8	0.88	0.05
39	TSC0100032kR838	C	10	32	120	838	3.74	1.17	0.07
40	TSC0100032kR629	C	10	32	150	629	4.99	1.56	0.09
41	TSC0100032kR500	C	10	32	180	500	6.27	1.96	0.11
42	TSC0100032kR397	C	10	32	210	397	7.9	2.47	0.14
43	TSC0100040kR2970	C	10	40	30	2970	1.06	0.27	0.02
44	TSC0100040kR1410	C	10	40	60	1410	2.22	0.56	0.04
45	TSC0100040kR941	C	10	40	90	941	3.33	0.83	0.06
46	TSC0100040kR666	C	10	40	120	666	4.71	1.18	0.08
47	TSC0100040kR500	C	10	40	150	500	6.27	1.57	0.11
48	TSC0100040kR397	C	10	40	180	397	7.9	1.98	0.14
49	TSC0100040kR315	C	10	40	210	315	9.96	2.49	0.18
50	TSC0130013kR8380	C	13	13	30	8380	0.37	0.22	0.01
51	TSC0130013kR3970	C	13	13	60	3970	0.79	0.47	0.01
52	TSC0130013kR2490	C	13	13	90	2490	1.26	0.75	0.02
53	TSC0130013kR1770	C	13	13	120	1770	1.77	1.05	0.03
54	TSC0130013kR1330	C	13	13	150	1330	2.36	1.4	0.04
55	TSC0130013kR1060	C	13	13	180	1060	2.96	1.75	0.05
56	TSC0130013kR888	C	13	13	210	888	3.53	2.09	0.06
57	TSC0130016kR6660	C	13	16	30	6660	0.47	0.23	0.01
58	TSC0130016kR3150	C	13	16	60	3150	1	0.48	0.02
59	TSC0130016kR1980	C	13	16	90	1980	1.58	0.76	0.03
60	TSC0130016kR1410	C	13	16	120	1410	2.22	1.07	0.04
61	TSC0130016kR1120	C	13	16	150	1120	2.8	1.35	0.05
62	TSC0130016kR888	C	13	16	180	888	3.53	1.7	0.06
63	TSC0130016kR705	C	13	16	210	705	4.45	2.14	0.08
64	TSC0130020kR5300	C	13	20	30	5300	0.59	0.23	0.01
65	TSC0130020kR2490	C	13	20	60	2490	1.26	0.48	0.02
66	TSC0130020kR1580	C	13	20	90	1580	1.98	0.76	0.04
67	TSC0130020kR1120	C	13	20	120	1120	2.8	1.08	0.05
68	TSC0130020kR888	C	13	20	150	888	3.53	1.36	0.06
69	TSC0130020kR705	C	13	20	180	705	4.45	1.71	0.08
70	TSC0130020kR561	C	13	20	210	561	5.59	2.15	0.1
71	TSC0130025kR4210	C	13	25	30	4210	0.74	0.23	0.01
72	TSC0130025kR1980	C	13	25	60	1980	1.58	0.49	0.03
73	TSC0130025kR1260	C	13	25	90	1260	2.49	0.77	0.04

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSC0130025kR941	C	13	25	120	941	3.33	1.02	0.06
75	TSC0130025kR705	C	13	25	150	705	4.45	1.37	0.08
76	TSC0130025kR561	C	13	25	180	561	5.59	1.72	0.1
77	TSC0130025kR472	C	13	25	210	472	6.64	2.04	0.12
78	TSC0130032kR3340	C	13	32	30	3340	0.94	0.23	0.02
79	TSC0130032kR1580	C	13	32	60	1580	1.98	0.48	0.04
80	TSC0130032kR1000	C	13	32	90	1000	3.14	0.75	0.06
81	TSC0130032kR705	C	13	32	120	705	4.45	1.07	0.08
82	TSC0130032kR530	C	13	32	150	530	5.92	1.42	0.11
83	TSC0130032kR446	C	13	32	180	446	7.03	1.69	0.13
84	TSC0130032kR354	C	13	32	210	354	8.86	2.13	0.16
85	TSC0130040kR2640	C	13	40	30	2640	1.19	0.23	0.02
86	TSC0130040kR1260	C	13	40	60	1260	2.49	0.48	0.04
87	TSC0130040kR791	C	13	40	90	791	3.96	0.76	0.07
88	TSC0130040kR561	C	13	40	120	561	5.59	1.08	0.1
89	TSC0130040kR446	C	13	40	150	446	7.03	1.35	0.13
90	TSC0130040kR354	C	13	40	180	354	8.86	1.7	0.16
91	TSA(C)0130040kR280	A & C	13	40	210	280	11.2	2.15	0.2
92	TSC0130050kR2100	C	13	50	30	2100	1.49	0.23	0.03
93	TSC0130050kR1000	C	13	50	60	1000	3.14	0.48	0.06
94	TSC0130050kR629	C	13	50	90	629	4.99	0.77	0.09
95	TSC0130050kR472	C	13	50	120	472	6.64	1.02	0.12
96	TSA(C)0130050kR354	A & C	13	50	150	354	8.86	1.36	0.16
97	TSA(C)0130050kR280	A & C	13	50	180	280	11.2	1.72	0.2
98	TSA(C)0130050kR235	A & C	13	50	210	235	13.34	2.05	0.24
99	TSC0160016kR6290	C	16	16	30	6290	0.5	0.2	0.01
100	TSC0160016kR2970	C	16	16	60	2970	1.06	0.41	0.02
101	TSC0160016kR1870	C	16	16	90	1870	1.68	0.66	0.03
102	TSC0160016kR1330	C	16	16	120	1330	2.36	0.92	0.04
103	TSC0160016kR1060	C	16	16	150	1060	2.96	1.16	0.05
104	TSC0160016kR838	C	16	16	180	838	3.74	1.46	0.07
105	TSC0160016kR705	C	16	16	210	705	4.45	1.74	0.08
106	TSC0160020kR5000	C	16	20	30	5000	0.63	0.2	0.01
107	TSC0160020kR2350	C	16	20	60	2350	1.33	0.42	0.02
108	TSC0160020kR1490	C	16	20	90	1490	2.1	0.66	0.04
109	TSC0160020kR1120	C	16	20	120	1120	2.8	0.88	0.05
110	TSC0160020kR838	C	16	20	150	838	3.74	1.17	0.07
111	TSC0160020kR666	C	16	20	180	666	4.71	1.47	0.08
112	TSC0160020kR561	C	16	20	210	561	5.59	1.75	0.1
113	TSC0160025kR3970	C	16	25	30	3970	0.79	0.2	0.01
114	TSC0160025kR1980	C	16	25	60	1980	1.58	0.4	0.03
115	TSC0160025kR1190	C	16	25	90	1190	2.64	0.66	0.05
116	TSC0160025kR888	C	16	25	120	888	3.53	0.88	0.06
117	TSC0160025kR666	C	16	25	150	666	4.71	1.18	0.08
118	TSC0160025kR530	C	16	25	180	530	5.92	1.48	0.11
119	TSC0160025kR446	C	16	25	210	446	7.03	1.76	0.13
120	TSC0160032kR3150	C	16	32	30	3150	1	0.2	0.02
121	TSC0160032kR1490	C	16	32	60	1490	2.1	0.41	0.04
122	TSC0160032kR941	C	16	32	90	941	3.33	0.65	0.06
123	TSC0160032kR666	C	16	32	120	666	4.71	0.92	0.08
124	TSC0160032kR530	C	16	32	150	530	5.92	1.16	0.11
125	TSC0160032kR421	C	16	32	180	421	7.45	1.46	0.13
126	TSC0160032kR354	C	16	32	210	354	8.86	1.73	0.16
127	TSC0160040kR2490	C	16	40	30	2490	1.26	0.2	0.02
128	TSC0160040kR1190	C	16	40	60	1190	2.64	0.41	0.05
129	TSC0160040kR747	C	16</						

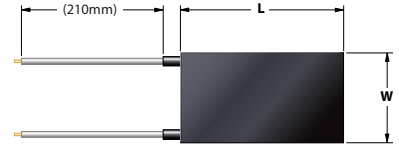


# STANDARD | Rectangular 56V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)0160063kR177	A & C	16	63	210	177	17.72	1.76	0.32	220	TSA(C)0250050kR530	A & C	25	50	90	530	5.92	0.47	0.11
148	TSC0200020kR5300	C	20	20	30	5300	0.59	0.15	0.01	221	TSA(C)0250050kR375	A & C	25	50	120	375	8.36	0.67	0.15
149	TSC0200020kR1260	C	20	20	60	2490	1.26	0.32	0.02	222	TSA(C)0250050kR280	A & C	25	50	150	280	11.2	0.9	0.2
150	TSC0200020kR1580	C	20	20	90	1580	1.98	0.5	0.04	223	TSA(C)0250050kR235	A & C	25	50	180	235	13.34	1.07	0.24
151	TSC0200020kR1120	C	20	20	120	1120	2.8	0.7	0.05	224	TSA(C)0250050kR198	A & C	25	50	210	198	15.84	1.27	0.28
152	TSC0200020kR838	C	20	20	150	838	3.74	0.94	0.07	225	TSC0250063kR1410	C	25	63	30	1410	2.22	0.14	0.04
153	TSC0200020kR705	C	20	20	180	705	4.45	1.11	0.08	226	TSA(C)0250063kR666	A & C	25	63	60	666	4.71	0.3	0.08
154	TSC0200020kR594	C	20	20	210	594	5.28	1.32	0.09	227	TSA(C)0250063kR421	A & C	25	63	90	421	7.45	0.47	0.13
155	TSC0200025kR4210	C	20	25	30	4210	0.74	0.15	0.01	228	TSA(C)0250063kR297	A & C	25	63	120	297	10.56	0.67	0.19
156	TSC0200025kR1980	C	20	25	60	1980	1.58	0.32	0.03	229	TSA(C)0250063kR235	A & C	25	63	150	235	13.34	0.85	0.24
157	TSC0200025kR1260	C	20	25	90	1260	2.49	0.5	0.04	230	TSA(C)0250063kR187	A & C	25	63	180	187	16.77	1.06	0.3
158	TSC0200025kR888	C	20	25	120	888	3.53	0.71	0.06	231	TSA(C)0250063kR158	A & C	25	63	210	158	19.85	1.26	0.35
159	TSC0200025kR705	C	20	25	150	705	4.45	0.89	0.08	232	TSA(C)0250080kR1120	A & C	25	80	30	1120	2.8	0.14	0.05
160	TSC0200025kR561	C	20	25	180	561	5.59	1.12	0.1	233	TSA(C)0250080kR530	A & C	25	80	60	530	5.92	0.3	0.11
161	TSC0200025kR472	C	20	25	210	472	6.64	1.33	0.12	234	TSA(C)0250080kR315	A & C	25	80	90	315	9.96	0.5	0.18
162	TSC0200032kR3150	C	20	32	30	3150	1	0.16	0.02	235	TSA(C)0250080kR235	A & C	25	80	120	235	13.34	0.67	0.24
163	TSC0200032kR1580	C	20	32	60	1580	1.98	0.31	0.04	236	TSA(C)0250080kR177	A & C	25	80	150	177	17.72	0.89	0.32
164	TSC0200032kR1000	C	20	32	90	1000	3.14	0.49	0.06	237	TSA(C)0250080kR149	A & C	25	80	180	149	21.05	1.05	0.38
165	TSC0200032kR705	C	20	32	120	705	4.45	0.7	0.08	238	TSA(C)0250080kR126	A & C	25	80	210	126	24.89	1.24	0.44
166	TSC0200032kR530	C	20	32	150	530	5.92	0.93	0.11	239	TSA(C)0250100kR888	A & C	25	100	30	888	3.53	0.14	0.06
167	TSC0200032kR446	C	20	32	180	446	7.03	1.1	0.13	240	TSA(C)0250100kR421	A & C	25	100	60	421	7.45	0.3	0.13
168	TSA(C)0200032kR375	A & C	20	32	210	375	8.36	1.31	0.15	241	TSA(C)0250100kR264	A & C	25	100	90	264	11.88	0.48	0.21
169	TSC0200040kR2640	C	20	40	30	2640	1.19	0.15	0.02	242	TSA(C)0250100kR187	A & C	25	100	120	187	16.77	0.67	0.3
170	TSC0200040kR1260	C	20	40	60	1260	2.49	0.31	0.04	243	TSA(C)0250100kR141	A & C	25	100	150	141	22.24	0.89	0.4
171	TSC0200040kR791	C	20	40	90	791	3.96	0.5	0.07	244	TSA(C)0250100kR119	A & C	25	100	180	119	26.35	1.05	0.47
172	TSC0200040kR561	C	20	40	120	561	5.59	0.7	0.1	245	TSA(C)0250100kR100	A & C	25	100	210	100	31.36	1.25	0.56
173	TSA(C)0200040kR421	A & C	20	40	150	421	7.45	0.93	0.13	246	TSC0320032kR2350	C	32	32	30	2350	1.33	0.13	0.02
174	TSA(C)0200040kR354	A & C	20	40	180	354	8.86	1.11	0.16	247	TSC0320032kR1060	C	32	32	60	1060	2.96	0.29	0.05
175	TSA(C)0200040kR297	A & C	20	40	210	297	10.56	1.32	0.19	248	TSC0320032kR666	C	32	32	90	666	4.71	0.46	0.08
176	TSC0200050kR2100	C	20	50	30	2100	1.49	0.15	0.03	249	TSA(C)0320032kR472	A & C	32	32	120	472	6.64	0.65	0.12
177	TSC0200050kR1000	C	20	50	60	1000	3.14	0.31	0.06	250	TSA(C)0320032kR375	A & C	32	32	150	375	8.36	0.82	0.15
178	TSC0200050kR629	C	20	50	90	629	4.99	0.5	0.09	251	TSA(C)0320032kR315	A & C	32	32	180	315	9.96	0.97	0.18
179	TSA(C)0200050kR446	A & C	20	50	120	446	7.03	0.7	0.13	252	TSA(C)0320032kR264	A & C	32	32	210	264	11.88	1.16	0.21
180	TSA(C)0200050kR334	A & C	20	50	150	334	9.39	0.94	0.17	253	TSC0320040kR1870	C	32	40	30	1870	1.68	0.13	0.03
181	TSA(C)0200050kR280	A & C	20	50	180	280	11.2	1.12	0.2	254	TSC0320040kR888	C	32	40	60	888	3.53	0.28	0.06
182	TSA(C)0200050kR235	A & C	20	50	210	235	13.34	1.33	0.24	255	TSA(C)0320050kR530	A & C	32	40	90	530	5.92	0.46	0.11
183	TSC0200063kR1670	C	20	63	30	1670	1.88	0.15	0.03	256	TSA(C)0320040kR375	A & C	32	40	120	375	8.36	0.65	0.15
184	TSC0200063kR791	C	20	63	60	791	3.96	0.31	0.07	257	TSA(C)0320040kR297	A & C	32	40	150	297	10.56	0.83	0.19
185	TSA(C)0200063kR500	A & C	20	63	90	500	6.27	0.5	0.11	258	TSA(C)0320040kR249	A & C	32	40	180	249	12.59	0.98	0.22
186	TSA(C)0200063kR354	A & C	20	63	120	354	8.86	0.7	0.16	259	TSA(C)0320040kR210	A & C	32	40	210	210	14.93	1.17	0.27
187	TSA(C)0200063kR280	A & C	20	63	150	280	11.2	0.89	0.2	260	TSC0320050kR1490	C	32	50	30	1490	2.1	0.13	0.04
188	TSA(C)0200063kR222	A & C	20	63	180	222	14.13	1.12	0.25	261	TSA(C)0320050kR705	A & C	32	50	60	705	4.45	0.28	0.08
189	TSA(C)0200063kR187	A & C	20	63	210	187	16.77	1.33	0.3	262	TSA(C)0320050kR421	A & C	32	50	90	421	7.45	0.47	0.13
190	TSC0200080kR1330	C	20	80	30	1330	2.36	0.15	0.04	263	TSA(C)0320050kR315	A & C	32	50	120	315	9.96	0.62	0.18
191	TSA(C)0200080kR629	A & C	20	80	60	629	4.99	0.31	0.09	264	TSA(C)0320050kR235	A & C	32	50	150	235	13.34	0.83	0.24
192	TSA(C)0200080kR397	A & C	20	80	90	397	7.9	0.49	0.14	265	TSA(C)0320050kR198	A & C	32	50	180	198	15.84	0.99	0.28
193	TSA(C)0200080kR280	A & C	20	80	120	280	11.2	0.7	0.2	266	TSA(C)0320050kR167	A & C	32	50	210	167	18.78	1.17	0.34
194	TSA(C)0200080kR210	A & C	20	80	150	210	14.93	0.93	0.27	267	TSA(C)0320063kR1190	A & C	32	63	30	1190	2.64	0.13	0.05
195	TSA(C)0200080kR177	A & C	20	80	180	177	17.72	1.11	0.32	268	TSA(C)0320063kR561	A & C	32	63	60	561	5.59	0.28	0.1
196	TSA(C)0200080kR149	A & C	20	80	210	149	21.05	1.32	0.38	269	TSA(C)0320063kR334	A & C	32	63	90	334	9.39	0.47	0.17
197	TSC0250025kR3540	C	25	25	30	3540	0.89	0.14	0.02	270	TSA(C)0320063kR249	A & C	32	63	120	249	12.59	0.62	0.22
198	TSC0250025kR1670	C	25	25	60	1670	1.88	0.3	0.03	271	TSA(C)0320063kR187	A & C	32	63	150	187	16.77	0.83	0.3
199	TSC0250025kR1060	C	25	25	90	1060	2.96	0.47	0.05	272	TSA(C)0320063kR158	A & C	32	63	180	158	19.85	0.98	0.35
200	TSC0250025kR747	C	25	25	120	747	4.2	0.67	0.08	273	TSA(C)0320063kR133	A & C	32	63	210	133	23.58	1.17	0.42
201	TSC0250025kR561	C	25	25	150	561	5.59	0.89	0.1	274	TSA(C)0320080kR941	A & C	32	80	30	941	3.33	0.13	0.06
202	TSC0250025kR472	C	25	25	180	472	6.64	1.06	0.12	275	TSA(C)0320080kR421	A & C	32	80	60	421	7.45	0.29	0.13
203	TSC0250025kR397	C	25	25	210	397	7.9	1.26	0.14	276	TSA(C)0320080kR264	A & C	32	80	90	264	11.88	0.46	0.21
204	TSC0250032kR2800	C	25	32	30	2800	1.12	0.14	0.02	277	TSA(C)0320080kR187	A & C	32	80	120	187	16.77	0.66	0.3
205	TSC0250032kR1330	C	25	32	60	1330	2.36	0.3	0.04	278	TSA(C)0320080kR149	A & C	32	80	150	149	21.05	0.82	0.38
206	TSC0250032kR791	C	25	32	90	791	3.96	0.5	0.07	279	TSA(C)0320080kR126	A & C	32	80	180	126	24.89	0.97	0.44
207	TSC0250032kR594	C	25	32	120	594	5.28	0.66	0.09	280	TSA(C)0320080kR106	A & C	32	80	210	106	29.58	1.16	0.53
208	TSA(C)0250032kR446	A & C	25	32	150	446	7.03	0.88	0.13	281	TSA(C)0320100kR747	A & C	32	100	30	747	4.2	0.13	0.08
209	TSA(C)0250032kR375	A & C	25	32	180	375	8.36	1.05	0.15	282	TSA(C)0320100kR354	A & C	32	100	60	354	8.86	0.28	0.16
210	TSA(C)0250032kR315	A & C	25	32	210	315	9.96	1.25	0.18	283	TSA(C)0320100kR210	A & C	32	100	90				

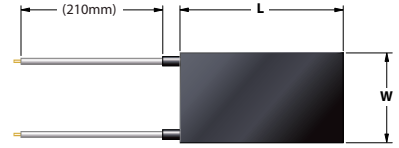


# STANDARD | Rectangular 56V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125kR79.1	A & C	32	125	180	79.1	39.65	0.99	0.71
294	TSA(C)0320125kR66.6	A & C	32	125	210	66.6	47.09	1.18	0.84
295	TSC0400040kR1490	C	40	40	30	1490	2.1	0.13	0.04
296	TSA(C)0400040kR705	A & C	40	40	60	705	4.45	0.28	0.08
297	TSA(C)0400040kR446	A & C	40	40	90	446	7.03	0.44	0.13
298	TSA(C)0400040kR315	A & C	40	40	120	315	9.96	0.62	0.18
299	TSA(C)0400040kR249	A & C	40	40	150	249	12.59	0.79	0.22
300	TSA(C)0400040kR210	A & C	40	40	180	210	14.93	0.93	0.27
301	TSA(C)0400040kR177	A & C	40	40	210	177	17.72	1.11	0.32
302	TSA(C)0400050kR1190	A & C	40	50	30	1190	2.64	0.13	0.05
303	TSA(C)0400050kR561	A & C	40	50	60	561	5.59	0.28	0.1
304	TSA(C)0400050kR354	A & C	40	50	90	354	8.86	0.44	0.16
305	TSA(C)0400050kR264	A & C	40	50	120	264	11.88	0.59	0.21
306	TSA(C)0400050kR198	A & C	40	50	150	198	15.84	0.79	0.28
307	TSA(C)0400050kR167	A & C	40	50	180	167	18.78	0.94	0.34
308	TSA(C)0400050kR141	A & C	40	50	210	141	22.24	1.11	0.4
309	TSA(C)0400063kR941	A & C	40	63	30	941	3.33	0.13	0.06
310	TSA(C)0400063kR446	A & C	40	63	60	446	7.03	0.28	0.13
311	TSA(C)0400063kR280	A & C	40	63	90	280	11.2	0.44	0.2
312	TSA(C)0400063kR210	A & C	40	63	120	210	14.93	0.59	0.27
313	TSA(C)0400063kR158	A & C	40	63	150	158	19.85	0.79	0.35
314	TSA(C)0400063kR133	A & C	40	63	180	133	23.58	0.94	0.42
315	TSA(C)0400063kR112	A & C	40	63	210	112	28	1.11	0.5
316	TSA(C)0400080kR747	A & C	40	80	30	747	4.2	0.13	0.08
317	TSA(C)0400080kR354	A & C	40	80	60	354	8.86	0.28	0.16
318	TSA(C)0400080kR222	A & C	40	80	90	222	14.13	0.44	0.25
319	TSA(C)0400080kR158	A & C	40	80	120	158	19.85	0.62	0.35
320	TSA(C)0400080kR126	A & C	40	80	150	126	24.89	0.78	0.44
321	TSA(C)0400080kR106	A & C	40	80	180	106	29.58	0.92	0.53
322	TSA(C)0400080kR88.8	A & C	40	80	210	88.8	35.32	1.1	0.63
323	TSA(C)0400100kR594	A & C	40	100	30	594	5.28	0.13	0.09
324	TSA(C)0400100kR280	A & C	40	100	60	280	11.2	0.28	0.2
325	TSA(C)0400100kR177	A & C	40	100	90	177	17.72	0.44	0.32
326	TSA(C)0400100kR133	A & C	40	100	120	133	23.58	0.59	0.42
327	TSA(C)0400100kR100	A & C	40	100	150	100	31.36	0.78	0.56
328	TSA(C)0400100kR83.8	A & C	40	100	180	83.8	37.42	0.94	0.67
329	TSA(C)0400100kR70.5	A & C	40	100	210	70.5	44.48	1.11	0.79
330	TSA(C)0400125kR500	A & C	40	125	30	500	6.27	0.13	0.11
331	TSA(C)0400125kR235	A & C	40	125	60	235	13.34	0.27	0.24
332	TSA(C)0400125kR141	A & C	40	125	90	141	22.24	0.44	0.4
333	TSA(C)0400125kR106	A & C	40	125	120	106	29.58	0.59	0.53
334	TSA(C)0400125kR79.1	A & C	40	125	150	79.1	39.65	0.79	0.71
335	TSA(C)0400125kR66.6	A & C	40	125	180	66.6	47.09	0.94	0.84
336	TSA(C)0400125kR56.1	A & C	40	125	210	56.1	55.9	1.12	1
337	TSA(C)0400160kR375	A & C	40	160	30	375	8.36	0.13	0.15
338	TSA(C)0400160kR177	A & C	40	160	60	177	17.72	0.28	0.32
339	TSA(C)0400160kR112	A & C	40	160	90	112	28	0.44	0.5
340	TSA(C)0400160kR79.1	A & C	40	160	120	79.1	39.65	0.62	0.71
341	TSA(C)0400160kR62.9	A & C	40	160	150	62.9	49.86	0.78	0.89
342	TSA(C)0400160kR53	A & C	40	160	180	53	59.17	0.92	1.06
343	TSA(C)0400160kR44.6	A & C	40	160	210	44.6	70.31	1.1	1.26
344	TSA(C)0500050kR1000	A & C	50	50	30	1000	3.14	0.13	0.06
345	TSA(C)0500050kR500	A & C	50	50	60	500	6.27	0.25	0.11
346	TSA(C)0500050kR315	A & C	50	50	90	315	9.96	0.4	0.18
347	TSA(C)0500050kR222	A & C	50	50	120	222	14.13	0.57	0.25
348	TSA(C)0500050kR167	A & C	50	50	150	167	18.78	0.75	0.34
349	TSA(C)0500050kR141	A & C	50	50	180	141	22.24	0.89	0.4
350	TSA(C)0500050kR119	A & C	50	50	210	119	26.35	1.05	0.47
351	TSA(C)0500063kR791	A & C	50	63	30	791	3.96	0.13	0.07
352	TSA(C)0500063kR397	A & C	50	63	60	397	7.9	0.25	0.14
353	TSA(C)0500063kR249	A & C	50	63	90	249	12.59	0.4	0.22
354	TSA(C)0500063kR177	A & C	50	63	120	177	17.72	0.56	0.32
355	TSA(C)0500063kR133	A & C	50	63	150	133	23.58	0.75	0.42
356	TSA(C)0500063kR112	A & C	50	63	180	112	28	0.89	0.5
357	TSA(C)0500063kR94.1	A & C	50	63	210	94.1	33.33	1.06	0.6
358	TSA(C)0500080kR629	A & C	50	80	30	629	4.99	0.12	0.09
359	TSA(C)0500080kR297	A & C	50	80	60	297	10.56	0.26	0.19
360	TSA(C)0500080kR198	A & C	50	80	90	198	15.84	0.4	0.28
361	TSA(C)0500080kR141	A & C	50	80	120	141	22.24	0.56	0.4
362	TSA(C)0500080kR106	A & C	50	80	150	106	29.58	0.74	0.53
363	TSA(C)0500080kR88.8	A & C	50	80	180	88.8	35.32	0.88	0.63
364	TSA(C)0500080kR74.7	A & C	50	80	210	74.7	41.98	1.05	0.75
365	TSA(C)0500100kR500	A & C	50	100	30	500	6.27	0.13	0.11

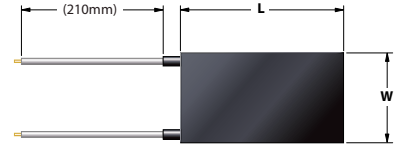
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)0500100kR249	A & C	50	100	60	249	12.59	0.25	0.22
367	TSA(C)0500100kR158	A & C	50	100	90	158	19.85	0.4	0.35
368	TSA(C)0500100kR112	A & C	50	100	120	112	28	0.56	0.5
369	TSA(C)0500100kR83.8	A & C	50	100	150	83.8	37.42	0.75	0.67
370	TSA(C)0500100kR70.5	A & C	50	100	180	70.5	44.48	0.89	0.79
371	TSA(C)0500100kR59.4	A & C	50	100	210	59.4	52.79	1.06	0.94
372	TSA(C)0500125kR397	A & C	50	125	30	397	7.9	0.13	0.14
373	TSA(C)0500125kR198	A & C	50	125	60	198	15.84	0.25	0.28
374	TSA(C)0500125kR126	A & C	50	125	90	126	24.89	0.4	0.44
375	TSA(C)0500125kR88.8	A & C	50	125	120	88.8	35.32	0.57	0.63
376	TSA(C)0500125kR66.6	A & C	50	125	150	66.6	47.09	0.75	0.84
377	TSA(C)0500125kR56.1	A & C	50	125	180	56.1	55.9	0.89	1
378	TSA(C)0500125kR47.2	A & C	50	125	210	47.2	66.44	1.06	1.19
379	TSA(C)0500160kR315	A & C	50	160	30	315	9.96	0.12	0.18
380	TSA(C)0500160kR149	A & C	50	160	60	149	21.05	0.26	0.38
381	TSA(C)0500160kR100	A & C	50	160	90	100	31.36	0.39	0.56
382	TSA(C)0500160kR70.5	A & C	50	160	120	70.5	44.48	0.56	0.79
383	TSA(C)0500160kR53	A & C	50	160	150	53	59.17	0.74	1.06
384	TSA(C)0500160kR44.6	A & C	50	160	180	44.6	70.31	0.88	1.26
385	TSA(C)0500160kR37.5	A & C	50	160	210	37.5	83.63	1.05	1.49
386	TSA(C)0500200kR249	A & C	50	200	30	249	12.59	0.13	0.22
387	TSA(C)0500200kR119	A & C	50	200	60	119	26.35	0.26	0.47
388	TSA(C)0500200kR79.1	A & C	50	200	90	79.1	39.65	0.4	0.71
389	TSA(C)0500200kR56.1	A & C	50	200	120	56.1	55.9	0.56	1
390	TSA(C)0500200kR42.1	A & C	50	200	150	42.1	74.49	0.74	1.33
391	TSA(C)0500200kR35.4	A & C	50	200	180	35.4	88.59	0.89	1.58
392	TSA(C)0500200kR29.7	A & C	50	200	210	29.7	105.59	1.06	1.89
393	TSA(C)0630063kR666	A & C	63	63	30	666	4.71	0.12	0.08
394	TSA(C)0630063kR334	A & C	63	63	60	334	9.39	0.24	0.17
395	TSA(C)0630063kR210	A & C	63	63	90	210	14.93	0.38	0.27
396	TSA(C)0630063kR149	A & C	63	63	120	149	21.05	0.53	0.38
397	TSA(C)0630063kR112	A & C	63	63	150	112	28	0.71	0.5
398	TSA(C)0630063kR94.1	A & C	63	63	180	94.1	33.33	0.84	0.6
399	TSA(C)0630063kR79.1	A & C	63	63	210	79.1	39.65	1	0.71
400	TSA(C)0630080kR530	A & C	63	80	30	530	5.92	0.12	0.11
401	TSA(C)0630080kR264	A & C	63	80	60	264	11.88	0.24	0.21
402	TSA(C)0630080kR167	A & C	63	80	90	167	18.78	0.37	0.34
403	TSA(C)0630080kR119	A & C	63	80	120	119	26.35	0.52	0.47
404	TSA(C)0630080kR88.8	A & C	63	80	150	88.8	35.32	0.7	0.63
405	TSA(C)0630080kR74.7	A & C	63	80	180	74.7	41.98	0.83	0.75
406	TSA(C)0630080kR62.9	A & C	63	80	210	62.9	49.86	0.99	0.89
407	TSA(C)0630100kR421	A & C	63	100	30	421	7.45	0.12	0.13
408	TSA(C)0630100kR210	A & C	63	100	60	210	14.93	0.24	0.27
409	TSA(C)0630100kR133	A & C	63	100	90	133	23.58	0.37	0.42
410	TSA(C)0630100kR94.1	A & C	63	100	120	94.1	33.33	0.53	0.6
411	TSA(C)0630100kR70.5	A & C	63	100	150	70.5	44.48	0.71	0.79
412	TSA(C)0630100kR59.4	A & C	63	100	180	59.4	52		



# STANDARD | Rectangular 56V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)0630250kR28	A & C	63	250	150	28	112	0.71	2	512	TSA(C)1000200kR167	A & C	100	200	30	167	18.78	0.09	0.34
440	TSA(C)0630250kR23.5	A & C	63	250	180	23.5	133.45	0.85	2.38	513	TSA(C)1000200kR83.8	A & C	100	200	60	83.8	37.42	0.19	0.67
441	TSA(C)0630250kR19.8	A & C	63	250	210	19.8	158.38	1.01	2.83	514	TSA(C)1000200kR53	A & C	100	200	90	53	59.17	0.3	1.06
442	TSA(C)0800080kR472	A & C	80	80	30	472	6.64	0.1	0.12	515	TSA(C)1000200kR35.4	A & C	100	200	120	35.4	88.59	0.44	1.58
443	TSA(C)0800080kR222	A & C	80	80	60	222	14.13	0.22	0.25	516	TSA(C)1000200kR28	A & C	100	200	150	28	112	0.56	2
444	TSA(C)0800080kR141	A & C	80	80	90	141	22.24	0.35	0.4	517	TSA(C)1000200kR22.2	A & C	100	200	180	22.2	141.26	0.71	2.52
445	TSA(C)0800080kR100	A & C	80	80	120	100	31.36	0.49	0.56	518	TSA(C)1000200kR18.7	A & C	100	200	210	18.7	167.7	0.84	2.99
446	TSA(C)0800080kR79.1	A & C	80	80	150	79.1	39.65	0.62	0.71	519	TSA(C)1000250kR133	A & C	100	250	30	133	23.58	0.09	0.42
447	TSA(C)0800080kR62.9	A & C	80	80	180	62.9	49.86	0.78	0.89	520	TSA(C)1000250kR66.6	A & C	100	250	60	66.6	47.09	0.19	0.84
448	TSA(C)0800080kR53	A & C	80	80	210	53	59.17	0.92	1.06	521	TSA(C)1000250kR42.1	A & C	100	250	90	42.1	74.49	0.3	1.33
449	TSA(C)0800100kR375	A & C	80	100	30	375	8.36	0.1	0.15	522	TSA(C)1000250kR28	A & C	100	250	120	28	112	0.45	2
450	TSA(C)0800100kR187	A & C	80	100	60	187	16.77	0.21	0.3	523	TSA(C)1000250kR22.2	A & C	100	250	150	22.2	141.26	0.57	2.52
451	TSA(C)0800100kR112	A & C	80	100	90	112	28	0.35	0.5	524	TSA(C)1000250kR17.7	A & C	100	250	180	17.7	177.18	0.71	3.16
452	TSA(C)0800100kR79.1	A & C	80	100	120	79.1	39.65	0.5	0.71	525	TSA(C)1000250kR14.9	A & C	100	250	210	14.9	210.47	0.84	3.76
453	TSA(C)0800100kR62.9	A & C	80	100	150	62.9	49.86	0.62	0.89	526	TSA(C)1000300kR112	A & C	100	300	30	112	28	0.09	0.5
454	TSA(C)0800100kR50	A & C	80	100	180	50	62.72	0.78	1.12	527	TSA(C)1000300kR56.1	A & C	100	300	60	56.1	55.9	0.19	1
455	TSA(C)0800100kR42.1	A & C	80	100	210	42.1	74.49	0.93	1.33	528	TSA(C)1000300kR35.4	A & C	100	300	90	35.4	88.59	0.3	1.58
456	TSA(C)0800125kR297	A & C	80	125	30	297	10.56	0.11	0.19	529	TSA(C)1000300kR23.5	A & C	100	300	120	23.5	133.45	0.44	2.38
457	TSA(C)0800125kR149	A & C	80	125	60	149	21.05	0.21	0.38	530	TSA(C)1000300kR18.7	A & C	100	300	150	18.7	167.7	0.56	2.99
458	TSA(C)0800125kR94.1	A & C	80	125	90	94.1	33.33	0.33	0.6	531	TSA(C)1000300kR14.9	A & C	100	300	180	14.9	210.47	0.7	3.76
459	TSA(C)0800125kR62.9	A & C	80	125	120	62.9	49.86	0.5	0.89	532	TSA(C)1000300kR12.6	A & C	100	300	210	12.6	248.89	0.83	4.44
460	TSA(C)0800125kR50	A & C	80	125	150	50	62.72	0.63	1.12	533	TSA(C)1250125kR235	A & C	125	125	30	235	13.34	0.09	0.24
461	TSA(C)0800125kR39.7	A & C	80	125	180	39.7	78.99	0.79	1.41	534	TSA(C)1250125kR119	A & C	125	125	60	119	26.35	0.17	0.47
462	TSA(C)0800125kR33.4	A & C	80	125	210	33.4	93.89	0.94	1.68	535	TSA(C)1250125kR9.7	A & C	125	125	90	9.7	41.98	0.27	0.75
463	TSA(C)0800160kR235	A & C	80	160	30	235	13.34	0.1	0.24	536	TSA(C)1250125kR50	A & C	125	125	120	50	62.72	0.4	1.12
464	TSA(C)0800160kR112	A & C	80	160	60	112	28	0.22	0.5	537	TSA(C)1250125kR37.5	A & C	125	125	150	37.5	83.63	0.54	1.49
465	TSA(C)0800160kR70.5	A & C	80	160	90	70.5	44.48	0.35	0.79	538	TSA(C)1250125kR31.5	A & C	125	125	180	31.5	99.56	0.64	1.78
466	TSA(C)0800160kR50	A & C	80	160	120	50	62.72	0.49	1.12	539	TSA(C)1250125kR26.4	A & C	125	125	210	26.4	118.79	0.76	2.12
467	TSA(C)0800160kR39.7	A & C	80	160	150	39.7	78.99	0.62	1.41	540	TSA(C)1250160kR187	A & C	125	160	30	187	16.77	0.08	0.3
468	TSA(C)0800160kR31.5	A & C	80	160	180	31.5	99.56	0.78	1.78	541	TSA(C)1250160kR88.8	A & C	125	160	60	88.8	35.32	0.18	0.63
469	TSA(C)0800160kR26.4	A & C	80	160	210	26.4	118.79	0.93	2.12	542	TSA(C)1250160kR56.1	A & C	125	160	90	56.1	55.9	0.28	1
470	TSA(C)0800200kR187	A & C	80	200	30	187	16.77	0.1	0.3	543	TSA(C)1250160kR39.7	A & C	125	160	120	39.7	78.99	0.39	1.41
471	TSA(C)0800200kR88.8	A & C	80	200	60	88.8	35.32	0.22	0.63	544	TSA(C)1250160kR29.7	A & C	125	160	150	29.7	105.59	0.53	1.89
472	TSA(C)0800200kR56.1	A & C	80	200	90	56.1	55.9	0.35	1	545	TSA(C)1250160kR24.9	A & C	125	160	180	24.9	125.94	0.63	2.25
473	TSA(C)0800200kR39.7	A & C	80	200	120	39.7	78.99	0.49	1.41	546	TSA(C)1250160kR19.8	A & C	125	160	210	19.8	158.38	0.79	2.83
474	TSA(C)0800200kR31.5	A & C	80	200	150	31.5	99.56	0.62	1.78	547	TSA(C)1250160kR14.9	A & C	125	200	30	14.9	21.05	0.08	0.38
475	TSA(C)0800200kR24.9	A & C	80	200	180	24.9	125.94	0.79	2.25	548	TSA(C)1250200kR74.7	A & C	125	200	60	74.7	41.98	0.17	0.75
476	TSA(C)0800200kR21	A & C	80	200	210	21	149.33	0.93	2.67	549	TSA(C)1250200kR44.6	A & C	125	200	90	44.6	70.31	0.28	1.26
477	TSA(C)0800250kR149	A & C	80	250	30	149	21.05	0.11	0.38	550	TSA(C)1250200kR31.5	A & C	125	200	120	31.5	99.56	0.4	1.78
478	TSA(C)0800250kR74.7	A & C	80	250	60	74.7	41.98	0.21	0.75	551	TSA(C)1250200kR23.5	A & C	125	200	150	23.5	133.45	0.53	2.38
479	TSA(C)0800250kR47.2	A & C	80	250	90	47.2	66.44	0.33	1.19	552	TSA(C)1250200kR19.8	A & C	125	200	180	19.8	158.38	0.63	2.83
480	TSA(C)0800250kR31.5	A & C	80	250	120	31.5	99.56	0.5	1.78	553	TSA(C)1250200kR15.8	A & C	125	200	210	15.8	198.48	0.79	3.54
481	TSA(C)0800250kR24.9	A & C	80	250	150	24.9	125.94	0.63	2.25	554	TSA(C)1250250kR119	A & C	125	250	30	119	26.35	0.08	0.47
482	TSA(C)0800250kR19.8	A & C	80	250	180	19.8	158.38	0.79	2.83	555	TSA(C)1250250kR59.4	A & C	125	250	60	59.4	52.79	0.17	0.94
483	TSA(C)0800250kR16.7	A & C	80	250	210	16.7	187.78	0.94	3.35	556	TSA(C)1250250kR37.5	A & C	125	250	90	37.5	83.63	0.27	1.49
484	TSA(C)0800300kR126	A & C	80	300	30	126	24.89	0.1	0.44	557	TSA(C)1250250kR24.9	A & C	125	250	120	24.9	125.94	0.4	2.25
485	TSA(C)0800300kR59.4	A & C	80	300	60	59.4	52.79	0.22	0.94	558	TSA(C)1250250kR18.7	A & C	125	250	150	18.7	167.7	0.54	2.99
486	TSA(C)0800300kR37.5	A & C	80	300	90	37.5	83.63	0.35	1.49	559	TSA(C)1250250kR15.8	A & C	125	250	180	15.8	198.48	0.64	3.54
487	TSA(C)0800300kR26.4	A & C	80	300	120	26.4	118.79	0.49	2.12	560	TSA(C)1250250kR13.3	A & C	125	250	210	13.3	235.79	0.75	4.21
488	TSA(C)0800300kR21	A & C	80	300	150	21	149.33	0.62	2.67	561	TSA(C)1250300kR94.1	A & C	125	300	30	94.1	33.33	0.09	0.6
489	TSA(C)0800300kR16.7	A & C	80	300	180	16.7	187.78	0.78	3.35	562	TSA(C)1250300kR47.2	A & C	125	300	60	47.2	66.44	0.18	1.19
490	TSA(C)0800300kR14.1	A & C	80	300	210	14.1	222.41	0.93	3.97	563	TSA(C)1250300kR29.7	A & C	125	300	90	29.7	105.59	0.28	1.89
491	TSA(C)1000100kR334	A & C	100	100	30	334	9.39	0.09	0.17	564	TSA(C)1250300kR21	A & C	125	300	120	21	149.33	0.4	2.67
492	TSA(C)1000100kR167	A & C	100	100	60	167	18.78	0.19	0.34	565	TSA(C)1250300kR15.8	A & C	125	300	150	15.8	198.48	0.53	3.54
493	TSA(C)1000100kR106	A & C	100	100	90	106	29.58	0.3	0.53	566	TSA(C)1250300kR13.3	A & C	125	300	180	13.3	235.79	0.63	4.21
494	TSA(C)1000100kR70.5	A & C	100	100	120	70.5	44.48	0.44	0.79	567	TSA(C)1250300kR10.6	A	125	300	210	10.6	295.85	0.79	5.28
495	TSA(C)1000100kR56.1	A & C	100	100	150	56.1	55.9	0.56	1	568	TSA(C)1600160kR158	A & C	160	160	30	158	19.85	0.08	0.35
496	TSA(C)1000100kR44.6	A & C	100	100	180	44.6	70.31	0.7	1.26	569	TSA(C)1600160kR79.1	A & C	160	160	60	79.1	39.65	0.15	0.71
497	TSA(C)1000100kR37.5	A & C	100	100	210	37.5	83.63	0.84	1.49	570	TSA(C)1600160kR50	A & C	160	160	90	50	62.72	0.25	1.12
498	TSA(C)1000125kR264	A & C	100	125	30	264	11.88	0.1	0.21	571	TSA(C)1600160kR33.4	A & C	160	160	120	33.4	93.89	0.37	1.68
499	TSA(C)1000125kR133	A & C	100	125	60	133	23.58	0.19	0.42	572</									

# STANDARD | Rectangular 56V

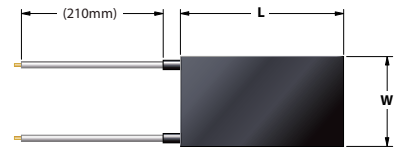


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250kR21	A & C	160	250	120	21	149.33	0.37	2.67
586	TSA(C)1600250kR16.7	A & C	160	250	150	16.7	187.78	0.47	3.35
587	TSA(C)1600250kR13.3	A & C	160	250	180	13.3	235.79	0.59	4.21
588	TSA(C)1600250kR11.2	A & C	160	250	210	11.2	280	0.7	5
589	TSA(C)1600300kR83.8	A & C	160	300	30	83.8	37.42	0.08	0.67
590	TSA(C)1600300kR42.1	A & C	160	300	60	42.1	74.49	0.16	1.33
591	TSA(C)1600300kR26.4	A & C	160	300	90	26.4	118.79	0.25	2.12
592	TSA(C)1600300kR17.7	A & C	160	300	120	17.7	177.18	0.37	3.16
593	TSA(C)1600300kR14.1	A & C	160	300	150	14.1	222.41	0.46	3.97
594	TSA(C)1600300kR11.2	A & C	160	300	180	11.2	280	0.58	5
595	TSA1600300kR9.41	A	160	300	210	9.41	333.26	0.69	5.95
596	TSA(C)2000200kR112	A & C	200	200	30	112	28	0.07	0.5
597	TSA(C)2000200kR56.1	A & C	200	200	60	56.1	55.9	0.14	1
598	TSA(C)2000200kR35.4	A & C	200	200	90	35.4	88.59	0.22	1.58
599	TSA(C)2000200kR23.5	A & C	200	200	120	23.5	133.45	0.33	2.38
600	TSA(C)2000200kR18.7	A & C	200	200	150	18.7	167.7	0.42	2.99
601	TSA(C)2000200kR14.9	A & C	200	200	180	14.9	210.47	0.53	3.76
602	TSA(C)2000200kR11.9	A & C	200	200	210	11.9	263.53	0.66	4.71
603	TSA(C)2000250kR88.8	A & C	200	250	30	88.8	35.32	0.07	0.63
604	TSA(C)2000250kR44.6	A & C	200	250	60	44.6	70.31	0.14	1.26
605	TSA(C)2000250kR28	A & C	200	250	90	28	112	0.22	2
606	TSA(C)2000250kR18.7	A & C	200	250	120	18.7	167.7	0.34	2.99
607	TSA(C)2000250kR14.9	A & C	200	250	150	14.9	210.47	0.42	3.76
608	TSA(C)2000250kR11.9	A & C	200	250	180	11.9	263.53	0.53	4.71
609	TSA(C)2000250kR10	A & C	200	250	210	10	313.6	0.63	5.6
610	TSA(C)2000300kR74.7	A & C	200	300	30	74.7	41.98	0.07	0.75
611	TSA(C)2000300kR37.5	A & C	200	300	60	37.5	83.63	0.14	1.49

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
612	TSA(C)2000300kR23.5	A & C	200	300	90	23.5	133.45	0.22	2.38
613	TSA(C)2000300kR15.8	A & C	200	300	120	15.8	198.48	0.33	3.54
614	TSA(C)2000300kR11.9	A & C	200	300	150	11.9	263.53	0.44	4.71
615	TSA(C)2000300kR10	A & C	200	300	180	10	313.6	0.52	5.6
616	TSA2000300kR8.38	A	200	300	210	8.38	374.22	0.62	6.68
617	TSA(C)2500250kR74.7	A & C	250	250	30	74.7	41.98	0.07	0.75
618	TSA(C)2500250kR37.5	A & C	250	250	60	37.5	83.63	0.13	1.49
619	TSA(C)2500250kR23.5	A & C	250	250	90	23.5	133.45	0.21	2.38
620	TSA(C)2500250kR16.7	A & C	250	250	120	16.7	187.78	0.3	3.35
621	TSA(C)2500250kR12.6	A & C	250	250	150	12.6	248.89	0.4	4.44
622	TSA(C)2500250kR10.6	A & C	250	250	180	10.6	295.85	0.47	5.28
623	TSA(C)2500250kR8.38	A & C	250	250	210	8.38	374.22	0.6	6.68
624	TSA(C)2500300kR62.9	A & C	250	300	30	62.9	49.86	0.07	0.89
625	TSA(C)2500300kR31.5	A & C	250	300	60	31.5	99.56	0.13	1.78
626	TSA(C)2500300kR19.8	A & C	250	300	90	19.8	158.38	0.21	2.83
627	TSA(C)2500300kR13.3	A & C	250	300	120	13.3	235.79	0.31	4.21
628	TSA(C)2500300kR10.6	A & C	250	300	150	10.6	295.85	0.39	5.28
629	TSA(C)2500300kR8.38	A & C	250	300	180	8.38	374.22	0.5	6.68
630	TSA2500300kR7.05	A	250	300	210	7.05	444.82	0.59	7.94
631	TSA(C)3000300kR56.1	A & C	300	300	30	56.1	55.9	0.06	1
632	TSA(C)3000300kR28	A & C	300	300	60	28	112	0.12	2
633	TSA(C)3000300kR17.7	A & C	300	300	90	17.7	177.18	0.2	3.16
634	TSA(C)3000300kR11.9	A & C	300	300	120	11.9	263.53	0.29	4.71
635	TSA(C)3000300kR9.41	A & C	300	300	150	9.41	333.26	0.37	5.95
636	TSA(C)3000300kR7.47	A & C	300	300	180	7.47	419.81	0.47	7.5
637	TSA3000300kR6.29	A	300	300	210	6.29	498.57	0.55	8.9

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

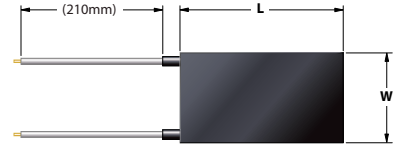
Shape : **RECTANGULAR**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Length(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200, 250, 300mm  
 Width(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200, 250, 300mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5,3,3.7,4,2.5,9,12,24,42,48,72,100,110,120, 200,220,230,240VAC/DC



# STANDARD | Rectangular 72V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010IR19800	C	10	10	30	19800	0.26	0.26	0
2	TSC0100010IR9410	C	10	10	60	9410	0.55	0.55	0.01
3	TSC0100010IR5940	C	10	10	90	5940	0.87	0.87	0.01
4	TSC0100010IR4460	C	10	10	120	4460	1.16	1.16	0.02
5	TSC0100010IR3340	C	10	10	150	3340	1.55	1.55	0.02
6	TSC0100010IR2640	C	10	10	180	2640	1.96	1.96	0.03
7	TSC0100010IR2100	C	10	10	210	2100	2.47	2.47	0.03
8	TSC0100013IR15800	C	10	13	30	15800	0.33	0.25	0
9	TSC0100013IR7470	C	10	13	60	7470	0.69	0.53	0.01
10	TSC0100013IR4720	C	10	13	90	4720	1.1	0.85	0.02
11	TSC0100013IR3340	C	10	13	120	3340	1.55	1.19	0.02
12	TSC0100013IR2490	C	10	13	150	2490	2.08	1.60	0.03
13	TSC0100013IR1980	C	10	13	180	1980	2.62	2.02	0.04
14	TSC0100013IR1670	C	10	13	210	1670	3.1	2.38	0.04
15	TSC0100016IR12600	C	10	16	30	12600	0.41	0.26	0.01
16	TSC0100016IR5940	C	10	16	60	5940	0.87	0.54	0.01
17	TSC0100016IR3750	C	10	16	90	3750	1.38	0.86	0.02
18	TSC0100016IR2640	C	10	16	120	2640	1.96	1.23	0.03
19	TSC0100016IR1980	C	10	16	150	1980	2.62	1.64	0.04
20	TSC0100016IR1580	C	10	16	180	1580	3.28	2.05	0.05
21	TSC0100016IR1330	C	10	16	210	1330	3.9	2.44	0.05
22	TSC0100020IR10000	C	10	20	30	10000	0.52	0.26	0.01
23	TSC0100020IR4720	C	10	20	60	4720	1.1	0.55	0.02
24	TSC0100020IR2970	C	10	20	90	2970	1.75	0.88	0.02
25	TSC0100020IR2220	C	10	20	120	2220	2.34	1.17	0.03
26	TSC0100020IR1670	C	10	20	150	1670	3.1	1.55	0.04
27	TSC0100020IR1330	C	10	20	180	1330	3.9	1.95	0.05
28	TSC0100020IR1060	C	10	20	210	1060	4.89	2.45	0.07
29	TSC0100025IR7910	C	10	25	30	7910	0.66	0.26	0.01
30	TSC0100025IR3750	C	10	25	60	3750	1.38	0.55	0.02
31	TSC0100025IR2490	C	10	25	90	2490	2.08	0.83	0.03
32	TSC0100025IR1770	C	10	25	120	1770	2.93	1.17	0.04
33	TSC0100025IR1330	C	10	25	150	1330	3.9	1.56	0.05

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
34	TSC0100025IR1060	C	10	25	180	1060	4.89	1.96	0.07
35	TSC0100025IR838	C	10	25	210	838	6.19	2.48	0.09
36	TSC0100032IR6290	C	10	32	30	6290	0.82	0.26	0.01
37	TSC0100032IR2970	C	10	32	60	2970	1.75	0.55	0.02
38	TSC0100032IR1870	C	10	32	90	1870	2.77	0.87	0.04
39	TSC0100032IR1330	C	10	32	120	1330	3.9	1.22	0.05
40	TSC0100032IR1000	C	10	32	150	1000	5.18	1.62	0.07
41	TSC0100032IR791	C	10	32	180	791	6.55	2.05	0.09
42	TSC0100032IR666	C	10	32	210	666	7.78	2.43	0.11
43	TSC0100040IR5000	C	10	40	30	5000	1.04	0.26	0.01
44	TSC0100040IR2350	C	10	40	60	2350	2.21	0.55	0.03
45	TSC0100040IR1490	C	10	40	90	1490	3.48	0.87	0.05
46	TSC0100040IR1060	C	10	40	120	1060	4.89	1.22	0.07
47	TSC0100040IR838	C	10	40	150	838	6.19	1.55	0.09
48	TSC0100040IR666	C	10	40	180	666	7.78	1.95	0.11
49	TSC0100040IR530	C	10	40	210	530	9.78	2.45	0.14
50	TSC0130013IR13300	C	13	13	30	13300	0.39	0.23	0.01
51	TSC0130013IR6290	C	13	13	60	6290	0.82	0.49	0.01
52	TSC0130013IR4210	C	13	13	90	4210	1.23	0.73	0.02
53	TSC0130013IR2970	C	13	13	120	2970	1.75	1.04	0.02
54	TSC0130013IR2220	C	13	13	150	2220	2.34	1.38	0.03
55	TSC0130013IR1770	C	13	13	180	1770	2.93	1.73	0.04
56	TSC0130013IR1490	C	13	13	210	1490	3.48	2.06	0.05
57	TSC0130016IR11200	C	13	16	30	11200	0.46	0.22	0.01
58	TSC0130016IR5300	C	13	16	60	5300	0.98	0.47	0.01
59	TSC0130016IR3340	C	13	16	90	3340	1.55	0.75	0.02
60	TSC0130016IR2350	C	13	16	120	2350	2.21	1.06	0.03
61	TSC0130016IR1770	C	13	16	150	1770	2.93	1.41	0.04
62	TSC0130016IR1410	C	13	16	180	1410	3.68	1.77	0.05
63</									



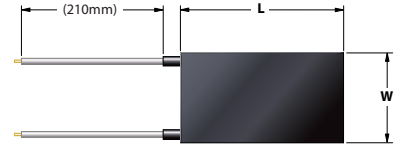
# STANDARD | Rectangular 72V

Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
67	TSC0130020IR1870	C	13	20	120	1870	2.77	1.07	0.04
68	TSC0130020IR1410	C	13	20	150	1410	3.68	1.42	0.05
69	TSC0130020IR1120	C	13	20	180	1120	4.63	1.78	0.06
70	TSC0130020IR941	C	13	20	210	941	5.51	2.12	0.08
71	TSC0130025IR7050	C	13	25	30	7050	0.74	0.23	0.01
72	TSC0130025IR3340	C	13	25	60	3340	1.55	0.48	0.02
73	TSC0130025IR2100	C	13	25	90	2100	2.47	0.76	0.03
74	TSC0130025IR1490	C	13	25	120	1490	3.48	1.07	0.05
75	TSC0130025IR1120	C	13	25	150	1120	4.63	1.42	0.06
76	TSC0130025IR941	C	13	25	180	941	5.51	1.70	0.08
77	TSC0130025IR747	C	13	25	210	747	6.94	2.14	0.1
78	TSC0130032IR5610	C	13	32	30	5610	0.92	0.22	0.01
79	TSC0130032IR2640	C	13	32	60	2640	1.96	0.47	0.03
80	TSC0130032IR1670	C	13	32	90	1670	3.1	0.75	0.04
81	TSC0130032IR1190	C	13	32	120	1190	4.36	1.05	0.06
82	TSC0130032IR888	C	13	32	150	888	5.84	1.40	0.08
83	TSC0130032IR705	C	13	32	180	705	7.35	1.77	0.1
84	TSC0130032IR594	C	13	32	210	594	8.73	2.10	0.12
85	TSC0130040IR4460	C	13	40	30	4460	1.16	0.22	0.02
86	TSC0130040IR2100	C	13	40	60	2100	2.47	0.48	0.03
87	TSC0130040IR1330	C	13	40	90	1330	3.9	0.75	0.05
88	TSC0130040IR941	C	13	40	120	941	5.51	1.06	0.08
89	TSC0130040IR705	C	13	40	150	705	7.35	1.41	0.1
90	TSC0130040IR561	C	13	40	180	561	9.24	1.78	0.13
91	TSC0130040IR472	C	13	40	210	472	10.98	2.11	0.15
92	TSC0130050IR3540	C	13	50	30	3540	1.46	0.22	0.02
93	TSC0130050IR1670	C	13	50	60	1670	3.1	0.48	0.04
94	TSC0130050IR1060	C	13	50	90	1060	4.89	0.75	0.07
95	TSC0130050IR747	C	13	50	120	747	6.94	1.07	0.1
96	TSC0130050IR561	C	13	50	150	561	9.24	1.42	0.13
97	TSC0130050IR472	C	13	50	180	472	10.98	1.69	0.15
98	TSA(C)0130050IR375	A & C	13	50	210	375	13.82	2.13	0.19
99	TSC0160016IR10600	C	16	16	30	10600	0.49	0.19	0.01
100	TSC0160016IR5000	C	16	16	60	5000	1.04	0.41	0.01
101	TSC0160016IR3150	C	16	16	90	3150	1.65	0.64	0.02
102	TSC0160016IR2220	C	16	16	120	2220	2.34	0.91	0.03
103	TSC0160016IR1670	C	16	16	150	1670	3.1	1.21	0.04
104	TSC0160016IR1410	C	16	16	180	1410	3.68	1.44	0.05
105	TSC0160016IR1120	C	16	16	210	1120	4.63	1.81	0.06
106	TSC0160020IR8380	C	16	20	30	8380	0.62	0.19	0.01
107	TSC0160020IR3970	C	16	20	60	3970	1.31	0.41	0.02
108	TSC0160020IR2490	C	16	20	90	2490	2.08	0.65	0.03
109	TSC0160020IR1770	C	16	20	120	1770	2.93	0.92	0.04
110	TSC0160020IR1330	C	16	20	150	1330	3.9	1.22	0.05
111	TSC0160020IR1120	C	16	20	180	1120	4.63	1.45	0.06
112	TSC0160020IR888	C	16	20	210	888	5.84	1.83	0.08
113	TSC0160025IR6660	C	16	25	30	6660	0.78	0.20	0.01
114	TSC0160025IR3150	C	16	25	60	3150	1.65	0.41	0.02
115	TSC0160025IR1980	C	16	25	90	1980	2.62	0.66	0.04
116	TSC0160025IR1410	C	16	25	120	1410	3.68	0.92	0.05
117	TSC0160025IR1120	C	16	25	150	1120	4.63	1.16	0.06
118	TSC0160025IR888	C	16	25	180	888	5.84	1.46	0.08
119	TSC0160025IR747	C	16	25	210	747	6.94	1.74	0.1
120	TSC0160032IR5300	C	16	32	30	5300	0.98	0.19	0.01
121	TSC0160032IR2490	C	16	32	60	2490	2.08	0.41	0.03
122	TSC0160032IR1580	C	16	32	90	1580	3.28	0.64	0.05
123	TSC0160032IR1120	C	16	32	120	1120	4.63	0.90	0.06
124	TSC0160032IR838	C	16	32	150	838	6.19	1.21	0.09
125	TSC0160032IR705	C	16	32	180	705	7.35	1.44	0.1
126	TSC0160032IR561	C	16	32	210	561	9.24	1.80	0.13
127	TSC0160040IR4210	C	16	40	30	4210	1.23	0.19	0.02
128	TSC0160040IR1980	C	16	40	60	1980	2.62	0.41	0.04
129	TSC0160040IR1260	C	16	40	90	1260	4.11	0.64	0.06
130	TSC0160040IR888	C	16	40	120	888	5.84	0.91	0.08
131	TSC0160040IR666	C	16	40	150	666	7.78	1.22	0.11
132	TSC0160040IR561	C	16	40	180	561	9.24	1.44	0.13
133	TSC0160040IR446	C	16	40	210	446	11.62	1.82	0.16
134	TSC0160050IR3340	C	16	50	30	3340	1.55	0.19	0.02
135	TSC0160050IR1580	C	16	50	60	1580	3.28	0.41	0.05
136	TSC0160050IR1000	C	16	50	90	1000	5.18	0.65	0.07
137	TSC0160050IR705	C	16	50	120	705	7.35	0.92	0.1
138	TSC0160050IR561	C	16	50	150	561	9.24	1.16	0.13
139	TSA(C)0160050IR446	A & C	16	50	180	446	11.62	1.45	0.16
140	TSA(C)0160050IR375	A & C	16	50	210	375	13.82	1.73	0.19
141	TSC0160063IR2640	C	16	63	30	2640	1.96	0.19	0.03
142	TSC0160063IR1260	C	16	63	60	1260	4.11	0.41	0.06
143	TSC0160063IR791	C	16	63	90	791	6.55	0.65	0.09
144	TSA(C)0160063IR561	A & C	16	63	120	561	9.24	0.92	0.13
145	TSA(C)0160063IR446	A & C	16	63	150	446	11.62	1.15	0.16
146	TSA(C)0160063IR354	A & C	16	63	180	354	14.64	1.45	0.2
147	TSA(C)0160063IR297	A & C	16	63	210	297	17.45	1.73	0.24
148	TSC0200020IR8380	C	20	20	30	8380	0.62	0.16	0.01
149	TSC0200020IR4210	C	20	20	60	4210	1.23	0.31	0.02
150	TSC0200020IR2640	C	20	20	90	2640	1.96	0.49	0.03
151	TSC0200020IR1870	C	20	20	120	1870	2.77	0.69	0.04
152	TSC0200020IR1410	C	20	20	150	1410	3.68	0.92	0.05
153	TSC0200020IR1120	C	20	20	180	1120	4.63	1.16	0.06
154	TSC0200020IR941	C	20	20	210	941	5.51	1.38	0.08
155	TSC0200025IR7050	C	20	25	30	7050	0.74	0.15	0.01
156	TSC0200025IR3340	C	20	25	60	3340	1.55	0.31	0.02
157	TSC0200025IR2100	C	20	25	90	2100	2.47	0.49	0.03
158	TSC0200025IR1490	C	20	25	120	1490	3.48	0.70	0.05
159	TSC0200025IR1120	C	20	25	150	1120	4.63	0.93	0.06
160	TSC0200025IR941	C	20	25	180	941	5.51	1.10	0.08
161	TSC0200025IR791	C	20	25	210	791	6.55	1.31	0.09
162	TSC0200032IR5300	C	20	32	30	5300	0.98	0.15	0.01
163	TSC0200032IR2640	C	20	32	60	2640	1.96	0.31	0.03
164	TSC0200032IR1580	C	20	32	90	1580	3.28	0.51	0.05
165	TSC0200032IR1120	C	20	32	120	1120	4.63	0.72	0.06
166	TSC0200032IR888	C	20	32	150	888	5.84	0.91	0.08
167	TSC0200032IR705	C	20	32	180	705	7.35	1.15	0.1
168	TSC0200032IR594	C	20	32	210	594	8.73	1.36	0.12
169	TSC0200040IR4210	C	20	40	30	4210	1.23	0.15	0.02
170	TSC0200040IR2100	C	20	40	60	2100	2.47	0.31	0.03
171	TSC0200040IR1260	C	20	40	90	1260	4.11	0.51	0.06
172	TSC0200040IR941	C	20	40	120	941	5.51	0.69	0.08
173	TSC0200040IR705	C	20	40	150	705	7.35	0.92	0.1
174	TSC0200040IR561	C	20	40	180	561	9.24	1.16	0.13
175	TSA(C)0200040IR472	A & C	20	40	210	472	10.98	1.37	0.15
176	TSC0200050IR3540	C	20	50	30	3540	1.46	0.15	0.02
177	TSC0200050IR1670	C	20	50	60	1670	3.1	0.31	0.04
178	TSC0200050IR1060	C	20	50	90	1060	4.89	0.49	0.07
179	TSC0200050IR747	C	20	50	120	747	6.94	0.69	0.1
180	TSA(C)0200050IR561	A & C	20	50	150	561	9.24	0.92	0.13
181	TSA(C)0200050IR472	A & C	20	50	180	472	10.98	1.10	0.15
182	TSA(C)0200050IR397	A & C	20	50	210	397	13.06	1.31	0.18
183	TSC0200063IR2800	C	20	63	30	2800	1.85	0.15	0.03
184	TSC0200063IR1330	C	20	63	60	1330	3.9	0.31	0.05
185	TSC0200063IR838	C	20	63	90	838	6.19	0.49	0.09
186	TSA(C)0200063IR594	A & C	20	63	120	594	8.73	0.69	0.12
187	TSA(C)0200063IR446	A & C	20	63	150	446	11.62	0.92	0.16
188	TSA(C)0200063IR375	A & C	20	63	180	375	13.82	1.10	0.19
189	TSA(C)0200063IR315	A & C	20	63	210	315	16.46	1.31	0.23
190	TSC0200080IR2100	C	20	80	30	2100	2.47	0.15	0.03
191	TSC0200080IR1060	C	20	80	60	1060	4.89	0.31	0.07
192	TSA(C)0200080IR629	A & C	20	80	90	629	8.24	0.52	0.11
193	TSA(C)0200080IR472	A & C	20	80	120	472	10.98	0.69	0.15
194	TSA(C)0200080IR354	A & C	20	80	150	354	14.64	0.92	0.2
195	TSA(C)0200080IR297	A & C	20	80	180	297	17.45	1.09	0.24
196	TSA								

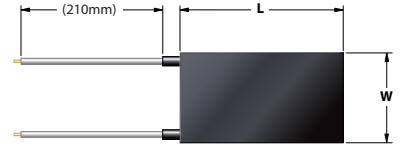


# STANDARD | Rectangular 72V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
213	TSC0250040R1060	C	25	40	90	1060	4.89	0.49	0.07
214	TSC0250040R747	C	25	40	120	747	6.94	0.69	0.1
215	TSA(C)0250040R594	A & C	25	40	150	594	8.73	0.87	0.12
216	TSA(C)0250040R472	A & C	25	40	180	472	10.98	1.10	0.15
217	TSA(C)0250040R397	A & C	25	40	210	397	13.06	1.31	0.18
218	TSC0250050R2970	C	25	50	30	2970	1.75	0.14	0.02
219	TSC0250050R1410	C	25	50	60	1410	3.68	0.29	0.05
220	TSC0250050R838	C	25	50	90	838	6.19	0.50	0.09
221	TSA(C)0250050R629	A & C	25	50	120	629	8.24	0.66	0.11
222	TSA(C)0250050R472	A & C	25	50	150	472	10.98	0.88	0.15
223	TSA(C)0250050R397	A & C	25	50	180	397	13.06	1.04	0.18
224	TSA(C)0250050R334	A & C	25	50	210	334	15.52	1.24	0.22
225	TSC0250063R2350	C	25	63	30	2350	2.21	0.14	0.03
226	TSC0250063R1120	C	25	63	60	1120	4.63	0.29	0.06
227	TSA(C)0250063R666	A & C	25	63	90	666	7.78	0.49	0.11
228	TSA(C)0250063R472	A & C	25	63	120	472	10.98	0.70	0.15
229	TSA(C)0250063R375	A & C	25	63	150	375	13.82	0.88	0.19
230	TSA(C)0250063R315	A & C	25	63	180	315	16.46	1.05	0.23
234	TSA(C)0250063R264	A & C	25	63	210	264	19.64	1.25	0.27
232	TSC0250080R1770	C	25	80	30	1770	2.93	0.15	0.04
233	TSA(C)0250080R888	A & C	25	80	60	888	5.84	0.29	0.08
234	TSA(C)0250080R530	A & C	25	80	90	530	9.78	0.49	0.14
235	TSA(C)0250080R375	A & C	25	80	120	375	13.82	0.69	0.19
236	TSA(C)0250080R297	A & C	25	80	150	297	17.45	0.87	0.24
237	TSA(C)0250080R249	A & C	25	80	180	249	20.82	1.04	0.29
238	TSA(C)0250080R198	A & C	25	80	210	198	26.18	1.31	0.36
239	TSA(C)0250100R1410	A & C	25	100	30	1410	3.68	0.15	0.05
240	TSA(C)0250100R705	A & C	25	100	60	705	7.35	0.29	0.1
241	TSA(C)0250100R421	A & C	25	100	90	421	12.31	0.49	0.17
242	TSA(C)0250100R297	A & C	25	100	120	297	17.45	0.70	0.24
243	TSA(C)0250100R235	A & C	25	100	150	235	22.06	0.88	0.31
244	TSA(C)0250100R198	A & C	25	100	180	198	26.18	1.05	0.36
245	TSA(C)0250100R167	A & C	25	100	210	167	31.04	1.24	0.43
246	TSC0320032R3750	C	32	32	30	3750	1.38	0.13	0.02
247	TSC0320032R1770	C	32	32	60	1770	2.93	0.29	0.04
248	TSC0320032R1120	C	32	32	90	1120	4.63	0.45	0.06
249	TSC0320032R791	C	32	32	120	791	6.55	0.64	0.09
250	TSC0320032R629	C	32	32	150	629	8.24	0.80	0.11
251	TSA(C)0320032R500	A & C	32	32	180	500	10.37	1.01	0.14
252	TSA(C)0320032R421	A & C	32	32	210	421	12.31	1.20	0.17
253	TSC0320040R2970	C	32	40	30	2970	1.75	0.14	0.02
254	TSC0320040R1410	C	32	40	60	1410	3.68	0.29	0.05
255	TSC0320040R888	C	32	40	90	888	5.84	0.46	0.08
256	TSA(C)0320040R629	A & C	32	40	120	629	8.24	0.64	0.11
257	TSA(C)0320040R500	A & C	32	40	150	500	10.37	0.81	0.14
258	TSA(C)0320040R397	A & C	32	40	180	397	13.06	1.02	0.18
259	TSA(C)0320040R334	A & C	32	40	210	334	15.52	1.21	0.22
260	TSC0320050R2490	C	32	50	30	2490	2.08	0.13	0.03
261	TSC0320050R1120	C	32	50	60	1120	4.63	0.29	0.06
262	TSA(C)0320050R705	A & C	32	50	90	705	7.35	0.46	0.1
263	TSA(C)0320050R500	A & C	32	50	120	500	10.37	0.65	0.14
264	TSA(C)0320050R397	A & C	32	50	150	397	13.06	0.82	0.18
265	TSA(C)0320050R334	A & C	32	50	180	334	15.52	0.97	0.22
266	TSA(C)0320050R280	A & C	32	50	210	280	18.51	1.16	0.26
267	TSC0320063R1980	C	32	63	30	1980	2.62	0.13	0.04
268	TSA(C)0320063R888	A & C	32	63	60	888	5.84	0.29	0.08
269	TSA(C)0320063R561	A & C	32	63	90	561	9.24	0.46	0.13
270	TSA(C)0320063R397	A & C	32	63	120	397	13.06	0.65	0.18
271	TSA(C)0320063R315	A & C	32	63	150	315	16.46	0.82	0.23
272	TSA(C)0320063R264	A & C	32	63	180	264	19.64	0.97	0.27
273	TSA(C)0320063R222	A & C	32	63	210	222	23.35	1.16	0.32
274	TSA(C)0320080R1490	A & C	32	80	30	1490	3.48	0.14	0.05
275	TSA(C)0320080R705	A & C	32	80	60	705	7.35	0.29	0.1
276	TSA(C)0320080R446	A & C	32	80	90	446	11.62	0.45	0.16
277	TSA(C)0320080R315	A & C	32	80	120	315	16.46	0.64	0.23
278	TSA(C)0320080R249	A & C	32	80	150	249	20.82	0.81	0.29
279	TSA(C)0320080R198	A & C	32	80	180	198	26.18	1.02	0.36
280	TSA(C)0320080R167	A & C	32	80	210	167	31.04	1.21	0.43
281	TSA(C)0320100R1190	A & C	32	100	30	1190	4.36	0.14	0.06
282	TSA(C)0320100R561	A & C	32	100	60	561	9.24	0.29	0.13
283	TSA(C)0320100R354	A & C	32	100	90	354	14.64	0.46	0.2
284	TSA(C)0320100R249	A & C	32	100	120	249	20.82	0.65	0.29
285	TSA(C)0320100R198	A & C	32	100	150	198	26.18	0.82	0.36

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
286	TSA(C)0320100R167	A & C	32	100	180	167	31.04	0.97	0.43
287	TSA(C)0320100R133	A & C	32	100	210	133	38.98	1.22	0.54
288	TSA(C)0320125R1000	A & C	32	125	30	1000	5.18	0.13	0.07
289	TSA(C)0320125R446	A & C	32	125	60	446	11.62	0.29	0.16
290	TSA(C)0320125R280	A & C	32	125	90	280	18.51	0.46	0.26
291	TSA(C)0320125R198	A & C	32	125	120	198	26.18	0.65	0.36
292	TSA(C)0320125R158	A & C	32	125	150	158	32.81	0.82	0.46
293	TSA(C)0320125R133	A & C	32	125	180	133	38.98	0.97	0.54
294	TSA(C)0320125R112	A & C	32	125	210	112	46.29	1.16	0.64
295	TSC0400040R2490	C	40	40	30	2490	2.08	0.13	0.03
296	TSC0400040R1190	C	40	40	60	1190	4.36	0.27	0.06
297	TSA(C)0400040R747	A & C	40	40	90	747	6.94	0.43	0.1
298	TSA(C)0400040R530	A & C	40	40	120	530	9.78	0.61	0.14
299	TSA(C)0400040R421	A & C	40	40	150	421	12.31	0.77	0.17
300	TSA(C)0400040R334	A & C	40	40	180	334	15.52	0.97	0.22
301	TSA(C)0400040R280	A & C	40	40	210	280	18.51	1.16	0.26
302	TSC0400050R1980	C	40	50	30	1980	2.62	0.13	0.04
303	TSA(C)0400050R941	A & C	40	50	60	941	5.51	0.28	0.08
304	TSA(C)0400050R594	A & C	40	50	90	594	8.73	0.44	0.12
305	TSA(C)0400050R421	A & C	40	50	120	421	12.31	0.62	0.17
306	TSA(C)0400050R334	A & C	40	50	150	334	15.52	0.78	0.22
307	TSA(C)0400050R280	A & C	40	50	180	280	18.51	0.93	0.26
308	TSA(C)0400050R235	A & C	40	50	210	235	22.06	1.10	0.31
309	TSC0400063R1580	C	40	63	30	1580	3.28	0.13	0.05
310	TSA(C)0400063R747	A & C	40	63	60	747	6.94	0.28	0.1
311	TSA(C)0400063R472	A & C	40	63	90	472	10.98	0.44	0.15
312	TSA(C)0400063R334	A & C	40	63	120	334	15.52	0.62	0.22
313	TSA(C)0400063R264	A & C	40	63	150	264	19.64	0.78	0.27
314	TSA(C)0400063R222	A & C	40	63	180	222	23.35	0.93	0.32
315	TSA(C)0400063R187	A & C	40	63	210	187	27.72	1.10	0.39
316	TSA(C)0400080R1260	A & C	40	80	30	1260	4.11	0.13	0.06
317	TSA(C)0400080R594	A & C	40	80	60	594	8.73	0.27	0.12
318	TSA(C)0400080R375	A & C	40	80	90	375	13.82	0.43	0.19
319	TSA(C)0400080R264	A & C	40	80	120	264	19.64	0.61	0.27
320	TSA(C)0400080R210	A & C	40	80	150	210	24.69	0.77	0.34
321	TSA(C)0400080R167	A & C	40	80	180	167	31.04	0.97	0.43
322	TSA(C)0400080R141	A & C	40	80	210	141	36.77	1.15	0.51
323	TSA(C)0400100R1000	A & C	40	100	30	1000	5.18	0.13	0.07
324	TSA(C)0400100R472	A & C	40	100	60	472	10.98	0.27	0.15
325	TSA(C)0400100R297	A & C	40	100	90	297	17.45	0.44	0.24
326	TSA(C)0400100R210	A & C	40	100	120	210	24.69	0.62	0.34
327	TSA(C)0400100R167	A & C	40	100	150	167	31.04	0.78	0.43
328	TSA(C)0400100R133	A & C	40	100	180	133	38.98	0.97	0.54
329	TSA(C)0400100R112	A & C	40	100	210	112	46.29	1.16	0.64
330	TSA(C)0400125R791	A & C	40	125	30	791	6.55	0.13	0.09
331	TSA(C)0400125R375	A & C	40	125	60	375	13.82	0.28	0.19
332	TSA(C)0400125R235	A & C	40	125	90	235	22.06	0.44	0.31
333	TSA(C)0400125R167	A & C	40	125	120	167	31.04	0.62	0.43
334	TSA(C)0400125R133	A & C	40	125	150	133	38.98	0.78	0.54
335	TSA(C)0400125R112	A & C	40</						

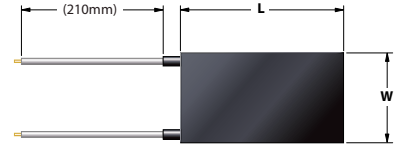


# STANDARD | Rectangular 72V

Ultra-Thin Flexible Heaters

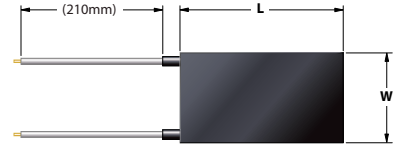
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
359	TSA(C)0500080IR500	A & C	50	80	60	500	10.37	0.26	0.14	432	TSA(C)0630200IR59.4	A & C	63	200	150	59.4	87.27	0.69	1.21
360	TSA(C)0500080IR315	A & C	50	80	90	315	16.46	0.41	0.23	433	TSA(C)0630200IR50	A & C	63	200	180	50	103.68	0.82	1.44
361	TSA(C)0500080IR235	A & C	50	80	120	235	22.06	0.55	0.31	434	TSA(C)0630200IR39.7	A & C	63	200	210	39.7	130.58	1.04	1.81
362	TSA(C)0500080IR177	A & C	50	80	150	177	29.29	0.73	0.41	435	TSA(C)0630250IR280	A & C	63	250	30	280	18.51	0.12	0.26
363	TSA(C)0500080IR149	A & C	50	80	180	149	34.79	0.87	0.48	436	TSA(C)0630250IR141	A & C	63	250	60	141	36.77	0.23	0.51
364	TSA(C)0500080IR119	A & C	50	80	210	119	43.56	1.09	0.61	437	TSA(C)0630250IR88.8	A & C	63	250	90	88.8	58.38	0.37	0.81
365	TSA(C)0500100IR838	A & C	50	100	30	838	6.19	0.12	0.09	438	TSA(C)0630250IR62.9	A & C	63	250	120	62.9	82.42	0.52	1.14
366	TSA(C)0500100IR397	A & C	50	100	60	397	13.06	0.26	0.18	439	TSA(C)0630250IR47.2	A & C	63	250	150	47.2	109.83	0.70	1.53
367	TSA(C)0500100IR264	A & C	50	100	90	264	19.64	0.39	0.27	440	TSA(C)0630250IR39.7	A & C	63	250	180	39.7	130.58	0.83	1.81
368	TSA(C)0500100IR187	A & C	50	100	120	187	27.72	0.55	0.39	441	TSA(C)0630250IR33.4	A & C	63	250	210	33.4	155.21	0.99	2.16
369	TSA(C)0500100IR141	A & C	50	100	150	141	36.77	0.74	0.51	442	TSA(C)0630250IR74.7	A & C	63	250	30	74.7	6.94	0.11	0.1
370	TSA(C)0500100IR119	A & C	50	100	180	119	43.56	0.87	0.61	443	TSA(C)0800080IR375	A & C	80	80	60	375	13.82	0.22	0.19
371	TSA(C)0500100IR100	A & C	50	100	210	100	51.84	1.04	0.72	444	TSA(C)0800080IR235	A & C	80	80	90	235	22.06	0.34	0.31
372	TSA(C)0500125IR666	A & C	50	125	30	666	7.78	0.12	0.11	445	TSA(C)0800080IR167	A & C	80	80	120	167	31.04	0.49	0.43
373	TSA(C)0500125IR315	A & C	50	125	60	315	16.46	0.26	0.23	446	TSA(C)0800080IR126	A & C	80	80	150	126	41.14	0.64	0.57
374	TSA(C)0500125IR210	A & C	50	125	90	210	24.69	0.40	0.34	447	TSA(C)0800080IR106	A & C	80	80	180	106	48.91	0.76	0.68
375	TSA(C)0500125IR149	A & C	50	125	120	149	34.79	0.56	0.48	448	TSA(C)0800080IR88.8	A & C	80	80	210	88.8	58.38	0.91	0.81
376	TSA(C)0500125IR112	A & C	50	125	150	112	46.29	0.74	0.64	449	TSA(C)0800100IR629	A & C	80	100	30	629	8.24	0.10	0.11
377	TSA(C)0500125IR94.1	A & C	50	125	180	94.1	55.09	0.88	0.77	450	TSA(C)0800100IR297	A & C	80	100	60	297	17.45	0.22	0.24
378	TSA(C)0500125IR79.1	A & C	50	125	210	79.1	65.54	1.05	0.91	451	TSA(C)0800100IR187	A & C	80	100	90	187	27.72	0.35	0.39
379	TSA(C)0500160IR530	A & C	50	160	30	530	9.78	0.12	0.14	452	TSA(C)0800100IR133	A & C	80	100	120	133	38.98	0.49	0.54
380	TSA(C)0500160IR249	A & C	50	160	60	249	20.82	0.26	0.29	453	TSA(C)0800100IR100	A & C	80	100	150	100	51.84	0.65	0.72
381	TSA(C)0500160IR158	A & C	50	160	90	158	32.81	0.41	0.46	454	TSA(C)0800100IR83.8	A & C	80	100	180	83.8	61.86	0.77	0.86
382	TSA(C)0500160IR112	A & C	50	160	120	112	46.29	0.58	0.64	455	TSA(C)0800125IR70.5	A & C	80	100	210	70.5	73.53	0.92	1.02
383	TSA(C)0500160IR88.8	A & C	50	160	150	88.8	58.38	0.73	0.81	456	TSA(C)0800125IR500	A & C	80	125	30	500	10.37	0.10	0.14
384	TSA(C)0500160IR74.7	A & C	50	160	180	74.7	69.4	0.87	0.96	457	TSA(C)0800125IR235	A & C	80	125	60	235	22.06	0.22	0.31
385	TSA(C)0500160IR59.4	A & C	50	160	210	59.4	87.27	1.09	1.21	458	TSA(C)0800125IR149	A & C	80	125	90	149	34.79	0.35	0.48
386	TSA(C)0500200IR421	A & C	50	200	30	421	12.31	0.12	0.17	459	TSA(C)0800125IR106	A & C	80	125	120	106	48.91	0.49	0.68
387	TSA(C)0500200IR198	A & C	50	200	60	198	26.18	0.26	0.36	460	TSA(C)0800125IR83.8	A & C	80	125	150	83.8	61.86	0.62	0.86
388	TSA(C)0500200IR126	A & C	50	200	90	126	41.14	0.41	0.57	461	TSA(C)0800125IR66.6	A & C	80	125	180	66.6	77.84	0.78	1.08
389	TSA(C)0500200IR94.1	A & C	50	200	120	94.1	55.09	0.55	0.77	462	TSA(C)0800125IR56.1	A & C	80	125	210	56.1	92.41	0.92	1.28
390	TSA(C)0500200IR70.5	A & C	50	200	150	70.5	73.53	0.74	1.02	463	TSA(C)0800160IR375	A & C	80	160	30	375	13.82	0.11	0.19
391	TSA(C)0500200IR59.4	A & C	50	200	180	59.4	87.27	0.87	1.21	464	TSA(C)0800160IR187	A & C	80	160	60	187	27.72	0.22	0.39
392	TSA(C)0500200IR50	A & C	50	200	210	50	103.68	1.04	1.44	465	TSA(C)0800160IR119	A & C	80	160	90	119	43.56	0.34	0.61
393	TSA(C)0630063IR1120	A & C	63	63	30	1120	4.63	0.12	0.06	466	TSA(C)0800160IR83.8	A & C	80	160	120	83.8	61.86	0.48	0.86
394	TSA(C)0630063IR561	A & C	63	63	60	561	9.24	0.23	0.13	467	TSA(C)0800160IR62.9	A & C	80	160	150	62.9	82.42	0.64	1.14
395	TSA(C)0630063IR354	A & C	63	63	90	354	14.64	0.37	0.2	468	TSA(C)0800160IR53	A & C	80	160	180	53	97.81	0.76	1.36
396	TSA(C)0630063IR249	A & C	63	63	120	249	20.82	0.52	0.29	469	TSA(C)0800160IR44.6	A & C	80	160	210	44.6	116.23	0.91	1.61
397	TSA(C)0630063IR187	A & C	63	63	150	187	27.72	0.70	0.39	470	TSA(C)0800200IR297	A & C	80	200	30	297	17.45	0.11	0.24
398	TSA(C)0630063IR158	A & C	63	63	180	158	32.81	0.83	0.46	471	TSA(C)0800200IR149	A & C	80	200	60	149	34.79	0.22	0.48
399	TSA(C)0630063IR133	A & C	63	63	210	133	38.98	0.98	0.54	472	TSA(C)0800200IR94.1	A & C	80	200	90	94.1	55.09	0.34	0.77
400	TSA(C)0630080IR888	A & C	63	80	30	888	5.84	0.12	0.08	473	TSA(C)0800200IR66.6	A & C	80	200	120	66.6	77.84	0.49	1.08
401	TSA(C)0630080IR421	A & C	63	80	60	421	12.31	0.24	0.17	474	TSA(C)0800200IR50	A & C	80	200	150	50	103.68	0.65	1.44
402	TSA(C)0630080IR280	A & C	63	80	90	280	18.51	0.37	0.26	475	TSA(C)0800200IR42.1	A & C	80	200	180	42.1	123.14	0.77	1.71
403	TSA(C)0630080IR198	A & C	63	80	120	198	26.18	0.52	0.36	476	TSA(C)0800200IR35.4	A & C	80	200	210	35.4	146.44	0.92	2.03
404	TSA(C)0630080IR149	A & C	63	80	150	149	34.79	0.69	0.48	477	TSA(C)0800250IR249	A & C	80	250	30	249	20.82	0.10	0.29
405	TSA(C)0630080IR119	A & C	63	80	180	119	43.56	0.86	0.61	478	TSA(C)0800250IR119	A & C	80	250	60	119	43.56	0.22	0.61
406	TSA(C)0630080IR100	A & C	63	80	210	100	51.84	1.03	0.72	479	TSA(C)0800250IR74.7	A & C	80	250	90	74.7	69.4	0.35	0.96
407	TSA(C)0630100IR705	A & C	63	100	30	705	7.35	0.12	0.1	480	TSA(C)0800250IR53	A & C	80	250	120	53	97.81	0.49	1.36
408	TSA(C)0630100IR354	A & C	63	100	60	354	14.64	0.23	0.2	481	TSA(C)0800250IR39.7	A & C	80	250	150	39.7	130.58	0.65	1.81
409	TSA(C)0630100IR222	A & C	63	100	90	222	23.35	0.37	0.32	482	TSA(C)0800250IR33.4	A & C	80	250	180	33.4	155.21	0.78	2.16
410	TSA(C)0630100IR158	A & C	63	100	120	158	32.81	0.52	0.46	483	TSA(C)0800250IR28	A & C	80	250	210	28	185.14	0.93	2.57
411	TSA(C)0630100IR119	A & C	63	100	150	119	43.56	0.69	0.61	484	TSA(C)0800300IR198	A & C	80	300	30	198	26.18	0.11	0.36
412	TSA(C)0630100IR100	A & C	63	100	180	100	51.84	0.82	0.72	485	TSA(C)0800300IR100	A & C	80	300	60	100	51.84	0.22	0.72
413	TSA(C)0630100IR83.8	A & C	63	100	210	83.8	61.86	0.98	0.86	486	TSA(C)0800300IR62.9	A & C	80	300	90	62.9	82.42	0.34	1.14
414	TSA(C)0630125IR561	A & C	63	125	30	561	9.24	0.12	0.13	487	TSA(C)0800300IR44.6	A & C	80	300	120	44.6	116.23	0.48	1.61
415	TSA(C)0630125IR280	A & C	63	125	60	280	18.51	0.24	0.26	488	TSA(C)0800300IR33.4	A & C	80	300	150	33.4	155.21	0.65	2.16
416	TSA(C)0630125IR177	A & C	63	125	90	177	29.29	0.37	0.41	489	TSA(C)0800300IR28	A & C	80	300	180	28	185.14	0.77	2.57
417	TSA(C)0630125IR126	A & C	63	125	120	126	41.14	0.52	0.57	490	TSA(C)0800300IR23.5	A & C	80	300	210	23.5	220.6	0.92	3.06
418	TSA(C)0630125IR94.1	A & C	63	125	150	94.1	55.09	0.70	0.77	491	TSA(C)1000100IR561	A & C	100	100	30	561	9.24	0.09	0.13
419	TSA(C)0630125IR79.1	A & C	63	125	180	79.1	65.54	0.83	0.91	492	TSA(C)1000100IR280	A & C	100	100	60	280	18.51	0.19	0.26
420	TSA(C)0630125IR66.6	A & C	63	125	210	66.6	77.84	0											

# STANDARD | Rectangular 72V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
505	TSA(C)1000160IR354	A & C	100	160	30	354	14.64	0.09	0.2
506	TSA(C)1000160IR177	A & C	100	160	60	177	29.29	0.18	0.41
507	TSA(C)1000160IR106	A & C	100	160	90	106	48.91	0.31	0.68
508	TSA(C)1000160IR74.7	A & C	100	160	120	74.7	69.4	0.43	0.96
509	TSA(C)1000160IR56.1	A & C	100	160	150	56.1	92.41	0.58	1.28
510	TSA(C)1000160IR47.2	A & C	100	160	180	47.2	109.83	0.69	1.53
511	TSA(C)1000160IR37.5	A & C	100	160	210	37.5	138.24	0.86	1.92
512	TSA(C)1000200IR280	A & C	100	200	30	280	18.51	0.09	0.26
513	TSA(C)1000200IR141	A & C	100	200	60	141	36.77	0.18	0.51
514	TSA(C)1000200IR88.8	A & C	100	200	90	88.8	58.38	0.29	0.81
515	TSA(C)1000200IR59.4	A & C	100	200	120	59.4	87.27	0.44	1.21
516	TSA(C)1000200IR44.6	A & C	100	200	150	44.6	116.23	0.58	1.61
517	TSA(C)1000200IR37.5	A & C	100	200	180	37.5	138.24	0.69	1.92
518	TSA(C)1000200IR31.5	A & C	100	200	210	31.5	164.57	0.82	2.29
519	TSA(C)1000250IR222	A & C	100	250	30	222	23.35	0.09	0.32
520	TSA(C)1000250IR112	A & C	100	250	60	112	46.29	0.19	0.64
521	TSA(C)1000250IR70.5	A & C	100	250	90	70.5	73.53	0.29	1.02
522	TSA(C)1000250IR47.2	A & C	100	250	120	47.2	109.83	0.44	1.53
523	TSA(C)1000250IR37.5	A & C	100	250	150	37.5	138.24	0.55	1.92
524	TSA(C)1000250IR29.7	A & C	100	250	180	29.7	174.55	0.70	2.42
525	TSA(C)1000250IR24.9	A & C	100	250	210	24.9	208.19	0.83	2.89
526	TSA(C)1000300IR187	A & C	100	300	30	187	27.72	0.09	0.39
527	TSA(C)1000300IR94.1	A & C	100	300	60	94.1	55.09	0.18	0.77
528	TSA(C)1000300IR59.4	A & C	100	300	90	59.4	87.27	0.29	1.21
529	TSA(C)1000300IR39.7	A & C	100	300	120	39.7	130.58	0.44	1.81
530	TSA(C)1000300IR29.7	A & C	100	300	150	29.7	174.55	0.58	2.42
531	TSA(C)1000300IR24.9	A & C	100	300	180	24.9	208.19	0.69	2.89
532	TSA(C)1000300IR21	A & C	100	300	210	21	246.86	0.82	3.43
533	TSA(C)1250125IR375	A & C	125	125	30	375	13.82	0.09	0.19
534	TSA(C)1250125IR198	A & C	125	125	60	198	26.18	0.17	0.36
535	TSA(C)1250125IR119	A & C	125	125	90	119	43.56	0.28	0.61
536	TSA(C)1250125IR83.8	A & C	125	125	120	83.8	61.86	0.40	0.86
537	TSA(C)1250125IR62.9	A & C	125	125	150	62.9	82.42	0.53	1.14
538	TSA(C)1250125IR53	A & C	125	125	180	53	97.81	0.63	1.36
539	TSA(C)1250125IR42.1	A & C	125	125	210	42.1	123.14	0.79	1.71
540	TSA(C)1250160IR297	A & C	125	160	30	297	17.45	0.09	0.24
541	TSA(C)1250160IR149	A & C	125	160	60	149	34.79	0.17	0.48
542	TSA(C)1250160IR94.1	A & C	125	160	90	94.1	55.09	0.28	0.77
543	TSA(C)1250160IR62.9	A & C	125	160	120	62.9	82.42	0.41	1.14
544	TSA(C)1250160IR50	A & C	125	160	150	50	103.68	0.52	1.44
545	TSA(C)1250160IR39.7	A & C	125	160	180	39.7	130.58	0.65	1.81
546	TSA(C)1250160IR33.4	A & C	125	160	210	33.4	155.21	0.78	2.16
547	TSA(C)1250200IR235	A & C	125	200	30	235	22.06	0.09	0.31
548	TSA(C)1250200IR119	A & C	125	200	60	119	43.56	0.17	0.61
549	TSA(C)1250200IR74.7	A & C	125	200	90	74.7	69.4	0.28	0.96
550	TSA(C)1250200IR50	A & C	125	200	120	50	103.68	0.41	1.44
551	TSA(C)1250200IR39.7	A & C	125	200	150	39.7	130.58	0.52	1.81
552	TSA(C)1250200IR31.5	A & C	125	200	180	31.5	164.57	0.66	2.29
553	TSA(C)1250200IR26.4	A & C	125	200	210	26.4	196.36	0.79	2.73
554	TSA(C)1250250IR198	A & C	125	250	30	198	26.18	0.08	0.36
555	TSA(C)1250250IR94.1	A & C	125	250	60	94.1	55.09	0.18	0.77
556	TSA(C)1250250IR59.4	A & C	125	250	90	59.4	87.27	0.28	1.21
557	TSA(C)1250250IR42.1	A & C	125	250	120	42.1	123.14	0.39	1.71
558	TSA(C)1250250IR31.5	A & C	125	250	150	31.5	164.57	0.53	2.29
559	TSA(C)1250250IR26.4	A & C	125	250	180	26.4	196.36	0.63	2.73
560	TSA(C)1250250IR21	A & C	125	250	210	21	246.86	0.79	3.43
561	TSA(C)1250300IR158	A & C	125	300	30	158	32.81	0.09	0.46
562	TSA(C)1250300IR79.1	A & C	125	300	60	79.1	65.54	0.17	0.91
563	TSA(C)1250300IR50	A & C	125	300	90	50	103.68	0.28	1.44
564	TSA(C)1250300IR33.4	A & C	125	300	120	33.4	155.21	0.41	2.16
565	TSA(C)1250300IR26.4	A & C	125	300	150	26.4	196.36	0.52	2.73
566	TSA(C)1250300IR21	A & C	125	300	180	21	246.86	0.66	3.43
567	TSA(C)1250300IR17.7	A & C	125	300	210	17.7	292.88	0.78	4.07
568	TSA(C)1600160IR264	A & C	160	160	30	264	19.64	0.08	0.27
569	TSA(C)1600160IR133	A & C	160	160	60	133	38.98	0.15	0.54
570	TSA(C)1600160IR83.8	A & C	160	160	90	83.8	61.86	0.24	0.86
571	TSA(C)1600160IR56.1	A & C	160	160	120	56.1	92.41	0.36	1.28

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
572	TSA(C)1600160IR42.1	A & C	160	160	150	42.1	123.14	0.48	1.71
573	TSA(C)1600160IR35.4	A & C	160	160	180	35.4	146.44	0.57	2.03
574	TSA(C)1600160IR29.7	A & C	160	160	210	29.7	174.55	0.68	2.42
575	TSA(C)1600200IR210	A & C	160	200	30	210	24.69	0.08	0.34
576	TSA(C)1600200IR106	A & C	160	200	60	106	48.91	0.15	0.68
577	TSA(C)1600200IR66.6	A & C	160	200	90	66.6	77.84	0.24	1.08
578	TSA(C)1600200IR44.6	A & C	160	200	120	44.6	116.23	0.36	1.61
579	TSA(C)1600200IR35.4	A & C	160	200	150	35.4	146.44	0.46	2.03
580	TSA(C)1600200IR28	A & C	160	200	180	28	185.14	0.58	2.57
581	TSA(C)1600200IR23.5	A & C	160	200	210	23.5	220.6	0.69	3.06
582	TSA(C)1600250IR167	A & C	160	250	30	167	31.04	0.08	0.43
583	TSA(C)1600250IR83.8	A & C	160	250	60	83.8	61.86	0.15	0.86
584	TSA(C)1600250IR53	A & C	160	250	90	53	97.81	0.24	1.36
585	TSA(C)1600250IR35.4	A & C	160	250	120	35.4	146.44	0.37	2.03
586	TSA(C)1600250IR28	A & C	160	250	150	28	185.14	0.46	2.57
587	TSA(C)1600250IR22.2	A & C	160	250	180	22.2	233.51	0.58	3.24
588	TSA(C)1600250IR18.7	A & C	160	250	210	18.7	277.22	0.69	3.85
589	TSA(C)1600300IR141	A & C	160	300	30	141	36.77	0.08	0.51
590	TSA(C)1600300IR70.5	A & C	160	300	60	70.5	73.53	0.15	1.02
591	TSA(C)1600300IR44.6	A & C	160	300	90	44.6	116.23	0.24	1.61
592	TSA(C)1600300IR29.7	A & C	160	300	120	29.7	174.55	0.36	2.42
593	TSA(C)1600300IR23.5	A & C	160	300	150	23.5	220.6	0.46	3.06
594	TSA(C)1600300IR18.7	A & C	160	300	180	18.7	277.22	0.58	3.85
595	TSA(C)2000250IR15.8	A & C	160	300	210	15.8	328.1	0.68	4.56
596	TSA(C)2000200IR187	A & C	200	200	30	187	27.72	0.07	0.39
597	TSA(C)2000200IR88.8	A & C	200	200	60	88.8	58.38	0.15	0.81
598	TSA(C)2000200IR56.1	A & C	200	200	90	56.1	92.41	0.23	1.28
599	TSA(C)2000200IR39.7	A & C	200	200	120	39.7	130.58	0.33	1.81
600	TSA(C)2000200IR29.7	A & C	200	200	150	29.7	174.55	0.44	2.42
601	TSA(C)2000200IR24.9	A & C	200	200	180	24.9	208.19	0.52	2.89
602	TSA(C)2000200IR19.8	A & C	200	200	210	19.8	261.82	0.65	3.64
603	TSA(C)2000250IR149	A & C	200	250	30	149	34.79	0.07	0.48
604	TSA(C)2000250IR74.7	A & C	200	250	60	74.7	69.4	0.14	0.96
605	TSA(C)2000250IR44.6	A & C	200	250	90	44.6	116.23	0.23	1.61
606	TSA(C)2000250IR31.5	A & C	200	250	120	31.5	164.57	0.33	2.29
607	TSA(C)2000250IR23.5	A & C	200	250	150	23.5	220.6	0.44	3.06
608	TSA(C)2000250IR19.8	A & C	200	250	180	19.8	261.82	0.52	3.64
609	TSA(C)2000250IR15.8	A & C	200	250	210	15.8	328.1	0.66	4.56
610	TSA(C)2000300IR119	A & C	200	300	30	119	43.56	0.07	0.61
611	TSA(C)2000300IR59.4	A & C	200	300	60	59.4	87.27	0.15	1.21
612	TSA(C)2000300IR37.5	A & C	200	300	90	37.5	138.24	0.23	1.92
613	TSA(C)2000300IR26.4	A & C	200	300	120	26.4	196.36	0.33	2.73
614	TSA(C)2000300IR19.8	A & C	200	300	150	19.8	261.82	0.44	3.64
615	TSA(C)2000300IR16.7	A & C	200	300	180	16.7	310.42	0.52	4.31
616	TSA(C)2000300IR13.3	A & C	200	300	210	13.3	389.77	0.65	5.41
617	TSA(C)2500250IR126	A & C	250	250	30	126	41.14	0.07	0.57
618	TSA(C)2500250IR62.9	A & C	250	250	60	62.9	82.42	0.13	1.14
619	TSA(C)2500250IR39.7	A & C	250	250	90	39.7	130.58	0.21	1.81
620	TSA(C)2500250IR26.4	A & C	250	250	120	26.4	196.36	0.31	2.73
621	TSA(C)2500250IR21	A & C	250	250	150	21	246.86	0.39	3.43
622	T								



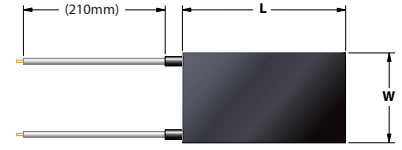
# STANDARD | Rectangular 100V

Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010AR39700	C	10	10	30	39700	0.25	0.25	0	74	TSC0130025AR2970	C	13	25	120	2970	3.37	1.04	0.03
2	TSC0100010AR18700	C	10	10	60	18700	0.53	0.53	0.01	75	TSC0130025AR2220	C	13	25	150	2220	4.5	1.38	0.05
3	TSC0100010AR11900	C	10	10	90	11900	0.84	0.84	0.01	76	TSC0130025AR1770	C	13	25	180	1770	5.65	1.74	0.06
4	TSC0100010AR8380	C	10	10	120	8380	1.19	1.19	0.01	77	TSC0130025AR1490	C	13	25	210	1490	6.71	2.06	0.07
5	TSC0100010AR6290	C	10	10	150	6290	1.59	1.59	0.02	78	TSC0130032AR10600	C	13	32	30	10600	0.94	0.23	0.01
6	TSC0100010AR5000	C	10	10	180	5000	2	2.00	0.02	79	TSC0130032AR5000	C	13	32	60	5000	2	0.48	0.02
7	TSC0100010AR4210	C	10	10	210	4210	2.38	2.38	0.02	80	TSC0130032AR3150	C	13	32	90	3150	3.17	0.76	0.03
8	TSC0100013AR29700	C	10	13	30	29700	0.34	0.26	0	81	TSC0130032AR2350	C	13	32	120	2350	4.26	1.02	0.04
9	TSC0100013AR14100	C	10	13	60	14100	0.71	0.55	0.01	82	TSC0130032AR1770	C	13	32	150	1770	5.65	1.36	0.06
10	TSC0100013AR8880	C	10	13	90	8880	1.13	0.87	0.01	83	TSC0130032AR1410	C	13	32	180	1410	7.09	1.70	0.07
11	TSC0100013AR6290	C	10	13	120	6290	1.59	1.22	0.02	84	TSC0130032AR1120	C	13	32	210	1120	8.93	2.15	0.09
12	TSC0100013AR4720	C	10	13	150	4720	2.12	1.63	0.02	85	TSC0130040AR8380	C	13	40	30	8380	1.19	0.23	0.01
13	TSC0100013AR3750	C	10	13	180	3750	2.67	2.05	0.03	86	TSC0130040AR3970	C	13	40	60	3970	2.52	0.48	0.03
14	TSC0100013AR3150	C	10	13	210	3150	3.17	2.44	0.03	87	TSC0130040AR2490	C	13	40	90	2490	4.02	0.77	0.04
15	TSC0100016AR24900	C	10	16	30	24900	0.4	0.25	0	88	TSC0130040AR1870	C	13	40	120	1870	5.35	1.03	0.05
16	TSC0100016AR11200	C	10	16	60	11200	0.89	0.56	0.01	89	TSC0130040AR1410	C	13	40	150	1410	7.09	1.36	0.07
17	TSC0100016AR7470	C	10	16	90	7470	1.34	0.84	0.01	90	TSC0130040AR1120	C	13	40	180	1120	8.93	1.72	0.09
18	TSC0100016AR5300	C	10	16	120	5300	1.89	1.18	0.02	91	TSC0130040AR888	C	13	40	210	888	11.26	2.17	0.11
19	TSC0100016AR3970	C	10	16	150	3970	2.52	1.58	0.03	92	TSC0130050AR6660	C	13	50	30	6660	1.5	0.23	0.02
20	TSC0100016AR3150	C	10	16	180	3150	3.17	1.98	0.03	93	TSC0130050AR3150	C	13	50	60	3150	3.17	0.49	0.03
21	TSC0100016AR2640	C	10	16	210	2640	3.79	2.37	0.04	94	TSC0130050AR2100	C	13	50	90	2100	4.76	0.73	0.05
22	TSC0100020AR19800	C	10	20	30	19800	0.51	0.26	0.01	95	TSC0130050AR1490	C	13	50	120	1490	6.71	1.03	0.07
23	TSC0100020AR9410	C	10	20	60	9410	1.06	0.53	0.01	96	TSC0130050AR1120	C	13	50	150	1120	8.93	1.37	0.09
24	TSC0100020AR5940	C	10	20	90	5940	1.68	0.84	0.02	97	TSC0130050AR888	C	13	50	180	888	11.26	1.73	0.11
25	TSC0100020AR4210	C	10	20	120	4210	2.38	1.19	0.02	98	TSC0130050AR747	C	13	50	210	747	13.39	2.06	0.13
26	TSC0100020AR3150	C	10	20	150	3150	3.17	1.59	0.03	99	TSC0160016AR19800	C	16	16	30	19800	0.51	0.20	0.01
27	TSC0100020AR2490	C	10	20	180	2490	4.02	2.01	0.04	100	TSC0160016AR9410	C	16	16	60	9410	1.06	0.41	0.01
28	TSC0100020AR2100	C	10	20	210	2100	4.76	2.38	0.05	101	TSC0160016AR5940	C	16	16	90	5940	1.68	0.66	0.02
29	TSC0100025AR15800	C	10	25	30	15800	0.63	0.25	0.01	102	TSC0160016AR4460	C	16	16	120	4460	2.24	0.88	0.02
30	TSC0100025AR7470	C	10	25	60	7470	1.34	0.54	0.01	103	TSC0160016AR3340	C	16	16	150	3340	2.99	1.17	0.03
31	TSC0100025AR4720	C	10	25	90	4720	2.12	0.85	0.02	104	TSC0160016AR2640	C	16	16	180	2640	3.79	1.48	0.04
32	TSC0100025AR3340	C	10	25	120	3340	2.99	1.20	0.03	105	TSC0160016AR2220	C	16	16	210	2220	4.5	1.76	0.05
33	TSC0100025AR2490	C	10	25	150	2490	4.02	1.61	0.04	106	TSC0160020AR15800	C	16	20	30	15800	0.63	0.20	0.01
34	TSC0100025AR1980	C	10	25	180	1980	5.05	2.02	0.05	107	TSC0160020AR7910	C	16	20	60	7910	1.26	0.39	0.01
35	TSC0100025AR1670	C	10	25	210	1670	5.99	2.40	0.06	108	TSC0160020AR5000	C	16	20	90	5000	2	0.63	0.02
36	TSC0100032AR11900	C	10	32	30	11900	0.84	0.26	0.01	109	TSC0160020AR3540	C	16	20	120	3540	2.82	0.88	0.03
37	TSC0100032AR5610	C	10	32	60	5610	1.78	0.56	0.02	110	TSC0160020AR2640	C	16	20	150	2640	3.79	1.18	0.04
38	TSC0100032AR3540	C	10	32	90	3540	2.82	0.88	0.03	111	TSC0160020AR2100	C	16	20	180	2100	4.76	1.49	0.05
39	TSC0100032AR2640	C	10	32	120	2640	3.79	1.18	0.04	112	TSC0160020AR1770	C	16	20	210	1770	5.65	1.77	0.06
40	TSC0100032AR1980	C	10	32	150	1980	5.05	1.58	0.05	113	TSC0160025AR13300	C	16	25	30	13300	0.75	0.19	0.01
41	TSC0100032AR1580	C	10	32	180	1580	6.33	1.98	0.06	114	TSC0160025AR6290	C	16	25	60	6290	1.59	0.40	0.02
42	TSC0100032AR1260	C	10	32	210	1260	7.94	2.48	0.08	115	TSC0160025AR3970	C	16	25	90	3970	2.52	0.63	0.03
43	TSC0100040AR10000	C	10	40	30	10000	1	0.25	0.01	116	TSC0160025AR2800	C	16	25	120	2800	3.57	0.89	0.04
44	TSC0100040AR4460	C	10	40	60	4460	2.24	0.56	0.02	117	TSC0160025AR2100	C	16	25	150	2100	4.76	1.19	0.05
45	TSC0100040AR2970	C	10	40	90	2970	3.37	0.84	0.03	118	TSC0160025AR1670	C	16	25	180	1670	5.99	1.50	0.06
46	TSC0100040AR2100	C	10	40	120	2100	4.76	1.19	0.05	119	TSC0160025AR1410	C	16	25	210	1410	7.09	1.77	0.07
47	TSC0100040AR1580	C	10	40	150	1580	6.33	1.58	0.06	120	TSC0160032AR10000	C	16	32	30	10000	1	0.20	0.01
48	TSC0100040AR1260	C	10	40	180	1260	7.94	1.99	0.08	121	TSC0160032AR4720	C	16	32	60	4720	2.12	0.41	0.02
49	TSC0100040AR1000	C	10	40	210	1000	10	2.50	0.1	122	TSC0160032AR2970	C	16	32	90	2970	3.37	0.66	0.03
50	TSC0130013AR26400	C	13	13	30	26400	0.38	0.22	0	123	TSC0160032AR2220	C	16	32	120	2220	4.5	0.88	0.05
51	TSC0130013AR12600	C	13	13	60	12600	0.79	0.47	0.01	124	TSC0160032AR1670	C	16	32	150	1670	5.99	1.17	0.06
52	TSC0130013AR7910	C	13	13	90	7910	1.26	0.75	0.01	125	TSC0160032AR1330	C	16	32	180	1330	7.52	1.47	0.08
53	TSC0130013AR5610	C	13	13	120	5610	1.78	1.05	0.02	126	TSC0160032AR1120	C	16	32	210	1120	8.93	1.74	0.09
54	TSC0130013AR4210	C	13	13	150	4210	2.38	1.41	0.02	127	TSC0160040AR7910	C	16	40	30	7910	1.26	0.20	0.01
55	TSC0130013AR3340	C	13	13	180	3340	2.99	1.77	0.03	128	TSC0160040AR3750	C	16	40	60	3750	2.67	0.42	0.03
56	TSC0130013AR2800	C	13	13	210	2800	3.57	2.11	0.04	129	TSC0160040AR2490	C	16	40	90	2490	4.02	0.63	0.04
57	TSC0130016AR22200	C	13	16	30	22200	0.45	0.22	0	130	TSC0160040AR1770	C	16	40	120	1770	5.65	0.88	0.06
58	TSC0130016AR10000	C	13	16	60	10000	1	0.48	0.01	131	TSC0160040AR1330	C	16	40	150	1330	7.52	1.18	0.08
59	TSC0130016AR6290	C	13	16	90	6290	1.59	0.76	0.02	132	TSC0160040AR1060	C	16	40	180	1060	9.43	1.47	0.09
60	TSC0130016AR4460	C	13	16	120	4460	2.24	1.08	0.02	133	TSC0160040AR888	C	16	40	210	888	11.26	1.76	0.11
61	TSC0130016AR3540	C	13	16	150	3540	2.82	1.36	0.03	134	TSC0160050AR6660	C	16	50	30	6660	1.5	0.19	0.02
62	TSC0130016AR2800	C	13	16	180	2800	3.57	1.72	0.04	135	TSC0160050AR3150	C	16	50	60	3150	3.17	0.40	0.03
63	TSC0130016AR2350	C	13	16	210	2350	4.26	2.05	0.04	136	TSC0160050AR1980	C	16	50	90	1980	5.05	0.63	0.05
64	TSC0130020AR16700	C	13	20	30	16700	0.6	0.23	0.01	137	TSC0160050AR1410	C	16	50	120	1410	7.09	0.89	0.07
65	TSC0130020AR7910	C	13	20	60	7910	1.26	0.48	0.01	138	TSC0160050AR1060	C	16	50	150	1060	9.43	1.18	0.09
66	TSC0130020AR5000	C	13	20	90	5000	2	0.77	0.02	139	TSC0160050AR838	C	16	50	180	838	11.93	1.49	0.12
67	TSC0130020AR3750	C	13	20	120	3750	2.												

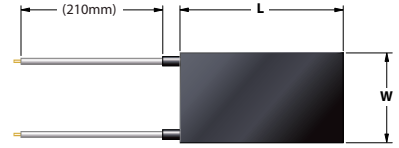


# STANDARD | Rectangular 100V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)0160063AR561	A & C	16	63	210	561	17.83	1.77	0.18
148	TSC0200020AR16700	C	20	20	30	16700	0.6	0.15	0.01
149	TSC0200020AR7910	C	20	20	60	7910	1.26	0.32	0.01
150	TSC0200020AR5000	C	20	20	90	5000	2	0.50	0.02
151	TSC0200020AR3540	C	20	20	120	3540	2.82	0.71	0.03
152	TSC0200020AR2800	C	20	20	150	2800	3.57	0.89	0.04
153	TSC0200020AR2220	C	20	20	180	2220	4.5	1.13	0.05
154	TSC0200020AR1870	C	20	20	210	1870	5.35	1.34	0.05
155	TSC0200025AR13300	C	20	25	30	13300	0.75	0.15	0.01
156	TSC0200025AR6290	C	20	25	60	6290	1.59	0.32	0.02
157	TSC0200025AR3970	C	20	25	90	3970	2.52	0.50	0.03
158	TSC0200025AR2800	C	20	25	120	2800	3.57	0.71	0.04
159	TSC0200025AR2220	C	20	25	150	2220	4.5	0.90	0.05
160	TSC0200025AR1770	C	20	25	180	1770	5.65	1.13	0.06
161	TSC0200025AR1490	C	20	25	210	1490	6.71	1.34	0.07
162	TSC0200032AR10600	C	20	32	30	10600	0.94	0.15	0.01
163	TSC0200032AR5000	C	20	32	60	5000	2	0.31	0.02
164	TSC0200032AR3150	C	20	32	90	3150	3.17	0.50	0.03
165	TSC0200032AR2220	C	20	32	120	2220	4.5	0.70	0.05
166	TSC0200032AR1670	C	20	32	150	1670	5.99	0.94	0.06
167	TSC0200032AR1410	C	20	32	180	1410	7.09	1.11	0.07
168	TSC0200032AR1190	C	20	32	210	1190	8.4	1.31	0.08
169	TSC0200040AR8380	C	20	40	30	8380	1.19	0.15	0.01
170	TSC0200040AR3970	C	20	40	60	3970	2.52	0.32	0.03
171	TSC0200040AR2490	C	20	40	90	2490	4.02	0.50	0.04
172	TSC0200040AR1770	C	20	40	120	1770	5.65	0.71	0.06
173	TSC0200040AR1330	C	20	40	150	1330	7.52	0.94	0.08
174	TSC0200040AR1120	C	20	40	180	1120	8.93	1.12	0.09
175	TSC0200040AR941	C	20	40	210	941	10.63	1.33	0.11
176	TSC0200050AR6660	C	20	50	30	6660	1.5	0.15	0.02
177	TSC0200050AR3150	C	20	50	60	3150	3.17	0.32	0.03
178	TSC0200050AR1980	C	20	50	90	1980	5.05	0.51	0.05
179	TSC0200050AR1410	C	20	50	120	1410	7.09	0.71	0.07
180	TSC0200050AR1120	C	20	50	150	1120	8.93	0.89	0.09
181	TSC0200050AR888	C	20	50	180	888	11.26	1.13	0.11
182	TSC0200050AR747	C	20	50	210	747	13.39	1.34	0.13
183	TSC0200063AR5300	C	20	63	30	5300	1.89	0.15	0.02
184	TSC0200063AR2490	C	20	63	60	2490	4.02	0.32	0.04
185	TSC0200063AR1580	C	20	63	90	1580	6.33	0.50	0.06
186	TSC0200063AR1120	C	20	63	120	1120	8.93	0.71	0.09
187	TSC0200063AR888	C	20	63	150	888	11.26	0.89	0.11
188	TSA(C)0200063AR705	A & C	20	63	180	705	14.18	1.13	0.14
189	TSA(C)0200063AR594	A & C	20	63	210	594	16.84	1.34	0.17
190	TSC0200080AR4210	C	20	80	30	4210	2.38	0.15	0.02
191	TSC0200080AR1980	C	20	80	60	1980	5.05	0.32	0.05
192	TSC0200080AR1260	C	20	80	90	1260	7.94	0.50	0.08
193	TSA(C)0200080AR888	A & C	20	80	120	888	11.26	0.70	0.11
194	TSA(C)0200080AR666	A & C	20	80	150	666	15.02	0.94	0.15
195	TSA(C)0200080AR561	A & C	20	80	180	561	17.83	1.11	0.18
196	TSA(C)0200080AR472	A & C	20	80	210	472	21.19	1.32	0.21
197	TSC0250025AR11200	C	25	25	30	11200	0.89	0.14	0.01
198	TSC0250025AR5300	C	25	25	60	5300	1.89	0.30	0.02
199	TSC0250025AR3340	C	25	25	90	3340	2.99	0.48	0.03
200	TSC0250025AR2350	C	25	25	120	2350	4.26	0.68	0.04
201	TSC0250025AR1870	C	25	25	150	1870	5.35	0.86	0.05
202	TSC0250025AR1490	C	25	25	180	1490	6.71	1.07	0.07
203	TSC0250025AR1260	C	25	25	210	1260	7.94	1.27	0.08
204	TSC0250032AR8880	C	25	32	30	8880	1.13	0.14	0.01
205	TSC0250032AR4210	C	25	32	60	4210	2.38	0.30	0.02
206	TSC0250032AR2640	C	25	32	90	2640	3.79	0.47	0.04
207	TSC0250032AR1870	C	25	32	120	1870	5.35	0.67	0.05
208	TSC0250032AR1410	C	25	32	150	1410	7.09	0.89	0.07
209	TSC0250032AR1190	C	25	32	180	1190	8.4	1.05	0.08
210	TSC0250032AR1000	C	25	32	210	1000	10	1.25	0.1
211	TSC0250040AR7050	C	25	40	30	7050	1.42	0.14	0.01
212	TSC0250040AR3340	C	25	40	60	3340	2.99	0.30	0.03
213	TSC0250040AR2100	C	25	40	90	2100	4.76	0.48	0.05
214	TSC0250040AR1490	C	25	40	120	1490	6.71	0.67	0.07
215	TSC0250040AR1120	C	25	40	150	1120	8.93	0.89	0.09
216	TSC0250040AR941	C	25	40	180	941	10.63	1.06	0.11
217	TSC0250040AR791	C	25	40	210	791	12.64	1.26	0.13
218	TSC0250050AR5610	C	25	50	30	5610	1.78	0.14	0.02
219	TSC0250050AR2640	C	25	50	60	2640	3.79	0.30	0.04

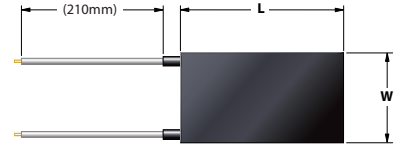
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSC0250050AR1670	C	25	50	90	1670	5.99	0.48	0.06
221	TSC0250050AR1190	C	25	50	120	1190	8.4	0.67	0.08
222	TSC0250050AR941	C	25	50	150	941	10.63	0.85	0.11
223	TSA(C)0250050AR747	A & C	25	50	180	747	13.39	1.07	0.13
224	TSA(C)0250050AR629	A & C	25	50	210	629	15.9	1.27	0.16
225	TSC0250063AR4460	C	25	63	30	4460	2.24	0.14	0.02
226	TSC0250063AR2100	C	25	63	60	2100	4.76	0.30	0.05
227	TSC0250063AR1330	C	25	63	90	1330	7.52	0.48	0.08
228	TSA(C)0250063AR941	A & C	25	63	120	941	10.63	0.67	0.11
229	TSA(C)0250063AR747	A & C	25	63	150	747	13.39	0.85	0.13
230	TSA(C)0250063AR594	A & C	25	63	180	594	16.84	1.07	0.17
231	TSA(C)0250063AR500	A & C	25	63	210	500	20	1.27	0.2
232	TSC0250080AR3540	C	25	80	30	3540	2.82	0.14	0.03
233	TSC0250080AR1670	C	25	80	60	1670	5.99	0.30	0.06
234	TSA(C)0250080AR1060	A & C	25	80	90	1060	9.43	0.47	0.09
235	TSA(C)0250080AR747	A & C	25	80	120	747	13.39	0.67	0.13
236	TSA(C)0250080AR561	A & C	25	80	150	561	17.83	0.89	0.18
237	TSA(C)0250080AR472	A & C	25	80	180	472	21.19	1.06	0.21
238	TSA(C)0250080AR397	A & C	25	80	210	397	25.19	1.26	0.25
239	TSC0250100AR2800	C	25	100	30	2800	3.57	0.14	0.04
240	TSA(C)0250100AR1330	A & C	25	100	60	1330	7.52	0.30	0.08
241	TSA(C)0250100AR838	A & C	25	100	90	838	11.93	0.48	0.12
242	TSA(C)0250100AR594	A & C	25	100	120	594	16.84	0.67	0.17
243	TSA(C)0250100AR472	A & C	25	100	150	472	21.19	0.85	0.21
244	TSA(C)0250100AR375	A & C	25	100	180	375	26.67	1.07	0.27
245	TSA(C)0250100AR315	A & C	25	100	210	315	31.75	1.27	0.32
246	TSC0320032AR7470	C	32	32	30	7470	1.34	0.13	0.01
247	TSC0320032AR3540	C	32	32	60	3540	2.82	0.28	0.03
248	TSC0320032AR2100	C	32	32	90	2100	4.76	0.46	0.05
249	TSC0320032AR1490	C	32	32	120	1490	6.71	0.66	0.07
250	TSC0320032AR1190	C	32	32	150	1190	8.4	0.82	0.08
251	TSC0320032AR1000	C	32	32	180	1000	10	0.98	0.1
252	TSC0320032AR838	C	32	32	210	838	11.93	1.17	0.12
253	TSC0320040AR5940	C	32	40	30	5940	1.68	0.13	0.02
254	TSC0320040AR2800	C	32	40	60	2800	3.57	0.28	0.04
255	TSC0320040AR1670	C	32	40	90	1670	5.99	0.47	0.06
256	TSC0320040AR1260	C	32	40	120	1260	7.94	0.62	0.08
257	TSC0320040AR941	C	32	40	150	941	10.63	0.83	0.11
258	TSC0320040AR791	C	32	40	180	791	12.64	0.99	0.13
259	TSA(C)0320040AR666	A & C	32	40	210	666	15.02	1.17	0.15
260	TSC0320050AR4720	C	32	50	30	4720	2.12	0.13	0.02
261	TSC0320050AR2220	C	32	50	60	2220	4.5	0.28	0.05
262	TSC0320050AR1330	C	32	50	90	1330	7.52	0.47	0.08
263	TSC0320050AR1000	C	32	50	120	1000	10	0.63	0.1
264	TSA(C)0320050AR791	A & C	32	50	150	791	12.64	0.79	0.13
265	TSA(C)0320050AR629	A & C	32	50	180	629	15.9	0.99	0.16
266	TSA(C)0320050AR530	A & C	32	50	210	530	18.87	1.18	0.19
267	TSC0320063AR3750	C	32	63	30	3750	2.67	0.13	0.03
268	TSC0320063AR1770	C	32	63	60	1770	5.65	0.28	0.06
269	TSA(C)0320063AR1060	A & C	32	63	90	1060	9.43	0.47	0.09
270	TSA(C)0320063AR791	A & C	32	63	120	791	12.64	0.63	0.13
271	TSA(C)0320063AR629	A & C	32	63	150	629	15.9	0.79	0.16
272	TSA(C)0320063AR500	A & C	32	63	180	500	20	0.99	0.2
273	TSA(C)0320063AR421	A & C							



# STANDARD | Rectangular 100V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125AR249	A & C	32	125	180	249	40.16	1.00	0.4	366	TSA(C)0500100AR791	A & C	50	100	60	791	12.64	0.25	0.13
294	TSA(C)0320125AR210	A & C	32	125	210	210	47.62	1.19	0.48	367	TSA(C)0500100AR500	A & C	50	100	90	500	20	0.40	0.2
295	TSC0400040AR5000	C	40	40	30	5000	2	0.13	0.02	368	TSA(C)0500100AR354	A & C	50	100	120	354	28.25	0.57	0.28
296	TSC0400040AR2350	C	40	40	60	2350	4.26	0.27	0.04	369	TSA(C)0500100AR280	A & C	50	100	150	280	35.71	0.71	0.36
297	TSC0400040AR1410	C	40	40	90	1410	7.09	0.44	0.07	370	TSA(C)0500100AR222	A & C	50	100	180	222	45.05	0.90	0.45
298	TSC0400040AR1060	C	40	40	120	1060	9.43	0.59	0.09	371	TSA(C)0500100AR187	A & C	50	100	210	187	53.48	1.07	0.53
299	TSA(C)0400040AR791	A & C	40	40	150	791	12.64	0.79	0.13	372	TSA(C)0500125AR1260	A & C	50	125	30	1260	7.94	0.13	0.08
300	TSA(C)0400040AR666	A & C	40	40	180	666	15.02	0.94	0.15	373	TSA(C)0500125AR629	A & C	50	125	60	629	15.9	0.25	0.16
301	TSA(C)0400040AR561	A & C	40	40	210	561	17.83	1.11	0.18	374	TSA(C)0500125AR397	A & C	50	125	90	397	25.19	0.40	0.25
302	TSC0400050AR3970	C	40	50	30	3970	2.52	0.13	0.03	375	TSA(C)0500125AR280	A & C	50	125	120	280	35.71	0.57	0.36
303	TSC0400050AR1870	C	40	50	60	1870	5.35	0.27	0.05	376	TSA(C)0500125AR222	A & C	50	125	150	222	45.05	0.72	0.45
304	TSA(C)0400050AR1120	A & C	40	50	90	1120	8.93	0.45	0.09	377	TSA(C)0500125AR177	A & C	50	125	180	177	56.5	0.90	0.57
305	TSA(C)0400050AR838	A & C	40	50	120	838	11.93	0.60	0.12	378	TSA(C)0500125AR149	A & C	50	125	210	149	67.11	1.07	0.67
306	TSA(C)0400050AR629	A & C	40	50	150	629	15.9	0.80	0.16	379	TSA(C)0500160AR1000	A & C	50	160	30	1000	10	0.13	0.1
307	TSA(C)0400050AR530	A & C	40	50	180	530	18.87	0.94	0.19	380	TSA(C)0500160AR500	A & C	50	160	60	500	20	0.25	0.2
308	TSA(C)0400050AR446	A & C	40	50	210	446	22.42	1.12	0.22	381	TSA(C)0500160AR315	A & C	50	160	90	315	31.75	0.40	0.32
309	TSC0400063AR3150	C	40	63	30	3150	3.17	0.13	0.03	382	TSA(C)0500160AR222	A & C	50	160	120	222	45.05	0.56	0.45
310	TSA(C)0400063AR1490	A & C	40	63	60	1490	6.71	0.27	0.07	383	TSA(C)0500160AR167	A & C	50	160	150	167	59.88	0.75	0.6
311	TSA(C)0400063AR941	A & C	40	63	90	941	10.63	0.42	0.11	384	TSA(C)0500160AR141	A & C	50	160	180	141	70.92	0.89	0.71
312	TSA(C)0400063AR666	A & C	40	63	120	666	15.02	0.60	0.15	385	TSA(C)0500160AR119	A & C	50	160	210	119	84.03	1.05	0.84
313	TSA(C)0400063AR500	A & C	40	63	150	500	20	0.79	0.2	386	TSA(C)0500200AR791	A & C	50	200	30	791	12.64	0.13	0.13
314	TSA(C)0400063AR421	A & C	40	63	180	421	23.75	0.94	0.24	387	TSA(C)0500200AR397	A & C	50	200	60	397	25.19	0.25	0.25
315	TSA(C)0400063AR354	A & C	40	63	210	354	28.25	1.12	0.28	388	TSA(C)0500200AR249	A & C	50	200	90	249	40.16	0.40	0.4
316	TSC0400080AR2490	C	40	80	30	2490	4.02	0.13	0.04	389	TSA(C)0500200AR177	A & C	50	200	120	177	56.5	0.57	0.57
317	TSA(C)0400080AR1120	A & C	40	80	60	1120	8.93	0.28	0.09	390	TSA(C)0500200AR133	A & C	50	200	150	133	75.19	0.75	0.75
318	TSA(C)0400080AR705	A & C	40	80	90	705	14.18	0.44	0.14	391	TSA(C)0500200AR112	A & C	50	200	180	112	89.29	0.89	0.89
319	TSA(C)0400080AR530	A & C	40	80	120	530	18.87	0.59	0.19	392	TSA(C)0500200AR94.1	A & C	50	200	210	94.1	106.27	1.06	1.06
320	TSA(C)0400080AR397	A & C	40	80	150	397	25.19	0.79	0.25	393	TSA(C)0630063AR2220	A & C	63	63	30	2220	4.5	0.11	0.05
321	TSA(C)0400080AR334	A & C	40	80	180	334	29.94	0.94	0.3	394	TSA(C)0630063AR1060	A & C	63	63	60	1060	9.43	0.24	0.09
322	TSA(C)0400080AR280	A & C	40	80	210	280	35.71	1.12	0.36	395	TSA(C)0630063AR666	A & C	63	63	90	666	15.02	0.38	0.15
323	TSA(C)0400100AR1980	A & C	40	100	30	1980	5.05	0.13	0.05	396	TSA(C)0630063AR472	A & C	63	63	120	472	21.19	0.53	0.21
324	TSA(C)0400100AR941	A & C	40	100	60	941	10.63	0.27	0.11	397	TSA(C)0630063AR375	A & C	63	63	150	375	26.67	0.67	0.27
325	TSA(C)0400100AR561	A & C	40	100	90	561	17.83	0.45	0.18	398	TSA(C)0630063AR297	A & C	63	63	180	297	33.67	0.85	0.34
326	TSA(C)0400100AR421	A & C	40	100	120	421	23.75	0.59	0.24	399	TSA(C)0630063AR249	A & C	63	63	210	249	40.16	1.01	0.4
327	TSA(C)0400100AR315	A & C	40	100	150	315	31.75	0.79	0.32	400	TSA(C)0630080AR1670	A & C	63	80	30	1670	5.99	0.12	0.06
328	TSA(C)0400100AR264	A & C	40	100	180	264	37.88	0.95	0.38	401	TSA(C)0630080AR838	A & C	63	80	60	838	11.93	0.24	0.12
329	TSA(C)0400100AR222	A & C	40	100	210	222	45.05	1.13	0.45	402	TSA(C)0630080AR530	A & C	63	80	90	530	18.87	0.37	0.19
330	TSA(C)0400125AR1580	A & C	40	125	30	1580	6.33	0.13	0.06	403	TSA(C)0630080AR375	A & C	63	80	120	375	26.67	0.53	0.27
331	TSA(C)0400125AR747	A & C	40	125	60	747	13.39	0.27	0.13	404	TSA(C)0630080AR280	A & C	63	80	150	280	35.71	0.71	0.36
332	TSA(C)0400125AR742	A & C	40	125	90	742	21.19	0.42	0.21	405	TSA(C)0630080AR235	A & C	63	80	180	235	42.55	0.84	0.43
333	TSA(C)0400125AR334	A & C	40	125	120	334	29.94	0.60	0.3	406	TSA(C)0630080AR198	A & C	63	80	210	198	50.51	1.00	0.51
334	TSA(C)0400125AR264	A & C	40	125	150	264	37.88	0.76	0.38	407	TSA(C)0630100AR1330	A & C	63	100	30	1330	7.52	0.12	0.08
335	TSA(C)0400125AR210	A & C	40	125	180	210	47.62	0.95	0.48	408	TSA(C)0630100AR666	A & C	63	100	60	666	15.02	0.24	0.15
336	TSA(C)0400125AR177	A & C	40	125	210	177	56.5	1.13	0.57	409	TSA(C)0630100AR421	A & C	63	100	90	421	23.75	0.38	0.24
337	TSA(C)0400160AR1190	A & C	40	160	30	1190	8.4	0.13	0.08	410	TSA(C)0630100AR297	A & C	63	100	120	297	33.67	0.53	0.34
338	TSA(C)0400160AR561	A & C	40	160	60	561	17.83	0.28	0.18	411	TSA(C)0630100AR235	A & C	63	100	150	235	42.55	0.68	0.43
339	TSA(C)0400160AR354	A & C	40	160	90	354	28.25	0.44	0.28	412	TSA(C)0630100AR187	A & C	63	100	180	187	53.48	0.85	0.53
340	TSA(C)0400160AR264	A & C	40	160	120	264	37.88	0.59	0.38	413	TSA(C)0630100AR158	A & C	63	100	210	158	63.29	1.00	0.63
341	TSA(C)0400160AR198	A & C	40	160	150	198	50.51	0.79	0.51	414	TSA(C)0630125AR1120	A & C	63	125	30	1120	8.93	0.11	0.09
342	TSA(C)0400160AR167	A & C	40	160	180	167	59.88	0.94	0.6	415	TSA(C)0630125AR530	A & C	63	125	60	530	18.87	0.24	0.19
343	TSA(C)0400160AR141	A & C	40	160	210	141	70.92	1.11	0.71	416	TSA(C)0630125AR334	A & C	63	125	90	334	29.94	0.38	0.3
344	TSC0500050AR3150	C	50	50	30	3150	3.17	0.13	0.03	417	TSA(C)0630125AR235	A & C	63	125	120	235	42.55	0.54	0.43
345	TSC0500050AR1580	C	50	50	60	1580	6.33	0.25	0.06	418	TSA(C)0630125AR187	A & C	63	125	150	187	53.48	0.68	0.53
346	TSA(C)0500050AR1000	A & C	50	50	90	1000	10	0.40	0.1	419	TSA(C)0630125AR149	A & C	63	125	180	149	67.11	0.85	0.67
347	TSA(C)0500050AR705	A & C	50	50	120	705	14.18	0.57	0.14	420	TSA(C)0630125AR126	A & C	63	125	210	126	79.37	1.01	0.79
348	TSA(C)0500050AR561	A & C	50	50	150	561	17.83	0.71	0.18	421	TSA(C)0630160AR838	A & C	63	160	30	838	11.93	0.12	0.12
349	TSA(C)0500050AR446	A & C	50	50	180	446	22.42	0.90	0.22	422	TSA(C)0630160AR421	A & C	63	160	60	421	23.75	0.24	0.24
350	TSA(C)0500050AR375	A & C	50	50	210	375	26.67	1.07	0.27	423	TSA(C)0630160AR264	A & C	63	160	90	264	37.88	0.38	0.38
351	TSC0500063AR2490	C	50	63	30	2490	4.02	0.13	0.04	424	TSA(C)0630160AR187	A & C	63	160	120	187	53.48	0.53	0.53
352	TSA(C)0500063AR1260	A & C	50	63	60	1260	7.94	0.25	0.08	425	TSA(C)0630160AR141	A & C	63	160	150	141	70.92	0.70	0.71
353	TSA(C)0500063AR791	A & C	50	63	90	791	12.64	0.40	0.13	426	TSA(C)0630160AR119	A & C	63	160	180	119	84.03	0.83	0.84
354	TSA(C)0500063AR561	A & C	50	63	120	561	17.83	0.57	0.18	427	TSA(C)0630160AR100	A & C	63	160	210	100	100	0.99	1
355	TSA(C)0500063AR421	A & C	50	63	150	421	23.75	0.75	0.24	428	TSA(C)0630200AR66								

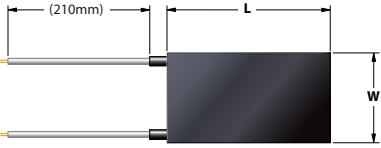
# STANDARD | Rectangular 100V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)0630250AR94.1	A & C	63	250	150	94.1	106.27	0.67	1.06
440	TSA(C)0630250AR74.7	A & C	63	250	180	74.7	133.87	0.85	1.34
441	TSA(C)0630250AR62.9	A & C	63	250	210	62.9	158.98	1.01	1.59
442	TSA(C)0800080AR1490	A & C	80	80	30	1490	6.71	0.10	0.07
443	TSA(C)0800080AR705	A & C	80	80	60	705	14.18	0.22	0.14
444	TSA(C)0800080AR446	A & C	80	80	90	446	22.42	0.35	0.22
445	TSA(C)0800080AR315	A & C	80	80	120	315	31.75	0.50	0.32
446	TSA(C)0800080AR249	A & C	80	80	150	249	40.16	0.63	0.4
447	TSA(C)0800080AR198	A & C	80	80	180	198	50.51	0.79	0.51
448	TSA(C)0800080AR167	A & C	80	80	210	167	59.88	0.94	0.6
449	TSA(C)0800100AR1190	A & C	80	100	30	1190	8.4	0.11	0.08
450	TSA(C)0800100AR594	A & C	80	100	60	594	16.84	0.21	0.17
451	TSA(C)0800100AR375	A & C	80	100	90	375	26.67	0.33	0.27
452	TSA(C)0800100AR249	A & C	80	100	120	249	40.16	0.50	0.4
453	TSA(C)0800100AR198	A & C	80	100	150	198	50.51	0.63	0.51
454	TSA(C)0800100AR158	A & C	80	100	180	158	63.29	0.79	0.63
455	TSA(C)0800100AR133	A & C	80	100	210	133	75.19	0.94	0.75
456	TSA(C)0800125AR941	A & C	80	125	30	941	10.63	0.11	0.11
457	TSA(C)0800125AR472	A & C	80	125	60	472	21.19	0.21	0.21
458	TSA(C)0800125AR297	A & C	80	125	90	297	33.67	0.34	0.34
459	TSA(C)0800125AR198	A & C	80	125	120	198	50.51	0.51	0.51
460	TSA(C)0800125AR158	A & C	80	125	150	158	63.29	0.63	0.63
461	TSA(C)0800125AR126	A & C	80	125	180	126	79.37	0.79	0.79
462	TSA(C)0800125AR106	A & C	80	125	210	106	94.34	0.94	0.94
463	TSA(C)0800160AR747	A & C	80	160	30	747	13.39	0.10	0.13
464	TSA(C)0800160AR354	A & C	80	160	60	354	28.25	0.22	0.28
465	TSA(C)0800160AR235	A & C	80	160	90	235	42.55	0.33	0.43
466	TSA(C)0800160AR158	A & C	80	160	120	158	63.29	0.49	0.63
467	TSA(C)0800160AR126	A & C	80	160	150	126	79.37	0.62	0.79
468	TSA(C)0800160AR100	A & C	80	160	180	100	100	0.78	1
469	TSA(C)0800160AR83.8	A & C	80	160	210	83.8	119.33	0.93	1.19
470	TSA(C)0800200AR594	A & C	80	200	30	594	16.84	0.11	0.17
471	TSA(C)0800200AR297	A & C	80	200	60	297	33.67	0.21	0.34
472	TSA(C)0800200AR187	A & C	80	200	90	187	53.48	0.33	0.53
473	TSA(C)0800200AR126	A & C	80	200	120	126	79.37	0.50	0.79
474	TSA(C)0800200AR100	A & C	80	200	150	100	100	0.63	1
475	TSA(C)0800200AR79.1	A & C	80	200	180	79.1	126.42	0.79	1.26
476	TSA(C)0800200AR66.6	A & C	80	200	210	66.6	150.15	0.94	1.5
477	TSA(C)0800250AR472	A & C	80	250	30	472	21.19	0.11	0.21
478	TSA(C)0800250AR235	A & C	80	250	60	235	42.55	0.21	0.43
479	TSA(C)0800250AR149	A & C	80	250	90	149	67.11	0.34	0.67
480	TSA(C)0800250AR100	A & C	80	250	120	100	100	0.50	1
481	TSA(C)0800250AR79.1	A & C	80	250	150	79.1	126.42	0.63	1.26
482	TSA(C)0800250AR62.9	A & C	80	250	180	62.9	158.98	0.79	1.59
483	TSA(C)0800250AR53	A & C	80	250	210	53	188.68	0.94	1.89
484	TSA(C)0800300AR397	A & C	80	300	30	397	25.19	0.10	0.25
485	TSA(C)0800300AR198	A & C	80	300	60	198	50.51	0.21	0.51
486	TSA(C)0800300AR119	A & C	80	300	90	119	84.03	0.35	0.84
487	TSA(C)0800300AR83.8	A & C	80	300	120	83.8	119.33	0.50	1.19
488	TSA(C)0800300AR66.6	A & C	80	300	150	66.6	150.15	0.63	1.5
489	TSA(C)0800300AR53	A & C	80	300	180	53	188.68	0.79	1.89
490	TSA(C)0800300AR44.6	A & C	80	300	210	44.6	224.22	0.93	2.24
491	TSA(C)1000100AR1060	A & C	100	100	30	1060	9.43	0.09	0.09
492	TSA(C)1000100AR530	A & C	100	100	60	530	18.87	0.19	0.19
493	TSA(C)1000100AR334	A & C	100	100	90	334	29.94	0.30	0.3
494	TSA(C)1000100AR222	A & C	100	100	120	222	45.05	0.45	0.45
495	TSA(C)1000100AR177	A & C	100	100	150	177	56.5	0.57	0.57
496	TSA(C)1000100AR141	A & C	100	100	180	141	70.92	0.71	0.71
497	TSA(C)1000100AR119	A & C	100	100	210	119	84.03	0.84	0.84
498	TSA(C)1000125AR838	A & C	100	125	30	838	11.93	0.10	0.12
499	TSA(C)1000125AR421	A & C	100	125	60	421	23.75	0.19	0.24
500	TSA(C)1000125AR264	A & C	100	125	90	264	37.88	0.30	0.38
501	TSA(C)1000125AR177	A & C	100	125	120	177	56.5	0.45	0.57
502	TSA(C)1000125AR141	A & C	100	125	150	141	70.92	0.57	0.71
503	TSA(C)1000125AR112	A & C	100	125	180	112	89.29	0.71	0.89
504	TSA(C)1000125AR94.1	A & C	100	125	210	94.1	106.27	0.85	1.06
505	TSA(C)1000160AR666	A & C	100	160	30	666	15.02	0.09	0.15
506	TSA(C)1000160AR334	A & C	100	160	60	334	29.94	0.19	0.3
507	TSA(C)1000160AR210	A & C	100	160	90	210	47.62	0.30	0.48
508	TSA(C)1000160AR141	A & C	100	160	120	141	70.92	0.44	0.71
509	TSA(C)1000160AR112	A & C	100	160	150	112	89.29	0.56	0.89
510	TSA(C)1000160AR88.8	A & C	100	160	180	88.8	112.61	0.70	1.13
511	TSA(C)1000160AR74.7	A & C	100	160	210	74.7	133.87	0.84	1.34

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
512	TSA(C)1000200AR530	A & C	100	200	30	530	18.87	0.09	0.19
513	TSA(C)1000200AR264	A & C	100	200	60	264	37.88	0.19	0.38
514	TSA(C)1000200AR167	A & C	100	200	90	167	59.88	0.30	0.6
515	TSA(C)1000200AR112	A & C	100	200	120	112	89.29	0.45	0.89
516	TSA(C)1000200AR88.8	A & C	100	200	150	88.8	112.61	0.56	1.13
517	TSA(C)1000200AR70.5	A & C	100	200	180	70.5	141.84	0.71	1.42
518	TSA(C)1000200AR59.4	A & C	100	200	210	59.4	168.35	0.84	1.68
519	TSA(C)1000250AR421	A & C	100	250	30	421	23.75	0.10	0.24
520	TSA(C)1000250AR210	A & C	100	250	60	210	47.62	0.19	0.48
521	TSA(C)1000250AR133	A & C	100	250	90	133	75.19	0.30	0.75
522	TSA(C)1000250AR88.8	A & C	100	250	120	88.8	112.61	0.45	1.13
523	TSA(C)1000250AR70.5	A & C	100	250	150	70.5	141.84	0.57	1.42
524	TSA(C)1000250AR56.1	A & C	100	250	180	56.1	178.25	0.71	1.78
525	TSA(C)1000250AR47.2	A & C	100	250	210	47.2	211.86	0.85	2.12
526	TSA(C)1000300AR354	A & C	100	300	30	354	28.25	0.09	0.28
527	TSA(C)1000300AR177	A & C	100	300	60	177	56.5	0.19	0.57
528	TSA(C)1000300AR112	A & C	100	300	90	112	89.29	0.30	0.89
529	TSA(C)1000300AR74.7	A & C	100	300	120	74.7	133.87	0.45	1.34
530	TSA(C)1000300AR59.4	A & C	100	300	150	59.4	168.35	0.56	1.68
531	TSA(C)1000300AR47.2	A & C	100	300	180	47.2	211.86	0.71	2.12
532	TSA(C)1000300AR39.7	A & C	100	300	210	39.7	251.89	0.84	2.52
533	TSA(C)1250125AR747	A & C	125	125	30	747	13.39	0.09	0.13
534	TSA(C)1250125AR375	A & C	125	125	60	375	26.67	0.17	0.27
535	TSA(C)1250125AR235	A & C	125	125	90	235	42.55	0.27	0.43
536	TSA(C)1250125AR158	A & C	125	125	120	158	63.29	0.41	0.63
537	TSA(C)1250125AR126	A & C	125	125	150	126	79.37	0.51	0.79
538	TSA(C)1250125AR100	A & C	125	125	180	100	100	0.64	1
539	TSA(C)1250125AR83.8	A & C	125	125	210	83.8	119.33	0.76	1.19
540	TSA(C)1250160AR594	A & C	125	160	30	594	16.84	0.08	0.17
541	TSA(C)1250160AR297	A & C	125	160	60	297	33.67	0.17	0.34
542	TSA(C)1250160AR177	A & C	125	160	90	177	56.5	0.28	0.57
543	TSA(C)1250160AR126	A & C	125	160	120	126	79.37	0.40	0.79
544	TSA(C)1250160AR94.1	A & C	125	160	150	94.1	106.27	0.53	1.06
545	TSA(C)1250160AR79.1	A & C	125	160	180	79.1	126.42	0.63	1.26
546	TSA(C)1250160AR62.9	A & C	125	160	210	62.9	158.98	0.79	1.59
547	TSA(C)1250160AR47.2	A & C	125	200	30	472	21.19	0.08	0.21
548	TSA(C)1250200AR235	A & C	125	200	60	235	42.55	0.17	0.43
549	TSA(C)1250200AR149	A & C	125	200	90	149	67.11	0.27	0.67
550	TSA(C)1250200AR100	A & C	125	200	120	100	100	0.40	1
551	TSA(C)1250200AR74.7	A & C	125	200	150	74.7	133.87	0.54	1.34
552	TSA(C)1250200AR62.9	A & C	125	200	180	62.9	158.98	0.64	1.59
553	TSA(C)1250200AR53	A & C	125	200	210	53	188.68	0.75	1.89
554	TSA(C)1250250AR375	A & C	125	250	30	375	26.67	0.09	0.27
555	TSA(C)1250250AR187	A & C	125	250	60	187	53.48	0.17	0.53
556	TSA(C)1250250AR119	A & C	125	250	90	119	84.03	0.27	0.84
557	TSA(C)1250250AR79.1	A & C	125	250	120	79.1	126.42	0.40	1.26

# STANDARD | Rectangular 100V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250AR70.5	A & C	160	250	120	70.5	141.84	0.35	1.42
586	TSA(C)1600250AR53	A & C	160	250	150	53	188.68	0.47	1.89
587	TSA(C)1600250AR44.6	A & C	160	250	180	44.6	224.22	0.56	2.24
588	TSA(C)1600250AR35.4	A & C	160	250	210	35.4	282.49	0.71	2.82
589	TSA(C)1600300AR264	A & C	160	300	30	264	37.88	0.08	0.38
590	TSA(C)1600300AR133	A & C	160	300	60	133	75.19	0.16	0.75
591	TSA(C)1600300AR83.8	A & C	160	300	90	83.8	119.33	0.25	1.19
592	TSA(C)1600300AR56.1	A & C	160	300	120	56.1	178.25	0.37	1.78
593	TSA(C)1600300AR44.6	A & C	160	300	150	44.6	224.22	0.47	2.24
594	TSA(C)1600300AR35.4	A & C	160	300	180	35.4	282.49	0.59	2.82
595	TSA(C)1600300AR29.7	A & C	160	300	210	29.7	336.7	0.70	3.37
596	TSA(C)2000200AR354	A & C	200	200	30	354	28.25	0.07	0.28
597	TSA(C)2000200AR177	A & C	200	200	60	177	56.5	0.14	0.57
598	TSA(C)2000200AR112	A & C	200	200	90	112	89.29	0.22	0.89
599	TSA(C)2000200AR74.7	A & C	200	200	120	74.7	133.87	0.33	1.34
600	TSA(C)2000200AR59.4	A & C	200	200	150	59.4	168.35	0.42	1.68
601	TSA(C)2000200AR47.2	A & C	200	200	180	47.2	211.86	0.53	2.12
602	TSA(C)2000200AR39.7	A & C	200	200	210	39.7	251.89	0.63	2.52
603	TSA(C)2000250AR280	A & C	200	250	30	280	35.71	0.07	0.36
604	TSA(C)2000250AR141	A & C	200	250	60	141	70.92	0.14	0.71
605	TSA(C)2000250AR88.8	A & C	200	250	90	88.8	112.61	0.23	1.13
606	TSA(C)2000250AR59.4	A & C	200	250	120	59.4	168.35	0.34	1.68
607	TSA(C)2000250AR47.2	A & C	200	250	150	47.2	211.86	0.42	2.12
608	TSA(C)2000250AR37.5	A & C	200	250	180	37.5	266.67	0.53	2.67
609	TSA(C)2000250AR31.5	A & C	200	250	210	31.5	317.46	0.63	3.17
610	TSA(C)2000300AR235	A & C	200	300	30	235	42.55	0.07	0.43
611	TSA(C)2000300AR119	A & C	200	300	60	119	84.03	0.14	0.84

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
612	TSA(C)2000300AR74.7	A & C	200	300	90	74.7	133.87	0.22	1.34
613	TSA(C)2000300AR50	A & C	200	300	120	50	200	0.33	2
614	TSA(C)2000300AR39.7	A & C	200	300	150	39.7	251.89	0.42	2.52
615	TSA(C)2000300AR31.5	A & C	200	300	180	31.5	317.46	0.53	3.17
616	TSA(C)2000300AR26.4	A & C	200	300	210	26.4	378.79	0.63	3.79
617	TSA(C)2500250AR249	A & C	250	250	30	249	40.16	0.06	0.4
618	TSA(C)2500250AR119	A & C	250	250	60	119	84.03	0.13	0.84
619	TSA(C)2500250AR74.7	A & C	250	250	90	74.7	133.87	0.21	1.34
620	TSA(C)2500250AR53	A & C	250	250	120	53	188.68	0.30	1.89
621	TSA(C)2500250AR39.7	A & C	250	250	150	39.7	251.89	0.40	2.52
622	TSA(C)2500250AR33.4	A & C	250	250	180	33.4	299.4	0.48	2.99
623	TSA(C)2500250AR26.4	A & C	250	250	210	26.4	378.79	0.61	3.79
624	TSA(C)2500300AR198	A & C	250	300	30	198	50.51	0.07	0.51
625	TSA(C)2500300AR100	A & C	250	300	60	100	100	0.13	1
626	TSA(C)2500300AR62.9	A & C	250	300	90	62.9	158.98	0.21	1.59
627	TSA(C)2500300AR42.1	A & C	250	300	120	42.1	237.53	0.32	2.38
628	TSA(C)2500300AR33.4	A & C	250	300	150	33.4	299.4	0.40	2.99
629	TSA(C)2500300AR28	A & C	250	300	180	28	357.14	0.48	3.57
630	TSA(C)2500300AR22.2	A & C	250	300	210	22.2	450.45	0.60	4.5
631	TSA(C)3000300AR177	A & C	300	300	30	177	56.5	0.06	0.57
632	TSA(C)3000300AR88.8	A & C	300	300	60	88.8	112.61	0.13	1.13
633	TSA(C)3000300AR56.1	A & C	300	300	90	56.1	178.25	0.20	1.78
634	TSA(C)3000300AR37.5	A & C	300	300	120	37.5	266.67	0.30	2.67
635	TSA(C)3000300AR29.7	A & C	300	300	150	29.7	336.7	0.37	3.37
636	TSA(C)3000300AR23.5	A & C	300	300	180	23.5	425.53	0.47	4.26
637	TSA(C)3000300AR19.8	A & C	300	300	210	19.8	505.05	0.56	5.05

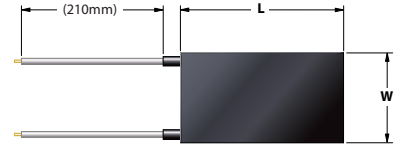
Dimensions and specifications are subject to change without notice.

### OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape	: RECTANGULAR
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Length(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Width(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



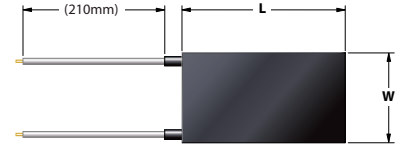
# STANDARD | Rectangular 110V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010BR47200	C	10	10	30	47200	0.26	0.26	0
2	TSC0100010BR22200	C	10	10	60	22200	0.55	0.55	0.01
3	TSC0100010BR14100	C	10	10	90	14100	0.86	0.86	0.01
4	TSC0100010BR10000	C	10	10	120	10000	1.21	1.21	0.01
5	TSC0100010BR7470	C	10	10	150	7470	1.62	1.62	0.01
6	TSC0100010BR5940	C	10	10	180	5940	2.04	2.04	0.02
7	TSC0100010BR5000	C	10	10	210	5000	2.42	2.42	0.02
8	TSC0100013BR37500	C	10	13	30	37500	0.32	0.25	0
9	TSC0100013BR16700	C	10	13	60	16700	0.72	0.55	0.01
10	TSC0100013BR11200	C	10	13	90	11200	1.08	0.83	0.01
11	TSC0100013BR7910	C	10	13	120	7910	1.53	1.18	0.01
12	TSC0100013BR5940	C	10	13	150	5940	2.04	1.57	0.02
13	TSC0100013BR4720	C	10	13	180	4720	2.56	1.97	0.02
14	TSC0100013BR3750	C	10	13	210	3750	3.23	2.48	0.03
15	TSC0100016BR29700	C	10	16	30	29700	0.41	0.26	0
16	TSC0100016BR14100	C	10	16	60	14100	0.86	0.54	0.01
17	TSC0100016BR8880	C	10	16	90	8880	1.36	0.85	0.01
18	TSC0100016BR6290	C	10	16	120	6290	1.92	1.20	0.02
19	TSC0100016BR4720	C	10	16	150	4720	2.56	1.60	0.02
20	TSC0100016BR3750	C	10	16	180	3750	3.23	2.02	0.03
21	TSC0100016BR3150	C	10	16	210	3150	3.84	2.40	0.03
22	TSC0100020BR23500	C	10	20	30	23500	0.51	0.26	0
23	TSC0100020BR11200	C	10	20	60	11200	1.08	0.54	0.01
24	TSC0100020BR7050	C	10	20	90	7050	1.72	0.86	0.02
25	TSC0100020BR5000	C	10	20	120	5000	2.42	1.21	0.02
26	TSC0100020BR3750	C	10	20	150	3750	3.23	1.62	0.03
27	TSC0100020BR2970	C	10	20	180	2970	4.07	2.04	0.04
28	TSC0100020BR2490	C	10	20	210	2490	4.86	2.43	0.04
29	TSC0100025BR18700	C	10	25	30	18700	0.65	0.26	0.01
30	TSC0100025BR8880	C	10	25	60	8880	1.36	0.54	0.01
31	TSC0100025BR5610	C	10	25	90	5610	2.16	0.86	0.02
32	TSC0100025BR3970	C	10	25	120	3970	3.05	1.22	0.03
33	TSC0100025BR2970	C	10	25	150	2970	4.07	1.63	0.04
34	TSC0100025BR2350	C	10	25	180	2350	5.15	2.06	0.05
35	TSC0100025BR1980	C	10	25	210	1980	6.11	2.44	0.06
36	TSC0100032BR14900	C	10	32	30	14900	0.81	0.25	0.01
37	TSC0100032BR7050	C	10	32	60	7050	1.72	0.54	0.02
38	TSC0100032BR4460	C	10	32	90	4460	2.71	0.85	0.02
39	TSC0100032BR3150	C	10	32	120	3150	3.84	1.20	0.03
40	TSC0100032BR2350	C	10	32	150	2350	5.15	1.61	0.05
41	TSC0100032BR1870	C	10	32	180	1870	6.47	2.02	0.06
42	TSC0100032BR1580	C	10	32	210	1580	7.66	2.39	0.07
43	TSC0100040BR11900	C	10	40	30	11900	1.02	0.26	0.01
44	TSC0100040BR5610	C	10	40	60	5610	2.16	0.54	0.02
45	TSC0100040BR3540	C	10	40	90	3540	3.42	0.86	0.03
46	TSC0100040BR2490	C	10	40	120	2490	4.86	1.22	0.04
47	TSC0100040BR1870	C	10	40	150	1870	6.47	1.62	0.06
48	TSC0100040BR1490	C	10	40	180	1490	8.12	2.03	0.07
49	TSC0100040BR1260	C	10	40	210	1260	9.6	2.40	0.09
50	TSC0130013BR31500	C	13	13	30	31500	0.38	0.22	0
51	TSC0130013BR14900	C	13	13	60	14900	0.81	0.48	0.01
52	TSC0130013BR9410	C	13	13	90	9410	1.29	0.76	0.01
53	TSC0130013BR6660	C	13	13	120	6660	1.82	1.08	0.02
54	TSC0130013BR5300	C	13	13	150	5300	2.28	1.35	0.02
55	TSC0130013BR4210	C	13	13	180	4210	2.87	1.70	0.03
56	TSC0130013BR3340	C	13	13	210	3340	3.62	2.14	0.03
57	TSC0130016BR26400	C	13	16	30	26400	0.46	0.22	0
58	TSC0130016BR12600	C	13	16	60	12600	0.96	0.46	0.01
59	TSC0130016BR7910	C	13	16	90	7910	1.53	0.74	0.01
60	TSC0130016BR5610	C	13	16	120	5610	2.16	1.04	0.02
61	TSC0130016BR4210	C	13	16	150	4210	2.87	1.38	0.03
62	TSC0130016BR3340	C	13	16	180	3340	3.62	1.74	0.03
63	TSC0130016BR2800	C	13	16	210	2800	4.32	2.08	0.04
64	TSC0130020BR21000	C	13	20	30	21000	0.58	0.22	0.01
65	TSC0130020BR10000	C	13	20	60	10000	1.21	0.47	0.01
66	TSC0130020BR6290	C	13	20	90	6290	1.92	0.74	0.02
67	TSC0130020BR4460	C	13	20	120	4460	2.71	1.04	0.02
68	TSC0130020BR3340	C	13	20	150	3340	3.62	1.39	0.03
69	TSC0130020BR2640	C	13	20	180	2640	4.58	1.76	0.04
70	TSC0130020BR2220	C	13	20	210	2220	5.45	2.10	0.05
71	TSC0130025BR16700	C	13	25	30	16700	0.72	0.22	0.01
72	TSC0130025BR7910	C	13	25	60	7910	1.53	0.47	0.01
73	TSC0130025BR5000	C	13	25	90	5000	2.42	0.74	0.02

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSC0130025BR3540	C	13	25	120	3540	3.42	1.05	0.03
75	TSC0130025BR2640	C	13	25	150	2640	4.58	1.41	0.04
76	TSC0130025BR2100	C	13	25	180	2100	5.76	1.77	0.05
77	TSC0130025BR1770	C	13	25	210	1770	6.84	2.10	0.06
78	TSC0130032BR12600	C	13	32	30	12600	0.96	0.23	0.01
79	TSC0130032BR6290	C	13	32	60	6290	1.92	0.46	0.02
80	TSC0130032BR3970	C	13	32	90	3970	3.05	0.73	0.03
81	TSC0130032BR2800	C	13	32	120	2800	4.32	1.04	0.04
82	TSC0130032BR2100	C	13	32	150	2100	5.76	1.38	0.05
83	TSC0130032BR1670	C	13	32	180	1670	7.25	1.74	0.07
84	TSC0130032BR1410	C	13	32	210	1410	8.58	2.06	0.08
85	TSC0130040BR10600	C	13	40	30	10600	1.14	0.22	0.01
86	TSC0130040BR5000	C	13	40	60	5000	2.42	0.47	0.02
87	TSC0130040BR3150	C	13	40	90	3150	3.84	0.74	0.03
88	TSC0130040BR2220	C	13	40	120	2220	5.45	1.05	0.05
89	TSC0130040BR1670	C	13	40	150	1670	7.25	1.39	0.07
90	TSC0130040BR1330	C	13	40	180	1330	9.1	1.75	0.08
91	TSC0130040BR1120	C	13	40	210	1120	10.8	2.08	0.1
92	TSC0130050BR8380	C	13	50	30	8380	1.44	0.22	0.01
93	TSC0130050BR3970	C	13	50	60	3970	3.05	0.47	0.03
94	TSC0130050BR2490	C	13	50	90	2490	4.86	0.75	0.04
95	TSC0130050BR1770	C	13	50	120	1770	6.84	1.05	0.06
96	TSC0130050BR1330	C	13	50	150	1330	9.1	1.40	0.08
97	TSC0130050BR1060	C	13	50	180	1060	11.42	1.76	0.1
98	TSC0130050BR888	C	13	50	210	888	13.63	2.10	0.12
99	TSC0160016BR24900	C	16	16	30	24900	0.49	0.19	0
100	TSC0160016BR11900	C	16	16	60	11900	1.02	0.40	0.01
101	TSC0160016BR7470	C	16	16	90	7470	1.62	0.63	0.01
102	TSC0160016BR5300	C	16	16	120	5300	2.28	0.89	0.02
103	TSC0160016BR3970	C	16	16	150	3970	3.05	1.19	0.03
104	TSC0160016BR3150	C	16	16	180	3150	3.84	1.50	0.03
105	TSC0160016BR2640	C	16	16	210	2640	4.58	1.79	0.04
106	TSC0160020BR19800	C	16	20	30	19800	0.61	0.19	0.01
107	TSC0160020BR9410	C	16	20	60	9410	1.29	0.40	0.01
108	TSC0160020BR5940	C	16	20	90	5940	2.04	0.64	0.02
109	TSC0160020BR4210	C	16	20	120	4210	2.87	0.90	0.03
110	TSC0160020BR3150	C	16	20	150	3150	3.84	1.20	0.03
111	TSC0160020BR2640	C	16	20	180	2640	4.58	1.43	0.04
112	TSC0160020BR2100	C	16	20	210	2100	5.76	1.80	0.05
113	TSC0160025BR15800	C	16	25	30	15800	0.77	0.19	0.01
114	TSC0160025BR7470	C	16	25	60	7470	1.62	0.41	0.01
115	TSC0160025BR4720	C	16	25	90	4720	2.56	0.64	0.02
116	TSC0160025BR3340	C	16	25	120	3340	3.62	0.91	0.03
117	TSC0160025BR2490	C	16	25	150	2490	4.86	1.22	0.04
118	TSC0160025BR2100	C	16	25	180	2100	5.76	1.44	0.05
119	TSC0160025BR1670	C	16	25	210	1670	7.25	1.81	0.07
120	TSC0160032BR12600	C	16	32	30	12600	0.96	0.19	0.01
121	TSC0160032BR5940	C	16	32	60	5940	2.04	0.40	0.02
122	TSC0160032BR3750	C	16	32	90	3750	3.23	0.63	0.03
123	TSC0160032BR2640	C	16	32	120	2640	4.58	0.89	0.04
124	TSC0160032BR1980	C	16	32	150	1980	6.11	1.19	0.06
125	TSC0160032BR1580	C	16	32	180	1580	7.66	1.50	0.07
126	TSC0160032BR1330	C	16	32	210	1330	9.1	1.78	0.08
127	TSC0160040BR10000	C	16	40	30	10000	1.21	0.19	0.01
128	TSC0160040BR4720	C	16	40	60	4720	2.56	0.40	0.02
129	TSC0160040BR2970	C	16	40	90	2970	4		

# STANDARD | Rectangular 110V



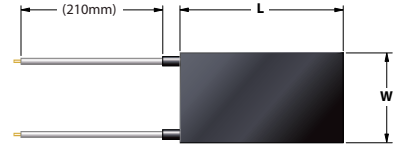
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSC0160063BR666	C	16	63	210	666	18.17	1.80	0.17	220	TSC0250050BR1980	C	25	50	90	1980	6.11	0.49	0.06
148	TSC0200020BR19800	C	20	20	30	19800	0.61	0.15	0.01	221	TSC0250050BR1410	C	25	50	120	1410	8.58	0.69	0.08
149	TSC0200020BR10000	C	20	20	60	10000	1.21	0.30	0.01	222	TSC0250050BR1120	C	25	50	150	1120	10.8	0.86	0.1
150	TSC0200020BR5940	C	20	20	90	5940	2.04	0.51	0.02	223	TSC0250050BR888	C	25	50	180	888	13.63	1.09	0.12
151	TSC0200020BR4210	C	20	20	120	4210	2.87	0.72	0.03	224	TSA(C)0250050BR747	A & C	25	50	210	747	16.2	1.30	0.15
152	TSC0200020BR3340	C	20	20	150	3340	3.62	0.91	0.03	225	TSC0250063BR5300	C	25	63	30	5300	2.28	0.14	0.02
153	TSC0200020BR2640	C	20	20	180	2640	4.58	1.15	0.04	226	TSC0250063BR2640	C	25	63	60	2640	4.58	0.29	0.04
154	TSC0200020BR2220	C	20	20	210	2220	5.45	1.36	0.05	227	TSC0250063BR1580	C	25	63	90	1580	7.66	0.49	0.07
155	TSC0200025BR15800	C	20	25	30	15800	0.77	0.15	0.01	228	TSC0250063BR1120	C	25	63	120	1120	10.8	0.69	0.1
156	TSC0200025BR7910	C	20	25	60	7910	1.53	0.31	0.01	229	TSA(C)0250063BR888	A & C	25	63	150	888	13.63	0.87	0.12
157	TSC0200025BR4720	C	20	25	90	4720	2.56	0.51	0.02	230	TSA(C)0250063BR705	A & C	25	63	180	705	17.16	1.09	0.16
158	TSC0200025BR3340	C	20	25	120	3340	3.62	0.72	0.03	231	TSA(C)0250063BR594	A & C	25	63	210	594	20.37	1.29	0.19
159	TSC0200025BR2640	C	20	25	150	2640	4.58	0.92	0.04	232	TSC0250080BR4210	C	25	80	30	4210	2.87	0.14	0.03
160	TSC0200025BR2220	C	20	25	180	2220	5.45	1.09	0.05	233	TSC0250080BR1980	C	25	80	60	1980	6.11	0.31	0.06
161	TSC0200025BR1770	C	20	25	210	1770	6.84	1.37	0.06	234	TSC0250080BR1260	C	25	80	90	1260	9.6	0.48	0.09
162	TSC0200032BR12600	C	20	32	30	12600	0.96	0.15	0.01	235	TSA(C)0250080BR888	A & C	25	80	120	888	13.63	0.68	0.12
163	TSC0200032BR5940	C	20	32	60	5940	2.04	0.32	0.02	236	TSA(C)0250080BR705	A & C	25	80	150	705	17.16	0.86	0.16
164	TSC0200032BR3750	C	20	32	90	3750	3.23	0.50	0.03	237	TSA(C)0250080BR561	A & C	25	80	180	561	21.57	1.08	0.2
165	TSC0200032BR2640	C	20	32	120	2640	4.58	0.72	0.04	238	TSA(C)0250080BR472	A & C	25	80	210	472	25.64	1.28	0.23
166	TSC0200032BR2100	C	20	32	150	2100	5.76	0.90	0.05	239	TSC0250100BR3340	C	25	100	30	3340	3.62	0.14	0.03
167	TSC0200032BR1670	C	20	32	180	1670	7.25	1.13	0.07	240	TSC0250100BR1580	C	25	100	60	1580	7.66	0.31	0.07
168	TSC0200032BR1410	C	20	32	210	1410	8.58	1.34	0.08	241	TSA(C)0250100BR1000	A & C	25	100	90	1000	12.1	0.48	0.11
169	TSC0200040BR10000	C	20	40	30	10000	1.21	0.15	0.01	242	TSA(C)0250100BR705	A & C	25	100	120	705	17.16	0.69	0.16
170	TSC0200040BR5000	C	20	40	60	5000	2.42	0.30	0.02	243	TSA(C)0250100BR561	A & C	25	100	150	561	21.57	0.86	0.2
171	TSC0200040BR2970	C	20	40	90	2970	4.07	0.51	0.04	244	TSA(C)0250100BR446	A & C	25	100	180	446	27.13	1.09	0.25
172	TSC0200040BR2100	C	20	40	120	2100	5.76	0.72	0.05	245	TSA(C)0250100BR375	A & C	25	100	210	375	32.27	1.29	0.29
173	TSC0200040BR1670	C	20	40	150	1670	7.25	0.91	0.07	246	TSC0320032BR8880	C	32	32	30	8880	1.36	0.13	0.01
174	TSC0200040BR1330	C	20	40	180	1330	9.1	1.14	0.08	247	TSC0320032BR4210	C	32	32	60	4210	2.87	0.28	0.03
175	TSC0200040BR1120	C	20	40	210	1120	10.8	1.35	0.1	248	TSC0320032BR2640	C	32	32	90	2640	4.58	0.45	0.04
176	TSC0200050BR7910	C	20	50	30	7910	1.53	0.15	0.01	249	TSC0320032BR1870	C	32	32	120	1870	6.47	0.63	0.06
177	TSC0200050BR3970	C	20	50	60	3970	3.05	0.31	0.03	250	TSC0320032BR1490	C	32	32	150	1490	8.12	0.79	0.07
178	TSC0200050BR2350	C	20	50	90	2350	5.15	0.52	0.05	251	TSC0320032BR1190	C	32	32	180	1190	10.17	0.99	0.09
179	TSC0200050BR1670	C	20	50	120	1670	7.25	0.73	0.07	252	TSC0320032BR1000	C	32	32	210	1000	12.1	1.18	0.11
180	TSC0200050BR1330	C	20	50	150	1330	9.1	0.91	0.08	253	TSC0320040BR7050	C	32	40	30	7050	1.72	0.13	0.02
181	TSC0200050BR1060	C	20	50	180	1060	11.42	1.14	0.1	254	TSC0320040BR3340	C	32	40	60	3340	3.62	0.28	0.03
182	TSC0200050BR888	C	20	50	210	888	13.63	1.36	0.12	255	TSC0320040BR2100	C	32	40	90	2100	5.76	0.45	0.05
183	TSC0200063BR6290	C	20	63	30	6290	1.92	0.15	0.02	256	TSC0320040BR1490	C	32	40	120	1490	8.12	0.63	0.07
184	TSC0200063BR3150	C	20	63	60	3150	3.84	0.30	0.03	257	TSC0320040BR1190	C	32	40	150	1190	10.17	0.79	0.09
185	TSC0200063BR1870	C	20	63	90	1870	6.47	0.51	0.06	258	TSC0320040BR941	C	32	40	180	941	12.86	1.00	0.12
186	TSC0200063BR1330	C	20	63	120	1330	9.1	0.72	0.08	259	TSC0320040BR791	C	32	40	210	791	15.3	1.20	0.14
187	TSC0200063BR1060	C	20	63	150	1060	11.42	0.91	0.1	260	TSC0320050BR5610	C	32	50	30	5610	2.16	0.14	0.02
188	TSC0200063BR838	C	20	63	180	838	14.44	1.15	0.13	261	TSC0320050BR2640	C	32	50	60	2640	4.58	0.29	0.04
189	TSA(C)0200063BR705	A & C	20	63	210	705	17.16	1.36	0.16	262	TSC0320050BR1670	C	32	50	90	1670	7.25	0.45	0.07
190	TSC0200080BR5000	C	20	80	30	5000	2.42	0.15	0.02	263	TSC0320050BR1190	C	32	50	120	1190	10.17	0.64	0.09
191	TSC0200080BR2490	C	20	80	60	2490	4.86	0.30	0.04	264	TSA(C)0320050BR941	A & C	32	50	150	941	12.86	0.80	0.12
192	TSC0200080BR1490	C	20	80	90	1490	8.12	0.51	0.07	265	TSA(C)0320050BR747	A & C	32	50	180	747	16.2	1.01	0.15
193	TSC0200080BR1060	C	20	80	120	1060	11.42	0.71	0.1	266	TSA(C)0320050BR629	A & C	32	50	210	629	19.24	1.20	0.17
194	TSA(C)0200080BR838	A & C	20	80	150	838	14.44	0.90	0.13	267	TSC0320063BR4460	C	32	63	30	4460	2.71	0.13	0.02
195	TSA(C)0200080BR666	A & C	20	80	180	666	18.17	1.14	0.17	268	TSC0320063BR2100	C	32	63	60	2100	5.76	0.29	0.05
196	TSA(C)0200080BR561	A & C	20	80	210	561	21.57	1.35	0.2	269	TSC0320063BR1330	C	32	63	90	1330	9.1	0.45	0.08
197	TSC0250025BR13300	C	25	25	30	13300	0.91	0.15	0.01	270	TSA(C)0320063BR941	A & C	32	63	120	941	12.86	0.64	0.12
198	TSC0250025BR6290	C	25	25	60	6290	1.92	0.31	0.02	271	TSA(C)0320063BR747	A & C	32	63	150	747	16.2	0.80	0.15
199	TSC0250025BR3970	C	25	25	90	3970	3.05	0.49	0.03	272	TSA(C)0320063BR594	A & C	32	63	180	594	20.37	1.01	0.19
200	TSC0250025BR2800	C	25	25	120	2800	4.32	0.69	0.04	273	TSA(C)0320063BR500	A & C	32	63	210	500	24.2	1.20	0.22
201	TSC0250025BR2220	C	25	25	150	2220	5.45	0.87	0.05	274	TSC0320080BR3540	C	32	80	30	3540	3.42	0.13	0.03
202	TSC0250025BR1770	C	25	25	180	1770	6.84	1.09	0.06	275	TSC0320080BR1670	C	32	80	60	1670	7.25	0.28	0.07
203	TSC0250025BR1490	C	25	25	210	1490	8.12	1.30	0.07	276	TSA(C)0320080BR1060	A & C	32	80	90	1060	11.42	0.45	0.1
204	TSC0250032BR10600	C	25	32	30	10600	1.14	0.14	0.01	277	TSA(C)0320080BR747	A & C	32	80	120	747	16.2	0.63	0.15
205	TSC0250032BR5000	C	25	32	60	5000	2.42	0.30	0.02	278	TSA(C)0320080BR594	A & C	32	80	150	594	20.37	0.80	0.19
206	TSC0250032BR3150	C	25	32	90	3150	3.84	0.48	0.03	279	TSA(C)0320080BR472	A & C	32	80	180	472	25.64	1.00	0.23
207	TSC0250032BR2220	C	25	32	120	2220	5.45	0.68	0.05	280	TSA(C)0320080BR397	A & C	32	80	210	397	30.48	1.19	0.28
208	TSC0250032BR1770	C	25	32	150	1770	6.84	0.86	0.06	281	TSC0320100BR2800	C	32	100	30	2800	4.32	0.14	0.04
209	TSC0250032BR1410	C	25	32	180	1410	8.58	1.07	0.08	282	TSA(C)0320100BR1330	A & C	32	100	60	1330	9.1	0.28	0.08
210	TSC0250032BR1190	C	25	32	210	1190	10.17	1.27	0.09	283	TSA(C)0320100BR838	A & C	32	100	90	838	14.44	0.45	0.13
211	TSC0250040BR8380	C	25	40	30	8380	1.44	0.14	0.01	284	TSA(C)0320100BR594	A & C	32	100	120	594			

# STANDARD | Rectangular 110V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125BR297	A & C	32	125	180	297	40.74	1.02	0.37
294	TSA(C)0320125BR249	A & C	32	125	210	249	48.59	1.21	0.44
295	TSC0400040BR5940	C	40	40	30	5940	2.04	0.13	0.02
296	TSC0400040BR2800	C	40	40	60	2800	4.32	0.27	0.04
297	TSC0400040BR1770	C	40	40	90	1770	6.84	0.43	0.06
298	TSC0400040BR1260	C	40	40	120	1260	9.6	0.60	0.09
299	TSC0400040BR1000	C	40	40	150	1000	12.1	0.76	0.11
300	TSA(C)0400040BR791	A & C	40	40	180	791	15.3	0.96	0.14
301	TSA(C)0400040BR666	A & C	40	40	210	666	18.17	1.14	0.17
302	TSC0400050BR4720	C	40	50	30	4720	2.56	0.13	0.02
303	TSC0400050BR2220	C	40	50	60	2220	5.45	0.27	0.05
304	TSC0400050BR1410	C	40	50	90	1410	8.58	0.43	0.08
305	TSA(C)0400050BR1000	A & C	40	50	120	1000	12.1	0.61	0.11
306	TSA(C)0400050BR791	A & C	40	50	150	791	15.3	0.77	0.14
307	TSA(C)0400050BR629	A & C	40	50	180	629	19.24	0.96	0.17
308	TSA(C)0400050BR530	A & C	40	50	210	530	22.83	1.14	0.21
309	TSC0400063BR3750	C	40	63	30	3750	3.23	0.13	0.03
310	TSC0400063BR1770	C	40	63	60	1770	6.84	0.27	0.06
311	TSA(C)0400063BR1120	A & C	40	63	90	1120	10.8	0.43	0.11
312	TSA(C)0400063BR791	A & C	40	63	120	791	15.3	0.61	0.14
313	TSA(C)0400063BR629	A & C	40	63	150	629	19.24	0.76	0.17
314	TSA(C)0400063BR500	A & C	40	63	180	500	24.2	0.96	0.22
315	TSA(C)0400063BR421	A & C	40	63	210	421	28.74	1.14	0.26
316	TSC0400080BR2970	C	40	80	30	2970	4.07	0.13	0.04
317	TSA(C)0400080BR1410	A & C	40	80	60	1410	8.58	0.27	0.08
318	TSA(C)0400080BR888	A & C	40	80	90	888	13.63	0.43	0.12
319	TSA(C)0400080BR629	A & C	40	80	120	629	19.24	0.60	0.17
320	TSA(C)0400080BR500	A & C	40	80	150	500	24.2	0.76	0.22
321	TSA(C)0400080BR397	A & C	40	80	180	397	30.48	0.95	0.28
322	TSA(C)0400080BR334	A & C	40	80	210	334	36.23	1.13	0.33
323	TSA(C)0400100BR2350	A & C	40	100	30	2350	5.15	0.13	0.05
324	TSA(C)0400100BR1120	A & C	40	100	60	1120	10.8	0.27	0.11
325	TSA(C)0400100BR705	A & C	40	100	90	705	17.16	0.43	0.16
326	TSA(C)0400100BR500	A & C	40	100	120	500	24.2	0.61	0.22
327	TSA(C)0400100BR397	A & C	40	100	150	397	30.48	0.76	0.28
328	TSA(C)0400100BR315	A & C	40	100	180	315	38.41	0.96	0.35
329	TSA(C)0400100BR264	A & C	40	100	210	264	45.83	1.15	0.42
330	TSA(C)0400125BR1870	A & C	40	125	30	1870	6.47	0.13	0.06
331	TSA(C)0400125BR888	A & C	40	125	60	888	13.63	0.27	0.12
332	TSA(C)0400125BR561	A & C	40	125	90	561	21.57	0.43	0.2
333	TSA(C)0400125BR397	A & C	40	125	120	397	30.48	0.61	0.28
334	TSA(C)0400125BR315	A & C	40	125	150	315	38.41	0.77	0.35
335	TSA(C)0400125BR249	A & C	40	125	180	249	48.59	0.97	0.44
336	TSA(C)0400125BR210	A & C	40	125	210	210	57.62	1.15	0.52
337	TSA(C)0400160BR1490	A & C	40	160	30	1490	8.12	0.13	0.07
338	TSA(C)0400160BR705	A & C	40	160	60	705	17.16	0.27	0.16
339	TSA(C)0400160BR446	A & C	40	160	90	446	27.13	0.42	0.25
340	TSA(C)0400160BR315	A & C	40	160	120	315	38.41	0.60	0.35
341	TSA(C)0400160BR249	A & C	40	160	150	249	48.59	0.76	0.44
342	TSA(C)0400160BR198	A & C	40	160	180	198	61.11	0.95	0.56
343	TSA(C)0400160BR167	A & C	40	160	210	167	72.46	1.13	0.66
344	TSC0500050BR3970	C	50	50	30	3970	3.05	0.12	0.03
345	TSC0500050BR1870	C	50	50	60	1870	6.47	0.26	0.06
346	TSA(C)0500050BR1190	A & C	50	50	90	1190	10.17	0.41	0.09
347	TSA(C)0500050BR838	A & C	50	50	120	838	14.44	0.58	0.13
348	TSA(C)0500050BR666	A & C	50	50	150	666	18.17	0.73	0.17
349	TSA(C)0500050BR530	A & C	50	50	180	530	22.83	0.91	0.21
350	TSA(C)0500050BR446	A & C	50	50	210	446	27.13	1.09	0.25
351	TSC0500063BR3150	C	50	63	30	3150	3.84	0.12	0.03
352	TSA(C)0500063BR1490	A & C	50	63	60	1490	8.12	0.26	0.07
353	TSA(C)0500063BR941	A & C	50	63	90	941	12.86	0.41	0.12
354	TSA(C)0500063BR666	A & C	50	63	120	666	18.17	0.58	0.17
355	TSA(C)0500063BR530	A & C	50	63	150	530	22.83	0.72	0.21
356	TSA(C)0500063BR421	A & C	50	63	180	421	28.74	0.91	0.26
357	TSA(C)0500063BR354	A & C	50	63	210	354	34.18	1.09	0.31
358	TSC0500080BR2490	C	50	80	30	2490	4.86	0.12	0.04
359	TSA(C)0500080BR1190	A & C	50	80	60	1190	10.17	0.25	0.09
360	TSA(C)0500080BR747	A & C	50	80	90	747	16.2	0.41	0.15
361	TSA(C)0500080BR530	A & C	50	80	120	530	22.83	0.57	0.21
362	TSA(C)0500080BR421	A & C	50	80	150	421	28.74	0.72	0.26
363	TSA(C)0500080BR334	A & C	50	80	180	334	36.23	0.91	0.33
364	TSA(C)0500080BR280	A & C	50	80	210	280	43.21	1.08	0.39
365	TSA(C)0500100BR1980	A & C	50	100	30	1980	6.11	0.12	0.06

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)0500100BR941	A & C	50	100	60	941	12.86	0.26	0.12
367	TSA(C)0500100BR594	A & C	50	100	90	594	20.37	0.41	0.19
368	TSA(C)0500100BR421	A & C	50	100	120	421	28.74	0.57	0.26
369	TSA(C)0500100BR334	A & C	50	100	150	334	36.23	0.72	0.33
370	TSA(C)0500100BR264	A & C	50	100	180	264	45.83	0.92	0.42
371	TSA(C)0500100BR222	A & C	50	100	210	222	54.5	1.09	0.5
372	TSA(C)0500125BR1580	A & C	50	125	30	1580	7.66	0.12	0.07
373	TSA(C)0500125BR747	A & C	50	125	60	747	16.2	0.26	0.15
374	TSA(C)0500125BR472	A & C	50	125	90	472	25.64	0.41	0.23
375	TSA(C)0500125BR334	A & C	50	125	120	334	36.23	0.58	0.33
376	TSA(C)0500125BR264	A & C	50	125	150	264	45.83	0.73	0.42
377	TSA(C)0500125BR222	A & C	50	125	180	222	54.5	0.87	0.5
378	TSA(C)0500125BR187	A & C	50	125	210	187	64.71	1.04	0.59
379	TSA(C)0500160BR1190	A & C	50	160	30	1190	10.17	0.13	0.09
380	TSA(C)0500160BR594	A & C	50	160	60	594	20.37	0.25	0.19
381	TSA(C)0500160BR375	A & C	50	160	90	375	32.27	0.40	0.29
382	TSA(C)0500160BR264	A & C	50	160	120	264	45.83	0.57	0.42
383	TSA(C)0500160BR210	A & C	50	160	150	210	57.62	0.72	0.52
384	TSA(C)0500160BR167	A & C	50	160	180	167	72.46	0.91	0.66
385	TSA(C)0500160BR141	A & C	50	160	210	141	85.82	1.07	0.78
386	TSA(C)0500200BR1000	A & C	50	200	30	1000	12.1	0.12	0.11
387	TSA(C)0500200BR472	A & C	50	200	60	472	25.64	0.26	0.23
388	TSA(C)0500200BR297	A & C	50	200	90	297	40.74	0.41	0.37
389	TSA(C)0500200BR210	A & C	50	200	120	210	57.62	0.58	0.52
390	TSA(C)0500200BR167	A & C	50	200	150	167	72.46	0.72	0.66
391	TSA(C)0500200BR133	A & C	50	200	180	133	90.98	0.91	0.83
392	TSA(C)0500200BR112	A & C	50	200	210	112	108.04	1.08	0.98
393	TSC0630063BR2640	C	63	63	30	2640	4.58	0.12	0.04
394	TSA(C)0630063BR1260	A & C	63	63	60	1260	9.6	0.24	0.09
395	TSA(C)0630063BR791	A & C	63	63	90	791	15.3	0.39	0.14
396	TSA(C)0630063BR561	A & C	63	63	120	561	21.57	0.54	0.2
397	TSA(C)0630063BR446	A & C	63	63	150	446	27.13	0.68	0.25
398	TSA(C)0630063BR354	A & C	63	63	180	354	34.18	0.86	0.31
399	TSA(C)0630063BR297	A & C	63	63	210	297	40.74	1.03	0.37
400	TSA(C)0630080BR2100	A & C	63	80	30	2100	5.76	0.11	0.05
401	TSA(C)0630080BR1000	A & C	63	80	60	1000	12.1	0.24	0.11
402	TSA(C)0630080BR629	A & C	63	80	90	629	19.24	0.38	0.17
403	TSA(C)0630080BR446	A & C	63	80	120	446	27.13	0.54	0.25
404	TSA(C)0630080BR354	A & C	63	80	150	354	34.18	0.68	0.31
405	TSA(C)0630080BR280	A & C	63	80	180	280	43.21	0.86	0.39
406	TSA(C)0630080BR235	A & C	63	80	210	235	51.49	1.02	0.47
407	TSA(C)0630100BR1670	A & C	63	100	30	1670	7.25	0.12	0.07
408	TSA(C)0630100BR791	A & C	63	100	60	791	15.3	0.24	0.14
409	TSA(C)0630100BR500	A & C	63	100	90	500	24.2	0.38	0.22
410	TSA(C)0630100BR354	A & C	63	100	120	354	34.18	0.54	0.31
411	TSA(C)0630100BR280	A & C	63	100	150	280	43.21	0.69	0.39
412	TSA(C)0630100BR235	A & C	63	100	180	235	51.49	0.82	0.47
413	TSA(C)0630100BR187	A & C	63	100	210	187	64.71	1.03	0.59
414	TSA(C)0630125BR1330	A & C	63	125					

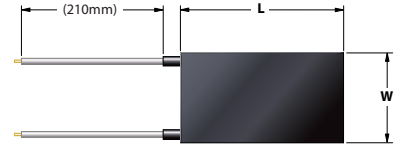


# STANDARD | Rectangular 110V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	
439	TSA(C)0630250BR112	A & C	63	250	150	112	108.04	0.69	0.98	512	TSA(C)1000200BR629	A & C	100	200	30	629	19.24	0.10	0.17	
440	TSA(C)0630250BR88.8	A & C	63	250	180	88.8	136.26	0.87	1.24	513	TSA(C)1000200BR315	A & C	100	200	60	315	38.41	0.19	0.35	
441	TSA(C)0630250BR74.7	A & C	63	250	210	74.7	161.98	1.03	1.47	514	TSA(C)1000200BR198	A & C	100	200	90	198	61.11	0.31	0.56	
442	TSA(C)0800080BR1770	A & C	80	80	30	1770	6.84	0.11	0.06	515	TSA(C)1000200BR141	A & C	100	200	120	141	85.82	0.43	0.78	
443	TSA(C)0800080BR888	A & C	80	80	60	888	13.63	0.21	0.12	516	TSA(C)1000200BR106	A & C	100	200	150	106	114.15	0.57	1.04	
444	TSA(C)0800080BR561	A & C	80	80	90	561	21.57	0.34	0.2	517	TSA(C)1000200BR88.8	A & C	100	200	180	88.8	136.26	0.68	1.24	
445	TSA(C)0800080BR375	A & C	80	80	120	375	32.27	0.50	0.29	518	TSA(C)1000200BR70.5	A & C	100	200	210	70.5	171.63	0.86	1.56	
446	TSA(C)0800080BR297	A & C	80	80	150	297	40.74	0.64	0.37	519	TSA(C)1000250BR530	A & C	100	250	30	530	22.83	0.09	0.21	
447	TSA(C)0800080BR249	A & C	80	80	180	249	48.59	0.76	0.44	520	TSA(C)1000250BR264	A & C	100	250	60	264	45.83	0.18	0.42	
448	TSA(C)0800080BR198	A & C	80	80	210	198	61.11	0.95	0.56	521	TSA(C)1000250BR158	A & C	100	250	90	158	76.58	0.31	0.7	
449	TSA(C)0800100BR1410	A & C	80	100	30	1410	8.58	0.11	0.08	522	TSA(C)1000250BR112	A & C	100	250	120	112	108.04	0.43	0.98	
450	TSA(C)0800100BR705	A & C	80	100	60	705	17.16	0.21	0.16	523	TSA(C)1000250BR83.8	A & C	100	250	150	83.8	144.39	0.58	1.31	
451	TSA(C)0800100BR446	A & C	80	100	90	446	27.13	0.34	0.25	524	TSA(C)1000250BR70.5	A & C	100	250	180	70.5	171.63	0.69	1.56	
452	TSA(C)0800100BR315	A & C	80	100	120	315	38.41	0.48	0.35	525	TSA(C)1000250BR56.1	A & C	100	250	210	56.1	215.69	0.86	1.96	
453	TSA(C)0800100BR235	A & C	80	100	150	235	51.49	0.64	0.47	526	TSA(C)1000300BR42.1	A & C	100	300	30	42.1	28.74	0.10	0.26	
454	TSA(C)0800100BR198	A & C	80	100	180	198	61.11	0.76	0.56	527	TSA(C)1000300BR210	A & C	100	300	60	210	57.62	0.19	0.52	
455	TSA(C)0800100BR167	A & C	80	100	210	167	72.46	0.91	0.66	528	TSA(C)1000300BR133	A & C	100	300	90	133	90.98	0.30	0.83	
456	TSA(C)0800125BR1120	A & C	80	125	30	1120	10.8	0.11	0.1	529	TSA(C)1000300BR94.1	A & C	100	300	120	94.1	128.59	0.43	1.17	
457	TSA(C)0800125BR561	A & C	80	125	60	561	21.57	0.22	0.2	530	TSA(C)1000300BR70.5	A & C	100	300	150	70.5	171.63	0.57	1.56	
458	TSA(C)0800125BR354	A & C	80	125	90	354	34.18	0.34	0.31	531	TSA(C)1000300BR59.4	A & C	100	300	180	59.4	203.7	0.68	1.85	
459	TSA(C)0800125BR249	A & C	80	125	120	249	48.59	0.49	0.44	532	TSA(C)1000300BR47.2	A & C	100	300	210	47.2	256.36	0.85	2.33	
460	TSA(C)0800125BR187	A & C	80	125	150	187	64.71	0.65	0.59	533	TSA(C)1250125BR888	A & C	125	125	30	888	13.63	0.09	0.12	
461	TSA(C)0800125BR158	A & C	80	125	180	158	76.58	0.77	0.7	534	TSA(C)1250125BR446	A & C	125	125	60	446	27.13	0.17	0.25	
462	TSA(C)0800125BR133	A & C	80	125	210	133	90.98	0.91	0.83	535	TSA(C)1250125BR280	A & C	125	125	90	280	43.21	0.28	0.39	
463	TSA(C)0800160BR888	A & C	80	160	30	888	13.63	0.11	0.12	536	TSA(C)1250125BR187	A & C	125	125	120	187	64.71	0.41	0.59	
464	TSA(C)0800160BR446	A & C	80	160	60	446	27.13	0.21	0.25	537	TSA(C)1250125BR149	A & C	125	125	150	149	81.21	0.52	0.74	
465	TSA(C)0800160BR280	A & C	80	160	90	280	43.21	0.34	0.39	538	TSA(C)1250125BR119	A & C	125	125	180	119	101.68	0.65	0.92	
466	TSA(C)0800160BR198	A & C	80	160	120	198	61.11	0.48	0.56	539	TSA(C)1250125BR100	A & C	125	125	210	100	121	0.77	1.1	
467	TSA(C)0800160BR149	A & C	80	160	150	149	81.21	0.63	0.74	540	TSA(C)1250160BR705	A & C	125	160	30	705	17.16	0.09	0.16	
468	TSA(C)0800160BR119	A & C	80	160	180	119	101.68	0.79	0.92	541	TSA(C)1250160BR354	A & C	125	160	60	354	34.18	0.17	0.31	
469	TSA(C)0800160BR100	A & C	80	160	210	100	121	0.95	1.1	542	TSA(C)1250160BR222	A & C	125	160	90	222	54.5	0.27	0.5	
470	TSA(C)0800200BR705	A & C	80	200	30	705	17.16	0.11	0.16	543	TSA(C)1250160BR149	A & C	125	160	120	149	81.21	0.41	0.74	
471	TSA(C)0800200BR354	A & C	80	200	60	354	34.18	0.21	0.31	544	TSA(C)1250160BR119	A & C	125	160	150	119	101.68	0.51	0.92	
472	TSA(C)0800200BR222	A & C	80	200	90	222	54.5	0.34	0.5	545	TSA(C)1250160BR94.1	A & C	125	160	180	94.1	128.59	0.64	1.17	
473	TSA(C)0800200BR158	A & C	80	200	120	158	76.58	0.48	0.7	546	TSA(C)1250160BR79.1	A & C	125	160	210	79.1	152.97	0.76	1.39	
474	TSA(C)0800200BR119	A & C	80	200	150	119	101.68	0.64	0.92	547	TSA(C)1250160BR56.1	A & C	125	200	30	56.1	21.57	0.09	0.2	
475	TSA(C)0800200BR100	A & C	80	200	180	100	121	0.76	1.1	548	TSA(C)1250200BR280	A & C	125	200	60	280	43.21	0.17	0.39	
476	TSA(C)0800200BR79.1	A & C	80	200	210	79.1	152.97	0.96	1.39	549	TSA(C)1250200BR177	A & C	125	200	90	177	68.36	0.27	0.62	
477	TSA(C)0800250BR561	A & C	80	250	30	561	21.57	0.11	0.2	550	TSA(C)1250200BR119	A & C	125	200	120	119	101.68	0.41	0.92	
478	TSA(C)0800250BR280	A & C	80	250	60	280	43.21	0.22	0.39	551	TSA(C)1250200BR94.1	A & C	125	200	150	94.1	128.59	0.51	1.17	
479	TSA(C)0800250BR177	A & C	80	250	90	177	68.36	0.34	0.62	552	TSA(C)1250200BR74.7	A & C	125	200	180	74.7	161.98	0.65	1.47	
480	TSA(C)0800250BR126	A & C	80	250	120	126	96.03	0.48	0.87	553	TSA(C)1250200BR62.9	A & C	125	200	210	62.9	192.37	0.77	1.75	
481	TSA(C)0800250BR94.1	A & C	80	250	150	94.1	128.59	0.64	1.17	554	TSA(C)1250250BR446	A & C	125	250	30	446	27.13	0.09	0.25	
482	TSA(C)0800250BR79.1	A & C	80	250	180	79.1	152.97	0.76	1.39	555	TSA(C)1250250BR222	A & C	125	250	60	222	54.5	0.17	0.5	
483	TSA(C)0800250BR66.6	A & C	80	250	210	66.6	181.68	0.91	1.65	556	TSA(C)1250250BR141	A & C	125	250	90	141	85.82	0.27	0.78	
484	TSA(C)0800300BR472	A & C	80	300	30	472	25.64	0.11	0.23	557	TSA(C)1250250BR94.1	A & C	125	250	120	94.1	128.59	0.41	1.17	
485	TSA(C)0800300BR235	A & C	80	300	60	235	51.49	0.21	0.47	558	TSA(C)1250250BR74.7	A & C	125	250	150	74.7	161.98	0.52	1.47	
486	TSA(C)0800300BR149	A & C	80	300	90	149	81.21	0.34	0.74	559	TSA(C)1250250BR59.4	A & C	125	250	180	59.4	203.7	0.65	1.85	
487	TSA(C)0800300BR100	A & C	80	300	120	100	121	0.50	1.1	560	TSA(C)1250250BR100	A & C	125	250	210	100	50	242	0.77	2.2
488	TSA(C)0800300BR79.1	A & C	80	300	150	79.1	152.97	0.64	1.39	561	TSA(C)1250300BR375	A & C	125	300	30	375	32.27	0.09	0.29	
489	TSA(C)0800300BR66.6	A & C	80	300	180	66.6	181.68	0.76	1.65	562	TSA(C)1250300BR187	A & C	125	300	60	187	64.71	0.17	0.59	
490	TSA(C)0800300BR53	A & C	80	300	210	53	228.3	0.95	2.08	563	TSA(C)1250300BR119	A & C	125	300	90	119	101.68	0.27	0.92	
491	TSA(C)1000100BR1260	A & C	100	100	30	1260	9.6	0.10	0.09	564	TSA(C)1250300BR79.1	A & C	125	300	120	79.1	152.97	0.41	1.39	
492	TSA(C)1000100BR629	A & C	100	100	60	629	19.24	0.19	0.17	565	TSA(C)1250300BR62.9	A & C	125	300	150	62.9	192.37	0.51	1.75	
493	TSA(C)1000100BR397	A & C	100	100	90	397	30.48	0.30	0.28	566	TSA(C)1250300BR50	A & C	125	300	180	50	242	0.65	2.2	
494	TSA(C)1000100BR280	A & C	100	100	120	280	43.21	0.43	0.39	567	TSA(C)1250300BR42.1	A & C	125	300	210	42.1	287.41	0.77	2.61	
495	TSA(C)1000100BR210	A & C	100	100	150	210	57.62	0.58	0.52	568	TSA(C)1600160BR594	A & C	160	160	30	594	20.37	0.08	0.19	
496	TSA(C)1000100BR177	A & C	100	100	180	177	68.36	0.68	0.62	569	TSA(C)1600160BR297	A & C	160	160	60	297	40.74	0.16	0.37	
497	TSA(C)1000100BR141	A & C	100	100	210	141	85.82	0.86	0.78	570	TSA(C)1600160BR187	A & C	160	160	90	187	64.71	0.25	0.59	
498	TSA(C)1000125BR1060	A & C	100	125	30	1060	11.42	0.09	0.1	571	TSA(C)1600160BR133	A & C	160	160	120	133	90.98	0.36	0.83	
499	TSA(C)1000125BR530	A & C	100	125	60	530	22.83	0.18	0.21	572	TSA(C)1600160BR100	A & C	160	160	150	100	121	0.47	1.1	
500	TSA(C)1000125BR315	A & C	100	125																



# STANDARD | Rectangular 110V

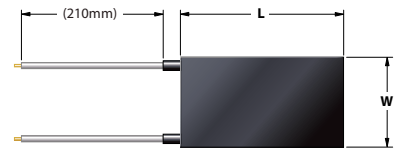


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250BR83.8	A & C	160	250	120	83.8	144.39	0.36	1.31
586	TSA(C)1600250BR62.9	A & C	160	250	150	62.9	192.37	0.48	1.75
587	TSA(C)1600250BR53	A & C	160	250	180	53	228.3	0.57	2.08
588	TSA(C)1600250BR44.6	A & C	160	250	210	44.6	271.3	0.68	2.47
589	TSA(C)1600300BR334	A & C	160	300	30	334	36.23	0.08	0.33
590	TSA(C)1600300BR167	A & C	160	300	60	167	72.46	0.15	0.66
591	TSA(C)1600300BR100	A & C	160	300	90	100	121	0.25	1.1
592	TSA(C)1600300BR70.5	A & C	160	300	120	70.5	171.63	0.36	1.56
593	TSA(C)1600300BR53	A & C	160	300	150	53	228.3	0.48	2.08
594	TSA(C)1600300BR44.6	A & C	160	300	180	44.6	271.3	0.57	2.47
595	TSA(C)1600300BR35.4	A & C	160	300	210	35.4	341.81	0.71	3.11
596	TSA(C)2000200BR421	A & C	200	200	30	421	28.74	0.07	0.26
597	TSA(C)2000200BR210	A & C	200	200	60	210	57.62	0.14	0.52
598	TSA(C)2000200BR133	A & C	200	200	90	133	90.98	0.23	0.83
599	TSA(C)2000200BR88.8	A & C	200	200	120	88.8	136.26	0.34	1.24
600	TSA(C)2000200BR70.5	A & C	200	200	150	70.5	171.63	0.43	1.56
601	TSA(C)2000200BR56.1	A & C	200	200	180	56.1	215.69	0.54	1.96
602	TSA(C)2000200BR47.2	A & C	200	200	210	47.2	256.36	0.64	2.33
603	TSA(C)2000250BR334	A & C	200	250	30	334	36.23	0.07	0.33
604	TSA(C)2000250BR167	A & C	200	250	60	167	72.46	0.14	0.66
605	TSA(C)2000250BR106	A & C	200	250	90	106	114.15	0.23	1.04
606	TSA(C)2000250BR70.5	A & C	200	250	120	70.5	171.63	0.34	1.56
607	TSA(C)2000250BR56.1	A & C	200	250	150	56.1	215.69	0.43	1.96
608	TSA(C)2000250BR44.6	A & C	200	250	180	44.6	271.3	0.54	2.47
609	TSA(C)2000250BR37.5	A & C	200	250	210	37.5	322.67	0.65	2.93
610	TSA(C)2000300BR280	A & C	200	300	30	280	43.21	0.07	0.39
611	TSA(C)2000300BR141	A & C	200	300	60	141	85.82	0.14	0.78

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
612	TSA(C)2000300BR88.8	A & C	200	300	90	88.8	136.26	0.23	1.24
613	TSA(C)2000300BR59.4	A & C	200	300	120	59.4	203.7	0.34	1.85
614	TSA(C)2000300BR47.2	A & C	200	300	150	47.2	256.36	0.43	2.33
615	TSA(C)2000300BR37.5	A & C	200	300	180	37.5	322.67	0.54	2.93
616	TSA(C)2000300BR31.5	A & C	200	300	210	31.5	384.13	0.64	3.49
617	TSA(C)2500250BR297	A & C	250	250	30	297	40.74	0.07	0.37
618	TSA(C)2500250BR149	A & C	250	250	60	149	81.21	0.13	0.74
619	TSA(C)2500250BR94.1	A & C	250	250	90	94.1	128.59	0.21	1.17
620	TSA(C)2500250BR62.9	A & C	250	250	120	62.9	192.37	0.31	1.75
621	TSA(C)2500250BR50	A & C	250	250	150	50	242	0.39	2.2
622	TSA(C)2500250BR39.7	A & C	250	250	180	39.7	304.79	0.49	2.77
623	TSA(C)2500250BR33.4	A & C	250	250	210	33.4	362.28	0.58	3.29
624	TSA(C)2500300BR249	A & C	250	300	30	249	48.59	0.06	0.44
625	TSA(C)2500300BR126	A & C	250	300	60	126	96.03	0.13	0.87
626	TSA(C)2500300BR79.1	A & C	250	300	90	79.1	152.97	0.20	1.39
627	TSA(C)2500300BR53	A & C	250	300	120	53	228.3	0.30	2.08
628	TSA(C)2500300BR39.7	A & C	250	300	150	39.7	304.79	0.41	2.77
629	TSA(C)2500300BR33.4	A & C	250	300	180	33.4	362.28	0.48	3.29
630	TSA(C)2500300BR28	A & C	250	300	210	28	432.14	0.58	3.93
631	TSA(C)3000300BR210	A & C	300	300	30	210	57.62	0.06	0.52
632	TSA(C)3000300BR106	A & C	300	300	60	106	114.15	0.13	1.04
633	TSA(C)3000300BR66.6	A & C	300	300	90	66.6	181.68	0.20	1.65
634	TSA(C)3000300BR44.6	A & C	300	300	120	44.6	271.3	0.30	2.47
635	TSA(C)3000300BR35.4	A & C	300	300	150	35.4	341.81	0.38	3.11
636	TSA(C)3000300BR28	A & C	300	300	180	28	432.14	0.48	3.93
637	TSA(C)3000300BR23.5	A & C	300	300	210	23.5	514.89	0.57	4.68

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape : **RECTANGULAR**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Length(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Width(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

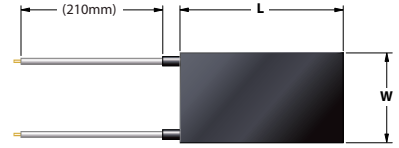


# STANDARD | Rectangular 120V

■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010CR56100	C	10	10	30	56100	0.26	0.26	0
2	TSC0100010CR26400	C	10	10	60	26400	0.55	0.55	0
3	TSC0100010CR16700	C	10	10	90	16700	0.86	0.86	0.01
4	TSC0100010CR11900	C	10	10	120	11900	1.21	1.21	0.01
5	TSC0100010CR8880	C	10	10	150	8880	1.62	1.62	0.01
6	TSC0100010CR7050	C	10	10	180	7050	2.04	2.04	0.02
7	TSC0100010CR5940	C	10	10	210	5940	2.42	2.42	0.02
8	TSC0100013CR44600	C	10	13	30	44600	0.32	0.25	0
9	TSC0100013CR19800	C	10	13	60	19800	0.73	0.56	0.01
10	TSC0100013CR13300	C	10	13	90	13300	1.08	0.83	0.01
11	TSC0100013CR9410	C	10	13	120	9410	1.53	1.18	0.01
12	TSC0100013CR7050	C	10	13	150	7050	2.04	1.57	0.02
13	TSC0100013CR5610	C	10	13	180	5610	2.57	1.98	0.02
14	TSC0100013CR4460	C	10	13	210	4460	3.23	2.48	0.03
15	TSC0100016CR35400	C	10	16	30	35400	0.41	0.26	0
16	TSC0100016CR16700	C	10	16	60	16700	0.86	0.54	0.01
17	TSC0100016CR10600	C	10	16	90	10600	1.36	0.85	0.01
18	TSC0100016CR7470	C	10	16	120	7470	1.93	1.21	0.02
19	TSC0100016CR5610	C	10	16	150	5610	2.57	1.61	0.02
20	TSC0100016CR4460	C	10	16	180	4460	3.23	2.02	0.03
21	TSC0100016CR3750	C	10	16	210	3750	3.84	2.40	0.03
22	TSC0100020CR28000	C	10	20	30	28000	0.51	0.26	0
23	TSC0100020CR13300	C	10	20	60	13300	1.08	0.54	0.01
24	TSC0100020CR8380	C	10	20	90	8380	1.72	0.86	0.01
25	TSC0100020CR5940	C	10	20	120	5940	2.42	1.21	0.02
26	TSC0100020CR4460	C	10	20	150	4460	3.23	1.62	0.03
27	TSC0100020CR3540	C	10	20	180	3540	4.07	2.04	0.03
28	TSC0100020CR2970	C	10	20	210	2970	4.85	2.43	0.04
29	TSC0100025CR22200	C	10	25	30	22200	0.65	0.26	0.01
30	TSC0100025CR10600	C	10	25	60	10600	1.36	0.54	0.01
31	TSC0100025CR6660	C	10	25	90	6660	2.16	0.86	0.02
32	TSC0100025CR4720	C	10	25	120	4720	3.05	1.22	0.03
33	TSC0100025CR3540	C	10	25	150	3540	4.07	1.63	0.03

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
34	TSC0100025CR2800	C	10	25	180	2800	5.14	2.06	0.04
35	TSC0100025CR2350	C	10	25	210	2350	6.13	2.45	0.05
36	TSC0100032CR17700	C	10	32	30	17700	0.81	0.25	0.01
37	TSC0100032CR8380	C	10	32	60	8380	1.72	0.54	0.01
38	TSC0100032CR5300	C	10	32	90	5300	2.72	0.85	0.02
39	TSC0100032CR3750	C	10	32	120	3750	3.84	1.20	0.03
40	TSC0100032CR2800	C	10	32	150	2800	5.14	1.61	0.04
41	TSC0100032CR2220	C	10	32	180	2220	6.49	2.03	0.05
42	TSC0100032CR1870	C	10	32	210	1870	7.7	2.41	0.06
43	TSC0100040CR14100	C	10	40	30	14100	1.02	0.26	0.01
44	TSC0100040CR6660	C	10	40	60	6660	2.16	0.54	0.02
45	TSC0100040CR4210	C	10	40	90	4210	3.42	0.86	0.03
46	TSC0100040CR2970	C	10	40	120	2970	4.85	1.21	0.04
47	TSC0100040CR2220	C	10	40	150	2220	6.49	1.62	0.05
48	TSC0100040CR1770	C	10	40	180	1770	8.14	2.04	0.07
49	TSC0100040CR1490	C	10	40	210	1490	9.66	2.42	0.08
50	TSC0130013CR37500	C	13	13	30	37500	0.38	0.22	0
51	TSC0130013CR17700	C	13	13	60	17700	0.81	0.48	0.01
52	TSC0130013CR11200	C	13	13	90	11200	1.29	0.76	0.01
53	TSC0130013CR7910	C	13	13	120	7910	1.82	1.08	0.02
54	TSC0130013CR6290	C	13	13	150	6290	2.29	1.36	0.02
55	TSC0130013CR5000	C	13	13	180	5000	2.88	1.70	0.02
56	TSC0130013CR3970	C	13	13	210	3970	3.63	2.15	0.03
57	TSC0130016CR31500	C	13	16	30	31500	0.46	0.22	0
58	TSC0130016CR14900	C	13	16	60	14900	0.97	0.47	0.01
59	TSC0130016CR9410	C	13	16	90	9410	1.53	0.74	0.01
60	TSC0130016CR6660	C	13	16	120	6660	2.16	1.04	0.02
61	TSC0130016CR5000	C	13	16	150	5000	2.88	1.38	0.02
62	TSC01300								



# STANDARD | Rectangular 120V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
67	TSC0130020CR5300	C	13	20	120	5300	2.72	1.05	0.02
68	TSC0130020CR3970	C	13	20	150	3970	3.63	1.40	0.03
69	TSC0130020CR3150	C	13	20	180	3150	4.57	1.76	0.04
70	TSC0130020CR2640	C	13	20	210	2640	5.45	2.10	0.05
71	TSC0130025CR19800	C	13	25	30	19800	0.73	0.22	0.01
72	TSC0130025CR9410	C	13	25	60	9410	1.53	0.47	0.01
73	TSC0130025CR5940	C	13	25	90	5940	2.42	0.74	0.02
74	TSC0130025CR4210	C	13	25	120	4210	3.42	1.05	0.03
75	TSC0130025CR3150	C	13	25	150	3150	4.57	1.41	0.04
76	TSC0130025CR2490	C	13	25	180	2490	5.78	1.78	0.05
77	TSC0130025CR2100	C	13	25	210	2100	6.86	2.11	0.06
78	TSC0130032CR15800	C	13	32	30	15800	0.91	0.22	0.01
79	TSC0130032CR7470	C	13	32	60	7470	1.93	0.46	0.02
80	TSC0130032CR4720	C	13	32	90	4720	3.05	0.73	0.03
81	TSC0130032CR3340	C	13	32	120	3340	4.31	1.04	0.04
82	TSC0130032CR2490	C	13	32	150	2490	5.78	1.39	0.05
83	TSC0130032CR1980	C	13	32	180	1980	7.27	1.75	0.06
84	TSC0130032CR1670	C	13	32	210	1670	8.62	2.07	0.07
85	TSC0130040CR12600	C	13	40	30	12600	1.14	0.22	0.01
86	TSC0130040CR5940	C	13	40	60	5940	2.42	0.47	0.02
87	TSC0130040CR3750	C	13	40	90	3750	3.84	0.74	0.03
88	TSC0130040CR2640	C	13	40	120	2640	5.45	1.05	0.05
89	TSC0130040CR1980	C	13	40	150	1980	7.27	1.40	0.06
90	TSC0130040CR1580	C	13	40	180	1580	9.11	1.75	0.08
91	TSC0130040CR1330	C	13	40	210	1330	10.83	2.08	0.09
92	TSC0130050CR10000	C	13	50	30	10000	1.44	0.22	0.01
93	TSC0130050CR4720	C	13	50	60	4720	3.05	0.47	0.03
94	TSC0130050CR2970	C	13	50	90	2970	4.85	0.75	0.04
95	TSC0130050CR2100	C	13	50	120	2100	6.86	1.06	0.06
96	TSC0130050CR1580	C	13	50	150	1580	9.11	1.40	0.08
97	TSC0130050CR1260	C	13	50	180	1260	11.43	1.76	0.1
98	TSC0130050CR1060	C	13	50	210	1060	13.58	2.09	0.11
99	TSC0160016CR29700	C	16	16	30	29700	0.48	0.19	0
100	TSC0160016CR14100	C	16	16	60	14100	1.02	0.40	0.01
101	TSC0160016CR8880	C	16	16	90	8880	1.62	0.63	0.01
102	TSC0160016CR6290	C	16	16	120	6290	2.29	0.89	0.02
103	TSC0160016CR4720	C	16	16	150	4720	3.05	1.19	0.03
104	TSC0160016CR3750	C	16	16	180	3750	3.84	1.50	0.03
105	TSC0160016CR3150	C	16	16	210	3150	4.57	1.79	0.04
106	TSC0160020CR23500	C	16	20	30	23500	0.61	0.19	0.01
107	TSC0160020CR11200	C	16	20	60	11200	1.29	0.40	0.01
108	TSC0160020CR7050	C	16	20	90	7050	2.04	0.64	0.02
109	TSC0160020CR5000	C	16	20	120	5000	2.88	0.90	0.02
110	TSC0160020CR3750	C	16	20	150	3750	3.84	1.20	0.03
111	TSC0160020CR2970	C	16	20	180	2970	4.85	1.52	0.04
112	TSC0160020CR2490	C	16	20	210	2490	5.78	1.81	0.05
113	TSC0160025CR18700	C	16	25	30	18700	0.77	0.19	0.01
114	TSC0160025CR8880	C	16	25	60	8880	1.62	0.41	0.01
115	TSC0160025CR5610	C	16	25	90	5610	2.57	0.64	0.02
116	TSC0160025CR3970	C	16	25	120	3970	3.63	0.91	0.03
117	TSC0160025CR2970	C	16	25	150	2970	4.85	1.21	0.04
118	TSC0160025CR2490	C	16	25	180	2490	5.78	1.45	0.05
119	TSC0160025CR1980	C	16	25	210	1980	7.27	1.82	0.06
120	TSC0160032CR14900	C	16	32	30	14900	0.97	0.19	0.01
121	TSC0160032CR7050	C	16	32	60	7050	2.04	0.40	0.02
122	TSC0160032CR4460	C	16	32	90	4460	3.23	0.63	0.03
123	TSC0160032CR3150	C	16	32	120	3150	4.57	0.89	0.04
124	TSC0160032CR2350	C	16	32	150	2350	6.13	1.20	0.05
125	TSC0160032CR1870	C	16	32	180	1870	7.7	1.50	0.06
126	TSC0160032CR1580	C	16	32	210	1580	9.11	1.78	0.08
127	TSC0160040CR11900	C	16	40	30	11900	1.21	0.19	0.01
128	TSC0160040CR5610	C	16	40	60	5610	2.57	0.40	0.02
129	TSC0160040CR3540	C	16	40	90	3540	4.07	0.64	0.03
130	TSC0160040CR2490	C	16	40	120	2490	5.78	0.90	0.05
131	TSC0160040CR1870	C	16	40	150	1870	7.7	1.20	0.06
132	TSC0160040CR1490	C	16	40	180	1490	9.66	1.51	0.08
133	TSC0160040CR1260	C	16	40	210	1260	11.43	1.79	0.1
134	TSC0160050CR9410	C	16	50	30	9410	1.53	0.19	0.01
135	TSC0160050CR4460	C	16	50	60	4460	3.23	0.40	0.03
136	TSC0160050CR2800	C	16	50	90	2800	5.14	0.64	0.04
137	TSC0160050CR1980	C	16	50	120	1980	7.27	0.91	0.06
138	TSC0160050CR1490	C	16	50	150	1490	9.66	1.21	0.08
139	TSC0160050CR1190	C	16	50	180	1190	12.1	1.51	0.1
140	TSC0160050CR1000	C	16	50	210	1000	14.4	1.80	0.12
141	TSC0160063CR7470	C	16	63	30	7470	1.93	0.19	0.02
142	TSC0160063CR3540	C	16	63	60	3540	4.07	0.40	0.03
143	TSC0160063CR2220	C	16	63	90	2220	6.49	0.64	0.05
144	TSC0160063CR1580	C	16	63	120	1580	9.11	0.90	0.08
145	TSC0160063CR1190	C	16	63	150	1190	12.1	1.20	0.1
146	TSC0160063CR941	C	16	63	180	941	15.3	1.52	0.13
147	TSC0160063CR791	C	16	63	210	791	18.2	1.81	0.15
148	TSC0200020CR23500	C	20	20	30	23500	0.61	0.15	0.01
149	TSC0200020CR11900	C	20	20	60	11900	1.21	0.30	0.01
150	TSC0200020CR7050	C	20	20	90	7050	2.04	0.51	0.02
151	TSC0200020CR5000	C	20	20	120	5000	2.88	0.72	0.02
152	TSC0200020CR3970	C	20	20	150	3970	3.63	0.91	0.03
153	TSC0200020CR3150	C	20	20	180	3150	4.57	1.14	0.04
154	TSC0200020CR2640	C	20	20	210	2640	5.45	1.36	0.05
155	TSC0200025CR18700	C	20	25	30	18700	0.77	0.15	0.01
156	TSC0200025CR9410	C	20	25	60	9410	1.53	0.31	0.01
157	TSC0200025CR5610	C	20	25	90	5610	2.57	0.51	0.02
158	TSC0200025CR3970	C	20	25	120	3970	3.63	0.73	0.03
159	TSC0200025CR3150	C	20	25	150	3150	4.57	0.91	0.04
160	TSC0200025CR2640	C	20	25	180	2640	5.45	1.09	0.05
161	TSC0200025CR2100	C	20	25	210	2100	6.86	1.37	0.06
162	TSC0200032CR14900	C	20	32	30	14900	0.97	0.15	0.01
163	TSC0200032CR7050	C	20	32	60	7050	2.04	0.32	0.02
164	TSC0200032CR4460	C	20	32	90	4460	3.23	0.50	0.03
165	TSC0200032CR3150	C	20	32	120	3150	4.57	0.71	0.04
166	TSC0200032CR2490	C	20	32	150	2490	5.78	0.90	0.05
167	TSC0200032CR1980	C	20	32	180	1980	7.27	1.14	0.06
168	TSC0200032CR1670	C	20	32	210	1670	8.62	1.35	0.07
169	TSC0200040CR11900	C	20	40	30	11900	1.21	0.15	0.01
170	TSC0200040CR5940	C	20	40	60	5940	2.42	0.30	0.02
171	TSC0200040CR3540	C	20	40	90	3540	4.07	0.51	0.03
172	TSC0200040CR2490	C	20	40	120	2490	5.78	0.72	0.05
173	TSC0200040CR1980	C	20	40	150	1980	7.27	0.91	0.06
174	TSC0200040CR1580	C	20	40	180	1580	9.11	1.14	0.08
175	TSC0200040CR1330	C	20	40	210	1330	10.83	1.35	0.09
176	TSC0200050CR9410	C	20	50	30	9410	1.53	0.15	0.01
177	TSC0200050CR4720	C	20	50	60	4720	3.05	0.31	0.03
178	TSC0200050CR2800	C	20	50	90	2800	5.14	0.51	0.04
179	TSC0200050CR1980	C	20	50	120	1980	7.27	0.73	0.06
180	TSC0200050CR1580	C	20	50	150	1580	9.11	0.91	0.08
181	TSC0200050CR1260	C	20	50	180	1260	11.43	1.14	0.1
182	TSC0200050CR1060	C	20	50	210	1060	13.58	1.36	0.11
183	TSC0200063CR7470	C	20	63	30	7470	1.93	0.15	0.02
184	TSC0200063CR3750	C	20	63	60	3750	3.84	0.30	0.03
185	TSC0200063CR2220	C	20	63	90	2220	6.49	0.52	0.05
186	TSC0200063CR1580	C	20	63	120	1580	9.11	0.72	0.08
187	TSC0200063CR1260	C	20	63	150	1260	11.43	0.91	0.1
188	TSC0200063CR1000	C	20	63	180	1000	14.4	1.14	0.12
189	TSC0200063CR838	C	20	63	210	838	17.18	1.36	0.14
190	TSC0200080CR5940	C	20	80	30	5940	2.42	0.15	0.02
191	TSC0200080CR2970	C	20	80	60	2970	4.85	0.30	0.04
192	TSC0200080CR1770	C	20	80	90	1770	8.14	0.51	0.07
193	TSC0200080CR1260	C	20	80	120	1260	11.43	0.71	0.1
194	TSC0200080CR1000	C	20	80	150	1000	14.4	0.90	0.12
195	TSA(C)0200080CR791	A & C	20	80	180	791	18.2	1.14	0.15
196	TSA(C)0200080CR666	A & C	20	80					

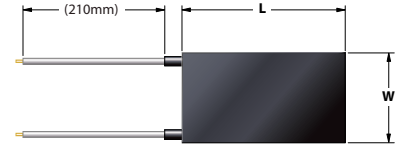
# STANDARD | Rectangular 120V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
213	TSC0250040CR2970	C	25	40	90	2970	4.85	0.49	0.04
214	TSC0250040CR2100	C	25	40	120	2100	6.86	0.69	0.06
215	TSC0250040CR1670	C	25	40	150	1670	8.62	0.86	0.07
216	TSC0250040CR1330	C	25	40	180	1330	10.83	1.08	0.09
217	TSC0250040CR1120	C	25	40	210	1120	12.86	1.29	0.11
218	TSC0250050CR7910	C	25	50	30	7910	1.82	0.15	0.02
219	TSC0250050CR3750	C	25	50	60	3750	3.84	0.31	0.03
220	TSC0250050CR2350	C	25	50	90	2350	6.13	0.49	0.05
221	TSC0250050CR1670	C	25	50	120	1670	8.62	0.69	0.07
222	TSC0250050CR1330	C	25	50	150	1330	10.83	0.87	0.09
223	TSC0250050CR1060	C	25	50	180	1060	13.58	1.09	0.11
224	TSC0250050CR888	C	25	50	210	888	16.22	1.30	0.14
225	TSC0250063CR6290	C	25	63	30	6290	2.29	0.15	0.02
226	TSC0250063CR2970	C	25	63	60	2970	4.85	0.31	0.04
227	TSC0250063CR1870	C	25	63	90	1870	7.7	0.49	0.06
228	TSC0250063CR1330	C	25	63	120	1330	10.83	0.69	0.09
229	TSC0250063CR1060	C	25	63	150	1060	13.58	0.86	0.11
230	TSA(C)0250063CR838	A & C	25	63	180	838	17.18	1.09	0.14
234	TSA(C)0250063CR705	A & C	25	63	210	705	20.43	1.30	0.17
232	TSC0250080CR5000	C	25	80	30	5000	2.88	0.14	0.02
233	TSC0250080CR2350	C	25	80	60	2350	6.13	0.31	0.05
234	TSC0250080CR1490	C	25	80	90	1490	9.66	0.48	0.08
235	TSA(C)0250080CR1060	A & C	25	80	120	1060	13.58	0.68	0.11
236	TSA(C)0250080CR838	A & C	25	80	150	838	17.18	0.86	0.14
237	TSA(C)0250080CR666	A & C	25	80	180	666	21.62	1.08	0.18
238	TSA(C)0250080CR561	A & C	25	80	210	561	25.67	1.28	0.21
239	TSC0250100CR3970	C	25	100	30	3970	3.63	0.15	0.03
240	TSC0250100CR1980	C	25	100	60	1980	7.27	0.29	0.06
241	TSA(C)0250100CR1190	A & C	25	100	90	1190	12.1	0.48	0.1
242	TSA(C)0250100CR838	A & C	25	100	120	838	17.18	0.69	0.14
243	TSA(C)0250100CR666	A & C	25	100	150	666	21.62	0.86	0.18
244	TSA(C)0250100CR530	A & C	25	100	180	530	27.17	1.09	0.23
245	TSA(C)0250100CR446	A & C	25	100	210	446	32.29	1.29	0.27
246	TSC0320032CR10600	C	32	32	30	10600	1.36	0.13	0.01
247	TSC0320032CR5000	C	32	32	60	5000	2.88	0.28	0.02
248	TSC0320032CR3150	C	32	32	90	3150	4.57	0.45	0.04
249	TSC0320032CR2220	C	32	32	120	2220	6.49	0.63	0.05
250	TSC0320032CR1770	C	32	32	150	1770	8.14	0.79	0.07
251	TSC0320032CR1410	C	32	32	180	1410	10.21	1.00	0.09
252	TSC0320032CR1190	C	32	32	210	1190	12.1	1.18	0.11
253	TSC0320040CR8380	C	32	40	30	8380	1.72	0.13	0.01
254	TSC0320040CR3970	C	32	40	60	3970	3.63	0.28	0.03
255	TSC0320040CR2490	C	32	40	90	2490	5.78	0.45	0.05
256	TSC0320040CR1770	C	32	40	120	1770	8.14	0.64	0.07
257	TSC0320040CR1410	C	32	40	150	1410	10.21	0.80	0.09
258	TSC0320040CR1120	C	32	40	180	1120	12.86	1.00	0.11
259	TSC0320040CR941	C	32	40	210	941	15.3	1.20	0.13
260	TSC0320050CR6660	C	32	50	30	6660	2.16	0.14	0.02
261	TSC0320050CR3150	C	32	50	60	3150	4.57	0.29	0.04
262	TSC0320050CR1980	C	32	50	90	1980	7.27	0.45	0.06
263	TSC0320050CR1410	C	32	50	120	1410	10.21	0.64	0.09
264	TSC0320050CR1120	C	32	50	150	1120	12.86	0.80	0.11
265	TSA(C)0320050CR888	A & C	32	50	180	888	16.22	1.01	0.14
266	TSA(C)0320050CR747	A & C	32	50	210	747	19.28	1.21	0.16
267	TSC0320063CR5300	C	32	63	30	5300	2.72	0.13	0.02
268	TSC0320063CR2490	C	32	63	60	2490	5.78	0.29	0.05
269	TSC0320063CR1580	C	32	63	90	1580	9.11	0.45	0.08
270	TSA(C)0320063CR1120	A & C	32	63	120	1120	12.86	0.64	0.11
271	TSA(C)0320063CR888	A & C	32	63	150	888	16.22	0.80	0.14
272	TSA(C)0320063CR705	A & C	32	63	180	705	20.43	1.01	0.17
273	TSA(C)0320063CR594	A & C	32	63	210	594	24.24	1.20	0.2
274	TSC0320080CR4210	C	32	80	30	4210	3.42	0.13	0.03
275	TSC0320080CR1980	C	32	80	60	1980	7.27	0.28	0.06
276	TSA(C)0320080CR1260	A & C	32	80	90	1260	11.43	0.45	0.1
277	TSA(C)0320080CR888	A & C	32	80	120	888	16.22	0.63	0.14
278	TSA(C)0320080CR705	A & C	32	80	150	705	20.43	0.80	0.17
279	TSA(C)0320080CR561	A & C	32	80	180	561	25.67	1.00	0.21
280	TSA(C)0320080CR472	A & C	32	80	210	472	30.51	1.19	0.25
281	TSC0320100CR3340	C	32	100	30	3340	4.31	0.13	0.04
282	TSA(C)0320100CR1580	A & C	32	100	60	1580	9.11	0.28	0.08
283	TSA(C)0320100CR1000	A & C	32	100	90	1000	14.4	0.45	0.12
284	TSA(C)0320100CR705	A & C	32	100	120	705	20.43	0.64	0.17
285	TSA(C)0320100CR561	A & C	32	100	150	561	25.67	0.80	0.21

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
286	TSA(C)0320100CR446	A & C	32	100	180	446	32.29	1.01	0.27
287	TSA(C)0320100CR375	A & C	32	100	210	375	38.4	1.20	0.32
288	TSC0320125CR2640	C	32	125	30	2640	5.45	0.14	0.05
289	TSA(C)0320125CR1260	A & C	32	125	60	1260	11.43	0.29	0.1
290	TSA(C)0320125CR791	A & C	32	125	90	791	18.2	0.46	0.15
291	TSA(C)0320125CR561	A & C	32	125	120	561	25.67	0.64	0.21
292	TSA(C)0320125CR446	A & C	32	125	150	446	32.29	0.81	0.27
293	TSA(C)0320125CR354	A & C	32	125	180	354	40.68	1.02	0.34
294	TSA(C)0320125CR297	A & C	32	125	210	297	48.48	1.21	0.4
295	TSC0400040CR7050	C	40	40	30	7050	2.04	0.13	0.02
296	TSC0400040CR3340	C	40	40	60	3340	4.31	0.27	0.04
297	TSC0400040CR2100	C	40	40	90	2100	6.86	0.43	0.06
298	TSC0400040CR1490	C	40	40	120	1490	9.66	0.60	0.08
299	TSC0400040CR1190	C	40	40	150	1190	12.1	0.76	0.1
300	TSA(C)0400040CR941	A & C	40	40	180	941	15.3	0.96	0.13
301	TSA(C)0400040CR791	A & C	40	40	210	791	18.2	1.14	0.15
302	TSC0400050CR5610	C	40	50	30	5610	2.57	0.13	0.02
303	TSC0400050CR2640	C	40	50	60	2640	5.45	0.27	0.05
304	TSC0400050CR1670	C	40	50	90	1670	8.62	0.43	0.07
305	TSA(C)0400050CR1190	A & C	40	50	120	1190	12.1	0.61	0.1
306	TSA(C)0400050CR941	A & C	40	50	150	941	15.3	0.77	0.13
307	TSA(C)0400050CR747	A & C	40	50	180	747	19.28	0.96	0.16
308	TSA(C)0400050CR629	A & C	40	50	210	629	22.89	1.14	0.19
309	TSC0400063CR4460	C	40	63	30	4460	3.23	0.13	0.03
310	TSC0400063CR2100	C	40	63	60	2100	6.86	0.27	0.06
311	TSA(C)0400063CR1330	A & C	40	63	90	1330	10.83	0.43	0.09
312	TSA(C)0400063CR941	A & C	40	63	120	941	15.3	0.61	0.13
313	TSA(C)0400063CR747	A & C	40	63	150	747	19.28	0.77	0.16
314	TSA(C)0400063CR594	A & C	40	63	180	594	24.24	0.96	0.2
315	TSA(C)0400063CR500	A & C	40	63	210	500	28.8	1.14	0.24
316	TSC0400080CR3540	C	40	80	30	3540	4.07	0.13	0.03
317	TSA(C)0400080CR1670	A & C	40	80	60	1670	8.62	0.27	0.07
318	TSA(C)0400080CR1060	A & C	40	80	90	1060	13.58	0.42	0.11
319	TSA(C)0400080CR747	A & C	40	80	120	747	19.28	0.60	0.16
320	TSA(C)0400080CR594	A & C	40	80	150	594	24.24	0.76	0.2
321	TSA(C)0400080CR472	A & C	40	80	180	472	30.51	0.95	0.25
322	TSA(C)0400080CR397	A & C	40	80	210	397	36.27	1.13	0.3
323	TSC0400100CR2800	C	40	100	30	2800	5.14	0.13	0.04
324	TSA(C)0400100CR1330	A & C	40	100	60	1330	10.83	0.27	0.09
325	TSA(C)0400100CR838	A & C	40	100	90	838	17.18	0.43	0.14
326	TSA(C)0400100CR594	A & C	40	100	120	594	24.24	0.61	0.2
327	TSA(C)0400100CR472	A & C	40	100	150	472	30.51	0.76	0.25
328	TSA(C)0400100CR375	A & C	40	100	180	375	38.4	0.96	0.32
329	TSA(C)0400100CR315	A & C	40	100	210	315	45.71	1.14	0.38
330	TSA(C)0400125CR2220	A & C	40	125	30	2220	6.49	0.13	0.05
331	TSA(C)0400125CR1060	A & C	40	125	60	1060	13.58	0.27	0.11
332	TSA(C)0400125CR666	A & C	40	125	90	666	21.62	0.43	0.18
333	TSA(C)0400125CR472	A & C	40	125	120	472	30.51	0.61	0.25
334	TSA(C)0400125CR375	A & C	40	125	150	375	38.4	0.77	0.32
335	TSA(C)0400125CR297	A & C	40	125	180	297	48.48	0.97	0.4
336	TSA(C)0400125CR249	A & C	40	125	210	249	57.83	1.16	0.48</

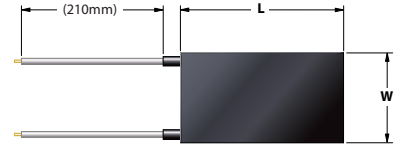
# STANDARD | Rectangular 120V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
359	TSA(C)0500080CR1410	A & C	50	80	60	1410	10.21	0.26	0.09	432	TSA(C)0630200CR167	A & C	63	200	150	167	86.23	0.68	0.72
360	TSA(C)0500080CR888	A & C	50	80	90	888	16.22	0.41	0.14	433	TSA(C)0630200CR133	A & C	63	200	180	133	108.27	0.86	0.9
361	TSA(C)0500080CR629	A & C	50	80	120	629	22.89	0.57	0.19	434	TSA(C)0630200CR112	A & C	63	200	210	112	128.57	1.02	1.07
362	TSA(C)0500080CR500	A & C	50	80	150	500	28.8	0.72	0.24	435	TSA(C)0630250CR791	A & C	63	250	30	791	18.2	0.12	0.15
363	TSA(C)0500080CR397	A & C	50	80	180	397	36.27	0.91	0.3	436	TSA(C)0630250CR375	A & C	63	250	60	375	38.4	0.24	0.32
364	TSA(C)0500080CR334	A & C	50	80	210	334	43.11	1.08	0.36	437	TSA(C)0630250CR249	A & C	63	250	90	249	57.83	0.37	0.48
365	TSA(C)0500100CR2350	A & C	50	100	30	2350	6.13	0.12	0.05	438	TSA(C)0630250CR167	A & C	63	250	120	167	86.23	0.55	0.72
366	TSA(C)0500100CR1120	A & C	50	100	60	1120	12.86	0.26	0.11	439	TSA(C)0630250CR133	A & C	63	250	150	133	108.27	0.69	0.9
367	TSA(C)0500100CR705	A & C	50	100	90	705	20.43	0.41	0.17	440	TSA(C)0630250CR106	A & C	63	250	180	106	135.85	0.86	1.13
368	TSA(C)0500100CR500	A & C	50	100	120	500	28.8	0.58	0.24	441	TSA(C)0630250CR88.8	A & C	63	250	210	88.8	162.16	1.03	1.35
369	TSA(C)0500100CR397	A & C	50	100	150	397	36.27	0.73	0.3	442	TSA(C)0800080CR2100	A & C	80	80	30	2100	6.86	0.11	0.06
370	TSA(C)0500100CR315	A & C	50	100	180	315	45.71	0.91	0.38	443	TSA(C)0800080CR1060	A & C	80	80	60	1060	13.58	0.21	0.11
371	TSA(C)0500100CR264	A & C	50	100	210	264	54.55	1.09	0.45	444	TSA(C)0800080CR666	A & C	80	80	90	666	21.62	0.34	0.18
372	TSA(C)0500125CR1870	A & C	50	125	30	1870	7.7	0.12	0.06	445	TSA(C)0800080CR446	A & C	80	80	120	446	32.29	0.50	0.27
373	TSA(C)0500125CR888	A & C	50	125	60	888	16.22	0.26	0.14	446	TSA(C)0800080CR354	A & C	80	80	150	354	40.68	0.64	0.34
374	TSA(C)0500125CR561	A & C	50	125	90	561	25.67	0.41	0.21	447	TSA(C)0800080CR297	A & C	80	80	180	297	48.48	0.76	0.4
375	TSA(C)0500125CR397	A & C	50	125	120	397	36.27	0.58	0.3	448	TSA(C)0800080CR235	A & C	80	80	210	235	61.28	0.96	0.51
376	TSA(C)0500125CR315	A & C	50	125	150	315	45.71	0.73	0.38	449	TSA(C)0800100CR1670	A & C	80	100	30	1670	8.62	0.11	0.07
377	TSA(C)0500125CR264	A & C	50	125	180	264	54.55	0.87	0.45	450	TSA(C)0800100CR838	A & C	80	100	60	838	17.18	0.21	0.14
378	TSA(C)0500125CR222	A & C	50	125	210	222	64.86	1.04	0.54	451	TSA(C)0800100CR530	A & C	80	100	90	530	27.17	0.34	0.23
379	TSA(C)0500160CR1410	A & C	50	160	30	1410	10.21	0.13	0.09	452	TSA(C)0800100CR375	A & C	80	100	120	375	38.4	0.48	0.32
380	TSA(C)0500160CR705	A & C	50	160	60	705	20.43	0.26	0.17	453	TSA(C)0800100CR280	A & C	80	100	150	280	51.43	0.64	0.43
381	TSA(C)0500160CR446	A & C	50	160	90	446	32.29	0.40	0.27	454	TSA(C)0800100CR235	A & C	80	100	180	235	61.28	0.77	0.51
382	TSA(C)0500160CR315	A & C	50	160	120	315	45.71	0.57	0.38	455	TSA(C)0800100CR198	A & C	80	100	210	198	72.73	0.91	0.61
383	TSA(C)0500160CR249	A & C	50	160	150	249	57.83	0.72	0.48	456	TSA(C)0800125CR1330	A & C	80	125	30	1330	10.83	0.11	0.09
384	TSA(C)0500160CR198	A & C	50	160	180	198	72.73	0.91	0.61	457	TSA(C)0800125CR666	A & C	80	125	60	666	21.62	0.22	0.18
385	TSA(C)0500160CR167	A & C	50	160	210	167	86.23	1.08	0.72	458	TSA(C)0800125CR421	A & C	80	125	90	421	34.2	0.34	0.29
386	TSA(C)0500200CR1190	A & C	50	200	30	1190	12.1	0.12	0.1	459	TSA(C)0800125CR297	A & C	80	125	120	297	48.48	0.48	0.4
387	TSA(C)0500200CR561	A & C	50	200	60	561	25.67	0.26	0.21	460	TSA(C)0800125CR222	A & C	80	125	150	222	64.86	0.65	0.54
388	TSA(C)0500200CR354	A & C	50	200	90	354	40.68	0.41	0.34	461	TSA(C)0800125CR187	A & C	80	125	180	187	77.01	0.77	0.64
389	TSA(C)0500200CR249	A & C	50	200	120	249	57.83	0.58	0.48	462	TSA(C)0800125CR158	A & C	80	125	210	158	91.14	0.91	0.76
390	TSA(C)0500200CR198	A & C	50	200	150	198	72.73	0.73	0.61	463	TSA(C)0800160CR1060	A & C	80	160	30	1060	13.58	0.11	0.11
391	TSA(C)0500200CR158	A & C	50	200	180	158	91.14	0.91	0.76	464	TSA(C)0800160CR530	A & C	80	160	60	530	27.17	0.21	0.23
392	TSA(C)0500200CR133	A & C	50	200	210	133	108.27	1.08	0.9	465	TSA(C)0800160CR334	A & C	80	160	90	334	43.11	0.34	0.36
393	TSC0630063CR3150	C	63	63	30	3150	4.57	0.12	0.04	466	TSA(C)0800160CR235	A & C	80	160	120	235	61.28	0.48	0.51
394	TSA(C)0630063CR1490	A & C	63	63	60	1490	9.66	0.24	0.08	467	TSA(C)0800160CR177	A & C	80	160	150	177	81.36	0.64	0.68
395	TSA(C)0630063CR941	A & C	63	63	90	941	15.3	0.39	0.13	468	TSA(C)0800160CR149	A & C	80	160	180	149	96.64	0.76	0.81
396	TSA(C)0630063CR666	A & C	63	63	120	666	21.62	0.54	0.18	469	TSA(C)0800160CR119	A & C	80	160	210	119	121.01	0.95	1.01
397	TSA(C)0630063CR530	A & C	63	63	150	530	27.17	0.68	0.23	470	TSA(C)0800200CR838	A & C	80	200	30	838	17.18	0.11	0.14
398	TSA(C)0630063CR421	A & C	63	63	180	421	34.2	0.86	0.29	471	TSA(C)0800200CR41	A & C	80	200	60	421	34.2	0.21	0.29
399	TSA(C)0630063CR354	A & C	63	63	210	354	40.68	1.02	0.34	472	TSA(C)0800200CR264	A & C	80	200	90	264	54.55	0.34	0.45
400	TSA(C)0630080CR2490	A & C	63	80	30	2490	5.78	0.11	0.05	473	TSA(C)0800200CR187	A & C	80	200	120	187	77.01	0.48	0.64
401	TSA(C)0630080CR1190	A & C	63	80	60	1190	12.1	0.24	0.1	474	TSA(C)0800200CR141	A & C	80	200	150	141	102.13	0.64	0.85
402	TSA(C)0630080CR747	A & C	63	80	90	747	19.28	0.38	0.16	475	TSA(C)0800200CR119	A & C	80	200	180	119	121.01	0.76	1.01
403	TSA(C)0630080CR530	A & C	63	80	120	530	27.17	0.54	0.23	476	TSA(C)0800200CR94.1	A & C	80	200	210	94.1	153.03	0.96	1.28
404	TSA(C)0630080CR421	A & C	63	80	150	421	34.2	0.68	0.29	477	TSA(C)0800250CR666	A & C	80	250	30	666	21.62	0.11	0.18
405	TSA(C)0630080CR334	A & C	63	80	180	334	43.11	0.86	0.36	478	TSA(C)0800250CR334	A & C	80	250	60	334	43.11	0.22	0.36
406	TSA(C)0630080CR280	A & C	63	80	210	280	51.43	1.02	0.43	479	TSA(C)0800250CR210	A & C	80	250	90	210	68.57	0.34	0.57
407	TSA(C)0630100CR1980	A & C	63	100	30	1980	7.27	0.12	0.06	480	TSA(C)0800300CR149	A & C	80	300	120	149	96.64	0.48	0.81
408	TSA(C)0630100CR941	A & C	63	100	60	941	15.3	0.24	0.13	481	TSA(C)0800300CR112	A & C	80	300	150	112	128.57	0.64	1.07
409	TSA(C)0630100CR594	A & C	63	100	90	594	24.24	0.38	0.2	482	TSA(C)0800250CR94.1	A & C	80	250	180	94.1	153.03	0.77	1.28
410	TSA(C)0630100CR421	A & C	63	100	120	421	34.2	0.54	0.29	483	TSA(C)0800250CR79.1	A & C	80	250	210	79.1	182.05	0.91	1.52
411	TSA(C)0630100CR334	A & C	63	100	150	334	43.11	0.68	0.36	484	TSA(C)0800300CR561	A & C	80	300	30	561	25.67	0.11	0.21
412	TSA(C)0630100CR264	A & C	63	100	180	264	54.55	0.87	0.45	485	TSA(C)0800300CR280	A & C	80	300	60	280	51.43	0.21	0.43
413	TSA(C)0630100CR222	A & C	63	100	210	222	64.86	1.03	0.54	486	TSA(C)0800300CR177	A & C	80	300	90	177	81.36	0.34	0.68
414	TSA(C)0630125CR1580	A & C	63	125	30	1580	9.11	0.12	0.08	487	TSA(C)0800300CR119	A & C	80	300	120	119	121.01	0.50	1.01
415	TSA(C)0630125CR747	A & C	63	125	60	747	19.28	0.24	0.16	488	TSA(C)0800300CR94.1	A & C	80	300	150	94.1	153.03	0.64	1.28
416	TSA(C)0630125CR500	A & C	63	125	90	500	28.8	0.37	0.24	489	TSA(C)0800300CR79.1	A & C	80	300	180	79.1	182.05	0.76	1.52
417	TSA(C)0630125CR334	A & C	63	125	120	334	43.11	0.55	0.36	490	TSA(C)0800300CR62.9	A & C	80	300	210	62.9	228.93	0.95	1.91
418	TSA(C)0630125CR264	A & C	63	125	150	264	54.55	0.69	0.45	491	TSA(C)1000100CR1580	A & C	100	100	30	1580	9.11	0.09	0.08
419	TSA(C)0630125CR222	A & C	63	125	180	222	64.86	0.82	0.54	492	TSA(C)1000100CR747	A & C	100	100	60	747	19.28	0.19	0.16
420	TSA(C)0630125CR187	A & C	63	125	210	187	77.01	0.98	0.64	493	TSA(C)1000100CR472								

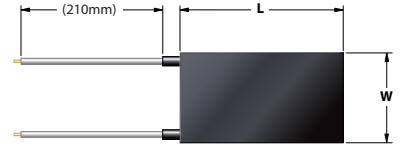


# STANDARD | Rectangular 120V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
505	TSA(C)1000160CR941	A & C	100	160	30	941	15.3	0.10	0.13
506	TSA(C)1000160CR472	A & C	100	160	60	472	30.51	0.19	0.25
507	TSA(C)1000160CR297	A & C	100	160	90	297	48.48	0.30	0.4
508	TSA(C)1000160CR210	A & C	100	160	120	210	68.57	0.43	0.57
509	TSA(C)1000160CR158	A & C	100	160	150	158	91.14	0.57	0.76
510	TSA(C)1000160CR126	A & C	100	160	180	126	114.29	0.71	0.95
511	TSA(C)1000160CR106	A & C	100	160	210	106	135.85	0.85	1.13
512	TSA(C)1000200CR791	A & C	100	200	30	791	18.2	0.09	0.15
513	TSA(C)1000200CR375	A & C	100	200	60	375	38.4	0.19	0.32
514	TSA(C)1000200CR235	A & C	100	200	90	235	61.28	0.31	0.51
515	TSA(C)1000200CR167	A & C	100	200	120	167	86.23	0.43	0.72
516	TSA(C)1000200CR126	A & C	100	200	150	126	114.29	0.57	0.95
517	TSA(C)1000200CR106	A & C	100	200	180	106	135.85	0.68	1.13
518	TSA(C)1000200CR83.8	A & C	100	200	210	83.8	171.84	0.86	1.43
519	TSA(C)1000250CR629	A & C	100	250	30	629	22.89	0.09	0.19
520	TSA(C)1000250CR315	A & C	100	250	60	315	45.71	0.18	0.38
521	TSA(C)1000250CR187	A & C	100	250	90	187	77.01	0.31	0.64
522	TSA(C)1000250CR133	A & C	100	250	120	133	108.27	0.43	0.9
523	TSA(C)1000250CR100	A & C	100	250	150	100	144	0.58	1.2
524	TSA(C)1000250CR83.8	A & C	100	250	180	83.8	171.84	0.69	1.43
525	TSA(C)1000250CR66.6	A & C	100	250	210	66.6	216.22	0.86	1.8
526	TSA(C)1000300CR500	A & C	100	300	30	500	28.8	0.10	0.24
527	TSA(C)1000300CR249	A & C	100	300	60	249	57.83	0.19	0.48
528	TSA(C)1000300CR158	A & C	100	300	90	158	91.14	0.30	0.76
529	TSA(C)1000300CR112	A & C	100	300	120	112	128.57	0.43	1.07
530	TSA(C)1000300CR83.8	A & C	100	300	150	83.8	171.84	0.57	1.43
531	TSA(C)1000300CR70.5	A & C	100	300	180	70.5	204.26	0.68	1.7
532	TSA(C)1000300CR56.1	A & C	100	300	210	56.1	256.68	0.86	2.14
533	TSA(C)1250125CR1060	A & C	125	125	30	1060	13.58	0.09	0.11
534	TSA(C)1250125CR530	A & C	125	125	60	530	27.17	0.17	0.23
535	TSA(C)1250125CR334	A & C	125	125	90	334	43.11	0.28	0.36
536	TSA(C)1250125CR222	A & C	125	125	120	222	64.86	0.42	0.54
537	TSA(C)1250125CR177	A & C	125	125	150	177	81.36	0.52	0.68
538	TSA(C)1250125CR141	A & C	125	125	180	141	102.13	0.65	0.85
539	TSA(C)1250125CR119	A & C	125	125	210	119	121.01	0.77	1.01
540	TSA(C)1250160CR838	A & C	125	160	30	838	17.18	0.09	0.14
541	TSA(C)1250160CR421	A & C	125	160	60	421	34.2	0.17	0.29
542	TSA(C)1250160CR264	A & C	125	160	90	264	54.55	0.27	0.45
543	TSA(C)1250160CR177	A & C	125	160	120	177	81.36	0.41	0.68
544	TSA(C)1250160CR141	A & C	125	160	150	141	102.13	0.51	0.85
545	TSA(C)1250160CR112	A & C	125	160	180	112	128.57	0.64	1.07
546	TSA(C)1250160CR94.1	A & C	125	160	210	94.1	153.03	0.77	1.28
547	TSA(C)1250200CR666	A & C	125	200	30	666	21.62	0.09	0.18
548	TSA(C)1250200CR334	A & C	125	200	60	334	43.11	0.17	0.36
549	TSA(C)1250200CR210	A & C	125	200	90	210	68.57	0.27	0.57
550	TSA(C)1250200CR141	A & C	125	200	120	141	102.13	0.41	0.85
551	TSA(C)1250200CR112	A & C	125	200	150	112	128.57	0.51	1.07
552	TSA(C)1250200CR88.8	A & C	125	200	180	88.8	162.16	0.65	1.35
553	TSA(C)1250200CR74.7	A & C	125	200	210	74.7	192.77	0.77	1.61
554	TSA(C)1250250CR530	A & C	125	250	30	530	27.17	0.09	0.23
555	TSA(C)1250250CR264	A & C	125	250	60	264	54.55	0.17	0.45
556	TSA(C)1250250CR167	A & C	125	250	90	167	86.23	0.28	0.72
557	TSA(C)1250250CR112	A & C	125	250	120	112	128.57	0.41	1.07
558	TSA(C)1250250CR88.8	A & C	125	250	150	88.8	162.16	0.52	1.35
559	TSA(C)1250250CR70.5	A & C	125	250	180	70.5	204.26	0.65	1.7
560	TSA(C)1250250CR59.4	A & C	125	250	210	59.4	242.42	0.78	2.02
561	TSA(C)1250300CR446	A & C	125	300	30	446	32.29	0.09	0.27
562	TSA(C)1250300CR222	A & C	125	300	60	222	64.86	0.17	0.54
563	TSA(C)1250300CR141	A & C	125	300	90	141	102.13	0.27	0.85
564	TSA(C)1250300CR94.1	A & C	125	300	120	94.1	153.03	0.41	1.28
565	TSA(C)1250300CR74.7	A & C	125	300	150	74.7	192.77	0.51	1.61
566	TSA(C)1250300CR59.4	A & C	125	300	180	59.4	242.42	0.65	2.02
567	TSA(C)1250300CR50	A & C	125	300	210	50	288	0.77	2.4
568	TSA(C)1600160CR747	A & C	160	160	30	747	19.28	0.08	0.16
569	TSA(C)1600160CR354	A & C	160	160	60	354	40.68	0.16	0.34
570	TSA(C)1600160CR222	A & C	160	160	90	222	64.86	0.25	0.54
571	TSA(C)1600160CR158	A & C	160	160	120	158	91.14	0.36	0.76

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
572	TSA(C)1600160CR119	A & C	160	160	150	119	121.01	0.47	1.01
573	TSA(C)1600160CR100	A & C	160	160	180	100	144	0.56	1.2
574	TSA(C)1600160CR79.1	A & C	160	160	210	79.1	182.05	0.71	1.52
575	TSA(C)1600200CR594	A & C	160	200	30	594	24.24	0.08	0.2
576	TSA(C)1600200CR297	A & C	160	200	60	297	48.48	0.15	0.4
577	TSA(C)1600200CR187	A & C	160	200	90	187	77.01	0.24	0.64
578	TSA(C)1600200CR126	A & C	160	200	120	126	114.29	0.36	0.95
579	TSA(C)1600200CR94.1	A & C	160	200	150	94.1	153.03	0.48	1.28
580	TSA(C)1600200CR79.1	A & C	160	200	180	79.1	182.05	0.57	1.52
581	TSA(C)1600200CR62.9	A & C	160	200	210	62.9	228.93	0.72	1.91
582	TSA(C)1600250CR472	A & C	160	250	30	472	30.51	0.08	0.25
583	TSA(C)1600250CR235	A & C	160	250	60	235	61.28	0.15	0.51
584	TSA(C)1600250CR149	A & C	160	250	90	149	96.64	0.24	0.81
585	TSA(C)1600250CR100	A & C	160	250	120	100	144	0.36	1.2
586	TSA(C)1600250CR74.7	A & C	160	250	150	74.7	192.77	0.48	1.61
587	TSA(C)1600250CR62.9	A & C	160	250	180	62.9	228.93	0.57	1.91
588	TSA(C)1600250CR53	A & C	160	250	210	53	271.7	0.68	2.26
589	TSA(C)1600300CR397	A & C	160	300	30	397	36.27	0.08	0.3
590	TSA(C)1600300CR198	A & C	160	300	60	198	72.73	0.15	0.61
591	TSA(C)1600300CR119	A & C	160	300	90	119	121.01	0.25	1.01
592	TSA(C)1600300CR83.8	A & C	160	300	120	83.8	171.84	0.36	1.43
593	TSA(C)1600300CR62.9	A & C	160	300	150	62.9	228.93	0.48	1.91
594	TSA(C)1600300CR53	A & C	160	300	180	53	271.7	0.57	2.26
595	TSA(C)1600300CR42.1	A & C	160	300	210	42.1	342.04	0.71	2.85
596	TSA(C)2000200CR500	A & C	200	200	30	500	28.8	0.07	0.24
597	TSA(C)2000200CR249	A & C	200	200	60	249	57.83	0.14	0.48
598	TSA(C)2000200CR158	A & C	200	200	90	158	91.14	0.23	0.76
599	TSA(C)2000200CR106	A & C	200	200	120	106	135.85	0.34	1.13
600	TSA(C)2000200CR83.8	A & C	200	200	150	83.8	171.84	0.43	1.43
601	TSA(C)2000200CR66.6	A & C	200	200	180	66.6	216.22	0.54	1.8
602	TSA(C)2000200CR56.1	A & C	200	200	210	56.1	256.68	0.64	2.14
603	TSA(C)2000250CR397	A & C	200	250	30	397	36.27	0.07	0.3
604	TSA(C)2000250CR198	A & C	200	250	60	198	72.73	0.15	0.61
605	TSA(C)2000250CR126	A & C	200	250	90	126	114.29	0.23	0.95
606	TSA(C)2000250CR83.8	A & C	200	250	120	83.8	171.84	0.34	1.43
607	TSA(C)2000250CR66.6	A & C	200	250	150	66.6	216.22	0.43	1.8
608	TSA(C)2000250CR53	A & C	200	250	180	53	271.7	0.54	2.26
609	TSA(C)2000250CR44.6	A & C	200	250	210	44.6	322.87	0.65	2.69
610	TSA(C)2000300CR334	A & C	200	300	30	334	43.11	0.07	0.36
611	TSA(C)2000300CR167	A & C	200	300	60	167	86.23	0.14	0.72
612	TSA(C)2000300CR106	A & C	200	300	90	106	135.85	0.23	1.13
613	TSA(C)2000300CR70.5	A & C	200	300	120	70.5	204.26	0.34	1.7
614	TSA(C)2000300CR56.1	A & C	200	300	150	56.1	256.68	0.43	2.14
615	TSA(C)2000300CR44.6	A & C	200	300	180	44.6	322.87	0.54	2.69
616	TSA(C)2000300CR37.5	A & C	200	300	210	37.5	384	0.64	3.2
617	TSA(C)2500250CR354	A & C	250	250	30	354	40.68	0.07	0.34
618	TSA(C)2500250CR177	A & C	250	250	60	177	81.36	0.13	0.68
619	TSA(C)2500250CR112	A & C	250	250	90	112	128.57	0.21	1.07
620	TSA(C)2500250CR74.7	A & C	250	250	120	74.7	192.77	0.31	1.61
621	TSA(C)2500250CR59.4	A & C	250	250	150	59.4	242.42	0.39	2.02
622	TSA(C)2500250CR47.2	A & C	250	250	180	47.2	305.08	0.49	2.54
62									

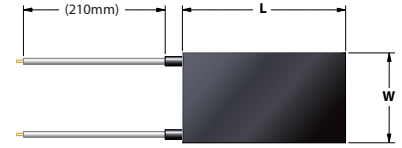


# STANDARD | Rectangular 200V

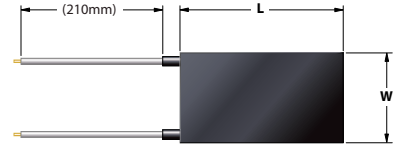
Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010DR74700	C	10	10	60	74700	0.54	0.54	0	74	TSC0130025DR8880	C	13	25	150	8880	4.5	1.38	0.02
2	TSC0100010DR47200	C	10	10	90	47200	0.85	0.85	0	75	TSC0130025DR7050	C	13	25	180	7050	5.67	1.74	0.03
3	TSC0100010DR33400	C	10	10	120	33400	1.2	1.20	0.01	76	TSC0130025DR5940	C	13	25	210	5940	6.73	2.07	0.03
4	TSC0100010DR24900	C	10	10	150	24900	1.61	1.61	0.01	77	TSC0130032DR42100	C	13	32	30	42100	0.95	0.23	0
5	TSC0100010DR19800	C	10	10	180	19800	2.02	2.02	0.01	78	TSC0130032DR19800	C	13	32	60	19800	2.02	0.49	0.01
6	TSC0100010DR16700	C	10	10	210	16700	2.4	2.40	0.01	79	TSC0130032DR12600	C	13	32	90	12600	3.17	0.76	0.02
7	TSC0100013DR119000	C	10	13	30	119000	0.34	0.26	0	80	TSC0130040DR39410	C	13	32	120	9410	4.25	1.02	0.02
8	TSC0100013DR56100	C	10	13	60	56100	0.71	0.55	0	81	TSC0130032DR7050	C	13	32	150	7050	5.67	1.36	0.03
9	TSC0100013DR35400	C	10	13	90	35400	1.13	0.87	0.01	82	TSC0130032DR5610	C	13	32	180	5610	7.13	1.71	0.04
10	TSC0100013DR26400	C	10	13	120	26400	1.52	1.17	0.01	83	TSC0130032DR4460	C	13	32	210	4460	8.97	2.16	0.04
11	TSC0100013DR19800	C	10	13	150	19800	2.02	1.55	0.01	84	TSC0130040DR33400	C	13	40	30	33400	1.2	0.23	0.01
12	TSC0100013DR15800	C	10	13	180	15800	2.53	1.95	0.01	85	TSC0130040DR15800	C	13	40	60	15800	2.53	0.49	0.01
13	TSC0100013DR12600	C	10	13	210	12600	3.17	2.44	0.02	86	TSC0130040DR10000	C	13	40	90	10000	4	0.77	0.02
14	TSC0100016DR100000	C	10	16	30	100000	0.4	0.25	0	87	TSC0130040DR7470	C	13	40	120	7470	5.35	1.03	0.03
15	TSC0100016DR44600	C	10	16	60	44600	0.9	0.56	0	88	TSC0130040DR5610	C	13	40	150	5610	7.13	1.37	0.04
16	TSC0100016DR29700	C	10	16	90	29700	1.35	0.84	0.01	89	TSC0130040DR4460	C	13	40	180	4460	8.97	1.73	0.04
17	TSC0100016DR21000	C	10	16	120	21000	1.9	1.19	0.01	90	TSC0130040DR3750	C	13	40	210	3750	10.67	2.05	0.05
18	TSC0100016DR15800	C	10	16	150	15800	2.53	1.58	0.01	91	TSC0130050DR28000	C	13	50	30	28000	1.43	0.22	0.01
19	TSC0100016DR12600	C	10	16	180	12600	3.17	1.98	0.02	92	TSC0130050DR13300	C	13	50	60	13300	3.01	0.46	0.02
20	TSC0100016DR10000	C	10	16	210	10000	4	2.50	0.02	93	TSC0130050DR8380	C	13	50	90	8380	4.77	0.73	0.02
21	TSC0100020DR79100	C	10	20	30	79100	0.51	0.26	0	94	TSC0130050DR5940	C	13	50	120	5940	6.73	1.04	0.03
22	TSC0100020DR37500	C	10	20	60	37500	1.07	0.54	0.01	95	TSC0130050DR4460	C	13	50	150	4460	8.97	1.38	0.04
23	TSC0100020DR23500	C	10	20	90	23500	1.7	0.85	0.01	96	TSC0130050DR3540	C	13	50	180	3540	11.3	1.74	0.06
24	TSC0100020DR16700	C	10	20	120	16700	2.4	1.20	0.01	97	TSC0130050DR2970	C	13	50	210	2970	13.47	2.07	0.07
25	TSC0100020DR12600	C	10	20	150	12600	3.17	1.59	0.02	98	TSC0160016DR79100	C	16	16	30	79100	0.51	0.20	0
26	TSC0100020DR10000	C	10	20	180	10000	4	2.00	0.02	99	TSC0160016DR37500	C	16	16	60	37500	1.07	0.42	0.01
27	TSC0100020DR8380	C	10	20	210	8380	4.77	2.39	0.02	100	TSC0160016DR24900	C	16	16	90	24900	1.61	0.63	0.01
28	TSC0100025DR62900	C	10	25	30	62900	0.64	0.26	0	101	TSC0160016DR17700	C	16	16	120	17700	2.26	0.88	0.01
29	TSC0100025DR29700	C	10	25	60	29700	1.35	0.54	0.01	102	TSC0160016DR13300	C	16	16	150	13300	3.01	1.18	0.02
30	TSC0100025DR18700	C	10	25	90	18700	2.14	0.86	0.01	103	TSC0160016DR10600	C	16	16	180	10600	3.77	1.47	0.02
31	TSC0100025DR13300	C	10	25	120	13300	3.01	1.20	0.02	104	TSC0160016DR8880	C	16	16	210	8880	4.5	1.76	0.02
32	TSC0100025DR10000	C	10	25	150	10000	4	1.60	0.02	105	TSC0160020DR66600	C	16	20	30	66600	0.6	0.19	0
33	TSC0100025DR7910	C	10	25	180	7910	5.06	2.02	0.03	106	TSC0160020DR31500	C	16	20	60	31500	1.27	0.40	0.01
34	TSC0100025DR6660	C	10	25	210	6660	6.01	2.40	0.03	107	TSC0160020DR19800	C	16	20	90	19800	2.02	0.63	0.01
35	TSC0100032DR50000	C	10	32	30	50000	0.8	0.25	0	108	TSC0160020DR14100	C	16	20	120	14100	2.84	0.89	0.01
36	TSC0100032DR23500	C	10	32	60	23500	1.7	0.53	0.01	109	TSC0160020DR10600	C	16	20	150	10600	3.77	1.18	0.02
37	TSC0100032DR14900	C	10	32	90	14900	2.68	0.84	0.01	110	TSC0160020DR8380	C	16	20	180	8380	4.77	1.49	0.02
38	TSC0100032DR10600	C	10	32	120	10600	3.77	1.18	0.02	111	TSC0160020DR7050	C	16	20	210	7050	5.67	1.77	0.03
39	TSC0100032DR7910	C	10	32	150	7910	5.06	1.58	0.03	112	TSC0160025DR53000	C	16	25	30	53000	0.75	0.19	0
40	TSC0100032DR6290	C	10	32	180	6290	6.36	1.99	0.03	113	TSC0160025DR24900	C	16	25	60	24900	1.61	0.40	0.01
41	TSC0100032DR5000	C	10	32	210	5000	8	2.50	0.04	114	TSC0160025DR15800	C	16	25	90	15800	2.53	0.63	0.01
42	TSC0100040DR39700	C	10	40	30	39700	1.01	0.25	0.01	115	TSC0160025DR11200	C	16	25	120	11200	3.57	0.89	0.02
43	TSC0100040DR18700	C	10	40	60	18700	2.14	0.54	0.01	116	TSC0160025DR8380	C	16	25	150	8380	4.77	1.19	0.02
44	TSC0100040DR11900	C	10	40	90	11900	3.36	0.84	0.02	117	TSC0160025DR6660	C	16	25	180	6660	6.01	1.50	0.03
45	TSC0100040DR8380	C	10	40	120	8380	4.77	1.19	0.02	118	TSC0160025DR5610	C	16	25	210	5610	7.13	1.78	0.04
46	TSC0100040DR6290	C	10	40	150	6290	6.36	1.59	0.03	119	TSC0160032DR39700	C	16	32	30	39700	1.01	0.20	0.01
47	TSC0100040DR5000	C	10	40	180	5000	8	2.00	0.04	120	TSC0160032DR19800	C	16	32	60	19800	2.02	0.39	0.01
48	TSC0100040DR4210	C	10	40	210	4210	9.5	2.38	0.05	121	TSC0160032DR11900	C	16	32	90	11900	3.36	0.66	0.02
49	TSC0130013DR106000	C	13	13	30	106000	0.38	0.22	0	122	TSC0160032DR8880	C	16	32	120	8880	4.5	0.88	0.02
50	TSC0130013DR50000	C	13	13	60	50000	0.8	0.47	0	123	TSC0160032DR6660	C	16	32	150	6660	6.01	1.17	0.03
51	TSC0130013DR31500	C	13	13	90	31500	1.27	0.75	0.01	124	TSC0160032DR5300	C	16	32	180	5300	7.55	1.47	0.04
52	TSC0130013DR22200	C	13	13	120	22200	1.8	1.07	0.01	125	TSC0160032DR4460	C	16	32	210	4460	8.97	1.75	0.04
53	TSC0130013DR16700	C	13	13	150	16700	2.4	1.42	0.01	126	TSC0160040DR31500	C	16	40	30	31500	1.27	0.20	0.01
54	TSC0130013DR13300	C	13	13	180	13300	3.01	1.78	0.02	127	TSC0160040DR15800	C	16	40	60	15800	2.53	0.40	0.01
55	TSC0130013DR11200	C	13	13	210	11200	3.57	2.11	0.02	128	TSC0160040DR9410	C	16	40	90	9410	4.25	0.66	0.02
56	TSC0130016DR88800	C	13	16	30	88800	0.45	0.22	0	129	TSC0160040DR7050	C	16	40	120	7050	5.67	0.89	0.03
57	TSC0130016DR39700	C	13	16	60	39700	1.01	0.49	0.01	130	TSC0160040DR5300	C	16	40	150	5300	7.55	1.18	0.04
58	TSC0130016DR24900	C	13	16	90	24900	1.61	0.77	0.01	131	TSC0160040DR4210	C	16	40	180	4210	9.5	1.48	0.05
59	TSC0130016DR18700	C	13	16	120	18700	2.14	1.03	0.01	132	TSC0160040DR3540	C	16	40	210	3540	11.3	1.77	0.06
60	TSC0130016DR14100	C	13	16	150	14100	2.84	1.37	0.01	133	TSC0160050DR26400	C	16	50	30	26400	1.52	0.19	0.01
61	TSC0130016DR11200	C	13	16	180	11200	3.57	1.72	0.02	134	TSC0160050DR12600	C	16	50	60	12600	3.17	0.40	0.02
62	TSC0130016DR9410	C	13	16	210	9410	4.25	2.04	0.02	135	TSC0160050DR7910	C	16	50	90	7910	5.06	0.63	0.03
63	TSC0130020DR66600	C	13	20	30	66600	0.6	0.23	0	136	TSC0160050DR5610	C	16	50	120	5610	7.13	0.89	0.04
64	TSC0130020DR31500	C	13	20	60	31500	1.27	0.49	0.01	137	TSC0160050DR4210	C	16	50	150	4210	9.5	1.19	0.05
65	TSC0130020DR21000	C	13	20	90	21000	1.9	0.73	0.01	138	TSC0160050DR3340	C	16	50	180	3340	11.98	1.50	0.06
66	TSC0130020DR14900	C	13	20	120	14900	2.68	1.03	0.01	139	TSC0160050DR2800	C	16	50	2				

# STANDARD | Rectangular 200V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	$\Omega$	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	$\Omega$	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSC0200020DR66600	C	20	20	30	66600	0.6	0.15	0	220	TSC0250050DR4720	C	25	50	120	4720	8.47	0.68	0.04
148	TSC0200020DR31500	C	20	20	60	31500	1.27	0.32	0.01	221	TSC0250050DR3750	C	25	50	150	3750	10.67	0.85	0.05
149	TSC0200020DR19800	C	20	20	90	19800	2.02	0.51	0.01	222	TSC0250050DR2970	C	25	50	180	2970	13.47	1.08	0.07
150	TSC0200020DR14100	C	20	20	120	14100	2.84	0.71	0.01	223	TSC0250050DR2490	C	25	50	210	2490	16.06	1.28	0.08
151	TSC0200020DR11200	C	20	20	150	11200	3.57	0.89	0.02	224	TSC0250063DR17700	C	25	63	30	17700	2.26	0.14	0.01
152	TSC0200020DR8880	C	20	20	180	8880	4.5	1.13	0.02	225	TSC0250063DR8380	C	25	63	60	8380	4.77	0.30	0.02
153	TSC0200020DR7470	C	20	20	210	7470	5.35	1.34	0.03	226	TSC0250063DR5300	C	25	63	90	5300	7.55	0.48	0.04
154	TSC0200025DR53000	C	20	25	30	53000	0.75	0.15	0	227	TSC0250063DR3750	C	25	63	120	3750	10.67	0.68	0.05
155	TSC0200025DR26400	C	20	25	60	26400	1.52	0.30	0.01	228	TSC0250063DR2970	C	25	63	150	2970	13.47	0.86	0.07
156	TSC0200025DR15800	C	20	25	90	15800	2.53	0.51	0.01	229	TSC0250063DR2350	C	25	63	180	2350	17.02	1.08	0.09
157	TSC0200025DR11200	C	20	25	120	11200	3.57	0.71	0.02	230	TSC0250080DR14100	C	25	80	30	14100	2.84	0.14	0.01
158	TSC0200025DR8880	C	20	25	150	8880	4.5	0.90	0.02	231	TSC0250080DR6660	C	25	80	60	6660	6.01	0.30	0.03
159	TSC0200025DR7050	C	20	25	180	7050	5.67	1.13	0.03	232	TSC0250063DR1980	C	25	63	210	1980	20.2	1.28	0.1
160	TSC0200025DR5940	C	20	25	210	5940	6.73	1.35	0.03	233	TSC0250080DR4210	C	25	80	90	4210	9.5	0.48	0.05
161	TSC0200032DR42100	C	20	32	30	42100	0.95	0.15	0	234	TSC0250080DR2970	C	25	80	120	2970	13.47	0.67	0.07
162	TSC0200032DR19800	C	20	32	60	19800	2.02	0.32	0.01	235	TSC0250080DR2350	C	25	80	150	2350	17.02	0.85	0.09
163	TSC0200032DR12600	C	20	32	90	12600	3.17	0.50	0.02	236	TSC0250080DR1870	C	25	80	180	1870	21.39	1.07	0.11
164	TSC0200032DR8880	C	20	32	120	8880	4.5	0.70	0.02	237	TSC0250080DR1580	C	25	80	210	1580	25.32	1.27	0.13
165	TSC0200032DR6660	C	20	32	150	6660	6.01	0.94	0.03	238	TSC0250100DR11200	C	25	100	30	11200	3.57	0.14	0.02
166	TSC0200032DR5610	C	20	32	180	5610	7.13	1.11	0.04	239	TSC0250100DR5300	C	25	100	60	5300	7.55	0.30	0.04
167	TSC0200032DR4720	C	20	32	210	4720	8.47	1.32	0.04	240	TSC0250100DR3340	C	25	100	90	3340	11.98	0.48	0.06
168	TSC0200040DR33400	C	20	40	30	33400	1.2	0.15	0.01	241	TSC0250100DR2350	C	25	100	120	2350	17.02	0.68	0.09
169	TSC0200040DR15800	C	20	40	60	15800	2.53	0.32	0.01	242	TSC0250100DR1870	C	25	100	150	1870	21.39	0.86	0.11
170	TSC0200040DR10000	C	20	40	90	10000	4	0.50	0.02	243	TSA(C)0250100DR1490	A & C	25	100	180	1490	26.85	1.07	0.13
171	TSC0200040DR7050	C	20	40	120	7050	5.67	0.71	0.03	244	TSA(C)0250100DR1260	A & C	25	100	210	1260	31.75	1.27	0.16
172	TSC0200040DR5610	C	20	40	150	5610	7.13	0.89	0.04	245	TSC0320032DR29700	C	32	32	30	29700	1.35	0.13	0.01
173	TSC0200040DR4460	C	20	40	180	4460	8.97	1.12	0.04	246	TSC0320032DR14100	C	32	32	60	14100	2.84	0.28	0.01
174	TSC0200040DR3750	C	20	40	210	3750	10.67	1.33	0.05	247	TSC0320032DR8380	C	32	32	90	8380	4.77	0.47	0.02
175	TSC0200050DR26400	C	20	50	30	26400	1.52	0.15	0.01	248	TSC0320032DR6290	C	32	32	120	6290	6.36	0.62	0.03
176	TSC0200050DR12600	C	20	50	60	12600	3.17	0.32	0.02	249	TSC0320032DR4720	C	32	32	150	4720	8.47	0.83	0.04
177	TSC0200050DR7910	C	20	50	90	7910	5.06	0.51	0.03	250	TSC0320032DR3970	C	32	32	180	3970	10.08	0.98	0.05
178	TSC0200050DR5610	C	20	50	120	5610	7.13	0.71	0.04	251	TSC0320032DR3340	C	32	32	210	3340	11.98	1.17	0.06
179	TSC0200050DR4460	C	20	50	150	4460	8.97	0.90	0.04	252	TSC0320040DR23500	C	32	40	30	23500	1.7	0.13	0.01
180	TSC0200050DR3540	C	20	50	180	3540	11.3	1.13	0.06	253	TSC0320040DR11200	C	32	40	60	11200	3.57	0.28	0.02
181	TSC0200050DR2970	C	20	50	210	2970	13.47	1.35	0.07	254	TSC0320040DR6660	C	32	40	90	6660	6.01	0.47	0.03
182	TSC0200063DR21000	C	20	63	30	21000	1.9	0.15	0.01	255	TSC0320040DR5000	C	32	40	120	5000	8	0.63	0.04
183	TSC0200063DR10000	C	20	63	60	10000	4	0.32	0.02	256	TSC0320040DR3750	C	32	40	150	3750	10.67	0.83	0.05
184	TSC0200063DR6290	C	20	63	90	6290	6.36	0.50	0.03	257	TSC0320040DR3150	C	32	40	180	3150	12.7	0.99	0.06
185	TSC0200063DR4460	C	20	63	120	4460	8.97	0.71	0.04	258	TSC0320040DR2640	C	32	40	210	2640	15.15	1.18	0.08
186	TSC0200063DR3540	C	20	63	150	3540	11.3	0.90	0.06	259	TSC0320050DR18700	C	32	50	30	18700	2.14	0.13	0.01
187	TSC0200063DR2800	C	20	63	180	2800	14.29	1.13	0.07	260	TSC0320050DR8880	C	32	50	60	8880	4.5	0.28	0.02
188	TSC0200063DR2350	C	20	63	210	2350	17.02	1.35	0.09	261	TSC0320050DR5610	C	32	50	90	5610	7.13	0.45	0.04
189	TSC0200080DR16700	C	20	80	30	16700	2.4	0.15	0.01	262	TSC0320050DR3970	C	32	50	120	3970	10.08	0.63	0.05
190	TSC0200080DR7910	C	20	80	60	7910	5.06	0.32	0.03	263	TSC0320050DR3150	C	32	50	150	3150	12.7	0.79	0.06
191	TSC0200080DR5000	C	20	80	90	5000	8	0.50	0.04	264	TSC0320050DR2490	C	32	50	180	2490	16.06	1.00	0.08
192	TSC0200080DR3540	C	20	80	120	3540	11.3	0.71	0.06	265	TSC0320050DR2100	C	32	50	210	2100	19.05	1.19	0.1
193	TSC0200080DR2800	C	20	80	150	2800	14.29	0.89	0.07	266	TSC0320063DR14900	C	32	63	30	14900	2.68	0.13	0.01
194	TSC0200080DR2220	C	20	80	180	2220	18.02	1.13	0.09	267	TSC0320063DR7050	C	32	63	60	7050	5.67	0.28	0.03
195	TSC0200080DR1870	C	20	80	210	1870	21.39	1.34	0.11	268	TSC0320063DR4210	C	32	63	90	4210	9.5	0.47	0.05
196	TSC0250025DR44600	C	25	25	30	44600	0.9	0.14	0	269	TSC0320063DR3150	C	32	63	120	3150	12.7	0.63	0.06
197	TSC0250025DR21000	C	25	25	60	21000	1.9	0.30	0.01	270	TSC0320063DR2490	C	32	63	150	2490	16.06	0.80	0.08
198	TSC0250025DR13300	C	25	25	90	13300	3.01	0.48	0.02	271	TSC0320063DR1980	C	32	63	180	1980	20.2	1.00	0.1
199	TSC0250025DR9410	C	25	25	120	9410	4.25	0.68	0.02	272	TSA(C)0320100DR1670	C	32	63	210	1670	23.95	1.19	0.12
200	TSC0250025DR7470	C	25	25	150	7470	5.35	0.86	0.03	273	TSC0320080DR11900	C	32	80	30	11900	3.36	0.13	0.02
201	TSC0250025DR5940	C	25	25	180	5940	6.73	1.08	0.03	274	TSC0320080DR5610	C	32	80	60	5610	7.13	0.28	0.04
202	TSC0250025DR5000	C	25	25	210	5000	8	1.28	0.04	275	TSC0320080DR3340	C	32	80	90	3340	11.98	0.47	0.06
203	TSC0250032DR35400	C	25	32	30	35400	1.13	0.14	0.01	276	TSC0320080DR2490	C	32	80	120	2490	16.06	0.63	0.08
204	TSC0250032DR16700	C	25	32	60	16700	2.4	0.30	0.01	277	TSC0320080DR1980	C	32	80	150	1980	20.2	0.79	0.1
205	TSC0250032DR10600	C	25	32	90	10600	3.77	0.47	0.02	278	TSC0320080DR1580	C	32	80	180	1580	25.32	0.99	0.13
206	TSC0250032DR7470	C	25	32	120	7470	5.35	0.67	0.03	279	TSA(C)0320080DR1330	A & C	32	80	210	1330	30.08	1.18	0.15
207	TSC0250032DR5610	C	25	32	150	5610	7.13	0.89	0.04	280	TSC0320100DR9410	C	32	100	30	9410	4.25	0.13	0.02
208	TSC0250032DR4720	C	25	32	180	4720	8.47	1.06	0.04	281	TSC0320100DR4460	C	32	100	60	4460	8.97	0.28	0.04
209	TSC0250032DR3970	C	25	32	210	3970	10.08	1.26	0.05	282	TSC0320100DR2800	C	32	100	90	2800	14.29	0.45	0.07
210	TSC0250040DR28000	C	25	40	30	28000	1.43	0.14	0.01	283	TSC0320100DR1980	C	32	100	120	1980	20.2	0.63	0.1
211	TSC0250040DR13300	C	25	40	60	13300	3.01	0.30	0.02	284	TSA(C)0320100DR1580	A & C	32	100	150	1580	25.32	0.79	0.13
212	TSC0250040DR8380	C																	

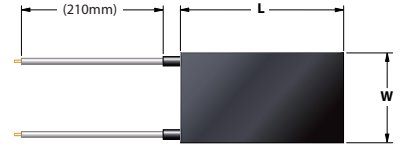


# STANDARD | Rectangular 200V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125DR838	A & C	32	125	210	838	47.73	1.19	0.24	366	TSA(C)0500100DR1980	A & C	50	100	90	1980	20.2	0.40	0.1
294	TSC0400040DR19800	C	40	40	30	19800	2.02	0.13	0.01	367	TSA(C)0500100DR1410	A & C	50	100	120	1410	28.37	0.57	0.14
295	TSC0400040DR9410	C	40	40	60	9410	4.25	0.27	0.02	368	TSA(C)0500100DR1120	A & C	50	100	150	1120	35.71	0.71	0.18
296	TSC0400040DR5610	C	40	40	90	5610	7.13	0.45	0.04	369	TSA(C)0500100DR888	A & C	50	100	180	888	45.05	0.90	0.23
297	TSC0400040DR4210	C	40	40	120	4210	9.5	0.59	0.05	370	TSA(C)0500100DR747	A & C	50	100	210	747	53.55	1.07	0.27
298	TSC0400040DR3150	C	40	40	150	3150	12.7	0.79	0.06	371	TSC0500125DR5000	C	50	125	30	5000	8	0.13	0.04
299	TSC0400040DR2640	C	40	40	180	2640	15.15	0.95	0.08	372	TSA(C)0500125DR2490	A & C	50	125	60	2490	16.06	0.26	0.08
300	TSC0400040DR2220	C	40	40	210	2220	18.02	1.13	0.09	373	TSA(C)0500125DR1580	A & C	50	125	90	1580	25.32	0.41	0.13
301	TSC0400050DR15800	C	40	50	30	15800	2.53	0.13	0.01	374	TSA(C)0500125DR1120	A & C	50	125	120	1120	35.71	0.72	0.18
302	TSC0400050DR7470	C	40	50	60	7470	5.35	0.27	0.03	375	TSA(C)0500125DR888	A & C	50	125	150	888	45.05	0.72	0.23
303	TSC0400050DR4720	C	40	50	90	4720	8.47	0.42	0.04	376	TSA(C)0500125DR705	A & C	50	125	180	705	56.74	0.91	0.28
304	TSC0400050DR3340	C	40	50	120	3340	11.98	0.60	0.06	377	TSA(C)0500125DR594	A & C	50	125	210	594	67.34	1.08	0.34
305	TSC0400050DR2640	C	40	50	150	2640	15.15	0.76	0.08	378	TSA(C)0500160DR3970	A & C	50	160	30	3970	10.08	0.13	0.05
306	TSC0400050DR2100	C	40	50	180	2100	19.05	0.95	0.1	379	TSA(C)0500160DR1980	A & C	50	160	60	1980	20.2	0.25	0.1
307	TSC0400050DR1770	C	40	50	210	1770	22.6	1.13	0.11	380	TSA(C)0500160DR1260	A & C	50	160	90	1260	31.75	0.40	0.16
308	TSC0400063DR12600	C	40	63	30	12600	3.17	0.13	0.02	381	TSA(C)0500160DR888	A & C	50	160	120	888	45.05	0.56	0.23
309	TSC0400063DR5940	C	40	63	60	5940	6.73	0.27	0.03	382	TSA(C)0500160DR666	A & C	50	160	150	666	60.06	0.75	0.3
310	TSC0400063DR3750	C	40	63	90	3750	10.67	0.42	0.05	383	TSA(C)0500160DR561	A & C	50	160	180	561	71.3	0.89	0.36
311	TSC0400063DR2640	C	40	63	120	2640	15.15	0.60	0.08	384	TSA(C)0500160DR472	A & C	50	160	210	472	84.75	1.06	0.42
312	TSC0400063DR2100	C	40	63	150	2100	19.05	0.76	0.1	385	TSA(C)0500200DR3150	A & C	50	200	30	3150	12.7	0.13	0.06
313	TSC0400063DR1670	C	40	63	180	1670	23.95	0.95	0.12	386	TSA(C)0500200DR1580	A & C	50	200	60	1580	25.32	0.25	0.13
314	TSA(C)0400063DR1410	A & C	40	63	210	1410	28.37	1.13	0.14	387	TSA(C)0500200DR1000	A & C	50	200	90	1000	40	0.40	0.2
315	TSC0400080DR9410	C	40	80	30	9410	4.25	0.13	0.02	388	TSA(C)0500200DR705	A & C	50	200	120	705	56.74	0.57	0.28
316	TSC0400080DR4720	C	40	80	60	4720	8.47	0.26	0.04	389	TSA(C)0500200DR561	A & C	50	200	150	561	71.3	0.71	0.36
317	TSC0400080DR2800	C	40	80	90	2800	14.29	0.45	0.07	390	TSA(C)0500200DR446	A & C	50	200	180	446	89.69	0.90	0.45
318	TSC0400080DR2100	C	40	80	120	2100	19.05	0.60	0.1	391	TSA(C)0500200DR375	A & C	50	200	210	375	106.67	1.07	0.53
319	TSA(C)0400080DR1580	A & C	40	80	150	1580	25.32	0.79	0.13	392	TSC0630063DR8880	C	63	63	30	8880	4.5	0.11	0.02
320	TSA(C)0400080DR1330	A & C	40	80	180	1330	30.08	0.94	0.15	393	TSC0630063DR4210	C	63	63	60	4210	9.5	0.24	0.05
321	TSA(C)0400080DR1120	A & C	40	80	210	1120	35.71	1.12	0.18	394	TSC0630063DR2640	C	63	63	90	2640	15.15	0.38	0.08
322	TSC0400100DR7910	C	40	100	30	7910	5.06	0.13	0.03	395	TSA(C)0630063DR1870	A & C	63	63	120	1870	21.39	0.54	0.11
323	TSC0400100DR3750	C	40	100	60	3750	10.67	0.27	0.05	396	TSA(C)0630063DR1490	A & C	63	63	150	1490	26.85	0.68	0.13
324	TSA(C)0400100DR2350	A & C	40	100	90	2350	17.02	0.43	0.09	397	TSA(C)0630063DR1190	A & C	63	63	180	1190	33.61	0.85	0.17
325	TSA(C)0400100DR1670	A & C	40	100	120	1670	23.95	0.60	0.12	398	TSA(C)0630063DR1000	A & C	63	63	210	1000	40	1.01	0.2
326	TSA(C)0400100DR1260	A & C	40	100	150	1260	31.75	0.79	0.16	399	TSC0630080DR6660	C	63	80	30	6660	6.01	0.12	0.03
327	TSA(C)0400100DR1060	A & C	40	100	180	1060	37.74	0.94	0.19	400	TSC0630080DR3340	C	63	80	60	3340	11.98	0.24	0.06
328	TSA(C)0400100DR888	A & C	40	100	210	888	45.05	1.13	0.23	401	TSA(C)0630080DR2100	A & C	63	80	90	2100	19.05	0.38	0.1
329	TSC0400125DR6290	C	40	125	30	6290	6.36	0.13	0.03	402	TSA(C)0630080DR1490	A & C	63	80	120	1490	26.85	0.53	0.13
330	TSA(C)0400125DR2970	A & C	40	125	60	2970	13.47	0.27	0.07	403	TSA(C)0630080DR1120	A & C	63	80	150	1120	35.71	0.71	0.18
331	TSA(C)0400125DR1870	A & C	40	125	90	1870	21.39	0.43	0.11	404	TSA(C)0630080DR941	A & C	63	80	180	941	42.51	0.84	0.21
332	TSA(C)0400125DR1330	A & C	40	125	120	1330	30.08	0.60	0.15	405	TSA(C)0630100DR791	A & C	63	80	210	791	50.57	1.00	0.25
333	TSA(C)0400125DR1060	A & C	40	125	150	1060	37.74	0.75	0.19	406	TSC0630100DR5610	C	63	100	30	5610	7.13	0.11	0.04
334	TSA(C)0400125DR838	A & C	40	125	180	838	47.73	0.95	0.24	407	TSA(C)0630100DR2640	A & C	63	100	60	2640	15.15	0.24	0.08
335	TSA(C)0400125DR705	A & C	40	125	210	705	56.74	1.13	0.28	408	TSA(C)0630100DR1670	A & C	63	100	90	1670	23.95	0.38	0.12
336	TSC0400160DR4720	C	40	160	30	4720	8.47	0.13	0.04	409	TSA(C)0630100DR1190	A & C	63	100	120	1190	33.61	0.53	0.17
337	TSA(C)0400160DR2350	A & C	40	160	60	2350	17.02	0.27	0.09	410	TSA(C)0630100DR941	A & C	63	100	150	941	42.51	0.67	0.21
338	TSA(C)0400160DR1410	A & C	40	160	90	1410	28.37	0.44	0.14	411	TSA(C)0630100DR747	A & C	63	100	180	747	53.55	0.85	0.27
339	TSA(C)0400160DR1060	A & C	40	160	120	1060	37.74	0.59	0.19	412	TSA(C)0630100DR629	A & C	63	100	210	629	63.59	1.01	0.32
340	TSA(C)0400160DR791	A & C	40	160	150	791	50.57	0.79	0.25	413	TSA(C)0630125DR4460	A & C	63	125	30	4460	8.97	0.11	0.04
341	TSA(C)0400160DR666	A & C	40	160	180	666	60.06	0.94	0.3	414	TSA(C)0630125DR2100	A & C	63	125	60	2100	19.05	0.24	0.1
342	TSA(C)0400160DR561	A & C	40	160	210	561	71.3	1.11	0.36	415	TSA(C)0630125DR1330	A & C	63	125	90	1330	30.08	0.38	0.15
343	TSC0500050DR12600	C	50	50	30	12600	3.17	0.13	0.02	416	TSA(C)0630125DR941	A & C	63	125	120	941	42.51	0.54	0.21
344	TSC0500050DR6290	C	50	50	60	6290	6.36	0.25	0.03	417	TSA(C)0630125DR747	A & C	63	125	150	747	53.55	0.68	0.27
345	TSC0500050DR3970	C	50	50	90	3970	10.08	0.40	0.05	418	TSA(C)0630125DR594	A & C	63	125	180	594	67.34	0.86	0.34
346	TSC0500050DR2800	C	50	50	120	2800	14.29	0.57	0.07	419	TSA(C)0630125DR500	A & C	63	125	210	500	80	1.02	0.4
347	TSC0500050DR2220	C	50	50	150	2220	18.02	0.72	0.09	420	TSA(C)0630160DR3340	A & C	63	160	30	3340	11.98	0.12	0.06
348	TSC0500050DR1770	C	50	50	180	1770	22.6	0.90	0.11	421	TSA(C)0630160DR1670	A & C	63	160	60	1670	23.95	0.24	0.12
349	TSA(C)0500050DR1490	A & C	50	50	210	1490	26.85	1.07	0.13	422	TSA(C)0630160DR1060	A & C	63	160	90	1060	37.74	0.37	0.19
350	TSC0500063DR10000	C	50	63	30	10000	4	0.13	0.02	423	TSA(C)0630160DR747	A & C	63	160	120	747	53.55	0.53	0.27
351	TSC0500063DR5000	C	50	63	60	5000	8	0.25	0.04	424	TSA(C)0630160DR561	A & C	63	160	150	561	71.3	0.71	0.36
352	TSC0500063DR3150	C	50	63	90	3150	12.7	0.40	0.06	425	TSA(C)0630160DR472	A & C	63	160	180	472	84.75	0.84	0.42
353	TSC0500063DR2220	C	50	63	120	2220	18.02	0.57	0.09	426	TSA(C)0630160DR397	A & C	63	160	210	397	100.76	1.00	0.5
354	TSA(C)0500063DR1770	A & C	50	63	150	1770	22.6	0.72	0.11	427	TSA(C)0630200DR2800	A & C	63	200	30	2800	14.29	0.11	0.07
355	TSA(C)0500063DR1410	A & C	50	63	180	1410	28.37	0.90	0.14	428	TSA(C)0630200DR1330	A & C	63	200	60	1330	30.08	0.2	

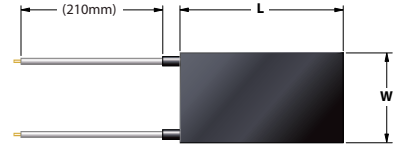


# STANDARD | Rectangular 200V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)0630250DR297	A & C	63	250	180	297	134.68	0.86	0.67
440	TSA(C)0630250DR249	A & C	63	250	210	249	160.64	1.02	0.8
441	TSC0800080DR5940	C	80	80	30	5940	6.73	0.11	0.03
442	TSA(C)0800080DR2970	A & C	80	80	60	2970	13.47	0.21	0.07
443	TSA(C)0800080DR1870	A & C	80	80	90	1870	21.39	0.33	0.11
444	TSA(C)0800080DR1260	A & C	80	80	120	1260	31.75	0.50	0.16
445	TSA(C)0800100DR2350	A & C	80	80	150	1000	40	0.63	0.2
446	TSA(C)0800080DR791	A & C	80	80	180	791	50.57	0.79	0.25
447	TSA(C)0800080DR666	A & C	80	80	210	666	60.06	0.94	0.3
448	TSA(C)0800100DR4720	A & C	80	100	30	4720	8.47	0.11	0.04
449	TSA(C)0800100DR2350	A & C	80	100	60	2350	17.02	0.21	0.09
450	TSA(C)0800100DR1490	A & C	80	100	90	1490	26.85	0.34	0.13
451	TSA(C)0800100DR1000	A & C	80	100	120	1000	40	0.50	0.2
452	TSA(C)0800100DR791	A & C	80	100	150	791	50.57	0.63	0.25
453	TSA(C)0800100DR629	A & C	80	100	180	629	63.59	0.79	0.32
454	TSA(C)0800100DR530	A & C	80	100	210	530	75.47	0.94	0.38
455	TSA(C)0800125DR3750	A & C	80	125	30	3750	10.67	0.11	0.05
456	TSA(C)0800125DR1870	A & C	80	125	60	1870	21.39	0.21	0.11
457	TSA(C)0800125DR1190	A & C	80	125	90	1190	33.61	0.34	0.17
458	TSA(C)0800125DR838	A & C	80	125	120	838	47.73	0.48	0.24
459	TSA(C)0800125DR629	A & C	80	125	150	629	63.59	0.64	0.32
460	TSA(C)0800125DR530	A & C	80	125	180	530	75.47	0.75	0.38
461	TSA(C)0800125DR421	A & C	80	125	210	421	95.01	0.95	0.48
462	TSA(C)0800160DR2970	A & C	80	160	30	2970	13.47	0.11	0.07
463	TSA(C)0800160DR1490	A & C	80	160	60	1490	26.85	0.21	0.13
464	TSA(C)0800160DR941	A & C	80	160	90	941	42.51	0.33	0.21
465	TSA(C)0800160DR629	A & C	80	160	120	629	63.59	0.50	0.32
466	TSA(C)0800160DR500	A & C	80	160	150	500	80	0.63	0.4
467	TSA(C)0800160DR397	A & C	80	160	180	397	100.76	0.79	0.5
468	TSA(C)0800160DR334	A & C	80	160	210	334	119.76	0.94	0.6
469	TSA(C)0800200DR2350	A & C	80	200	30	2350	17.02	0.11	0.09
470	TSA(C)0800200DR1190	A & C	80	200	60	1190	33.61	0.21	0.17
471	TSA(C)0800200DR747	A & C	80	200	90	747	53.55	0.33	0.27
472	TSA(C)0800200DR500	A & C	80	200	120	500	80	0.50	0.4
473	TSA(C)0800200DR397	A & C	80	200	150	397	100.76	0.63	0.5
474	TSA(C)0800200DR315	A & C	80	200	180	315	126.98	0.79	0.63
475	TSA(C)0800200DR264	A & C	80	200	210	264	151.52	0.95	0.76
476	TSA(C)0800250DR1870	A & C	80	250	30	1870	21.39	0.11	0.11
477	TSA(C)0800250DR941	A & C	80	250	60	941	42.51	0.21	0.21
478	TSA(C)0800250DR594	A & C	80	250	90	594	67.34	0.34	0.34
479	TSA(C)0800250DR397	A & C	80	250	120	397	100.76	0.50	0.5
480	TSA(C)0800250DR315	A & C	80	250	150	315	126.98	0.63	0.63
481	TSA(C)0800250DR264	A & C	80	250	180	264	151.52	0.76	0.76
482	TSA(C)0800250DR210	A & C	80	250	210	210	190.48	0.95	0.95
483	TSA(C)0800300DR1580	A & C	80	300	30	1580	25.32	0.11	0.13
484	TSA(C)0800300DR791	A & C	80	300	60	791	50.57	0.21	0.25
485	TSA(C)0800300DR500	A & C	80	300	90	500	80	0.33	0.4
486	TSA(C)0800300DR334	A & C	80	300	120	334	119.76	0.50	0.6
487	TSA(C)0800300DR264	A & C	80	300	150	264	151.52	0.63	0.76
488	TSA(C)0800300DR210	A & C	80	300	180	210	190.48	0.79	0.95
489	TSA(C)0800300DR177	A & C	80	300	210	177	225.99	0.94	1.13
490	TSA(C)1000100DR4210	A & C	100	100	30	4210	9.5	0.10	0.05
491	TSA(C)1000100DR2100	A & C	100	100	60	2100	19.05	0.19	0.1
492	TSA(C)1000100DR1330	A & C	100	100	90	1330	30.08	0.30	0.15
493	TSA(C)1000100DR888	A & C	100	100	120	888	45.05	0.45	0.23
494	TSA(C)1000100DR705	A & C	100	100	150	705	56.74	0.57	0.28
495	TSA(C)1000100DR561	A & C	100	100	180	561	71.3	0.71	0.36
496	TSA(C)1000100DR472	A & C	100	100	210	472	84.75	0.85	0.42
497	TSA(C)1000125DR3340	A & C	100	125	30	3340	11.98	0.10	0.06
498	TSA(C)1000125DR1670	A & C	100	125	60	1670	23.95	0.19	0.12
499	TSA(C)1000125DR1060	A & C	100	125	90	1060	37.74	0.30	0.19
500	TSA(C)1000125DR747	A & C	100	125	120	747	53.55	0.43	0.27
501	TSA(C)1000125DR561	A & C	100	125	150	561	71.3	0.57	0.36
502	TSA(C)1000125DR472	A & C	100	125	180	472	84.75	0.68	0.42
503	TSA(C)1000125DR375	A & C	100	125	210	375	106.67	0.85	0.53
504	TSA(C)1000160DR2640	A & C	100	160	30	2640	15.15	0.09	0.08
505	TSA(C)1000160DR1330	A & C	100	160	60	1330	30.08	0.19	0.15
506	TSA(C)1000160DR838	A & C	100	160	90	838	47.73	0.30	0.24
507	TSA(C)1000160DR561	A & C	100	160	120	561	71.3	0.45	0.36
508	TSA(C)1000160DR446	A & C	100	160	150	446	89.69	0.56	0.45
509	TSA(C)1000160DR354	A & C	100	160	180	354	112.99	0.71	0.56
510	TSA(C)1000160DR297	A & C	100	160	210	297	134.68	0.84	0.67
511	TSA(C)1000200DR2100	A & C	100	200	30	2100	19.05	0.10	0.1

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
512	TSA(C)1000200DR1060	A & C	100	200	60	1060	37.74	0.19	0.19
513	TSA(C)1000200DR666	A & C	100	200	90	666	60.06	0.30	0.3
514	TSA(C)1000200DR446	A & C	100	200	120	446	89.69	0.45	0.45
515	TSA(C)1000200DR354	A & C	100	200	150	354	112.99	0.56	0.56
516	TSA(C)1000200DR280	A & C	100	200	180	280	142.86	0.71	0.71
517	TSA(C)1000200DR235	A & C	100	200	210	235	170.21	0.85	0.85
518	TSA(C)1000250DR1670	A & C	100	250	30	1670	23.95	0.10	0.12
519	TSA(C)1000250DR838	A & C	100	250	60	838	47.73	0.19	0.24
520	TSA(C)1000250DR530	A & C	100	250	90	530	75.47	0.30	0.38
521	TSA(C)1000250DR354	A & C	100	250	120	354	112.99	0.45	0.56
522	TSA(C)1000250DR280	A & C	100	250	150	280	142.86	0.57	0.71
523	TSA(C)1000250DR235	A & C	100	250	180	235	170.21	0.68	0.85
524	TSA(C)1000250DR187	A & C	100	250	210	187	213.9	0.86	1.07
525	TSA(C)1000300DR1410	A & C	100	300	30	1410	28.37	0.09	0.14
526	TSA(C)1000300DR705	A & C	100	300	60	705	56.74	0.19	0.28
527	TSA(C)1000300DR446	A & C	100	300	90	446	89.69	0.30	0.45
528	TSA(C)1000300DR297	A & C	100	300	120	297	134.68	0.45	0.67
529	TSA(C)1000300DR235	A & C	100	300	150	235	170.21	0.57	0.85
530	TSA(C)1000300DR187	A & C	100	300	180	187	213.9	0.71	1.07
531	TSA(C)1000300DR158	A & C	100	300	210	158	253.16	0.84	1.27
532	TSA(C)1250125DR2970	A & C	125	125	30	2970	13.47	0.09	0.07
533	TSA(C)1250125DR1490	A & C	125	125	60	1490	26.85	0.17	0.13
534	TSA(C)1250125DR941	A & C	125	125	90	941	42.51	0.27	0.21
535	TSA(C)1250125DR629	A & C	125	125	120	629	63.59	0.41	0.32
536	TSA(C)1250125DR500	A & C	125	125	150	500	80	0.51	0.4
537	TSA(C)1250125DR397	A & C	125	125	180	397	100.76	0.64	0.5
538	TSA(C)1250125DR334	A & C	125	125	210	334	119.76	0.77	0.6
539	TSA(C)1250160DR2350	A & C	125	160	30	2350	17.02	0.09	0.09
540	TSA(C)1250160DR1190	A & C	125	160	60	1190	33.61	0.17	0.17
541	TSA(C)1250160DR747	A & C	125	160	90	747	53.55	0.27	0.27
542	TSA(C)1250160DR500	A & C	125	160	120	500	80	0.40	0.4
543	TSA(C)1250160DR375	A & C	125	160	150	375	106.67	0.53	0.53
544	TSA(C)1250160DR315	A & C	125	160	180	315	126.98	0.63	0.63
545	TSA(C)1250160DR264	A & C	125	160	210	264	151.52	0.76	0.76
546	TSA(C)1250200DR1870	A & C	125	200	30	1870	21.39	0.09	0.11
547	TSA(C)1250200DR941	A & C	125	200	60	941	42.51	0.17	0.21
548	TSA(C)1250200DR594	A & C	125	200	90	594	67.34	0.27	0.34
549	TSA(C)1250200DR397	A & C	125	200	120	397	100.76	0.40	0.5
550	TSA(C)1250200DR315	A & C	125	200	150	315	126.98	0.51	0.63
551	TSA(C)1250200DR249	A & C	125	200	180	249	160.64	0.64	0.8
552	TSA(C)1250200DR210	A & C	125	200	210	210	190.48	0.76	0.95
553	TSA(C)1250250DR1490	A & C	125	250	30	1490	26.85	0.09	0.13
554	TSA(C)1250250DR747	A & C	125	250	60	747	53.55	0.17	0.27
555	TSA(C)1250250DR472	A & C	125	250	90	472	84.75	0.27	0.42
556	TSA(C)1250250DR315	A & C	125	250	120	315	126.98	0.41	0.63
557	TSA(C)1250250DR249	A & C	125	250	150	249	160.64	0.51	0.8



# STANDARD | Rectangular 200V

Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250DR210	A & C	160	250	150	210	190.48	0.48	0.95
586	TSA(C)1600250DR177	A & C	160	250	180	177	225.99	0.56	1.13
587	TSA(C)1600250DR141	A & C	160	250	210	141	283.69	0.71	1.42
588	TSA(C)1600300DR1060	A & C	160	300	30	1060	37.74	0.08	0.19
589	TSA(C)1600300DR530	A & C	160	300	60	530	75.47	0.16	0.38
590	TSA(C)1600300DR334	A & C	160	300	90	334	119.76	0.25	0.6
591	TSA(C)1600300DR235	A & C	160	300	120	235	170.21	0.35	0.85
592	TSA(C)1600300DR177	A & C	160	300	150	177	225.99	0.47	1.13
593	TSA(C)1600300DR141	A & C	160	300	180	141	283.69	0.59	1.42
594	TSA(C)1600300DR119	A & C	160	300	210	119	336.13	0.70	1.68
595	TSA(C)2000200DR1410	A & C	200	200	30	1410	28.37	0.07	0.14
596	TSA(C)2000200DR705	A & C	200	200	60	705	56.74	0.14	0.28
597	TSA(C)2000200DR446	A & C	200	200	90	446	89.69	0.22	0.45
598	TSA(C)2000200DR297	A & C	200	200	120	297	134.68	0.34	0.67
599	TSA(C)2000200DR235	A & C	200	200	150	235	170.21	0.43	0.85
600	TSA(C)2000200DR187	A & C	200	200	180	187	213.9	0.53	1.07
601	TSA(C)2000200DR158	A & C	200	200	210	158	253.16	0.63	1.27
602	TSA(C)2000250DR1120	A & C	200	250	30	1120	35.71	0.07	0.18
603	TSA(C)2000250DR561	A & C	200	250	60	561	71.3	0.14	0.36
604	TSA(C)2000250DR354	A & C	200	250	90	354	112.99	0.23	0.56
605	TSA(C)2000250DR235	A & C	200	250	120	235	170.21	0.34	0.85
606	TSA(C)2000250DR187	A & C	200	250	150	187	213.9	0.43	1.07
607	TSA(C)2000250DR149	A & C	200	250	180	149	268.46	0.54	1.34
608	TSA(C)2000250DR126	A & C	200	250	210	126	317.46	0.63	1.59
609	TSA(C)2000300DR941	A & C	200	300	30	941	42.51	0.07	0.21
610	TSA(C)2000300DR472	A & C	200	300	60	472	84.75	0.14	0.42

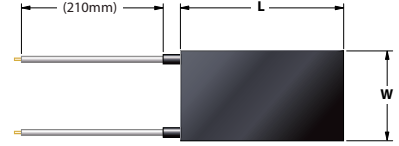
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
611	TSA(C)2000300DR297	A & C	200	300	90	297	134.68	0.22	0.67
612	TSA(C)2000300DR198	A & C	200	300	120	198	202.02	0.34	1.01
613	TSA(C)2000300DR158	A & C	200	300	150	158	253.16	0.42	1.27
614	TSA(C)2000300DR126	A & C	200	300	180	126	317.46	0.53	1.59
615	TSA(C)2000300DR106	A & C	200	300	210	106	377.36	0.63	1.89
616	TSA(C)2500250DR1000	A & C	250	250	30	1000	40	0.06	0.2
617	TSA(C)2500250DR500	A & C	250	250	60	500	80	0.13	0.4
618	TSA(C)2500250DR315	A & C	250	250	90	315	126.98	0.20	0.63
619	TSA(C)2500250DR210	A & C	250	250	120	210	190.48	0.30	0.95
620	TSA(C)2500250DR158	A & C	250	250	150	158	253.16	0.41	1.27
621	TSA(C)2500250DR133	A & C	250	250	180	133	300.75	0.48	1.5
622	TSA(C)2500250DR106	A & C	250	250	210	106	377.36	0.60	1.89
623	TSA(C)2500300DR838	A & C	250	300	30	838	47.73	0.06	0.24
624	TSA(C)2500300DR397	A & C	250	300	60	397	100.76	0.13	0.5
625	TSA(C)2500300DR249	A & C	250	300	90	249	160.64	0.21	0.8
626	TSA(C)2500300DR177	A & C	250	300	120	177	225.99	0.30	1.13
627	TSA(C)2500300DR133	A & C	250	300	150	133	300.75	0.40	1.5
628	TSA(C)2500300DR112	A & C	250	300	180	112	357.14	0.48	1.79
629	TSA(C)2500300DR88.8	A & C	250	300	210	88.8	450.45	0.60	2.25
630	TSA(C)3000300DR705	A & C	300	300	30	705	56.74	0.06	0.28
631	TSA(C)3000300DR354	A & C	300	300	60	354	112.99	0.13	0.56
632	TSA(C)3000300DR222	A & C	300	300	90	222	180.18	0.20	0.9
633	TSA(C)3000300DR149	A & C	300	300	120	149	268.46	0.30	1.34
634	TSA(C)3000300DR119	A & C	300	300	150	119	336.13	0.37	1.68
635	TSA(C)3000300DR94.1	A & C	300	300	180	94.1	425.08	0.47	2.13
636	TSA(C)3000300DR79.1	A & C	300	300	210	79.1	505.69	0.56	2.53

Dimensions and specifications are subject to change without notice.

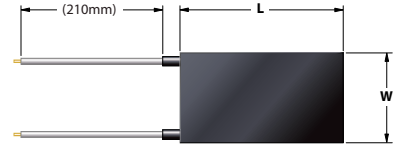
## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

Shape	: RECTANGULAR
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Length(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200, 250, 300mm
Width(mm)	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125,160, 200, 250, 300mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5,3,3.7,4.2,5.9,12,24,42,48,72,100,110,120, 200,220,230,240VAC/DC

# STANDARD | Rectangular 220V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010ER88800	C	10	10	60	88800	0.55	0.55	0	74	TSC0130025ER10600	C	13	25	150	10600	4.57	1.41	0.02
2	TSC0100010ER56100	C	10	10	90	56100	0.86	0.86	0	75	TSC0130025ER8380	C	13	25	180	8380	5.78	1.78	0.03
3	TSC0100010ER39700	C	10	10	120	39700	1.22	1.22	0.01	76	TSC0130025ER7050	C	13	25	210	7050	6.87	2.11	0.03
4	TSC0100010ER29700	C	10	10	150	29700	1.63	1.63	0.01	77	TSC0130032ER53000	C	13	32	30	53000	0.91	0.22	0
5	TSC0100010ER24900	C	10	10	180	24900	1.94	1.94	0.01	78	TSC0130032ER24900	C	13	32	60	24900	1.94	0.47	0.01
6	TSC0100010ER19800	C	10	10	210	19800	2.44	2.44	0.01	79	TSC0130032ER15800	C	13	32	90	15800	3.06	0.74	0.01
7	TSC0100013ER149000	C	10	13	30	149000	0.32	0.25	0	80	TSC0130040ER11200	C	13	32	120	11200	4.32	1.04	0.02
8	TSC0100013ER66600	C	10	13	60	66600	0.73	0.56	0	81	TSC0130032ER8380	C	13	32	150	8380	5.78	1.39	0.03
9	TSC0100013ER44600	C	10	13	90	44600	1.09	0.84	0	82	TSC0130032ER6660	C	13	32	180	6660	7.27	1.75	0.03
10	TSC0100013ER31500	C	10	13	120	31500	1.54	1.18	0.01	83	TSC0130032ER5610	C	13	32	210	5610	8.63	2.07	0.04
11	TSC0100013ER23500	C	10	13	150	23500	2.06	1.58	0.01	84	TSC0130040ER42100	C	13	40	30	42100	1.15	0.22	0.01
12	TSC0100013ER18700	C	10	13	180	18700	2.59	1.99	0.01	85	TSC0130040ER19800	C	13	40	60	19800	2.44	0.47	0.01
13	TSC0100013ER14900	C	10	13	210	14900	3.25	2.50	0.01	86	TSC0130040ER12600	C	13	40	90	12600	3.84	0.74	0.02
14	TSC0100016ER119000	C	10	16	30	119000	0.41	0.26	0	87	TSC0130040ER8880	C	13	40	120	8880	5.45	1.05	0.02
15	TSC0100016ER56100	C	10	16	60	56100	0.86	0.54	0	88	TSC0130040ER6660	C	13	40	150	6660	7.27	1.40	0.03
16	TSC0100016ER35400	C	10	16	90	35400	1.37	0.86	0.01	89	TSC0130040ER5300	C	13	40	180	5300	9.13	1.76	0.04
17	TSC0100016ER24900	C	10	16	120	24900	1.94	1.21	0.01	90	TSC0130040ER4460	C	13	40	210	4460	10.85	2.09	0.05
18	TSC0100016ER18700	C	10	16	150	18700	2.59	1.62	0.01	91	TSC0130050ER33400	C	13	50	30	33400	1.45	0.22	0.01
19	TSC0100016ER14900	C	10	16	180	14900	3.25	2.03	0.01	92	TSC0130050ER15800	C	13	50	60	15800	3.06	0.47	0.01
20	TSC0100016ER12600	C	10	16	210	12600	3.84	2.40	0.02	93	TSC0130050ER10000	C	13	50	90	10000	4.84	0.74	0.02
21	TSC0100020ER94100	C	10	20	30	94100	0.51	0.26	0	94	TSC0130050ER7050	C	13	50	120	7050	6.87	1.06	0.03
22	TSC0100020ER44600	C	10	20	60	44600	1.09	0.55	0	95	TSC0130050ER5300	C	13	50	150	5300	9.13	1.40	0.04
23	TSC0100020ER28000	C	10	20	90	28000	1.73	0.87	0.01	96	TSC0130050ER4210	C	13	50	180	4210	11.5	1.77	0.05
24	TSC0100020ER19800	C	10	20	120	19800	2.44	1.22	0.01	97	TSC0130050ER3540	C	13	50	210	3540	13.67	2.10	0.06
25	TSC0100020ER14900	C	10	20	150	14900	3.25	1.63	0.01	98	TSC0160016ER100000	C	16	16	30	100000	0.48	0.19	0
26	TSC0100020ER11900	C	10	20	180	11900	4.07	2.04	0.02	99	TSC0160016ER47200	C	16	16	60	47200	1.03	0.40	0
27	TSC0100020ER10000	C	10	20	210	10000	4.84	2.42	0.02	100	TSC0160016ER29700	C	16	16	90	29700	1.63	0.64	0.01
28	TSC0100025ER74700	C	10	25	30	74700	0.65	0.26	0	101	TSC0160016ER21000	C	16	16	120	21000	2.3	0.90	0.01
29	TSC0100025ER35400	C	10	25	60	35400	1.37	0.55	0.01	102	TSC0160016ER15800	C	16	16	150	15800	3.06	1.20	0.01
30	TSC0100025ER22200	C	10	25	90	22200	2.18	0.87	0.01	103	TSC0160016ER12600	C	16	16	180	12600	3.84	1.50	0.02
31	TSC0100025ER15800	C	10	25	120	15800	3.06	1.22	0.01	104	TSC0160016ER10600	C	16	16	210	10600	4.57	1.79	0.02
32	TSC0100025ER11900	C	10	25	150	11900	4.07	1.63	0.02	105	TSC0160020ER79100	C	16	20	30	79100	0.61	0.19	0
33	TSC0100025ER9410	C	10	25	180	9410	5.14	2.06	0.02	106	TSC0160020ER37500	C	16	20	60	37500	1.29	0.40	0.01
34	TSC0100025ER7910	C	10	25	210	7910	6.12	2.45	0.03	107	TSC0160020ER23500	C	16	20	90	23500	2.06	0.64	0.01
35	TSC0100032ER59400	C	10	32	30	59400	0.81	0.25	0	108	TSC0160020ER16700	C	16	20	120	16700	2.9	0.91	0.01
36	TSC0100032ER28000	C	10	32	60	28000	1.73	0.54	0.01	109	TSC0160020ER12600	C	16	20	150	12600	3.84	1.20	0.02
37	TSC0100032ER17700	C	10	32	90	17700	2.73	0.85	0.01	110	TSC0160020ER10000	C	16	20	180	10000	4.84	1.51	0.02
38	TSC0100032ER12600	C	10	32	120	12600	3.84	1.20	0.02	111	TSC0160020ER8380	C	16	20	210	8380	5.78	1.81	0.03
39	TSC0100032ER9410	C	10	32	150	9410	5.14	1.61	0.02	112	TSC0160025ER62900	C	16	25	30	62900	0.77	0.19	0
40	TSC0100032ER7470	C	10	32	180	7470	6.48	2.03	0.03	113	TSC0160025ER29700	C	16	25	60	29700	1.63	0.41	0.01
41	TSC0100032ER6290	C	10	32	210	6290	7.69	2.40	0.03	114	TSC0160025ER18700	C	16	25	90	18700	2.59	0.65	0.01
42	TSC0100040ER47200	C	10	40	30	47200	1.03	0.26	0	115	TSC0160025ER13300	C	16	25	120	13300	3.64	0.91	0.02
43	TSC0100040ER22200	C	10	40	60	22200	2.18	0.55	0.01	116	TSC0160025ER10000	C	16	25	150	10000	4.84	1.21	0.02
44	TSC0100040ER14100	C	10	40	90	14100	3.43	0.86	0.02	117	TSC0160025ER8380	C	16	25	180	8380	5.78	1.45	0.03
45	TSC0100040ER10000	C	10	40	120	10000	4.84	1.21	0.02	118	TSC0160025ER6660	C	16	25	210	6660	7.27	1.82	0.03
46	TSC0100040ER7470	C	10	40	150	7470	6.48	1.62	0.03	119	TSC0160032ER50000	C	16	32	30	50000	0.97	0.19	0
47	TSC0100040ER5940	C	10	40	180	5940	8.15	2.04	0.04	120	TSC0160032ER23500	C	16	32	60	23500	2.06	0.40	0.01
48	TSC0100040ER5000	C	10	40	210	5000	9.68	2.42	0.04	121	TSC0160032ER14900	C	16	32	90	14900	3.25	0.63	0.01
49	TSC0130013ER126000	C	13	13	30	126000	0.38	0.22	0	122	TSC0160032ER10600	C	16	32	120	10600	4.57	0.89	0.02
50	TSC0130013ER59400	C	13	13	60	59400	0.81	0.48	0	123	TSC0160032ER7910	C	16	32	150	7910	6.12	1.20	0.03
51	TSC0130013ER37500	C	13	13	90	37500	1.29	0.76	0.01	124	TSC0160032ER6290	C	16	32	180	6290	7.69	1.50	0.03
52	TSC0130013ER28000	C	13	13	120	28000	1.73	1.02	0.01	125	TSC0160032ER5300	C	16	32	210	5300	9.13	1.78	0.04
53	TSC0130013ER21000	C	13	13	150	21000	2.3	1.36	0.01	126	TSC0160040ER39700	C	16	40	30	39700	1.22	0.19	0.01
54	TSC0130013ER16700	C	13	13	180	16700	2.9	1.72	0.01	127	TSC0160040ER18700	C	16	40	60	18700	2.59	0.40	0.01
55	TSC0130013ER13300	C	13	13	210	13300	3.64	2.15	0.02	128	TSC0160040ER11900	C	16	40	90	11900	4.07	0.64	0.02
56	TSC0130016ER106000	C	13	16	30	106000	0.46	0.22	0	129	TSC0160040ER8380	C	16	40	120	8380	5.78	0.90	0.03
57	TSC0130016ER50000	C	13	16	60	50000	0.97	0.47	0	130	TSC0160040ER6290	C	16	40	150	6290	7.69	1.20	0.03
58	TSC0130016ER31500	C	13	16	90	31500	1.54	0.74	0.01	131	TSC0160040ER5000	C	16	40	180	5000	9.68	1.51	0.04
59	TSC0130016ER22200	C	13	16	120	22200	2.18	1.05	0.01	132	TSC0160040ER4210	C	16	40	210	4210	11.5	1.80	0.05
60	TSC0130016ER16700	C	13	16	150	16700	2.9	1.39	0.01	133	TSC0160050ER31500	C	16	50	30	31500	1.54	0.19	0.01
61	TSC0130016ER13300	C	13	16	180	13300	3.64	1.75	0.02	134	TSC0160050ER14900	C	16	50	60	14900	3.25	0.41	0.01
62	TSC0130016ER11200	C	13	16	210	11200	4.32	2.08	0.02	135	TSC0160050ER9410	C	16	50	90	9410	5.14	0.64	0.02
63	TSC0130020ER83800	C	13	20	30	83800	0.58	0.22	0	136	TSC0160050ER6660	C	16	50	120	6660	7.27	0.91	0.03
64	TSC0130020ER39700	C	13	20	60	39700	1.22	0.47	0.01	137	TSC0160050ER5000	C	16	50	150	5000	9.68	1.21	0.04
65	TSC0130020ER24900	C	13	20	90	24900	1.94	0.75	0.01	138	TSC0160050ER4210	C	16	50	180	4210	11.5	1.44	0.05
66	TSC0130020ER17700	C	13	20	120	17700	2.73	1.05	0.01	139	TSC0160050ER3340	C	16	50	210	3340	14.4		

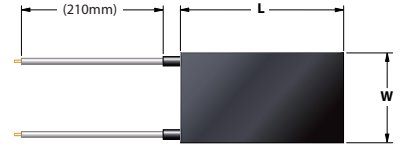


# STANDARD | Rectangular 220V

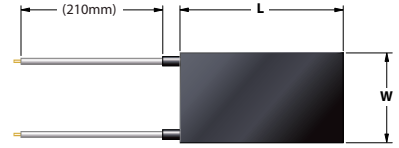
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSC0200020ER79100	C	20	20	30	79100	0.61	0.15	0	220	TSC0250050ER5610	C	25	50	120	5610	8.63	0.69	0.04
148	TSC0200020ER39700	C	20	20	60	39700	1.22	0.31	0.01	221	TSC0250050ER4460	C	25	50	150	4460	10.85	0.87	0.05
149	TSC0200020ER23500	C	20	20	90	23500	2.06	0.52	0.01	222	TSC0250050ER3540	C	25	50	180	3540	13.67	1.09	0.06
150	TSC0200020ER16700	C	20	20	120	16700	2.9	0.73	0.01	223	TSC0250050ER2970	C	25	50	210	2970	16.3	1.30	0.07
151	TSC0200020ER13300	C	20	20	150	13300	3.64	0.91	0.02	224	TSC0250063ER21000	C	25	63	30	21000	2.3	0.15	0.01
152	TSC0200020ER10600	C	20	20	180	10600	4.57	1.14	0.02	225	TSC0250063ER10000	C	25	63	60	10000	4.84	0.31	0.02
153	TSC0200020ER8880	C	20	20	210	8880	5.45	1.36	0.02	226	TSC0250063ER6290	C	25	63	90	6290	7.69	0.49	0.03
154	TSC0200025ER62900	C	20	25	30	62900	0.77	0.15	0	227	TSC0250063ER4460	C	25	63	120	4460	10.85	0.69	0.05
155	TSC0200025ER31500	C	20	25	60	31500	1.54	0.31	0.01	228	TSC0250063ER3540	C	25	63	150	3540	13.67	0.87	0.06
156	TSC0200025ER19800	C	20	25	90	19800	2.44	0.49	0.01	229	TSC0250063ER2800	C	25	63	180	2800	17.29	1.10	0.08
157	TSC0200025ER14100	C	20	25	120	14100	3.43	0.69	0.02	230	TSC0250080ER16700	C	25	80	30	16700	2.9	0.15	0.01
158	TSC0200025ER10600	C	20	25	150	10600	4.57	0.91	0.02	231	TSC0250080ER7910	C	25	80	60	7910	6.12	0.31	0.03
159	TSC0200025ER8880	C	20	25	180	8880	5.45	1.09	0.02	232	TSC0250063ER2350	C	25	63	210	2350	20.6	1.31	0.09
160	TSC0200025ER7050	C	20	25	210	7050	6.87	1.37	0.03	233	TSC0250080ER5000	C	25	80	90	5000	9.68	0.48	0.04
161	TSC0200032ER50000	C	20	32	30	50000	0.97	0.15	0	234	TSC0250063ER3540	C	25	80	120	3540	13.67	0.68	0.06
162	TSC0200032ER24900	C	20	32	60	24900	1.94	0.30	0.01	235	TSC0250080ER2800	C	25	80	150	2800	17.29	0.86	0.08
163	TSC0200032ER14900	C	20	32	90	14900	3.25	0.51	0.01	236	TSC0250080ER2220	C	25	80	180	2220	21.8	1.09	0.1
164	TSC0200032ER10600	C	20	32	120	10600	4.57	0.71	0.02	237	TSC0250080ER1870	C	25	80	210	1870	25.88	1.29	0.12
165	TSC0200032ER8380	C	20	32	150	8380	5.78	0.90	0.03	238	TSC0250100ER13300	C	25	100	30	13300	3.64	0.15	0.02
166	TSC0200032ER6660	C	20	32	180	6660	7.27	1.14	0.03	239	TSC0250100ER6290	C	25	100	60	6290	7.69	0.31	0.03
167	TSC0200032ER5610	C	20	32	210	5610	8.63	1.35	0.04	240	TSC0250100ER3970	C	25	100	90	3970	12.19	0.49	0.06
168	TSC0200040ER39700	C	20	40	30	39700	1.22	0.15	0.01	241	TSC0250100ER2800	C	25	100	120	2800	17.29	0.69	0.08
169	TSC0200040ER19800	C	20	40	60	19800	2.44	0.31	0.01	242	TSC0250100ER2220	C	25	100	150	2220	21.8	0.87	0.1
170	TSC0200040ER11900	C	20	40	90	11900	4.07	0.51	0.02	243	TSC0250100ER1770	C	25	100	180	1770	27.34	1.09	0.12
171	TSC0200040ER8380	C	20	40	120	8380	5.78	0.72	0.03	244	TSA(C)0250100ER1490	A & C	25	100	210	1490	32.48	1.30	0.15
172	TSC0200040ER6660	C	20	40	150	6660	7.27	0.91	0.03	245	TSC0320032ER35400	C	32	32	30	35400	1.37	0.13	0.01
173	TSC0200040ER5300	C	20	40	180	5300	9.13	1.14	0.04	246	TSC0320032ER16700	C	32	32	60	16700	2.9	0.28	0.01
174	TSC0200040ER4460	C	20	40	210	4460	10.85	1.36	0.05	247	TSC0320063ER10600	C	32	32	90	10600	4.57	0.45	0.02
175	TSC0200050ER31500	C	20	50	30	31500	1.54	0.15	0.01	248	TSC0320032ER7470	C	32	32	120	7470	6.48	0.63	0.03
176	TSC0200050ER15800	C	20	50	60	15800	3.06	0.31	0.01	249	TSC0320032ER5940	C	32	32	150	5940	8.15	0.80	0.04
177	TSC0200050ER9410	C	20	50	90	9410	5.14	0.51	0.02	250	TSC0320032ER4720	C	32	32	180	4720	10.25	1.00	0.05
178	TSC0200050ER7050	C	20	50	120	7050	6.87	0.69	0.03	251	TSC0320032ER3970	C	32	32	210	3970	12.19	1.19	0.06
179	TSC0200050ER5300	C	20	50	150	5300	9.13	0.91	0.04	252	TSC0320040ER28000	C	32	40	30	28000	1.73	0.14	0.01
180	TSC0200050ER4210	C	20	50	180	4210	11.5	1.15	0.05	253	TSC0320040ER13300	C	32	40	60	13300	3.64	0.28	0.02
181	TSC0200050ER3540	C	20	50	210	3540	13.67	1.37	0.06	254	TSC0320040ER8380	C	32	40	90	8380	5.78	0.45	0.03
182	TSC0200063ER24900	C	20	63	30	24900	1.94	0.15	0.01	255	TSC0320040ER5940	C	32	40	120	5940	8.15	0.64	0.04
183	TSC0200063ER12600	C	20	63	60	12600	3.84	0.30	0.02	256	TSC0320040ER4720	C	32	40	150	4720	10.25	0.80	0.05
184	TSC0200063ER7470	C	20	63	90	7470	6.48	0.51	0.03	257	TSC0320040ER3750	C	32	40	180	3750	12.91	1.01	0.06
185	TSC0200063ER5300	C	20	63	120	5300	9.13	0.72	0.04	258	TSC0320040ER3150	C	32	40	210	3150	15.37	1.20	0.07
186	TSC0200063ER4210	C	20	63	150	4210	11.5	0.91	0.05	259	TSC0320050ER22200	C	32	50	30	22200	2.18	0.14	0.01
187	TSC0200063ER3340	C	20	63	180	3340	14.49	1.15	0.07	260	TSC0320050ER10600	C	32	50	60	10600	4.57	0.29	0.02
188	TSC0200063ER2800	C	20	63	210	2800	17.29	1.37	0.08	261	TSC0320050ER6660	C	32	50	90	6660	7.27	0.45	0.03
189	TSC0200080ER19800	C	20	80	30	19800	2.44	0.15	0.01	262	TSC0320050ER4720	C	32	50	120	4720	10.25	0.64	0.05
190	TSC0200080ER10000	C	20	80	60	10000	4.84	0.30	0.02	263	TSC0320050ER3750	C	32	50	150	3750	12.91	0.81	0.06
191	TSC0200080ER5940	C	20	80	90	5940	8.15	0.51	0.04	264	TSC0320050ER2970	C	32	50	180	2970	16.3	1.02	0.07
192	TSC0200080ER4210	C	20	80	120	4210	11.5	0.72	0.05	265	TSC0320050ER2490	C	32	50	210	2490	19.44	1.22	0.09
193	TSC0200080ER3340	C	20	80	150	3340	14.49	0.91	0.07	266	TSC0320063ER17700	C	32	63	30	17700	2.73	0.14	0.01
194	TSC0200080ER2640	C	20	80	180	2640	18.33	1.15	0.08	267	TSC0320063ER8380	C	32	63	60	8380	5.78	0.29	0.03
195	TSC0200080ER2220	C	20	80	210	2220	21.8	1.36	0.1	268	TSC0320063ER5300	C	32	63	90	5300	9.13	0.45	0.04
196	TSC0250025ER53000	C	25	25	30	53000	0.91	0.15	0	269	TSC0320063ER3750	C	32	63	120	3750	12.91	0.64	0.06
197	TSC0250025ER26400	C	25	25	60	26400	1.83	0.29	0.01	270	TSC0320063ER2970	C	32	63	150	2970	16.3	0.81	0.07
198	TSC0250025ER15800	C	25	25	90	15800	3.06	0.49	0.01	271	TSC0320063ER2350	C	32	63	180	2350	20.6	1.02	0.09
199	TSC0250025ER11200	C	25	25	120	11200	4.32	0.69	0.02	272	TSC0320063ER1980	C	32	63	210	1980	24.44	1.21	0.11
200	TSC0250025ER8880	C	25	25	150	8880	5.45	0.87	0.02	273	TSC0320080ER14100	C	32	80	30	14100	3.43	0.13	0.02
201	TSC0250025ER7050	C	25	25	180	7050	6.87	1.10	0.03	274	TSC0320080ER6660	C	32	80	60	6660	7.27	0.28	0.03
202	TSC0250025ER5940	C	25	25	210	5940	8.15	1.30	0.04	275	TSC0320080ER4210	C	32	80	90	4210	11.5	0.45	0.05
203	TSC0250032ER42100	C	25	32	30	42100	1.15	0.14	0.01	276	TSC0320080ER2970	C	32	80	120	2970	16.3	0.64	0.07
204	TSC0250032ER19800	C	25	32	60	19800	2.44	0.31	0.01	277	TSC0320080ER2350	C	32	80	150	2350	20.6	0.80	0.09
205	TSC0250032ER12600	C	25	32	90	12600	3.84	0.48	0.02	278	TSC0320080ER1870	C	32	80	180	1870	25.88	1.01	0.12
206	TSC0250032ER8880	C	25	32	120	8880	5.45	0.68	0.02	279	TSC0320080ER1580	C	32	80	210	1580	30.63	1.20	0.14
207	TSC0250032ER7050	C	25	32	150	7050	6.87	0.86	0.03	280	TSC0320100ER11200	C	32	100	30	11200	4.32	0.14	0.02
208	TSC0250032ER5610	C	25	32	180	5610	8.63	1.08	0.04	281	TSC0320100ER5300	C	32	100	60	5300	9.13	0.29	0.04
209	TSC0250032ER4720	C	25	32	210	4720	10.25	1.28	0.05	282	TSC0320100ER3340	C	32	100	90	3340	14.49	0.45	0.07
210	TSC0250040ER33400	C	25	40	30	33400	1.45	0.15	0.01	283	TSC0320100ER2350	C	32	100	120	2350	20.6	0.64	0.09
211	TSC0250040ER15800	C	25	40	60	15800	3.06	0.31	0.01	284	TSA(C)0320100ER1870	A & C	32	100	150	1870	25.88	0.81	0.12
212	TSC0250040ER10000	C	25	40	90														



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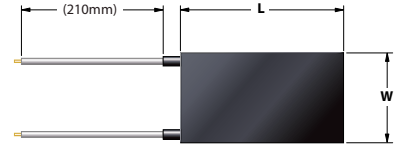
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125ER1000	A & C	32	125	210	1000	48.4	1.21	0.22	366	TSA(C)0500100ER2350	A & C	50	100	90	2350	20.6	0.41	0.09
294	TSC0400040ER23500	C	40	40	30	23500	2.06	0.13	0.01	367	TSA(C)0500100ER1670	A & C	50	100	120	1670	28.98	0.58	0.13
295	TSC0400040ER11200	C	40	40	60	11200	4.32	0.27	0.02	368	TSA(C)0500100ER1330	A & C	50	100	150	1330	36.39	0.73	0.17
296	TSC0400040ER7050	C	40	40	90	7050	6.87	0.43	0.03	369	TSA(C)0500100ER1060	A & C	50	100	180	1060	45.66	0.91	0.21
297	TSC0400040ER5000	C	40	40	120	5000	9.68	0.61	0.04	370	TSA(C)0500100ER888	A & C	50	100	210	888	54.5	1.09	0.25
298	TSC0400040ER3970	C	40	40	150	3970	12.19	0.76	0.06	371	TSC0500125ER6290	C	50	125	30	6290	7.69	0.12	0.03
299	TSC0400040ER3150	C	40	40	180	3150	15.37	0.96	0.07	372	TSA(C)0500125ER2970	A & C	50	125	60	2970	16.3	0.26	0.07
300	TSC0400040ER2640	C	40	40	210	2640	18.33	1.15	0.08	373	TSA(C)0500125ER1870	A & C	50	125	90	1870	25.88	0.41	0.12
301	TSC0400050ER18700	C	40	50	30	18700	2.59	0.13	0.01	374	TSA(C)0500125ER1330	A & C	50	125	120	1330	36.39	0.58	0.17
302	TSC0400050ER8880	C	40	50	60	8880	5.45	0.27	0.02	375	TSA(C)0500125ER1060	A & C	50	125	150	1060	45.66	0.73	0.21
303	TSC0400050ER5610	C	40	50	90	5610	8.63	0.43	0.04	376	TSA(C)0500125ER888	A & C	50	125	180	888	54.5	0.87	0.25
304	TSC0400050ER3970	C	40	50	120	3970	12.19	0.61	0.06	377	TSA(C)0500125ER747	A & C	50	125	210	747	64.79	1.04	0.29
305	TSC0400050ER3150	C	40	50	150	3150	15.37	0.77	0.07	378	TSC0500160ER5000	C	50	160	30	5000	9.68	0.12	0.04
306	TSC0400050ER2490	C	40	50	180	2490	19.44	0.97	0.09	379	TSA(C)0500160ER2350	A & C	50	160	60	2350	20.6	0.26	0.09
307	TSC0400050ER2100	C	40	50	210	2100	23.05	1.15	0.1	380	TSA(C)0500160ER1490	A & C	50	160	90	1490	32.48	0.41	0.15
308	TSC0400063ER14900	C	40	63	30	14900	3.25	0.13	0.01	381	TSA(C)0500160ER1060	A & C	50	160	120	1060	45.66	0.57	0.21
309	TSC0400063ER7050	C	40	63	60	7050	6.87	0.27	0.03	382	TSA(C)0500160ER838	A & C	50	160	150	838	57.76	0.72	0.26
310	TSC0400063ER4460	C	40	63	90	4460	10.85	0.43	0.05	383	TSA(C)0500160ER666	A & C	50	160	180	666	72.67	0.91	0.33
311	TSC0400063ER3150	C	40	63	120	3150	15.37	0.61	0.07	384	TSA(C)0500160ER561	A & C	50	160	210	561	86.27	1.08	0.39
312	TSC0400063ER2490	C	40	63	150	2490	19.44	0.77	0.09	385	TSA(C)0500200ER3970	A & C	50	200	30	3970	12.19	0.12	0.06
313	TSC0400063ER1980	C	40	63	180	1980	24.44	0.97	0.11	386	TSA(C)0500200ER1870	A & C	50	200	60	1870	25.88	0.26	0.12
314	TSC0400063ER1670	C	40	63	210	1670	28.98	1.15	0.13	387	TSA(C)0500200ER1190	A & C	50	200	90	1190	40.67	0.41	0.18
315	TSC0400080ER11900	C	40	80	30	11900	4.07	0.13	0.02	388	TSA(C)0500200ER838	A & C	50	200	120	838	57.76	0.58	0.26
316	TSC0400080ER5610	C	40	80	60	5610	8.63	0.27	0.04	389	TSA(C)0500200ER666	A & C	50	200	150	666	72.67	0.73	0.33
317	TSC0400080ER3540	C	40	80	90	3540	13.67	0.43	0.06	390	TSA(C)0500200ER530	A & C	50	200	180	530	91.32	0.91	0.42
318	TSC0400080ER2490	C	40	80	120	2490	19.44	0.61	0.09	391	TSA(C)0500200ER446	A & C	50	200	210	446	108.52	1.09	0.49
319	TSC0400080ER1980	C	40	80	150	1980	24.44	0.76	0.11	392	TSC0630063ER10600	C	63	63	30	10600	4.57	0.12	0.02
320	TSA(C)0400080ER1580	A & C	40	80	180	1580	30.63	0.96	0.14	393	TSC0630063ER5000	C	63	63	60	5000	9.68	0.24	0.04
321	TSA(C)0400080ER1330	A & C	40	80	210	1330	36.39	1.14	0.17	394	TSC0630063ER3150	C	63	63	90	3150	15.37	0.39	0.07
322	TSC0400100ER9410	C	40	100	30	9410	5.14	0.13	0.02	395	TSA(C)0630063ER2220	A & C	63	63	120	2220	21.8	0.55	0.1
323	TSC0400100ER4460	C	40	100	60	4460	10.85	0.27	0.05	396	TSA(C)0630063ER1770	A & C	63	63	150	1770	27.34	0.69	0.12
324	TSC0400100ER2800	C	40	100	90	2800	17.29	0.43	0.08	397	TSA(C)0630063ER1490	A & C	63	63	180	1490	32.48	0.82	0.15
325	TSA(C)0400100ER1980	A & C	40	100	120	1980	24.44	0.61	0.11	398	TSA(C)0630063ER1190	A & C	63	63	210	1190	40.67	1.02	0.18
326	TSA(C)0400100ER1580	A & C	40	100	150	1580	30.63	0.77	0.14	399	TSC0630080ER8380	C	63	80	30	8380	5.78	0.11	0.03
327	TSA(C)0400100ER1260	A & C	40	100	180	1260	38.41	0.96	0.17	400	TSC0630080ER3970	C	63	80	60	3970	12.19	0.24	0.06
328	TSA(C)0400100ER1060	A & C	40	100	210	1060	45.66	1.14	0.21	401	TSA(C)0630080ER2490	A & C	63	80	90	2490	19.44	0.39	0.09
329	TSC0400125ER7470	C	40	125	30	7470	6.48	0.13	0.03	402	TSA(C)0630080ER1770	A & C	63	80	120	1770	27.34	0.54	0.12
330	TSC0400125ER3540	C	40	125	60	3540	13.67	0.27	0.06	403	TSA(C)0630080ER1410	A & C	63	80	150	1410	34.33	0.68	0.16
331	TSA(C)0400125ER2220	A & C	40	125	90	2220	21.8	0.44	0.1	404	TSA(C)0630080ER1120	A & C	63	80	180	1120	43.21	0.86	0.2
332	TSA(C)0400125ER1580	A & C	40	125	120	1580	30.63	0.61	0.14	405	TSA(C)0630080ER941	A & C	63	80	210	941	51.43	1.02	0.23
333	TSA(C)0400125ER1260	A & C	40	125	150	1260	38.41	0.77	0.17	406	TSC0630100ER6660	C	63	100	30	6660	7.27	0.12	0.03
334	TSA(C)0400125ER1000	A & C	40	125	180	1000	48.4	0.97	0.22	407	TSA(C)0630100ER3150	A & C	63	100	60	3150	15.37	0.24	0.07
335	TSA(C)0400125ER838	A & C	40	125	210	838	57.76	1.16	0.26	408	TSA(C)0630100ER2100	A & C	63	100	90	2100	23.05	0.37	0.1
336	TSC0400160ER5940	C	40	160	30	5940	8.15	0.13	0.04	409	TSA(C)0630100ER1410	A & C	63	100	120	1410	34.33	0.54	0.16
337	TSA(C)0400160ER2800	A & C	40	160	60	2800	17.29	0.27	0.08	410	TSA(C)0630100ER1120	A & C	63	100	150	1120	43.21	0.69	0.2
338	TSA(C)0400160ER1770	A & C	40	160	90	1770	27.34	0.43	0.12	411	TSA(C)0630100ER888	A & C	63	100	180	888	54.5	0.87	0.25
339	TSA(C)0400160ER1260	A & C	40	160	120	1260	38.41	0.60	0.17	412	TSA(C)0630100ER747	A & C	63	100	210	747	64.79	1.03	0.29
340	TSA(C)0400160ER1000	A & C	40	160	150	1000	48.4	0.76	0.22	413	TSC0630125ER5300	C	63	125	30	5300	9.13	0.12	0.04
341	TSA(C)0400160ER791	A & C	40	160	180	791	61.19	0.96	0.28	414	TSA(C)0630125ER2640	A & C	63	125	60	2640	18.33	0.23	0.08
342	TSA(C)0400160ER666	A & C	40	160	210	666	72.67	1.14	0.33	415	TSA(C)0630125ER1670	A & C	63	125	90	1670	28.98	0.37	0.13
343	TSC0500050ER15800	C	50	50	30	15800	3.06	0.12	0.01	416	TSA(C)0630125ER1120	A & C	63	125	120	1120	43.21	0.55	0.2
344	TSC0500050ER7470	C	50	50	60	7470	6.48	0.26	0.03	417	TSA(C)0630125ER888	A & C	63	125	150	888	54.5	0.69	0.25
345	TSC0500050ER4720	C	50	50	90	4720	10.25	0.41	0.05	418	TSA(C)0630125ER747	A & C	63	125	180	747	64.79	0.82	0.29
346	TSC0500050ER3340	C	50	50	120	3340	14.49	0.58	0.07	419	TSA(C)0630125ER594	A & C	63	125	210	594	81.48	1.03	0.37
347	TSC0500050ER2640	C	50	50	150	2640	18.33	0.73	0.08	420	TSA(C)0630160ER4210	A & C	63	160	30	4210	11.5	0.11	0.05
348	TSC0500050ER2220	C	50	50	180	2220	21.8	0.87	0.1	421	TSA(C)0630160ER1980	A & C	63	160	60	1980	24.44	0.24	0.11
349	TSC0500050ER1870	C	50	50	210	1870	25.88	1.04	0.12	422	TSA(C)0630160ER1260	A & C	63	160	90	1260	38.41	0.38	0.17
350	TSC0500063ER12600	C	50	63	30	12600	3.84	0.12	0.02	423	TSA(C)0630160ER888	A & C	63	160	120	888	54.5	0.54	0.25
351	TSC0500063ER5940	C	50	63	60	5940	8.15	0.26	0.04	424	TSA(C)0630160ER705	A & C	63	160	150	705	68.65	0.68	0.31
352	TSC0500063ER3750	C	50	63	90	3750	12.91	0.41	0.06	425	TSA(C)0630160ER561	A & C	63	160	180	561	86.27	0.86	0.39
353	TSC0500063ER2640	C	50	63	120	2640	18.33	0.58	0.08	426	TSA(C)0630160ER472	A & C	63	160	210	472	102.54	1.02	0.47
354	TSC0500063ER2100	C	50	63	150	2100	23.05	0.73	0.1	427	TSA(C)0630200ER3340	A & C	63	200	30	3340	14.49	0.12	0.07
355	TSA(C)0500063ER1770	A & C	50	63	180	1770	27.34	0.87	0.12	428	TSA(C)0630200ER1580	A & C	63</						



# STANDARD | Rectangular 220V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)0630250ER375	A & C	63	250	180	375	129.07	0.82	0.59	512	TSA(C)1000200ER1260	A & C	100	200	60	1260	38.41	0.19	0.17
440	TSA(C)0630250ER297	A & C	63	250	210	297	162.96	1.03	0.74	513	TSA(C)1000200ER791	A & C	100	200	90	791	61.19	0.31	0.28
441	TSC0800080ER7050	C	80	80	30	7050	6.87	0.11	0.03	514	TSA(C)1000200ER561	A & C	100	200	120	561	86.27	0.43	0.39
442	TSA(C)0800080ER3540	A & C	80	80	60	3540	13.67	0.21	0.06	515	TSA(C)1000200ER421	A & C	100	200	150	421	114.96	0.57	0.52
443	TSA(C)0800080ER2220	A & C	80	80	90	2220	21.8	0.34	0.1	516	TSA(C)1000200ER354	A & C	100	200	180	354	136.72	0.68	0.62
444	TSA(C)0800080ER1580	A & C	80	80	120	1580	30.63	0.48	0.14	517	TSA(C)1000200ER280	A & C	100	200	210	280	172.86	0.86	0.79
445	TSA(C)0800080ER1190	A & C	80	80	150	1190	40.67	0.64	0.18	518	TSA(C)1000250ER2100	A & C	100	250	30	2100	23.05	0.09	0.1
446	TSA(C)0800080ER1000	A & C	80	80	180	1000	48.4	0.76	0.22	519	TSA(C)1000250ER1060	A & C	100	250	60	1060	45.66	0.18	0.21
447	TSA(C)0800080ER791	A & C	80	80	210	791	61.19	0.96	0.28	520	TSA(C)1000250ER629	A & C	100	250	90	629	76.95	0.31	0.35
448	TSC0800100ER5610	C	80	100	30	5610	8.63	0.11	0.04	521	TSA(C)1000250ER446	A & C	100	250	120	446	108.52	0.43	0.49
449	TSA(C)0800100ER2800	A & C	80	100	60	2800	17.29	0.22	0.08	522	TSA(C)1000250ER334	A & C	100	250	150	334	144.91	0.58	0.66
450	TSA(C)0800100ER1770	A & C	80	100	90	1770	27.34	0.34	0.12	523	TSA(C)1000250ER280	A & C	100	250	180	280	172.86	0.69	0.79
451	TSA(C)0800100ER1260	A & C	80	100	120	1260	38.41	0.48	0.17	524	TSA(C)1000250ER235	A & C	100	250	210	235	205.96	0.82	0.94
452	TSA(C)0800100ER941	A & C	80	100	150	941	51.43	0.64	0.23	525	TSA(C)1000300ER1770	A & C	100	300	30	1770	27.34	0.09	0.12
453	TSA(C)0800100ER791	A & C	80	100	180	791	61.19	0.76	0.28	526	TSA(C)1000300ER838	A & C	100	300	60	838	57.76	0.19	0.26
454	TSA(C)0800100ER666	A & C	80	100	210	666	72.67	0.91	0.33	527	TSA(C)1000300ER530	A & C	100	300	90	530	91.32	0.30	0.42
455	TSA(C)0800125ER4460	A & C	80	125	30	4460	10.85	0.11	0.05	528	TSA(C)1000300ER375	A & C	100	300	120	375	129.07	0.43	0.59
456	TSA(C)0800125ER2220	A & C	80	125	60	2220	21.8	0.22	0.1	529	TSA(C)1000300ER280	A & C	100	300	150	280	172.86	0.58	0.79
457	TSA(C)0800125ER1410	A & C	80	125	90	1410	34.33	0.34	0.16	530	TSA(C)1000300ER235	A & C	100	300	180	235	205.96	0.69	0.94
458	TSA(C)0800125ER1000	A & C	80	125	120	1000	48.4	0.48	0.22	531	TSA(C)1000300ER187	A & C	100	300	210	187	258.82	0.86	1.18
459	TSA(C)0800125ER747	A & C	80	125	150	747	64.79	0.65	0.29	532	TSA(C)1250125ER3540	A & C	125	125	30	3540	13.67	0.09	0.06
460	TSA(C)0800125ER629	A & C	80	125	180	629	76.95	0.77	0.35	533	TSA(C)1250125ER1770	A & C	125	125	60	1770	27.34	0.17	0.12
461	TSA(C)0800125ER530	A & C	80	125	210	530	91.32	0.91	0.42	534	TSA(C)1250125ER1120	A & C	125	125	90	1120	43.21	0.28	0.2
462	TSA(C)0800160ER3540	A & C	80	160	30	3540	13.67	0.11	0.06	535	TSA(C)1250125ER747	A & C	125	125	120	747	64.79	0.41	0.29
463	TSA(C)0800160ER1770	A & C	80	160	60	1770	27.34	0.21	0.12	536	TSA(C)1250125ER594	A & C	125	125	150	594	81.48	0.52	0.37
464	TSA(C)0800160ER1120	A & C	80	160	90	1120	43.21	0.34	0.2	537	TSA(C)1250125ER472	A & C	125	125	180	472	102.54	0.66	0.47
465	TSA(C)0800160ER791	A & C	80	160	120	791	61.19	0.48	0.28	538	TSA(C)1250125ER397	A & C	125	125	210	397	121.91	0.78	0.55
466	TSA(C)0800160ER594	A & C	80	160	150	594	81.48	0.64	0.37	539	TSA(C)1250160ER2800	A & C	125	160	30	2800	17.29	0.09	0.08
467	TSA(C)0800160ER500	A & C	80	160	180	500	96.8	0.76	0.44	540	TSA(C)1250160ER1410	A & C	125	160	60	1410	34.33	0.17	0.16
468	TSA(C)0800160ER397	A & C	80	160	210	397	121.91	0.95	0.55	541	TSA(C)1250160ER888	A & C	125	160	90	888	54.5	0.27	0.25
469	TSA(C)0800200ER2800	A & C	80	200	30	2800	17.29	0.11	0.08	542	TSA(C)1250160ER594	A & C	125	160	120	594	81.48	0.41	0.37
470	TSA(C)0800200ER1410	A & C	80	200	60	1410	34.33	0.21	0.16	543	TSA(C)1250160ER472	A & C	125	160	150	472	102.54	0.51	0.47
471	TSA(C)0800200ER888	A & C	80	200	90	888	54.5	0.34	0.25	544	TSA(C)1250160ER375	A & C	125	160	180	375	129.07	0.65	0.59
472	TSA(C)0800200ER629	A & C	80	200	120	629	76.95	0.48	0.35	545	TSA(C)1250160ER315	A & C	125	160	210	315	153.65	0.77	0.7
473	TSA(C)0800200ER472	A & C	80	200	150	472	102.54	0.64	0.47	546	TSA(C)1250200ER2220	A & C	125	200	30	2220	21.8	0.09	0.1
474	TSA(C)0800200ER397	A & C	80	200	180	397	121.91	0.76	0.55	547	TSA(C)1250200ER1120	A & C	125	200	60	1120	43.21	0.17	0.2
475	TSA(C)0800200ER334	A & C	80	200	210	334	144.91	0.91	0.66	548	TSA(C)1250200ER705	A & C	125	200	90	705	68.65	0.27	0.31
476	TSA(C)0800250ER2220	A & C	80	250	30	2220	21.8	0.11	0.1	549	TSA(C)1250200ER472	A & C	125	200	120	472	102.54	0.41	0.47
477	TSA(C)0800250ER1120	A & C	80	250	60	1120	43.21	0.22	0.2	550	TSA(C)1250200ER375	A & C	125	200	150	375	129.07	0.52	0.59
478	TSA(C)0800250ER705	A & C	80	250	90	705	68.65	0.34	0.31	551	TSA(C)1250200ER297	A & C	125	200	180	297	162.96	0.65	0.74
479	TSA(C)0800250ER500	A & C	80	250	120	500	96.8	0.48	0.44	552	TSA(C)1250200ER249	A & C	125	200	210	249	194.38	0.78	0.88
480	TSA(C)0800250ER375	A & C	80	250	150	375	129.07	0.65	0.59	553	TSA(C)1250250ER1770	A & C	125	250	30	1770	27.34	0.09	0.12
481	TSA(C)0800250ER315	A & C	80	250	180	315	153.65	0.77	0.7	554	TSA(C)1250250ER888	A & C	125	250	60	888	54.5	0.17	0.25
482	TSA(C)0800250ER264	A & C	80	250	210	264	183.33	0.92	0.83	555	TSA(C)1250250ER561	A & C	125	250	90	561	86.27	0.28	0.39
483	TSA(C)0800300ER1870	A & C	80	300	30	1870	25.88	0.11	0.12	556	TSA(C)1250250ER375	A & C	125	250	120	375	129.07	0.41	0.59
484	TSA(C)0800300ER941	A & C	80	300	60	941	51.43	0.21	0.23	557	TSA(C)1250250ER297	A & C	125	250	150	297	162.96	0.52	0.74
485	TSA(C)0800300ER594	A & C	80	300	90	594	81.48	0.34	0.37	558	TSA(C)1250250ER235	A & C	125	250	180	235	205.96	0.66	0.94
486	TSA(C)0800300ER421	A & C	80	300	120	421	114.96	0.48	0.52	559	TSA(C)1250250ER198	A & C	125	250	210	198	244.44	0.78	1.11
487	TSA(C)0800300ER315	A & C	80	300	150	315	153.65	0.64	0.7	560	TSA(C)1250300ER1490	A & C	125	300	30	1490	32.48	0.09	0.15
488	TSA(C)0800300ER264	A & C	80	300	180	264	183.33	0.76	0.83	561	TSA(C)1250300ER747	A & C	125	300	60	747	64.79	0.17	0.29
489	TSA(C)0800300ER222	A & C	80	300	210	222	218.02	0.91	0.99	562	TSA(C)1250300ER472	A & C	125	300	90	472	102.54	0.27	0.47
490	TSA(C)1000100ER5300	A & C	100	100	30	5300	9.13	0.09	0.04	563	TSA(C)1250300ER315	A & C	125	300	120	315	153.65	0.41	0.7
491	TSA(C)1000100ER2640	A & C	100	100	60	2640	18.33	0.18	0.08	564	TSA(C)1250300ER249	A & C	125	300	150	249	194.38	0.52	0.88
492	TSA(C)1000100ER1580	A & C	100	100	90	1580	30.63	0.31	0.14	565	TSA(C)1250300ER198	A & C	125	300	180	198	244.44	0.65	1.11
493	TSA(C)1000100ER1120	A & C	100	100	120	1120	43.21	0.43	0.2	566	TSA(C)1250300ER167	A & C	125	300	210	167	289.82	0.77	1.32
494	TSA(C)1000100ER838	A & C	100	100	150	838	57.76	0.58	0.26	567	TSA(C)1600160ER2490	A & C	160	160	30	2490	19.44	0.08	0.09
495	TSA(C)1000100ER705	A & C	100	100	180	705	68.65	0.69	0.31	568	TSA(C)1600160ER1190	A & C	160	160	60	1190	40.67	0.16	0.18
496	TSA(C)1000100ER561	A & C	100	100	210	561	86.27	0.86	0.39	569	TSA(C)1600160ER747	A & C	160	160	90	747	64.79	0.25	0.29
497	TSA(C)1000125ER4210	A & C	100	125	30	4210	11.5	0.09	0.05	570	TSA(C)1600160ER530	A & C	160	160	120	530	91.32	0.36	0.42
498	TSA(C)1000125ER2100	A & C	100	125	60	2100	23.05	0.18	0.1	571	TSA(C)1600160ER397	A & C	160	160	150	397	121.91	0.48	0.55
499	TSA(C)1000125ER1330	A & C	100	125	90	1330	36.39	0.29	0.17	572	TSA(C)1600160ER334	A & C	160	160	180	334	144.91	0.57	0.66
500	TSA(C)1000125ER888																		

# STANDARD | Rectangular 220V

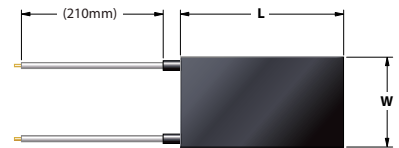


No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250ER264	A & C	160	250	150	264	183.33	0.46	0.83
586	TSA(C)1600250ER210	A & C	160	250	180	210	230.48	0.58	1.05
587	TSA(C)1600250ER177	A & C	160	250	210	177	273.45	0.68	1.24
588	TSA(C)1600300ER1330	A & C	160	300	30	1330	36.39	0.08	0.17
589	TSA(C)1600300ER666	A & C	160	300	60	666	72.67	0.15	0.33
590	TSA(C)1600300ER397	A & C	160	300	90	397	121.91	0.25	0.55
591	TSA(C)1600300ER280	A & C	160	300	120	280	172.86	0.36	0.79
592	TSA(C)1600300ER210	A & C	160	300	150	210	230.48	0.48	1.05
593	TSA(C)1600300ER177	A & C	160	300	180	177	273.45	0.57	1.24
594	TSA(C)1600300ER141	A & C	160	300	210	141	343.26	0.72	1.56
595	TSA(C)2000200ER1670	A & C	200	200	30	1670	28.98	0.07	0.13
596	TSA(C)2000200ER838	A & C	200	200	60	838	57.76	0.14	0.26
597	TSA(C)2000200ER530	A & C	200	200	90	530	91.32	0.23	0.42
598	TSA(C)2000200ER354	A & C	200	200	120	354	136.72	0.34	0.62
599	TSA(C)2000200ER280	A & C	200	200	150	280	172.86	0.43	0.79
600	TSA(C)2000200ER235	A & C	200	200	180	235	205.96	0.51	0.94
601	TSA(C)2000200ER187	A & C	200	200	210	187	258.82	0.65	1.18
602	TSA(C)2000250ER1330	A & C	200	250	30	1330	36.39	0.07	0.17
603	TSA(C)2000250ER666	A & C	200	250	60	666	72.67	0.15	0.33
604	TSA(C)2000250ER421	A & C	200	250	90	421	114.96	0.23	0.52
605	TSA(C)2000250ER297	A & C	200	250	120	297	162.96	0.33	0.74
606	TSA(C)2000250ER222	A & C	200	250	150	222	218.02	0.44	0.99
607	TSA(C)2000250ER187	A & C	200	250	180	187	258.82	0.52	1.18
608	TSA(C)2000250ER149	A & C	200	250	210	149	324.83	0.65	1.48
609	TSA(C)2000300ER1120	A & C	200	300	30	1120	43.21	0.07	0.2
610	TSA(C)2000300ER561	A & C	200	300	60	561	86.27	0.14	0.39

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
611	TSA(C)2000300ER354	A & C	200	300	90	354	136.72	0.23	0.62
612	TSA(C)2000300ER235	A & C	200	300	120	235	205.96	0.34	0.94
613	TSA(C)2000300ER187	A & C	200	300	150	187	258.82	0.43	1.18
614	TSA(C)2000300ER149	A & C	200	300	180	149	324.83	0.54	1.48
615	TSA(C)2000300ER126	A & C	200	300	210	126	384.13	0.64	1.75
616	TSA(C)2500250ER1190	A & C	250	250	30	1190	40.67	0.07	0.18
617	TSA(C)2500250ER594	A & C	250	250	60	594	81.48	0.13	0.37
618	TSA(C)2500250ER375	A & C	250	250	90	375	129.07	0.21	0.59
619	TSA(C)2500250ER249	A & C	250	250	120	249	194.38	0.31	0.88
620	TSA(C)2500250ER198	A & C	250	250	150	198	244.44	0.39	1.11
621	TSA(C)2500250ER158	A & C	250	250	180	158	306.33	0.49	1.39
622	TSA(C)2500250ER133	A & C	250	250	210	133	363.91	0.58	1.65
623	TSA(C)2500300ER1000	A & C	250	300	30	1000	48.4	0.06	0.22
624	TSA(C)2500300ER500	A & C	250	300	60	500	96.8	0.13	0.44
625	TSA(C)2500300ER315	A & C	250	300	90	315	153.65	0.20	0.7
626	TSA(C)2500300ER210	A & C	250	300	120	210	230.48	0.31	1.05
627	TSA(C)2500300ER167	A & C	250	300	150	167	289.82	0.39	1.32
628	TSA(C)2500300ER133	A & C	250	300	180	133	363.91	0.49	1.65
629	TSA(C)2500300ER112	A & C	250	300	210	112	432.14	0.58	1.96
630	TSA(C)3000300ER838	A & C	300	300	30	838	57.76	0.06	0.26
631	TSA(C)3000300ER421	A & C	300	300	60	421	114.96	0.13	0.52
632	TSA(C)3000300ER264	A & C	300	300	90	264	183.33	0.20	0.83
633	TSA(C)3000300ER187	A & C	300	300	120	187	258.82	0.29	1.18
634	TSA(C)3000300ER141	A & C	300	300	150	141	343.26	0.38	1.56
635	TSA(C)3000300ER112	A & C	300	300	180	112	432.14	0.48	1.96
636	TSA(C)3000300ER94.1	A & C	300	300	210	94.1	514.35	0.57	2.34

## OTHER STANDARD RECTANGULAR FLEXIBLE HEATER SPECIFICATIONS

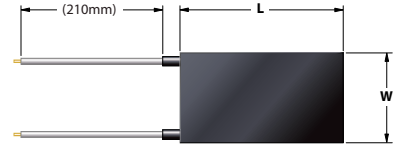
Shape : **RECTANGULAR**  
 Materials/Type : **TSA (Etched); TSC (Nano-Carbon)**  
 Length(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Width(mm) : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5.9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



# STANDARD | Rectangular 230V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010FR94100	C	10	10	60	94100	0.56	0.56	0
2	TSC0100010FR62900	C	10	10	90	62900	0.84	0.84	0
3	TSC0100010FR44600	C	10	10	120	44600	1.19	1.19	0.01
4	TSC0100010FR33400	C	10	10	150	33400	1.58	1.58	0.01
5	TSC0100010FR26400	C	10	10	180	26400	2	2.00	0.01
6	TSC0100010FR22200	C	10	10	210	22200	2.38	2.38	0.01
7	TSC0100013FR158000	C	10	13	30	158000	0.33	0.25	0
8	TSC0100013FR74700	C	10	13	60	74700	0.71	0.55	0
9	TSC0100013FR47200	C	10	13	90	47200	1.12	0.86	0
10	TSC0100013FR33400	C	10	13	120	33400	1.58	1.22	0.01
11	TSC0100013FR24900	C	10	13	150	24900	2.12	1.63	0.01
12	TSC0100013FR19800	C	10	13	180	19800	2.67	2.05	0.01
13	TSC0100013FR16700	C	10	13	210	16700	3.17	2.44	0.01
14	TSC0100016FR126000	C	10	16	30	126000	0.42	0.26	0
15	TSC0100016FR59400	C	10	16	60	59400	0.89	0.56	0
16	TSC0100016FR39700	C	10	16	90	39700	1.33	0.83	0.01
17	TSC0100016FR28000	C	10	16	120	28000	1.89	1.18	0.01
18	TSC0100016FR21000	C	10	16	150	21000	2.52	1.58	0.01
19	TSC0100016FR16700	C	10	16	180	16700	3.17	1.98	0.01
20	TSC0100016FR13300	C	10	16	210	13300	3.98	2.49	0.02
21	TSC0100020FR100000	C	10	20	30	100000	0.53	0.27	0
22	TSC0100020FR47200	C	10	20	60	47200	1.12	0.56	0
23	TSC0100020FR31500	C	10	20	90	31500	1.68	0.84	0.01
24	TSC0100020FR22200	C	10	20	120	22200	2.38	1.19	0.01
25	TSC0100020FR16700	C	10	20	150	16700	3.17	1.59	0.01
26	TSC0100020FR13300	C	10	20	180	13300	3.98	1.99	0.02
27	TSC0100020FR11200	C	10	20	210	11200	4.72	2.36	0.02
28	TSC0100025FR83800	C	10	25	30	83800	0.63	0.25	0
29	TSC0100025FR39700	C	10	25	60	39700	1.33	0.53	0.01
30	TSC0100025FR24900	C	10	25	90	24900	2.12	0.85	0.01
31	TSC0100025FR17700	C	10	25	120	17700	2.99	1.20	0.01
32	TSC0100025FR13300	C	10	25	150	13300	3.98	1.59	0.02
33	TSC0100025FR10600	C	10	25	180	10600	4.99	2.00	0.02

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
34	TSC0100025FR8880	C	10	25	210	8880	5.96	2.38	0.03
35	TSC0100032FR62900	C	10	32	30	62900	0.84	0.26	0
36	TSC0100032FR29700	C	10	32	60	29700	1.78	0.56	0.01
37	TSC0100032FR19800	C	10	32	90	19800	2.67	0.83	0.01
38	TSC0100032FR14100	C	10	32	120	14100	3.75	1.17	0.02
39	TSC0100032FR10600	C	10	32	150	10600	4.99	1.56	0.02
40	TSC0100032FR8380	C	10	32	180	8380	6.31	1.97	0.03
41	TSC0100032FR6660	C	10	32	210	6660	7.94	2.48	0.03
42	TSC0100040FR50000	C	10	40	30	50000	1.06	0.27	0
43	TSC0100040FR24900	C	10	40	60	24900	2.12	0.53	0.01
44	TSC0100040FR15800	C	10	40	90	15800	3.35	0.84	0.01
45	TSC0100040FR11200	C	10	40	120	11200	4.72	1.18	0.02
46	TSC0100040FR8380	C	10	40	150	8380	6.31	1.58	0.03
47	TSC0100040FR6660	C	10	40	180	6660	7.94	1.99	0.03
48	TSC0100040FR5300	C	10	40	210	5300	9.98	2.50	0.04
49	TSC0130013FR141000	C	13	13	30	141000	0.38	0.22	0
50	TSC0130013FR66600	C	13	13	60	66600	0.79	0.47	0
51	TSC0130013FR42100	C	13	13	90	42100	1.26	0.75	0.01
52	TSC0130013FR29700	C	13	13	120	29700	1.78	1.05	0.01
53	TSC0130013FR22200	C	13	13	150	22200	2.38	1.41	0.01
54	TSC0130013FR17700	C	13	13	180	17700	2.99	1.77	0.01
55	TSC0130013FR14900	C	13	13	210	14900	3.55	2.10	0.02
56	TSC0130016FR112000	C	13	16	30	112000	0.47	0.23	0
57	TSC0130016FR53000	C	13	16	60	53000	1	0.48	0
58	TSC0130016FR33400	C	13	16	90	33400	1.58	0.76	0.01
59	TSC0130016FR24900	C	13	16	120	24900	2.12	1.02	0.01
60	TSC0130016FR18700	C	13	16	150	18700	2.83	1.36	0.01
61	TSC0130016FR14900	C	13	16	180	14900	3.55	1.71	0.02
62	TSC0130016FR11900	C	13	16	210	11900	4.45	2.14	0.02
63	TSC0130020FR88800	C	13	20	30				

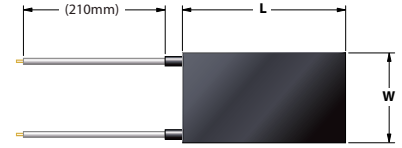


# STANDARD | Rectangular 230V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
67	TSC0130020FR14900	C	13	20	150	14900	3.55	1.37	0.02	140	TSC0160063FR26400	C	16	63	30	26400	2	0.20	0.01
68	TSC0130020FR11900	C	13	20	180	11900	4.45	1.71	0.02	141	TSC0160063FR13300	C	16	63	60	13300	3.98	0.39	0.02
69	TSC0130020FR9410	C	13	20	210	9410	5.62	2.16	0.02	142	TSC0160063FR7910	C	16	63	90	7910	6.69	0.66	0.03
70	TSC0130025FR70500	C	13	25	30	70500	0.75	0.23	0	143	TSC0160063FR5940	C	16	63	120	5940	8.91	0.88	0.04
71	TSC0130025FR33400	C	13	25	60	33400	1.58	0.49	0.01	144	TSC0160063FR4460	C	16	63	150	4460	11.86	1.18	0.05
72	TSC0130025FR22200	C	13	25	90	22200	2.38	0.73	0.01	145	TSC0160063FR3540	C	16	63	180	3540	14.94	1.48	0.06
73	TSC0130025FR15800	C	13	25	120	15800	3.35	1.03	0.01	146	TSC0160063FR2970	C	16	63	210	2970	17.81	1.77	0.08
74	TSC0130025FR11900	C	13	25	150	11900	4.45	1.37	0.02	147	TSC0200020FR88800	C	20	20	30	88800	0.6	0.15	0
75	TSC0130025FR9410	C	13	25	180	9410	5.62	1.73	0.02	148	TSC0200020FR42100	C	20	20	60	42100	1.26	0.32	0.01
76	TSC0130025FR7910	C	13	25	210	7910	6.69	2.06	0.03	149	TSC0200020FR26400	C	20	20	90	26400	2	0.50	0.01
77	TSC0130032FR56100	C	13	32	30	56100	0.94	0.23	0	150	TSC0200020FR18700	C	20	20	120	18700	2.83	0.71	0.01
78	TSC0130032FR26400	C	13	32	60	26400	2	0.48	0.01	151	TSC0200020FR14900	C	20	20	150	14900	3.55	0.89	0.02
79	TSC0130032FR16700	C	13	32	90	16700	3.17	0.76	0.01	152	TSC0200020FR11900	C	20	20	180	11900	4.45	1.11	0.02
80	TSC0130032FR11900	C	13	32	120	11900	4.45	1.07	0.02	153	TSC0200020FR10000	C	20	20	210	10000	5.29	1.32	0.02
81	TSC0130032FR9410	C	13	32	150	9410	5.62	1.35	0.02	154	TSC0200025FR70500	C	20	25	30	70500	0.75	0.15	0
82	TSC0130032FR7470	C	13	32	180	7470	7.08	1.70	0.03	155	TSC0200025FR33400	C	20	25	60	33400	1.58	0.32	0.01
83	TSC0130032FR5940	C	13	32	210	5940	8.91	2.14	0.04	156	TSC0200025FR21000	C	20	25	90	21000	2.52	0.50	0.01
84	TSC0130040FR44600	C	13	40	30	44600	1.19	0.23	0.01	157	TSC0200025FR14900	C	20	25	120	14900	3.55	0.71	0.02
85	TSC0130040FR21000	C	13	40	60	21000	2.52	0.48	0.01	158	TSC0200025FR11900	C	20	25	150	11900	4.45	0.89	0.02
86	TSC0130040FR13300	C	13	40	90	13300	3.98	0.77	0.02	159	TSC0200025FR9410	C	20	25	180	9410	5.62	1.12	0.02
87	TSC0130040FR10000	C	13	40	120	10000	5.29	1.02	0.02	160	TSC0200025FR7910	C	20	25	210	7910	6.69	1.34	0.03
88	TSC0130040FR7470	C	13	40	150	7470	7.08	1.36	0.03	161	TSC0200032FR56100	C	20	32	30	56100	0.94	0.15	0
89	TSC0130040FR5940	C	13	40	180	5940	8.91	1.71	0.04	162	TSC0200032FR26400	C	20	32	60	26400	2	0.31	0.01
90	TSC0130040FR4720	C	13	40	210	4720	11.21	2.16	0.05	163	TSC0200032FR16700	C	20	32	90	16700	3.17	0.50	0.01
91	TSC0130050FR35400	C	13	50	30	35400	1.49	0.23	0.01	164	TSC0200032FR11900	C	20	32	120	11900	4.45	0.70	0.02
92	TSC0130050FR16700	C	13	50	60	16700	3.17	0.49	0.01	165	TSC0200032FR8880	C	20	32	150	8880	5.96	0.93	0.03
93	TSC0130050FR10600	C	13	50	90	10600	4.99	0.77	0.02	166	TSC0200032FR7470	C	20	32	180	7470	7.08	1.11	0.03
94	TSC0130050FR7910	C	13	50	120	7910	6.69	1.03	0.03	167	TSC0200032FR6290	C	20	32	210	6290	8.41	1.31	0.04
95	TSC0130050FR5940	C	13	50	150	5940	8.91	1.37	0.04	168	TSC0200040FR44600	C	20	40	30	44600	1.19	0.15	0.01
96	TSC0130050FR4720	C	13	50	180	4720	11.21	1.72	0.05	169	TSC0200040FR21000	C	20	40	60	21000	2.52	0.32	0.01
97	TSC0130050FR3970	C	13	50	210	3970	13.32	2.05	0.06	170	TSC0200040FR13300	C	20	40	90	13300	3.98	0.50	0.02
98	TSC0160016FR106000	C	16	16	30	106000	0.5	0.20	0	171	TSC0200040FR9410	C	20	40	120	9410	5.62	0.70	0.02
99	TSC0160016FR50000	C	16	16	60	50000	1.06	0.41	0	172	TSC0200040FR7050	C	20	40	150	7050	7.5	0.94	0.03
100	TSC0160016FR31500	C	16	16	90	31500	1.68	0.66	0.01	173	TSC0200040FR5940	C	20	40	180	5940	8.91	1.11	0.04
101	TSC0160016FR23500	C	16	16	120	23500	2.25	0.88	0.01	174	TSC0200040FR5000	C	20	40	210	5000	10.58	1.32	0.05
102	TSC0160016FR17700	C	16	16	150	17700	2.99	1.17	0.01	175	TSC0200050FR35400	C	20	50	30	35400	1.49	0.15	0.01
103	TSC0160016FR14100	C	16	16	180	14100	3.75	1.46	0.02	176	TSC0200050FR16700	C	20	50	60	16700	3.17	0.32	0.01
104	TSC0160016FR11900	C	16	16	210	11900	4.45	1.74	0.02	177	TSC0200050FR10600	C	20	50	90	10600	4.99	0.50	0.02
105	TSC0160020FR83800	C	16	20	30	83800	0.63	0.20	0	178	TSC0200050FR7470	C	20	50	120	7470	7.08	0.71	0.03
106	TSC0160020FR39700	C	16	20	60	39700	1.33	0.42	0.01	179	TSC0200050FR5940	C	20	50	150	5940	8.91	0.89	0.04
107	TSC0160020FR26400	C	16	20	90	26400	2	0.63	0.01	180	TSC0200050FR4720	C	20	50	180	4720	11.21	1.12	0.05
108	TSC0160020FR18700	C	16	20	120	18700	2.83	0.88	0.01	181	TSC0200050FR3970	C	20	50	210	3970	13.32	1.33	0.06
109	TSC0160020FR14100	C	16	20	150	14100	3.75	1.17	0.02	182	TSC0200063FR28000	C	20	63	30	28000	1.89	0.15	0.01
110	TSC0160020FR11200	C	16	20	180	11200	4.72	1.48	0.02	183	TSC0200063FR13300	C	20	63	60	13300	3.98	0.32	0.02
111	TSC0160020FR9410	C	16	20	210	9410	5.62	1.76	0.02	184	TSC0200063FR8380	C	20	63	90	8380	6.31	0.50	0.03
112	TSC0160025FR70500	C	16	25	30	70500	0.75	0.19	0	185	TSC0200063FR5940	C	20	63	120	5940	8.91	0.71	0.04
113	TSC0160025FR33400	C	16	25	60	33400	1.58	0.40	0.01	186	TSC0200063FR4720	C	20	63	150	4720	11.21	0.89	0.05
114	TSC0160025FR21000	C	16	25	90	21000	2.52	0.63	0.01	187	TSC0200063FR3750	C	20	63	180	3750	14.11	1.12	0.06
115	TSC0160025FR14900	C	16	25	120	14900	3.55	0.89	0.02	188	TSC0200063FR3150	C	20	63	210	3150	16.79	1.33	0.07
116	TSC0160025FR11200	C	16	25	150	11200	4.72	1.18	0.02	189	TSC0200080FR22200	C	20	80	30	22200	2.38	0.15	0.01
117	TSC0160025FR8880	C	16	25	180	8880	5.96	1.49	0.03	190	TSC0200080FR10600	C	20	80	60	10600	4.99	0.31	0.02
118	TSC0160025FR7470	C	16	25	210	7470	7.08	1.77	0.03	191	TSC0200080FR6660	C	20	80	90	6660	7.94	0.50	0.03
119	TSC0160032FR53000	C	16	32	30	53000	1	0.20	0	192	TSC0200080FR4720	C	20	80	120	4720	11.21	0.70	0.05
120	TSC0160032FR24900	C	16	32	60	24900	2.12	0.41	0.01	193	TSC0200080FR3540	C	20	80	150	3540	14.94	0.93	0.06
121	TSC0160032FR15800	C	16	32	90	15800	3.35	0.65	0.01	194	TSC0200080FR2970	C	20	80	180	2970	17.81	1.11	0.08
122	TSC0160032FR11200	C	16	32	120	11200	4.72	0.92	0.02	195	TSC0200080FR2490	C	20	80	210	2490	21.24	1.33	0.09
123	TSC0160032FR8880	C	16	32	150	8880	5.96	1.16	0.03	196	TSC0250025FR59400	C	25	25	30	59400	0.89	0.14	0
124	TSC0160032FR7050	C	16	32	180	7050	7.5	1.46	0.03	197	TSC0250025FR28000	C	25	25	60	28000	1.89	0.30	0.01
125	TSC0160032FR5940	C	16	32	210	5940	8.91	1.74	0.04	198	TSC0250025FR17700	C	25	25	90	17700	2.99	0.48	0.01
126	TSC0160040FR42100	C	16	40	30	42100	1.26	0.20	0.01	199	TSC0250025FR12600	C	25	25	120	12600	4.2	0.67	0.02
127	TSC0160040FR19800	C	16	40	60	19800	2.67	0.42	0.01	200	TSC0250025FR10000	C	25	25	150	10000	5.29	0.85	0.02
128	TSC0160040FR12600	C	16	40	90	12600	4.2	0.66	0.02	201	TSC0250025FR7910	C	25	25	180	7910	6.69	1.07	0.03
129	TSC0160040FR9410	C	16	40	120	9410	5.62	0.88	0.02	202	TSC0250025FR6660	C	25	25	210	6660	7.94	1.27	0.03
130	TSC0160040FR7050	C	16	40	150	7050	7.5	1.17	0.03	203	TSC0250032FR47200	C	25	32	30	47200	1.12	0.14	0
131	TSC0160040FR5610	C	16	40	180	5610	9.43	1.47	0.04	204	TSC0250032FR22200	C	25	32	60	22200	2.38	0.30	0.01
132	TSC0160040FR4720	C	16	40	210	4720	11.21	1.75	0.05	205									

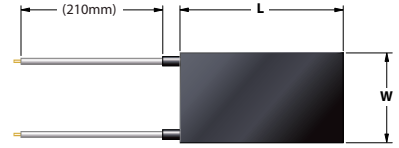


# STANDARD | Rectangular 230V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
213	TSC0250040FR7910	C	25	40	120	7910	6.69	0.67	0.03
214	TSC0250040FR5940	C	25	40	150	5940	8.91	0.89	0.04
215	TSC0250040FR5000	C	25	40	180	5000	10.58	1.06	0.05
216	TSC0250040FR4210	C	25	40	210	4210	12.57	1.26	0.05
217	TSC0250050FR29700	C	25	50	30	29700	1.78	0.14	0.01
218	TSC0250050FR14100	C	25	50	60	14100	3.75	0.30	0.02
219	TSC0250050FR8880	C	25	50	90	8880	5.96	0.48	0.03
220	TSC0250050FR6290	C	25	50	120	6290	8.41	0.67	0.04
221	TSC0250050FR5000	C	25	50	150	5000	10.58	0.85	0.05
222	TSC0250050FR3970	C	25	50	180	3970	13.32	1.07	0.06
223	TSC0250050FR3340	C	25	50	210	3340	15.84	1.27	0.07
224	TSC0250063FR23500	C	25	63	30	23500	2.25	0.14	0.01
225	TSC0250063FR11200	C	25	63	60	11200	4.72	0.30	0.02
226	TSC0250063FR7050	C	25	63	90	7050	7.5	0.48	0.03
227	TSC0250063FR5000	C	25	63	120	5000	10.58	0.67	0.05
228	TSC0250063FR3750	C	25	63	150	3750	14.11	0.90	0.06
229	TSC0250063FR3150	C	25	63	180	3150	16.79	1.07	0.07
230	TSC0250063FR2640	C	25	63	210	2640	20.04	1.27	0.09
231	TSC0250080FR18700	C	25	80	30	18700	2.83	0.14	0.01
232	TSC0250080FR8880	C	25	80	60	8880	5.96	0.30	0.03
233	TSC0250080FR5610	C	25	80	90	5610	9.43	0.47	0.04
234	TSC0250080FR3970	C	25	80	120	3970	13.32	0.67	0.06
235	TSC0250080FR2970	C	25	80	150	2970	17.81	0.89	0.08
236	TSC0250080FR2490	C	25	80	180	2490	21.24	1.06	0.09
237	TSC0250080FR2100	C	25	80	210	2100	25.19	1.26	0.11
238	TSC0250100FR14900	C	25	100	30	14900	3.55	0.14	0.02
239	TSC0250100FR7050	C	25	100	60	7050	7.5	0.30	0.03
240	TSC0250100FR4460	C	25	100	90	4460	11.86	0.47	0.05
241	TSC0250100FR3150	C	25	100	120	3150	16.79	0.67	0.07
242	TSC0250100FR2490	C	25	100	150	2490	21.24	0.85	0.09
243	TSC0250100FR1980	C	25	100	180	1980	26.72	1.07	0.12
244	TSC0250100FR1670	C	25	100	210	1670	31.68	1.27	0.14
245	TSC0320032FR39700	C	32	32	30	39700	1.33	0.13	0.01
246	TSC0320032FR18700	C	32	32	60	18700	2.83	0.28	0.01
247	TSC0320032FR11200	C	32	32	90	11200	4.72	0.46	0.02
248	TSC0320032FR7910	C	32	32	120	7910	6.69	0.65	0.03
249	TSC0320032FR6290	C	32	32	150	6290	8.41	0.82	0.04
250	TSC0320032FR5300	C	32	32	180	5300	9.98	0.97	0.04
251	TSC0320032FR4460	C	32	32	210	4460	11.86	1.16	0.05
252	TSC0320040FR31500	C	32	40	30	31500	1.68	0.13	0.01
253	TSC0320040FR14900	C	32	40	60	14900	3.55	0.28	0.02
254	TSC0320040FR8880	C	32	40	90	8880	5.96	0.47	0.03
255	TSC0320040FR6660	C	32	40	120	6660	7.94	0.62	0.03
256	TSC0320040FR5000	C	32	40	150	5000	10.58	0.83	0.05
257	TSC0320040FR4210	C	32	40	180	4210	12.57	0.98	0.05
258	TSC0320040FR3540	C	32	40	210	3540	14.94	1.17	0.06
259	TSC0320050FR24900	C	32	50	30	24900	2.12	0.13	0.01
260	TSC0320050FR11900	C	32	50	60	11900	4.45	0.28	0.02
261	TSC0320050FR7050	C	32	50	90	7050	7.5	0.47	0.03
262	TSC0320050FR5300	C	32	50	120	5300	9.98	0.62	0.04
263	TSC0320050FR3970	C	32	50	150	3970	13.32	0.83	0.06
264	TSC0320050FR3340	C	32	50	180	3340	15.84	0.99	0.07
265	TSC0320050FR2800	C	32	50	210	2800	18.89	1.18	0.08
266	TSC0320063FR19800	C	32	63	30	19800	2.67	0.13	0.01
267	TSC0320063FR9410	C	32	63	60	9410	5.62	0.28	0.02
268	TSC0320063FR5610	C	32	63	90	5610	9.43	0.47	0.04
269	TSC0320063FR4210	C	32	63	120	4210	12.57	0.62	0.05
270	TSC0320063FR3150	C	32	63	150	3150	16.79	0.83	0.07
271	TSC0320063FR2640	C	32	63	180	2640	20.04	0.99	0.09
272	TSC0320063FR2220	C	32	63	210	2220	23.83	1.18	0.1
273	TSC0320080FR15800	C	32	80	30	15800	3.35	0.13	0.01
274	TSC0320080FR7470	C	32	80	60	7470	7.08	0.28	0.03
275	TSC0320080FR4460	C	32	80	90	4460	11.86	0.46	0.05
276	TSC0320080FR3150	C	32	80	120	3150	16.79	0.66	0.07
277	TSC0320080FR2490	C	32	80	150	2490	21.24	0.83	0.09
278	TSC0320080FR2100	C	32	80	180	2100	25.19	0.98	0.11
279	TSC0320080FR1770	C	32	80	210	1770	29.89	1.17	0.13
280	TSC0320100FR12600	C	32	100	30	12600	4.2	0.13	0.02
281	TSC0320100FR5940	C	32	100	60	5940	8.91	0.28	0.04
282	TSC0320100FR3540	C	32	100	90	3540	14.94	0.47	0.06
283	TSC0320100FR2640	C	32	100	120	2640	20.04	0.63	0.09
284	TSC0320100FR1980	C	32	100	150	1980	26.72	0.84	0.12
285	TSA(C)0320100FR1670	A & C	32	100	180	1670	31.68	0.99	0.14

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
286	TSA(C)0320100FR1410	A & C	32	100	210	1410	37.52	1.17	0.16
287	TSC0320125FR10000	C	32	125	30	10000	5.29	0.13	0.02
288	TSC0320125FR4720	C	32	125	60	4720	11.21	0.28	0.05
289	TSC0320125FR2800	C	32	125	90	2800	18.89	0.47	0.08
290	TSA(C)0320125FR2100	A & C	32	125	120	2100	25.19	0.63	0.11
291	TSA(C)0320125FR1670	A & C	32	125	150	1670	31.68	0.79	0.14
292	TSA(C)0320125FR1330	A & C	32	125	180	1330	39.77	0.99	0.17
293	TSA(C)0320125FR1120	A & C	32	125	210	1120	47.23	1.18	0.21
294	TSC0400040FR26400	C	40	40	30	26400	2	0.13	0.01
295	TSC0400040FR11900	C	40	40	60	11900	4.45	0.28	0.02
296	TSC0400040FR7470	C	40	40	90	7470	7.08	0.44	0.03
297	TSC0400040FR5300	C	40	40	120	5300	9.98	0.62	0.04
298	TSC0400040FR4210	C	40	40	150	4210	12.57	0.79	0.05
299	TSC0400040FR3540	C	40	40	180	3540	14.94	0.93	0.06
300	TSC0400040FR2970	C	40	40	210	2970	17.81	1.11	0.08
301	TSC0400050FR21000	C	40	50	30	21000	2.52	0.13	0.01
302	TSC0400050FR10000	C	40	50	60	10000	5.29	0.26	0.02
303	TSC0400050FR5940	C	40	50	90	5940	8.91	0.45	0.04
304	TSC0400050FR4460	C	40	50	120	4460	11.86	0.59	0.05
305	TSC0400050FR3340	C	40	50	150	3340	15.84	0.79	0.07
306	TSC0400050FR2800	C	40	50	180	2800	18.89	0.94	0.08
307	TSC0400050FR2350	C	40	50	210	2350	22.51	1.13	0.1
308	TSC0400063FR16700	C	40	63	30	16700	3.17	0.13	0.01
309	TSC0400063FR7910	C	40	63	60	7910	6.69	0.27	0.03
310	TSC0400063FR4720	C	40	63	90	4720	11.21	0.44	0.05
311	TSC0400063FR3540	C	40	63	120	3540	14.94	0.59	0.06
312	TSC0400063FR2640	C	40	63	150	2640	20.04	0.80	0.09
313	TSC0400063FR2220	C	40	63	180	2220	23.83	0.95	0.1
314	TSC0400063FR1870	C	40	63	210	1870	28.29	1.12	0.12
315	TSC0400080FR12600	C	40	80	30	12600	4.2	0.13	0.02
316	TSC0400080FR5940	C	40	80	60	5940	8.91	0.28	0.04
317	TSC0400080FR3750	C	40	80	90	3750	14.11	0.44	0.06
318	TSC0400080FR2800	C	40	80	120	2800	18.89	0.59	0.08
319	TSC0400080FR2100	C	40	80	150	2100	25.19	0.79	0.11
320	TSA(C)0400080FR1770	A & C	40	80	180	1770	29.89	0.93	0.13
321	TSA(C)0400080FR1490	A & C	40	80	210	1490	35.5	1.11	0.15
322	TSC0400100FR10000	C	40	100	30	10000	5.29	0.13	0.02
323	TSC0400100FR5000	C	40	100	60	5000	10.58	0.26	0.05
324	TSC0400100FR2970	C	40	100	90	2970	17.81	0.45	0.08
325	TSA(C)0400100FR2220	A & C	40	100	120	2220	23.83	0.60	0.1
326	TSA(C)0400100FR1670	A & C	40	100	150	1670	31.68	0.79	0.14
327	TSA(C)0400100FR1410	A & C	40	100	180	1410	37.52	0.94	0.16
328	TSA(C)0400100FR1190	A & C	40	100	210	1190	44.45	1.11	0.19
329	TSC0400125FR8380	C	40	125	30	8380	6.31	0.13	0.03
330	TSC0400125FR3970	C	40	125	60	3970	13.32	0.27	0.06
331	TSA(C)0400125FR2490	A & C	40	125	90	2490	21.24	0.42	0.09
332	TSA(C)0400125FR1770	A & C	40	125	120	1770	29.89	0.60	0.13
333	TSA(C)0400125FR1330	A & C	40	125	150	1330	39.77	0.80	0.17
334	TSA(C)0400125FR1120	A & C	40	125	180	1120	47.23	0.94	0.21
335	TSA(C)0400125FR941	A & C	40	125	210	941	56.22	1.12	0.24
336	TSC0400160FR6290	C	40	160	30	6290	8.41	0.13	0.04
337	TSA(C)0400160FR2970	A & C	40	160	60	2970	17.81	0.28	0.08
338	TSA								



# STANDARD | Rectangular 230V

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
359	TSC0500080FR3340	C	50	80	90	3340	15.84	0.40	0.07	432	TSA(C)0630200FR500	A & C	63	200	180	500	105.8	0.84	0.46
360	TSA(C)0500080FR2350	A & C	50	80	120	2350	22.51	0.56	0.1	433	TSA(C)0630200FR421	A & C	63	200	210	421	125.65	1.00	0.55
361	TSA(C)0500080FR1770	A & C	50	80	150	1770	29.89	0.75	0.13	434	TSA(C)0630250FR2800	A & C	63	250	30	2800	18.89	0.12	0.08
362	TSA(C)0500080FR1490	A & C	50	80	180	1490	35.5	0.89	0.15	435	TSA(C)0630250FR1410	A & C	63	250	60	1410	37.52	0.24	0.16
363	TSA(C)0500080FR1260	A & C	50	80	210	1260	41.98	1.05	0.18	436	TSA(C)0630250FR888	A & C	63	250	90	888	59.57	0.38	0.26
364	TSC0500100FR8380	C	50	100	30	8380	6.31	0.13	0.03	437	TSA(C)0630250FR629	A & C	63	250	120	629	84.1	0.53	0.37
365	TSC0500100FR4210	C	50	100	60	4210	12.57	0.25	0.05	438	TSA(C)0630250FR500	A & C	63	250	150	500	105.8	0.67	0.46
366	TSA(C)0500100FR2640	A & C	50	100	90	2640	20.04	0.40	0.09	439	TSA(C)0630250FR397	A & C	63	250	180	397	133.25	0.85	0.58
367	TSA(C)0500100FR1870	A & C	50	100	120	1870	28.29	0.57	0.12	440	TSA(C)0630250FR334	A & C	63	250	210	334	158.38	1.01	0.69
368	TSA(C)0500100FR1410	A & C	50	100	150	1410	37.52	0.75	0.16	441	TSC0800080FR7910	C	80	80	30	7910	6.69	0.10	0.03
369	TSA(C)0500100FR1190	A & C	50	100	180	1190	44.45	0.89	0.19	442	TSA(C)0800080FR3750	A & C	80	80	60	3750	14.11	0.22	0.06
370	TSA(C)0500100FR1000	A & C	50	100	210	1000	52.9	1.06	0.23	443	TSA(C)0800080FR2490	A & C	80	80	90	2490	21.24	0.33	0.09
371	TSC0500125FR6660	C	50	125	30	6660	7.94	0.13	0.03	444	TSA(C)0800080FR1670	A & C	80	80	120	1670	31.68	0.50	0.14
372	TSA(C)0500125FR3340	A & C	50	125	60	3340	15.84	0.25	0.07	445	TSA(C)0800080FR1330	A & C	80	80	150	1330	39.77	0.62	0.17
373	TSA(C)0500125FR2100	A & C	50	125	90	2100	25.19	0.40	0.11	446	TSA(C)0800080FR1060	A & C	80	80	180	1060	49.91	0.78	0.22
374	TSA(C)0500125FR1490	A & C	50	125	120	1490	35.5	0.57	0.15	447	TSA(C)0800080FR888	A & C	80	80	210	888	59.57	0.93	0.26
375	TSA(C)0500125FR1120	A & C	50	125	150	1120	47.23	0.76	0.21	448	TSC0800100FR6290	C	80	100	30	6290	8.41	0.11	0.04
376	TSA(C)0500125FR941	A & C	50	125	180	941	56.22	0.90	0.24	449	TSA(C)0800100FR3150	A & C	80	100	60	3150	16.79	0.21	0.07
377	TSA(C)0500125FR791	A & C	50	125	210	791	66.88	1.07	0.29	450	TSA(C)0800100FR1980	A & C	80	100	90	1980	26.72	0.33	0.12
378	TSC0500160FR5300	C	50	160	30	5300	9.98	0.12	0.04	451	TSA(C)0800100FR1330	A & C	80	100	120	1330	39.77	0.50	0.17
379	TSA(C)0500160FR2640	A & C	50	160	60	2640	20.04	0.25	0.09	452	TSA(C)0800100FR1060	A & C	80	100	150	1060	49.91	0.62	0.22
380	TSA(C)0500160FR1670	A & C	50	160	90	1670	31.68	0.40	0.14	453	TSA(C)0800100FR838	A & C	80	100	180	838	63.13	0.79	0.27
381	TSA(C)0500160FR1190	A & C	50	160	120	1190	44.45	0.56	0.19	454	TSA(C)0800100FR705	A & C	80	100	210	705	75.04	0.94	0.33
382	TSA(C)0500160FR888	A & C	50	160	150	888	59.57	0.74	0.26	455	TSA(C)0800125FR5000	A & C	80	125	30	5000	10.58	0.11	0.05
383	TSA(C)0500160FR747	A & C	50	160	180	747	70.82	0.89	0.31	456	TSA(C)0800125FR2490	A & C	80	125	60	2490	21.24	0.21	0.09
384	TSA(C)0500160FR629	A & C	50	160	210	629	84.1	1.05	0.37	457	TSA(C)0800125FR1580	A & C	80	125	90	1580	33.48	0.33	0.15
385	TSA(C)0500200FR4210	A & C	50	200	30	4210	12.57	0.13	0.05	458	TSA(C)0800125FR1060	A & C	80	125	120	1060	49.91	0.50	0.22
386	TSA(C)0500200FR2100	A & C	50	200	60	2100	25.19	0.25	0.11	459	TSA(C)0800125FR838	A & C	80	125	150	838	63.13	0.63	0.27
387	TSA(C)0500200FR1330	A & C	50	200	90	1330	39.77	0.40	0.17	460	TSA(C)0800125FR666	A & C	80	125	180	666	79.43	0.79	0.35
388	TSA(C)0500200FR941	A & C	50	200	120	941	56.22	0.56	0.24	461	TSA(C)0800125FR561	A & C	80	125	210	561	94.3	0.94	0.41
389	TSA(C)0500200FR705	A & C	50	200	150	705	75.04	0.75	0.33	462	TSA(C)0800160FR3970	A & C	80	160	30	3970	13.32	0.10	0.06
390	TSA(C)0500200FR594	A & C	50	200	180	594	89.06	0.89	0.39	463	TSA(C)0800160FR1870	A & C	80	160	60	1870	28.29	0.22	0.12
391	TSA(C)0500200FR500	A & C	50	200	210	500	105.8	1.06	0.46	464	TSA(C)0800160FR1190	A & C	80	160	90	1190	44.45	0.35	0.19
392	TSC0630063FR11200	C	63	63	30	11200	4.72	0.12	0.02	465	TSA(C)0800160FR838	A & C	80	160	120	838	63.13	0.49	0.27
393	TSC0630063FR5610	C	63	63	60	5610	9.43	0.24	0.04	466	TSA(C)0800160FR666	A & C	80	160	150	666	79.43	0.62	0.35
394	TSC0630063FR3540	C	63	63	90	3540	14.94	0.38	0.06	467	TSA(C)0800160FR530	A & C	80	160	180	530	99.81	0.78	0.43
395	TSC0630063FR2490	C	63	63	120	2490	21.24	0.54	0.09	468	TSA(C)0800160FR446	A & C	80	160	210	446	118.61	0.93	0.52
396	TSA(C)0630063FR1980	A & C	63	63	150	1980	26.72	0.67	0.12	469	TSA(C)0800200FR3150	A & C	80	200	30	3150	16.79	0.10	0.07
397	TSA(C)0630063FR1580	A & C	63	63	180	1580	33.48	0.84	0.15	470	TSA(C)0800200FR1490	A & C	80	200	60	1490	35.5	0.25	0.15
398	TSA(C)0630063FR1330	A & C	63	63	210	1330	39.77	1.00	0.17	471	TSA(C)0800200FR941	A & C	80	200	90	941	56.22	0.33	0.24
399	TSC0630080FR8880	C	63	80	30	8880	5.96	0.12	0.03	472	TSA(C)0800200FR666	A & C	80	200	120	666	79.43	0.50	0.35
400	TSC0630080FR4460	C	63	80	60	4460	11.86	0.24	0.05	473	TSA(C)0800200FR530	A & C	80	200	150	530	99.81	0.62	0.43
401	TSA(C)0630080FR2800	A & C	63	80	90	2800	18.89	0.37	0.08	474	TSA(C)0800200FR421	A & C	80	200	180	421	125.65	0.79	0.55
402	TSA(C)0630080FR1980	A & C	63	80	120	1980	26.72	0.53	0.12	475	TSA(C)0800200FR354	A & C	80	200	210	354	149.44	0.93	0.65
403	TSA(C)0630080FR1490	A & C	63	80	150	1490	35.5	0.70	0.15	476	TSA(C)0800200FR2490	A & C	80	250	30	2490	21.24	0.11	0.09
404	TSA(C)0630080FR1260	A & C	63	80	180	1260	41.98	0.83	0.18	477	TSA(C)0800250FR1260	A & C	80	250	60	1260	41.98	0.21	0.18
405	TSA(C)0630080FR1060	A & C	63	80	210	1060	49.91	0.99	0.22	478	TSA(C)0800250FR791	A & C	80	250	90	791	66.88	0.33	0.29
406	TSC0630100FR7050	C	63	100	30	7050	7.5	0.12	0.03	479	TSA(C)0800250FR530	A & C	80	250	120	530	99.81	0.50	0.43
407	TSA(C)0630100FR3540	A & C	63	100	60	3540	14.94	0.24	0.06	480	TSA(C)0800250FR421	A & C	80	250	150	421	125.65	0.63	0.55
408	TSA(C)0630100FR2220	A & C	63	100	90	2220	23.83	0.38	0.1	481	TSA(C)0800250FR334	A & C	80	250	180	334	158.38	0.79	0.69
409	TSA(C)0630100FR1580	A & C	63	100	120	1580	33.48	0.53	0.15	482	TSA(C)0800250FR280	A & C	80	250	210	280	188.93	0.94	0.82
410	TSA(C)0630100FR1190	A & C	63	100	150	1190	44.45	0.71	0.19	483	TSA(C)0800300FR2100	A & C	80	300	30	2100	25.19	0.10	0.11
411	TSA(C)0630100FR1000	A & C	63	100	180	1000	52.9	0.84	0.23	484	TSA(C)0800300FR1000	A & C	80	300	60	1000	52.9	0.22	0.23
412	TSA(C)0630100FR838	A & C	63	100	210	838	63.13	1.00	0.27	485	TSA(C)0800300FR629	A & C	80	300	90	629	84.1	0.35	0.37
413	TSC0630125FR5610	C	63	125	30	5610	9.43	0.12	0.04	486	TSA(C)0800300FR446	A & C	80	300	120	446	118.61	0.49	0.52
414	TSA(C)0630125FR2800	A & C	63	125	60	2800	18.89	0.24	0.08	487	TSA(C)0800300FR354	A & C	80	300	150	354	149.44	0.62	0.65
415	TSA(C)0630125FR1770	A & C	63	125	90	1770	29.89	0.38	0.13	488	TSA(C)0800300FR280	A & C	80	300	180	280	188.93	0.79	0.82
416	TSA(C)0630125FR1260	A & C	63	125	120	1260	41.98	0.53	0.18	489	TSA(C)0800300FR235	A & C	80	300	210	235	225.11	0.94	0.98
417	TSA(C)0630125FR1000	A & C	63	125	150	1000	52.9	0.67	0.23	490	TSA(C)1000100FR5610	A & C	100	100	30	5610	9.43	0.09	0.04
418	TSA(C)0630125FR791	A & C	63	125	180	791	66.88	0.85	0.29	491	TSA(C)1000100FR2800	A & C	100	100	60	2800	18.89	0.19	0.08
419	TSA(C)0630125FR666	A & C	63	125	210	666	79.43	1.01	0.35	492	TSA(C)1000100FR1770	A & C	100	100	90	1770	29.89	0.30	0.13
420	TSA(C)0630160FR4460	A & C	63	160	30	4460	11.86	0.12	0.05	493	TSA(C)1000100FR1190	A & C	100						

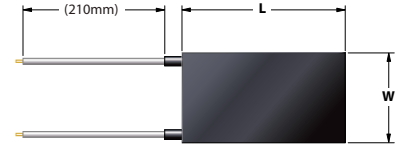
# STANDARD | Rectangular 230V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
505	TSA(C)1000160FR1770	A & C	100	160	60	1770	29.89	0.19	0.13
506	TSA(C)1000160FR1120	A & C	100	160	90	1120	47.23	0.30	0.21
507	TSA(C)1000160FR747	A & C	100	160	120	747	70.82	0.44	0.31
508	TSA(C)1000160FR594	A & C	100	160	150	594	89.06	0.56	0.39
509	TSA(C)1000160FR472	A & C	100	160	180	472	112.08	0.70	0.49
510	TSA(C)1000160FR397	A & C	100	160	210	397	133.25	0.83	0.58
511	TSA(C)1000200FR2800	A & C	100	200	30	2800	18.89	0.09	0.08
512	TSA(C)1000200FR1410	A & C	100	200	60	1410	37.52	0.19	0.16
513	TSA(C)1000200FR888	A & C	100	200	90	888	59.57	0.30	0.26
514	TSA(C)1000200FR594	A & C	100	200	120	594	89.06	0.45	0.39
515	TSA(C)1000200FR472	A & C	100	200	150	472	112.08	0.56	0.49
516	TSA(C)1000200FR375	A & C	100	200	180	375	141.07	0.71	0.61
517	TSA(C)1000200FR315	A & C	100	200	210	315	167.94	0.84	0.73
518	TSA(C)1000250FR2220	A & C	100	250	30	2220	23.83	0.10	0.1
519	TSA(C)1000250FR1120	A & C	100	250	60	1120	47.23	0.19	0.21
520	TSA(C)1000250FR705	A & C	100	250	90	705	75.04	0.30	0.33
521	TSA(C)1000250FR472	A & C	100	250	120	472	112.08	0.45	0.49
522	TSA(C)1000250FR375	A & C	100	250	150	375	141.07	0.56	0.61
523	TSA(C)1000250FR297	A & C	100	250	180	297	178.11	0.71	0.77
524	TSA(C)1000250FR249	A & C	100	250	210	249	212.45	0.85	0.92
525	TSA(C)1000300FR1870	A & C	100	300	30	1870	28.29	0.09	0.12
526	TSA(C)1000300FR941	A & C	100	300	60	941	56.22	0.19	0.24
527	TSA(C)1000300FR594	A & C	100	300	90	594	89.06	0.30	0.39
528	TSA(C)1000300FR397	A & C	100	300	120	397	133.25	0.44	0.58
529	TSA(C)1000300FR315	A & C	100	300	150	315	167.94	0.56	0.73
530	TSA(C)1000300FR249	A & C	100	300	180	249	212.45	0.71	0.92
531	TSA(C)1000300FR210	A & C	100	300	210	210	251.9	0.84	1.1
532	TSA(C)1250125FR3970	A & C	125	125	30	3970	13.32	0.09	0.06
533	TSA(C)1250125FR1980	A & C	125	125	60	1980	26.72	0.17	0.12
534	TSA(C)1250125FR1260	A & C	125	125	90	1260	41.98	0.27	0.18
535	TSA(C)1250125FR838	A & C	125	125	120	838	63.13	0.40	0.27
536	TSA(C)1250125FR666	A & C	125	125	150	666	79.43	0.51	0.35
537	TSA(C)1250125FR530	A & C	125	125	180	530	99.81	0.64	0.43
538	TSA(C)1250125FR446	A & C	125	125	210	446	118.61	0.76	0.52
539	TSA(C)1250160FR3150	A & C	125	160	30	3150	16.79	0.08	0.07
540	TSA(C)1250160FR1490	A & C	125	160	60	1490	35.5	0.18	0.15
541	TSA(C)1250160FR941	A & C	125	160	90	941	56.22	0.28	0.24
542	TSA(C)1250160FR666	A & C	125	160	120	666	79.43	0.40	0.35
543	TSA(C)1250160FR500	A & C	125	160	150	500	105.8	0.53	0.46
544	TSA(C)1250160FR421	A & C	125	160	180	421	125.65	0.63	0.55
545	TSA(C)1250160FR334	A & C	125	160	210	334	158.38	0.79	0.69
546	TSA(C)1250200FR2490	A & C	125	200	30	2490	21.24	0.08	0.09
547	TSA(C)1250200FR1260	A & C	125	200	60	1260	41.98	0.17	0.18
548	TSA(C)1250200FR791	A & C	125	200	90	791	66.88	0.27	0.29
549	TSA(C)1250200FR530	A & C	125	200	120	530	99.81	0.40	0.43
550	TSA(C)1250200FR397	A & C	125	200	150	397	133.25	0.53	0.58
551	TSA(C)1250200FR334	A & C	125	200	180	334	158.38	0.63	0.69
552	TSA(C)1250200FR280	A & C	125	200	210	280	188.93	0.76	0.82
553	TSA(C)1250250FR1980	A & C	125	250	30	1980	26.72	0.09	0.12
554	TSA(C)1250250FR1000	A & C	125	250	60	1000	52.9	0.17	0.23
555	TSA(C)1250250FR629	A & C	125	250	90	629	84.1	0.27	0.37
556	TSA(C)1250250FR421	A & C	125	250	120	421	125.65	0.40	0.55
557	TSA(C)1250250FR315	A & C	125	250	150	315	167.94	0.54	0.73
558	TSA(C)1250250FR264	A & C	125	250	180	264	200.38	0.64	0.87
559	TSA(C)1250250FR222	A & C	125	250	210	222	238.29	0.76	1.04
560	TSA(C)1250300FR1670	A & C	125	300	30	1670	31.68	0.08	0.14
561	TSA(C)1250300FR838	A & C	125	300	60	838	63.13	0.17	0.27
562	TSA(C)1250300FR500	A & C	125	300	90	500	105.8	0.28	0.46
563	TSA(C)1250300FR354	A & C	125	300	120	354	149.44	0.40	0.65
564	TSA(C)1250300FR264	A & C	125	300	150	264	200.38	0.53	0.87
565	TSA(C)1250300FR222	A & C	125	300	180	222	238.29	0.64	1.04
566	TSA(C)1250300FR187	A & C	125	300	210	187	282.89	0.75	1.23
567	TSA(C)1600160FR2640	A & C	160	160	30	2640	20.04	0.08	0.09
568	TSA(C)1600160FR1330	A & C	160	160	60	1330	39.77	0.16	0.17
569	TSA(C)1600160FR838	A & C	160	160	90	838	63.13	0.25	0.27
570	TSA(C)1600160FR561	A & C	160	160	120	561	94.3	0.37	0.41

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
571	TSA(C)1600160FR446	A & C	160	160	150	446	118.61	0.46	0.52
572	TSA(C)1600160FR354	A & C	160	160	180	354	149.44	0.58	0.65
573	TSA(C)1600160FR297	A & C	160	160	210	297	178.11	0.70	0.77
574	TSA(C)1600200FR2100	A & C	160	200	30	2100	25.19	0.08	0.11
575	TSA(C)1600200FR1060	A & C	160	200	60	1060	49.91	0.16	0.22
576	TSA(C)1600200FR666	A & C	160	200	90	666	79.43	0.25	0.35
577	TSA(C)1600200FR446	A & C	160	200	120	446	118.61	0.37	0.52
578	TSA(C)1600200FR354	A & C	160	200	150	354	149.44	0.47	0.65
579	TSA(C)1600200FR280	A & C	160	200	180	280	188.93	0.59	0.82
580	TSA(C)1600200FR235	A & C	160	200	210	235	225.11	0.70	0.98
581	TSA(C)1600250FR1670	A & C	160	250	30	1670	31.68	0.08	0.14
582	TSA(C)1600250FR838	A & C	160	250	60	838	63.13	0.16	0.27
583	TSA(C)1600250FR530	A & C	160	250	90	530	99.81	0.25	0.43
584	TSA(C)1600250FR354	A & C	160	250	120	354	149.44	0.37	0.65
585	TSA(C)1600250FR280	A & C	160	250	150	280	188.93	0.47	0.82
586	TSA(C)1600250FR235	A & C	160	250	180	235	225.11	0.56	0.98
587	TSA(C)1600250FR187	A & C	160	250	210	187	282.89	0.71	1.23
588	TSA(C)1600300FR1410	A & C	160	300	30	1410	37.52	0.08	0.16
589	TSA(C)1600300FR705	A & C	160	300	60	705	75.04	0.16	0.33
590	TSA(C)1600300FR446	A & C	160	300	90	446	118.61	0.25	0.52
591	TSA(C)1600300FR297	A & C	160	300	120	297	178.11	0.37	0.77
592	TSA(C)1600300FR235	A & C	160	300	150	235	225.11	0.47	0.98
593	TSA(C)1600300FR187	A & C	160	300	180	187	282.89	0.59	1.23
594	TSA(C)1600300FR158	A & C	160	300	210	158	334.81	0.70	1.46
595	TSA(C)2000200FR1870	A & C	200	200	30	1870	28.29	0.07	0.12
596	TSA(C)2000200FR941	A & C	200	200	60	941	56.22	0.14	0.24
597	TSA(C)2000200FR594	A & C	200	200	90	594	89.06	0.22	0.39
598	TSA(C)2000200FR397	A & C	200	200	120	397	133.25	0.33	0.58
599	TSA(C)2000200FR315	A & C	200	200	150	315	167.94	0.42	0.73
600	TSA(C)2000200FR249	A & C	200	200	180	249	212.45	0.53	0.92
601	TSA(C)2000200FR210	A & C	200	200	210	210	251.9	0.63	1.1
602	TSA(C)2000250FR1490	A & C	200	250	30	1490	35.5	0.07	0.15
603	TSA(C)2000250FR747	A & C	200	250	60	747	70.82	0.14	0.31
604	TSA(C)2000250FR472	A & C	200	250	90	472	112.08	0.22	0.49
605	TSA(C)2000250FR315	A & C	200	250	120	315	167.94	0.34	0.73
606	TSA(C)2000250FR249	A & C	200	250	150	249	212.45	0.42	0.92
607	TSA(C)2000250FR198	A & C	200	250	180	198	267.17	0.53	1.16
608	TSA(C)2000250FR167	A & C	200	250	210	167	316.77	0.63	1.38
609	TSA(C)2000300FR1260	A & C	200	300	30	1260	41.98	0.07	0.18
610	TSA(C)2000300FR629	A & C	200	300	60	629	84.1	0.14	0.37
611	TSA(C)2000300FR397	A & C	200	300	90	397	133.25	0.22	0.58
612	TSA(C)2000300FR264	A & C	200	300	120	264	200.38	0.33	0.87
613	TSA(C)2000300FR210	A & C	200	300	150	210	251.9	0.42	1.1
614	TSA(C)2000300FR167	A & C	200	300	180	167	316.77	0.53	1.38
615	TSA(C)2000300FR141	A & C	200	300	210	141	375.18	0.63	1.63
616	TSA(C)2500250FR1330	A & C	250	250	30	1330	39.77	0.06	0.17
617	TSA(C)2500250FR629	A & C	250	250	60	629	84.1	0.13	0.37
618	TSA(C)2500250FR397	A & C	250	250	90	397	133.25	0.21	0.58
619	TSA(C)2500250FR280	A & C	250	250	120	280	188.93	0.30	0.82
620	TSA(C)2500250FR210	A & C	250	250	150	210	251.9	0.40	1.1
621	TSA(C)2500250FR177	A & C	250	250	180	177	298.87	0.48	1.3
622	TSA(C)2500250FR141	A & C	250	250	210	141	375.18	0.60	1.63

# STANDARD | Rectangular 240V

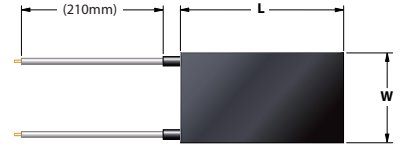


■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC0100010GR106000	C	10	10	60	106000	0.54	0.54	0
2	TSC0100010GR66600	C	10	10	90	66600	0.86	0.86	0
3	TSC0100010GR47200	C	10	10	120	47200	1.22	1.22	0.01
4	TSC0100010GR35400	C	10	10	150	35400	1.63	1.63	0.01
5	TSC0100010GR28000	C	10	10	180	28000	2.06	2.06	0.01
6	TSC0100010GR23500	C	10	10	210	23500	2.45	2.45	0.01
7	TSC0100013GR177000	C	10	13	30	177000	0.33	0.25	0
8	TSC0100013GR79100	C	10	13	60	79100	0.73	0.56	0
9	TSC0100013GR53000	C	10	13	90	53000	1.09	0.84	0
10	TSC0100013GR37500	C	10	13	120	37500	1.54	1.18	0.01
11	TSC0100013GR28000	C	10	13	150	28000	2.06	1.58	0.01
12	TSC0100013GR22200	C	10	13	180	22200	2.59	1.99	0.01
13	TSC0100013GR18700	C	10	13	210	18700	3.08	2.37	0.01
14	TSC0100016GR141000	C	10	16	30	141000	0.41	0.26	0
15	TSC0100016GR66600	C	10	16	60	66600	0.86	0.54	0
16	TSC0100016GR42100	C	10	16	90	42100	1.37	0.86	0.01
17	TSC0100016GR29700	C	10	16	120	29700	1.94	1.21	0.01
18	TSC0100016GR22200	C	10	16	150	22200	2.59	1.62	0.01
19	TSC0100016GR17700	C	10	16	180	17700	3.25	2.03	0.01
20	TSC0100016GR14900	C	10	16	210	14900	3.87	2.42	0.02
21	TSC0100020GR112000	C	10	20	30	112000	0.51	0.26	0
22	TSC0100020GR53000	C	10	20	60	53000	1.09	0.55	0
23	TSC0100020GR33400	C	10	20	90	33400	1.72	0.86	0.01
24	TSC0100020GR23500	C	10	20	120	23500	2.45	1.23	0.01
25	TSC0100020GR17700	C	10	20	150	17700	3.25	1.63	0.01
26	TSC0100020GR14100	C	10	20	180	14100	4.09	2.05	0.02
27	TSC0100020GR11900	C	10	20	210	11900	4.84	2.42	0.02
28	TSC0100025GR88800	C	10	25	30	88800	0.65	0.26	0
29	TSC0100025GR42100	C	10	25	60	42100	1.37	0.55	0.01
30	TSC0100025GR26400	C	10	25	90	26400	2.18	0.87	0.01
31	TSC0100025GR19800	C	10	25	120	19800	2.91	1.16	0.01
32	TSC0100025GR14900	C	10	25	150	14900	3.87	1.55	0.02
33	TSC0100025GR11200	C	10	25	180	11200	5.14	2.06	0.02
34	TSC0100025GR9410	C	10	25	210	9410	6.12	2.45	0.03
35	TSC0100032GR70500	C	10	32	30	70500	0.82	0.26	0
36	TSC0100032GR33400	C	10	32	60	33400	1.72	0.54	0.01
37	TSC0100032GR21000	C	10	32	90	21000	2.74	0.86	0.01
38	TSC0100032GR14900	C	10	32	120	14900	3.87	1.21	0.02
39	TSC0100032GR11200	C	10	32	150	11200	5.14	1.61	0.02
40	TSC0100032GR8880	C	10	32	180	8880	6.49	2.03	0.03
41	TSC0100032GR7470	C	10	32	210	7470	7.71	2.41	0.03
42	TSC0100040GR56100	C	10	40	30	56100	1.03	0.26	0
43	TSC0100040GR26400	C	10	40	60	26400	2.18	0.55	0.01
44	TSC0100040GR16700	C	10	40	90	16700	3.45	0.86	0.01
45	TSC0100040GR11900	C	10	40	120	11900	4.84	1.21	0.02
46	TSC0100040GR8880	C	10	40	150	8880	6.49	1.62	0.03
47	TSC0100040GR7050	C	10	40	180	7050	8.17	2.04	0.03
48	TSC0100040GR5940	C	10	40	210	5940	9.7	2.43	0.04
49	TSC0130013GR149000	C	13	13	30	149000	0.39	0.23	0
50	TSC0130013GR70500	C	13	13	60	70500	0.82	0.49	0
51	TSC0130013GR44600	C	13	13	90	44600	1.29	0.76	0.01
52	TSC0130013GR33400	C	13	13	120	33400	1.72	1.02	0.01
53	TSC0130013GR24900	C	13	13	150	24900	2.31	1.37	0.01
54	TSC0130013GR19800	C	13	13	180	19800	2.91	1.72	0.01
55	TSC0130013GR15800	C	13	13	210	15800	3.65	2.16	0.02
56	TSC0130016GR126000	C	13	16	30	126000	0.46	0.22	0
57	TSC0130016GR59400	C	13	16	60	59400	0.97	0.47	0
58	TSC0130016GR37500	C	13	16	90	37500	1.54	0.74	0.01
59	TSC0130016GR26400	C	13	16	120	26400	2.18	1.05	0.01
60	TSC0130016GR19800	C	13	16	150	19800	2.91	1.40	0.01
61	TSC0130016GR15800	C	13	16	180	15800	3.65	1.75	0.02
62	TSC0130016GR13300	C	13	16	210	13300	4.33	2.08	0.02
63	TSC0130020GR100000	C	13	20	30	100000	0.58	0.22	0
64	TSC0130020GR47200	C	13	20	60	47200	1.22	0.47	0.01
65	TSC0130020GR29700	C	13	20	90	29700	1.94	0.75	0.01
66	TSC0130020GR21000	C	13	20	120	21000	2.74	1.05	0.01
67	TSC0130020GR15800	C	13	20	150	15800	3.65	1.40	0.02
68	TSC0130020GR12600	C	13	20	180	12600	4.57	1.76	0.02
69	TSC0130020GR10600	C	13	20	210	10600	5.43	2.09	0.02
70	TSC0130025GR79100	C	13	25	30	79100	0.73	0.22	0
71	TSC0130025GR37500	C	13	25	60	37500	1.54	0.47	0.01
72	TSC0130025GR23500	C	13	25	90	23500	2.45	0.75	0.01
73	TSC0130025GR16700	C	13	25	120	16700	3.45	1.06	0.01
74	TSC0130025GR12600	C	13	25	150	12600	4.57	1.41	0.02
75	TSC0130025GR10000	C	13	25	180	10000	5.76	1.77	0.02
76	TSC0130025GR8380	C	13	25	210	8380	6.87	2.11	0.03
77	TSC0130032GR62900	C	13	32	30	62900	0.92	0.22	0
78	TSC0130032GR29700	C	13	32	60	29700	1.94	0.47	0.01
79	TSC0130032GR18700	C	13	32	90	18700	3.08	0.74	0.01
80	TSC0130032GR13300	C	13	32	120	13300	4.33	1.04	0.02
81	TSC0130032GR10000	C	13	32	150	10000	5.76	1.38	0.02
82	TSC0130032GR7910	C	13	32	180	7910	7.28	1.75	0.03
83	TSC0130032GR6660	C	13	32	210	6660	8.65	2.08	0.04
84	TSC0130040GR50000	C	13	40	30	50000	1.15	0.22	0
85	TSC0130040GR23500	C	13	40	60	23500	2.45	0.47	0.01
86	TSC0130040GR14900	C	13	40	90	14900	3.87	0.74	0.02
87	TSC0130040GR10600	C	13	40	120	10600	5.43	1.04	0.02
88	TSC0130040GR7910	C	13	40	150	7910	7.28	1.40	0.03
89	TSC0130040GR6290	C	13	40	180	6290	9.16	1.76	0.04
90	TSC0130040GR5300	C	13	40	210	5300	10.87	2.09	0.05
91	TSC0130050GR39700	C	13	50	30	39700	1.45	0.22	0.01
92	TSC0130050GR18700	C	13	50	60	18700	3.08	0.47	0.01
93	TSC0130050GR11900	C	13	50	90	11900	4.84	0.74	0.02
94	TSC0130050GR8380	C	13	50	120	8380	6.87	1.06	0.03
95	TSC0130050GR6290	C	13	50	150	6290	9.16	1.41	0.04
96	TSC0130050GR5000	C	13	50	180	5000	11.52	1.77	0.05
97	TSC0130050GR4210	C	13	50	210	4210	13.68	2.10	0.06
98	TSC0160016GR119000	C	16	16	30	119000	0.48	0.19	0
99	TSC0160016GR56100	C	16	16	60	56100	1.03	0.40	0
100	TSC0160016GR35400	C	16	16	90	35400	1.63	0.64	0.01
101	TSC0160016GR24900	C	16	16	120	24900	2.31	0.90	0.01
102	TSC0160016GR18700	C	16	16	150	18700	3.08	1.20	0.01
103	TSC0160016GR14900	C	16	16	180	14900	3.87	1.51	0.02
104	TSC0160016GR12600	C	16	16	210	12600	4.57	1.79	0.02
105	TSC0160020GR94100	C	16	20	30	94100	0.61	0.19	0
106	TSC0160020GR44600	C	16	20	60	44600	1.29	0.40	0.01
107	TSC0160020GR28000	C	16	20	90	28000	2.06	0.64	0.01
108	TSC0160020GR19800	C	16	20	120	19800	2.91	0.91	0.01
109	TSC0160020GR14900	C	16	20	150	14900	3.87	1.21	0.02
110	TSC0160020GR11900	C	16	20	180	11900	4.84	1.51	0.02
111	TSC0160020GR10000	C	16	20	210	10000	5.76	1.80	0.02
112	TSC0160025GR74700	C	16	25	30	74700	0.77	0.19	0
113	TSC0160025GR35400	C	16	25	60	35400	1.63	0.41	0.01
114	TSC0160025GR22200	C	16	25	90	22200	2.59	0.65	0.01
115	TSC0160025GR15800	C	16	25	120	15800	3.65	0.91	0.02
116	TSC0160025GR11900	C	16	25	150	11900	4.84	1.21	0.02
117	TSC0160025GR10000	C	16	25	180	10000	5.76	1.44	0.02
118	TSC0160025GR7910	C	16	25	210	7910	7.28	1.82	0.03
119	TSC0160032GR59400	C	16	32	30	59400	0.97	0.19	0
120	TSC0160032GR28000	C	16	32	60	28000	2.06	0.40	0.01
121	TSC0160032GR17700	C	16	32	90	17700	3.25	0.63	0.01
122	TSC0160032GR12600	C	16	32	120	12600	4.57	0.89	0.02
123	TSC0160032GR9410	C	16	32	150	9410	6.12	1.20	0.03
124	TSC0160032GR7470	C	16	32	180	7470	7.71	1.51	0.03
125	TSC0160032GR6290	C	16	32	210	6290	9.16	1.79	0.04
126	TSC0160040GR47200	C	16	40	30	47200	1.22	0.19	0.01
127	TSC0160040GR22200	C	16	40	60	22200	2.59	0.40	0.01
128	TSC0160040GR14100	C	16	40	90	14100	4.		

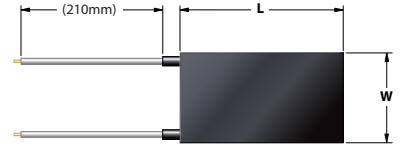


# STANDARD | Rectangular 240V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSC0200020GR94100	C	20	20	30	94100	0.61	0.15	0
148	TSC0200020GR47200	C	20	20	60	47200	1.22	0.31	0.01
149	TSC0200020GR28000	C	20	20	90	28000	2.06	0.52	0.01
150	TSC0200020GR19800	C	20	20	120	19800	2.91	0.73	0.01
151	TSC0200020GR15800	C	20	20	150	15800	3.65	0.91	0.02
152	TSC0200020GR12600	C	20	20	180	12600	4.57	1.14	0.02
153	TSC0200020GR10600	C	20	20	210	10600	5.43	1.36	0.02
154	TSC0200025GR74700	C	20	25	30	74700	0.77	0.15	0
155	TSC0200025GR37500	C	20	25	60	37500	1.54	0.31	0.01
156	TSC0200025GR23500	C	20	25	90	23500	2.45	0.49	0.01
157	TSC0200025GR16700	C	20	25	120	16700	3.45	0.69	0.01
158	TSC0200025GR12600	C	20	25	150	12600	4.57	0.91	0.02
159	TSC0200025GR10000	C	20	25	180	10000	5.76	1.15	0.02
160	TSC0200025GR8380	C	20	25	210	8380	6.87	1.37	0.03
161	TSC0200032GR59400	C	20	32	30	59400	0.97	0.15	0
162	TSC0200032GR29700	C	20	32	60	29700	1.94	0.30	0.01
163	TSC0200032GR17700	C	20	32	90	17700	3.25	0.51	0.01
164	TSC0200032GR12600	C	20	32	120	12600	4.57	0.71	0.02
165	TSC0200032GR10000	C	20	32	150	10000	5.76	0.90	0.02
166	TSC0200032GR7910	C	20	32	180	7910	7.28	1.14	0.03
167	TSC0200032GR6660	C	20	32	210	6660	8.65	1.35	0.04
168	TSC0200040GR47200	C	20	40	30	47200	1.22	0.15	0.01
169	TSC0200040GR23500	C	20	40	60	23500	2.45	0.31	0.01
170	TSC0200040GR14100	C	20	40	90	14100	4.09	0.51	0.02
171	TSC0200040GR10000	C	20	40	120	10000	5.76	0.72	0.02
172	TSC0200040GR7910	C	20	40	150	7910	7.28	0.91	0.03
173	TSC0200040GR6290	C	20	40	180	6290	9.16	1.15	0.04
174	TSC0200040GR5300	C	20	40	210	5300	10.87	1.36	0.05
175	TSC0200050GR37500	C	20	50	30	37500	1.54	0.15	0.01
176	TSC0200050GR18700	C	20	50	60	18700	3.08	0.31	0.01
177	TSC0200050GR11200	C	20	50	90	11200	5.14	0.51	0.02
178	TSC0200050GR8380	C	20	50	120	8380	6.87	0.69	0.03
179	TSC0200050GR6290	C	20	50	150	6290	9.16	0.92	0.04
180	TSC0200050GR5000	C	20	50	180	5000	11.52	1.15	0.05
181	TSC0200050GR4210	C	20	50	210	4210	13.68	1.37	0.06
182	TSC0200063GR29700	C	20	63	30	29700	1.94	0.15	0.01
183	TSC0200063GR14900	C	20	63	60	14900	3.87	0.31	0.02
184	TSC0200063GR8880	C	20	63	90	8880	6.49	0.52	0.03
185	TSC0200063GR6290	C	20	63	120	6290	9.16	0.73	0.04
186	TSC0200063GR5000	C	20	63	150	5000	11.52	0.91	0.05
187	TSC0200063GR3970	C	20	63	180	3970	14.51	1.15	0.06
188	TSC0200063GR3340	C	20	63	210	3340	17.25	1.37	0.07
189	TSC0200080GR23500	C	20	80	30	23500	2.45	0.15	0.01
190	TSC0200080GR11900	C	20	80	60	11900	4.84	0.30	0.02
191	TSC0200080GR7050	C	20	80	90	7050	8.17	0.51	0.03
192	TSC0200080GR5000	C	20	80	120	5000	11.52	0.72	0.05
193	TSC0200080GR3970	C	20	80	150	3970	14.51	0.91	0.06
194	TSC0200080GR3150	C	20	80	180	3150	18.29	1.14	0.08
195	TSC0200080GR2640	C	20	80	210	2640	21.82	1.36	0.09
196	TSC0250025GR62900	C	25	25	30	62900	0.92	0.15	0
197	TSC0250025GR31500	C	25	25	60	31500	1.83	0.29	0.01
198	TSC0250025GR18700	C	25	25	90	18700	3.08	0.49	0.01
199	TSC0250025GR13300	C	25	25	120	13300	4.33	0.69	0.02
200	TSC0250025GR10600	C	25	25	150	10600	5.43	0.87	0.02
201	TSC0250025GR8380	C	25	25	180	8380	6.87	1.10	0.03
202	TSC0250025GR7050	C	25	25	210	7050	8.17	1.31	0.03
203	TSC0250032GR50000	C	25	32	30	50000	1.15	0.14	0
204	TSC0250032GR23500	C	25	32	60	23500	2.45	0.31	0.01
205	TSC0250032GR14900	C	25	32	90	14900	3.87	0.48	0.02
206	TSC0250032GR10600	C	25	32	120	10600	5.43	0.68	0.02
207	TSC0250032GR8380	C	25	32	150	8380	6.87	0.86	0.03
208	TSC0250032GR6660	C	25	32	180	6660	8.65	1.08	0.04
209	TSC0250032GR5610	C	25	32	210	5610	10.27	1.28	0.04
210	TSC0250040GR39700	C	25	40	30	39700	1.45	0.15	0.01
211	TSC0250040GR18700	C	25	40	60	18700	3.08	0.31	0.01
212	TSC0250040GR11900	C	25	40	90	11900	4.84	0.48	0.02
213	TSC0250040GR8380	C	25	40	120	8380	6.87	0.69	0.03
214	TSC0250040GR6660	C	25	40	150	6660	8.65	0.87	0.04
215	TSC0250040GR5300	C	25	40	180	5300	10.87	1.09	0.05
216	TSC0250040GR4460	C	25	40	210	4460	12.91	1.29	0.05
217	TSC0250050GR31500	C	25	50	30	31500	1.83	0.15	0.01
218	TSC0250050GR15800	C	25	50	60	15800	3.65	0.29	0.02
219	TSC0250050GR9410	C	25	50	90	9410	6.12	0.49	0.03

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSC0250050GR6660	C	25	50	120	6660	8.65	0.69	0.04
221	TSC0250050GR5300	C	25	50	150	5300	10.87	0.87	0.05
222	TSC0250050GR4210	C	25	50	180	4210	13.68	1.09	0.06
223	TSC0250050GR3540	C	25	50	210	3540	16.27	1.30	0.07
224	TSC0250063GR24900	C	25	63	30	24900	2.31	0.15	0.01
225	TSC0250063GR11900	C	25	63	60	11900	4.84	0.31	0.02
226	TSC0250063GR7470	C	25	63	90	7470	7.71	0.49	0.03
227	TSC0250063GR5300	C	25	63	120	5300	10.87	0.69	0.05
228	TSC0250063GR4210	C	25	63	150	4210	13.68	0.87	0.06
229	TSC0250063GR3340	C	25	63	180	3340	17.25	1.10	0.07
230	TSC0250063GR2800	C	25	63	210	2800	20.57	1.31	0.09
231	TSC0250080GR19800	C	25	80	30	19800	2.91	0.15	0.01
232	TSC0250080GR9410	C	25	80	60	9410	6.12	0.31	0.03
233	TSC0250080GR5940	C	25	80	90	5940	9.7	0.49	0.04
234	TSC0250080GR4210	C	25	80	120	4210	13.68	0.68	0.06
235	TSC0250080GR3340	C	25	80	150	3340	17.25	0.86	0.07
236	TSC0250080GR2640	C	25	80	180	2640	21.82	1.09	0.09
237	TSC0250080GR2220	C	25	80	210	2220	25.95	1.30	0.11
238	TSC0250100GR15800	C	25	100	30	15800	3.65	0.15	0.02
239	TSC0250100GR7910	C	25	100	60	7910	7.28	0.29	0.03
240	TSC0250100GR4720	C	25	100	90	4720	12.2	0.49	0.05
241	TSC0250100GR3340	C	25	100	120	3340	17.25	0.69	0.07
242	TSC0250100GR2640	C	25	100	150	2640	21.82	0.87	0.09
243	TSC0250100GR2100	C	25	100	180	2100	27.43	1.10	0.11
244	TSC0250100GR1770	C	25	100	210	1770	32.54	1.30	0.14
245	TSC0320032GR42100	C	32	32	30	42100	1.37	0.13	0.01
246	TSC0320032GR19800	C	32	32	60	19800	2.91	0.28	0.01
247	TSC0320032GR12600	C	32	32	90	12600	4.57	0.45	0.02
248	TSC0320032GR8880	C	32	32	120	8880	6.49	0.63	0.03
249	TSC0320032GR7050	C	32	32	150	7050	8.17	0.80	0.03
250	TSC0320032GR5610	C	32	32	180	5610	10.27	1.00	0.04
251	TSC0320032GR4720	C	32	32	210	4720	12.2	1.19	0.05
252	TSC0320040GR33400	C	32	40	30	33400	1.72	0.13	0.01
253	TSC0320040GR15800	C	32	40	60	15800	3.65	0.29	0.02
254	TSC0320040GR10000	C	32	40	90	10000	5.76	0.45	0.02
255	TSC0320040GR7050	C	32	40	120	7050	8.17	0.64	0.03
256	TSC0320040GR5610	C	32	40	150	5610	10.27	0.80	0.04
257	TSC0320040GR4460	C	32	40	180	4460	12.91	1.01	0.05
258	TSC0320040GR3750	C	32	40	210	3750	15.36	1.20	0.06
259	TSC0320050GR26400	C	32	50	30	26400	2.18	0.14	0.01
260	TSC0320050GR12600	C	32	50	60	12600	4.57	0.29	0.02
261	TSC0320050GR7910	C	32	50	90	7910	7.28	0.46	0.03
262	TSC0320050GR5610	C	32	50	120	5610	10.27	0.64	0.04
263	TSC0320050GR4460	C	32	50	150	4460	12.91	0.81	0.05
264	TSC0320050GR3540	C	32	50	180	3540	16.27	1.02	0.07
265	TSC0320050GR2970	C	32	50	210	2970	19.39	1.21	0.08
266	TSC0320063GR21000	C	32	63	30	21000	2.74	0.14	0.01
267	TSC0320063GR10000	C	32	63	60	10000	5.76	0.29	0.02
268	TSC0320063GR6290	C	32	63	90	6290	9.16	0.45	0.04
269	TSC0320063GR4460	C	32	63	120	4460	12.91	0.64	0.05
270	TSC0320063GR3540	C	32	63	150	3540	16.27	0.81	0.07
271	TSC0320063GR2800	C	32	63	180	2800	20.57	1.02	0.09
272	TSC0320063GR2350	C	32	63	210	2350	24.51	1.22	0.1
273	TSC0320080GR16700</								



# STANDARD | Rectangular 240V

Ultra-Thin Flexible Heaters

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)0320125GR1190	A & C	32	125	210	1190	48.4	1.21	0.2
294	TSC0400040GR28000	C	40	40	30	28000	2.06	0.13	0.01
295	TSC0400040GR13300	C	40	40	60	13300	4.33	0.27	0.02
296	TSC0400040GR8380	C	40	40	90	8380	6.87	0.43	0.03
297	TSC0400040GR5940	C	40	40	120	5940	9.7	0.61	0.04
298	TSC0400040GR4720	C	40	40	150	4720	12.2	0.76	0.05
299	TSC0400040GR3750	C	40	40	180	3750	15.36	0.96	0.06
300	TSC0400040GR3150	C	40	40	210	3150	18.29	1.14	0.08
301	TSC0400050GR22200	C	40	50	30	22200	2.59	0.13	0.01
302	TSC0400050GR10600	C	40	50	60	10600	5.43	0.27	0.02
303	TSC0400050GR6660	C	40	50	90	6660	8.65	0.43	0.04
304	TSC0400050GR4720	C	40	50	120	4720	12.2	0.61	0.05
305	TSC0400050GR3750	C	40	50	150	3750	15.36	0.77	0.06
306	TSC0400050GR2970	C	40	50	180	2970	19.39	0.97	0.08
307	TSC0400050GR2490	C	40	50	210	2490	23.13	1.16	0.1
308	TSC0400063GR17700	C	40	63	30	17700	3.25	0.13	0.01
309	TSC0400063GR8380	C	40	63	60	8380	6.87	0.27	0.03
310	TSC0400063GR5300	C	40	63	90	5300	10.87	0.43	0.05
311	TSC0400063GR3750	C	40	63	120	3750	15.36	0.61	0.06
312	TSC0400063GR2970	C	40	63	150	2970	19.39	0.77	0.08
313	TSC0400063GR2350	C	40	63	180	2350	24.51	0.97	0.1
314	TSC0400063GR1980	C	40	63	210	1980	29.09	1.15	0.12
315	TSC0400080GR14100	C	40	80	30	14100	4.09	0.13	0.02
316	TSC0400080GR6660	C	40	80	60	6660	8.65	0.27	0.04
317	TSC0400080GR4210	C	40	80	90	4210	13.68	0.43	0.06
318	TSC0400080GR2970	C	40	80	120	2970	19.39	0.61	0.08
319	TSC0400080GR2350	C	40	80	150	2350	24.51	0.77	0.1
320	TSA(C)0400080GR1870	A & C	40	80	180	1870	30.8	0.96	0.13
321	TSA(C)0400080GR1580	A & C	40	80	210	1580	36.46	1.14	0.15
322	TSC0400100GR11200	C	40	100	30	11200	5.14	0.13	0.02
323	TSC0400100GR5300	C	40	100	60	5300	10.87	0.27	0.05
324	TSC0400100GR3340	C	40	100	90	3340	17.25	0.43	0.07
325	TSA(C)0400100GR2350	A & C	40	100	120	2350	24.51	0.61	0.1
326	TSA(C)0400100GR1870	A & C	40	100	150	1870	30.8	0.77	0.13
327	TSA(C)0400100GR1490	A & C	40	100	180	1490	38.66	0.97	0.16
328	TSA(C)0400100GR1260	A & C	40	100	210	1260	45.71	1.14	0.19
329	TSC0400125GR8880	C	40	125	30	8880	6.49	0.13	0.03
330	TSC0400125GR4210	C	40	125	60	4210	13.68	0.27	0.06
331	TSA(C)0400125GR2640	A & C	40	125	90	2640	21.82	0.44	0.09
332	TSA(C)0400125GR1870	A & C	40	125	120	1870	30.8	0.62	0.13
333	TSA(C)0400125GR1490	A & C	40	125	150	1490	38.66	0.77	0.16
334	TSA(C)0400125GR1190	A & C	40	125	180	1190	48.4	0.97	0.2
335	TSA(C)0400125GR1000	A & C	40	125	210	1000	57.6	1.15	0.24
336	TSC0400160GR7050	C	40	160	30	7050	8.17	0.13	0.03
337	TSA(C)0400160GR3340	A & C	40	160	60	3340	17.25	0.27	0.07
338	TSA(C)0400160GR2100	A & C	40	160	90	2100	27.43	0.43	0.11
339	TSA(C)0400160GR1490	A & C	40	160	120	1490	38.66	0.60	0.16
340	TSA(C)0400160GR1190	A & C	40	160	150	1190	48.4	0.76	0.2
341	TSA(C)0400160GR941	A & C	40	160	180	941	61.21	0.96	0.26
342	TSA(C)0400160GR791	A & C	40	160	210	791	72.82	1.14	0.3
343	TSC0500050GR18700	C	50	50	30	18700	3.08	0.12	0.01
344	TSC0500050GR8880	C	50	50	60	8880	6.49	0.26	0.03
345	TSC0500050GR5610	C	50	50	90	5610	10.27	0.41	0.04
346	TSC0500050GR3970	C	50	50	120	3970	14.51	0.58	0.06
347	TSC0500050GR3150	C	50	50	150	3150	18.29	0.73	0.08
348	TSC0500050GR2640	C	50	50	180	2640	21.82	0.87	0.09
349	TSC0500050GR2220	C	50	50	210	2220	25.95	1.04	0.11
350	TSC0500063GR14900	C	50	63	30	14900	3.87	0.12	0.02
351	TSC0500063GR7050	C	50	63	60	7050	8.17	0.26	0.03
352	TSC0500063GR4460	C	50	63	90	4460	12.91	0.41	0.05
353	TSC0500063GR3150	C	50	63	120	3150	18.29	0.58	0.08
354	TSC0500063GR2490	C	50	63	150	2490	23.13	0.73	0.1
355	TSC0500063GR2100	C	50	63	180	2100	27.43	0.87	0.11
356	TSA(C)0500063GR1770	A & C	50	63	210	1770	32.54	1.03	0.14
357	TSC0500080GR11900	C	50	80	30	11900	4.84	0.12	0.02
358	TSC0500080GR5610	C	50	80	60	5610	10.27	0.26	0.04
359	TSC0500080GR3540	C	50	80	90	3540	16.27	0.41	0.07
360	TSC0500080GR2490	C	50	80	120	2490	23.13	0.58	0.1
361	TSA(C)0500080GR1980	A & C	50	80	150	1980	29.09	0.73	0.12
362	TSA(C)0500080GR1580	A & C	50	80	180	1580	36.46	0.91	0.15
363	TSA(C)0500080GR1330	A & C	50	80	210	1330	43.31	1.08	0.18
364	TSC0500100GR9410	C	50	100	30	9410	6.12	0.12	0.03
365	TSC0500100GR4460	C	50	100	60	4460	12.91	0.26	0.05
366	TSA(C)0500100GR2800	A & C	50	100	90	2800	20.57	0.41	0.09
367	TSA(C)0500100GR1980	A & C	50	100	120	1980	29.09	0.58	0.12
368	TSA(C)0500100GR1580	A & C	50	100	150	1580	36.46	0.73	0.15
369	TSA(C)0500100GR1260	A & C	50	100	180	1260	45.71	0.91	0.19
370	TSA(C)0500100GR1060	A & C	50	100	210	1060	54.34	1.09	0.23
371	TSC0500125GR7470	C	50	125	30	7470	7.71	0.12	0.03
372	TSA(C)0500125GR3540	A & C	50	125	60	3540	16.27	0.26	0.07
373	TSA(C)0500125GR2350	A & C	50	125	90	2350	24.51	0.39	0.1
374	TSA(C)0500125GR1670	A & C	50	125	120	1670	34.49	0.55	0.14
375	TSA(C)0500125GR1260	A & C	50	125	150	1260	45.71	0.73	0.19
376	TSA(C)0500125GR1060	A & C	50	125	180	1060	54.34	0.87	0.23
377	TSA(C)0500125GR888	A & C	50	125	210	888	64.86	1.04	0.27
378	TSC0500160GR5940	C	50	160	30	5940	9.7	0.12	0.04
379	TSA(C)0500160GR2800	A & C	50	160	60	2800	20.57	0.26	0.09
380	TSA(C)0500160GR1770	A & C	50	160	90	1770	32.54	0.41	0.14
381	TSA(C)0500160GR1260	A & C	50	160	120	1260	45.71	0.57	0.19
382	TSA(C)0500160GR1000	A & C	50	160	150	1000	57.6	0.72	0.24
383	TSA(C)0500160GR791	A & C	50	160	180	791	72.82	0.91	0.3
384	TSA(C)0500160GR666	A & C	50	160	210	666	86.49	1.08	0.36
385	TSA(C)0500200GR4720	A & C	50	200	30	4720	12.2	0.12	0.05
386	TSA(C)0500200GR2220	A & C	50	200	60	2220	25.95	0.26	0.11
387	TSA(C)0500200GR1410	A & C	50	200	90	1410	40.85	0.41	0.17
388	TSA(C)0500200GR1000	A & C	50	200	120	1000	57.6	0.58	0.24
389	TSA(C)0500200GR791	A & C	50	200	150	791	72.82	0.73	0.3
390	TSA(C)0500200GR629	A & C	50	200	180	629	91.57	0.92	0.38
391	TSA(C)0500200GR530	A & C	50	200	210	530	108.68	1.09	0.45
392	TSC0630063GR12600	C	63	63	30	12600	4.57	0.12	0.02
393	TSC0630063GR5940	C	63	63	60	5940	9.7	0.24	0.04
394	TSC0630063GR3750	C	63	63	90	3750	15.36	0.39	0.06
395	TSC0630063GR2640	C	63	63	120	2640	21.82	0.55	0.09
396	TSA(C)0630063GR2100	A & C	63	63	150	2100	27.43	0.69	0.11
397	TSA(C)0630063GR1770	A & C	63	63	180	1770	32.54	0.82	0.14
398	TSA(C)0630063GR1410	A & C	63	63	210	1410	40.85	1.03	0.17
399	TSC0630080GR10000	C	63	80	30	10000	5.76	0.11	0.02
400	TSC0630080GR4720	C	63	80	60	4720	12.2	0.24	0.05
401	TSA(C)0630080GR2970	A & C	63	80	90	2970	19.39	0.38	0.08
402	TSA(C)0630080GR2100	A & C	63	80	120	2100	27.43	0.54	0.11
403	TSA(C)0630080GR1670	A & C	63	80	150	1670	34.49	0.68	0.14
404	TSA(C)0630080GR1330	A & C	63	80	180	1330	43.31	0.86	0.18
405	TSA(C)0630080GR1120	A & C	63	80	210	1120	51.43	1.02	0.21
406	TSC0630100GR7910	C	63	100	30	7910	7.28	0.12	0.03
407	TSA(C)0630100GR3750	A & C	63	100	60	3750	15.36	0.24	0.06
408	TSA(C)0630100GR2490	A & C	63	100	90	2490	23.13	0.37	0.1
409	TSA(C)0630100GR1670	A & C	63	100	120	1670	34.49	0.55	0.14
410	TSA(C)0630100GR1330	A & C	63	100	150	1330	43.31	0.69	0.18
411	TSA(C)0630100GR1060	A & C	63	100	180	1060	54.34	0.86	0.23
412	TSA(C)0630100GR888	A & C	63	100	210	888	64.86	1.03	0.27
413	TSC0630125GR6290	C	63	125	30	6290	9.16	0.12	0.04
414	TSA(C)0630125GR2970	A & C	63	125	60	2970	19.39	0.25	0.08
415	TSA(C)0630125GR1980	A & C	63	125	90	1980	29.09	0.37	0.12
416	TSA(C)0630125GR1330	A & C	63	125	1				

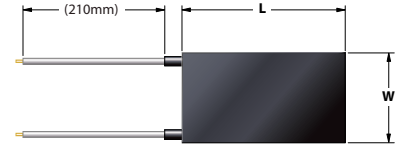
# STANDARD | Rectangular 240V



No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)0630250GR446	A & C	63	250	180	446	129.15	0.82	0.54
440	TSA(C)0630250GR354	A & C	63	250	210	354	162.71	1.03	0.68
441	TSC0800080GR8380	C	80	80	30	8380	6.87	0.11	0.03
442	TSC0800080GR4210	C	80	80	60	4210	13.68	0.21	0.06
443	TSA(C)0800080GR2640	A & C	80	80	90	2640	21.82	0.34	0.09
444	TSA(C)0800080GR1870	A & C	80	80	120	1870	30.8	0.48	0.13
445	TSA(C)0800080GR1410	A & C	80	80	150	1410	40.85	0.64	0.17
446	TSA(C)0800080GR1190	A & C	80	80	180	1190	48.4	0.76	0.2
447	TSA(C)0800080GR941	A & C	80	80	210	941	61.21	0.96	0.26
448	TSC0800100GR6660	C	80	100	30	6660	8.65	0.11	0.04
449	TSA(C)0800100GR3340	A & C	80	100	60	3340	17.25	0.22	0.07
450	TSA(C)0800100GR2100	A & C	80	100	90	2100	27.43	0.34	0.11
451	TSA(C)0800100GR1490	A & C	80	100	120	1490	38.66	0.48	0.16
452	TSA(C)0800100GR1120	A & C	80	100	150	1120	51.43	0.64	0.21
453	TSA(C)0800100GR941	A & C	80	100	180	941	61.21	0.77	0.26
454	TSA(C)0800100GR791	A & C	80	100	210	791	72.82	0.91	0.3
455	TSA(C)0800125GR5300	A & C	80	125	30	5300	10.87	0.11	0.05
456	TSA(C)0800125GR2640	A & C	80	125	60	2640	21.82	0.22	0.09
457	TSA(C)0800125GR1670	A & C	80	125	90	1670	34.49	0.34	0.14
458	TSA(C)0800125GR1190	A & C	80	125	120	1190	48.4	0.48	0.2
459	TSA(C)0800125GR888	A & C	80	125	150	888	64.86	0.65	0.27
460	TSA(C)0800125GR747	A & C	80	125	180	747	77.11	0.77	0.32
461	TSA(C)0800125GR629	A & C	80	125	210	629	91.57	0.92	0.38
462	TSA(C)0800160GR4210	A & C	80	160	30	4210	13.68	0.11	0.06
463	TSA(C)0800160GR2100	A & C	80	160	60	2100	27.43	0.21	0.11
464	TSA(C)0800160GR1330	A & C	80	160	90	1330	43.31	0.34	0.18
465	TSA(C)0800160GR941	A & C	80	160	120	941	61.21	0.48	0.26
466	TSA(C)0800160GR705	A & C	80	160	150	705	81.7	0.64	0.34
467	TSA(C)0800160GR594	A & C	80	160	180	594	96.97	0.76	0.4
468	TSA(C)0800160GR472	A & C	80	160	210	472	122.03	0.95	0.51
469	TSA(C)0800200GR3340	A & C	80	200	30	3340	17.25	0.11	0.07
470	TSA(C)0800200GR1670	A & C	80	200	60	1670	34.49	0.22	0.14
471	TSA(C)0800200GR1060	A & C	80	200	90	1060	54.34	0.34	0.23
472	TSA(C)0800200GR747	A & C	80	200	120	747	77.11	0.48	0.32
473	TSA(C)0800200GR561	A & C	80	200	150	561	102.67	0.64	0.43
474	TSA(C)0800200GR472	A & C	80	200	180	472	122.03	0.76	0.51
475	TSA(C)0800200GR397	A & C	80	200	210	397	145.09	0.91	0.6
476	TSA(C)0800250GR2640	A & C	80	250	30	2640	21.82	0.11	0.09
477	TSA(C)0800250GR1330	A & C	80	250	60	1330	43.31	0.22	0.18
478	TSA(C)0800250GR838	A & C	80	250	90	838	68.74	0.34	0.29
479	TSA(C)0800250GR594	A & C	80	250	120	594	96.97	0.48	0.4
480	TSA(C)0800250GR446	A & C	80	250	150	446	129.15	0.65	0.54
481	TSA(C)0800250GR375	A & C	80	250	180	375	153.6	0.77	0.64
482	TSA(C)0800250GR315	A & C	80	250	210	315	182.86	0.91	0.76
483	TSA(C)0800300GR2220	A & C	80	300	30	2220	25.95	0.11	0.11
484	TSA(C)0800300GR1120	A & C	80	300	60	1120	51.43	0.21	0.21
485	TSA(C)0800300GR705	A & C	80	300	90	705	81.7	0.34	0.34
486	TSA(C)0800300GR500	A & C	80	300	120	500	115.2	0.48	0.48
487	TSA(C)0800300GR375	A & C	80	300	150	375	153.6	0.64	0.64
488	TSA(C)0800300GR315	A & C	80	300	180	315	182.86	0.76	0.76
489	TSA(C)0800300GR264	A & C	80	300	210	264	218.18	0.91	0.91
490	TSC1000100GR6290	C	100	100	30	6290	9.16	0.09	0.04
491	TSA(C)1000100GR3150	A & C	100	100	60	3150	18.29	0.18	0.08
492	TSA(C)1000100GR1980	A & C	100	100	90	1980	29.09	0.29	0.12
493	TSA(C)1000100GR1330	A & C	100	100	120	1330	43.31	0.43	0.18
494	TSA(C)1000100GR1000	A & C	100	100	150	1000	57.6	0.58	0.24
495	TSA(C)1000100GR838	A & C	100	100	180	838	68.74	0.69	0.29
496	TSA(C)1000100GR666	A & C	100	100	210	666	86.49	0.86	0.36
497	TSA(C)1000125GR5000	A & C	100	125	30	5000	11.52	0.09	0.05
498	TSA(C)1000125GR2490	A & C	100	125	60	2490	23.13	0.19	0.1
499	TSA(C)1000125GR1580	A & C	100	125	90	1580	36.46	0.29	0.15
500	TSA(C)1000125GR1060	A & C	100	125	120	1060	54.34	0.43	0.23
501	TSA(C)1000125GR791	A & C	100	125	150	791	72.82	0.58	0.3
502	TSA(C)1000125GR666	A & C	100	125	180	666	86.49	0.69	0.36
503	TSA(C)1000125GR561	A & C	100	125	210	561	102.67	0.82	0.43
504	TSA(C)1000160GR3750	A & C	100	160	30	3750	15.36	0.10	0.06
505	TSA(C)1000160GR1870	A & C	100	160	60	1870	30.8	0.19	0.13
506	TSA(C)1000160GR1190	A & C	100	160	90	1190	48.4	0.30	0.2
507	TSA(C)1000160GR838	A & C	100	160	120	838	68.74	0.43	0.29
508	TSA(C)1000160GR629	A & C	100	160	150	629	91.57	0.57	0.38
509	TSA(C)1000160GR530	A & C	100	160	180	530	108.68	0.68	0.45
510	TSA(C)1000160GR421	A & C	100	160	210	421	136.82	0.86	0.57
511	TSA(C)1000200GR3150	A & C	100	200	30	3150	18.29	0.09	0.08

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
512	TSA(C)1000200GR1580	A & C	100	200	60	1580	36.46	0.18	0.15
513	TSA(C)1000200GR941	A & C	100	200	90	941	61.21	0.31	0.26
514	TSA(C)1000200GR666	A & C	100	200	120	666	86.49	0.43	0.36
515	TSA(C)1000200GR500	A & C	100	200	150	500	115.2	0.58	0.48
516	TSA(C)1000200GR421	A & C	100	200	180	421	136.82	0.68	0.57
517	TSA(C)1000200GR334	A & C	100	200	210	334	172.46	0.86	0.72
518	TSA(C)1000250GR2490	A & C	100	250	30	2490	23.13	0.09	0.1
519	TSA(C)1000250GR1260	A & C	100	250	60	1260	45.71	0.18	0.19
520	TSA(C)1000250GR791	A & C	100	250	90	791	72.82	0.29	0.3
521	TSA(C)1000250GR530	A & C	100	250	120	530	108.68	0.43	0.45
522	TSA(C)1000250GR397	A & C	100	250	150	397	145.09	0.58	0.6
523	TSA(C)1000250GR334	A & C	100	250	180	334	172.46	0.69	0.72
524	TSA(C)1000250GR280	A & C	100	250	210	280	205.71	0.82	0.86
525	TSA(C)1000300GR2100	A & C	100	300	30	2100	27.43	0.09	0.11
526	TSA(C)1000300GR1000	A & C	100	300	60	1000	57.6	0.19	0.24
527	TSA(C)1000300GR629	A & C	100	300	90	629	91.57	0.31	0.38
528	TSA(C)1000300GR446	A & C	100	300	120	446	129.15	0.43	0.54
529	TSA(C)1000300GR334	A & C	100	300	150	334	172.46	0.57	0.72
530	TSA(C)1000300GR280	A & C	100	300	180	280	205.71	0.69	0.86
531	TSA(C)1000300GR222	A & C	100	300	210	222	259.46	0.86	1.08
532	TSA(C)1250125GR4210	A & C	125	125	30	4210	13.68	0.09	0.06
533	TSA(C)1250125GR2100	A & C	125	125	60	2100	27.43	0.18	0.11
534	TSA(C)1250125GR1330	A & C	125	125	90	1330	43.31	0.28	0.18
535	TSA(C)1250125GR888	A & C	125	125	120	888	64.86	0.42	0.27
536	TSA(C)1250125GR705	A & C	125	125	150	705	81.7	0.52	0.34
537	TSA(C)1250125GR561	A & C	125	125	180	561	102.67	0.66	0.43
538	TSA(C)1250125GR472	A & C	125	125	210	472	122.03	0.78	0.51
539	TSA(C)1250160GR3340	A & C	125	160	30	3340	17.25	0.09	0.07
540	TSA(C)1250160GR1670	A & C	125	160	60	1670	34.49	0.17	0.14
541	TSA(C)1250160GR1060	A & C	125	160	90	1060	54.34	0.27	0.23
542	TSA(C)1250160GR705	A & C	125	160	120	705	81.7	0.41	0.34
543	TSA(C)1250160GR561	A & C	125	160	150	561	102.67	0.51	0.43
544	TSA(C)1250160GR446	A & C	125	160	180	446	129.15	0.65	0.54
545	TSA(C)1250160GR375	A & C	125	160	210	375	153.6	0.77	0.64
546	TSA(C)1250200GR2640	A & C	125	200	30	2640	21.82	0.09	0.09
547	TSA(C)1250200GR1330	A & C	125	200	60	1330	43.31	0.17	0.18
548	TSA(C)1250200GR838	A & C	125	200	90	838	68.74	0.27	0.29
549	TSA(C)1250200GR561	A & C	125	200	120	561	102.67	0.41	0.43
550	TSA(C)1250200GR446	A & C	125	200	150	446	129.15	0.52	0.54
551	TSA(C)1250200GR354	A & C	125	200	180	354	162.71	0.65	0.68
552	TSA(C)1250200GR297	A & C	125	200	210	297	193.94	0.78	0.81
553	TSA(C)1250250GR2100	A & C	125	250	30	2100	27.43	0.09	0.11
554	TSA(C)1250250GR1060	A & C	125	250	60	1060	54.34	0.17	0.23
555	TSA(C)1250250GR666	A & C	125	250	90	666	86.49	0.28	0.36
556	TSA(C)1250250GR446	A & C	125	250	120	446	129.15	0.41	0.54
557	TSA(C)1250250GR354	A & C	125	250	150	354			

# STANDARD | Rectangular 240V



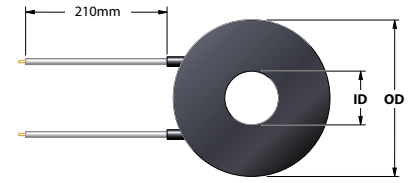
No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
585	TSA(C)1600250GR315	A & C	160	250	150	315	182.86	0.46	0.76
586	TSA(C)1600250GR249	A & C	160	250	180	249	231.33	0.58	0.96
587	TSA(C)1600250GR210	A & C	160	250	210	210	274.29	0.69	1.14
588	TSA(C)1600300GR1580	A & C	160	300	30	1580	36.46	0.08	0.15
589	TSA(C)1600300GR791	A & C	160	300	60	791	72.82	0.15	0.3
590	TSA(C)1600300GR472	A & C	160	300	90	472	122.03	0.25	0.51
591	TSA(C)1600300GR334	A & C	160	300	120	334	172.46	0.36	0.72
592	TSA(C)1600300GR249	A & C	160	300	150	249	231.33	0.48	0.96
593	TSA(C)1600300GR210	A & C	160	300	180	210	274.29	0.57	1.14
594	TSA(C)1600300GR177	A & C	160	300	210	177	325.42	0.68	1.36
595	TSA(C)2000200GR1980	A & C	200	200	30	1980	29.09	0.07	0.12
596	TSA(C)2000200GR1000	A & C	200	200	60	1000	57.6	0.14	0.24
597	TSA(C)2000200GR629	A & C	200	200	90	629	91.57	0.23	0.38
598	TSA(C)2000200GR421	A & C	200	200	120	421	136.82	0.34	0.57
599	TSA(C)2000200GR334	A & C	200	200	150	334	172.46	0.43	0.72
600	TSA(C)2000200GR264	A & C	200	200	180	264	218.18	0.55	0.91
601	TSA(C)2000200GR222	A & C	200	200	210	222	259.46	0.65	1.08
602	TSA(C)2000250GR1580	A & C	200	250	30	1580	36.46	0.07	0.15
603	TSA(C)2000250GR791	A & C	200	250	60	791	72.82	0.15	0.3
604	TSA(C)2000250GR500	A & C	200	250	90	500	115.2	0.23	0.48
605	TSA(C)2000250GR354	A & C	200	250	120	354	162.71	0.33	0.68
606	TSA(C)2000250GR264	A & C	200	250	150	264	218.18	0.44	0.91
607	TSA(C)2000250GR222	A & C	200	250	180	222	259.46	0.52	1.08
608	TSA(C)2000250GR177	A & C	200	250	210	177	325.42	0.65	1.36
609	TSA(C)2000300GR1330	A & C	200	300	30	1330	43.31	0.07	0.18
610	TSA(C)2000300GR666	A & C	200	300	60	666	86.49	0.14	0.36

No.	Identification String	Type	Width (mm)	Length (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
611	TSA(C)2000300GR421	A & C	200	300	90	421	136.82	0.23	0.57
612	TSA(C)2000300GR280	A & C	200	300	120	280	205.71	0.34	0.86
613	TSA(C)2000300GR222	A & C	200	300	150	222	259.46	0.43	1.08
614	TSA(C)2000300GR177	A & C	200	300	180	177	325.42	0.54	1.36
615	TSA(C)2000300GR149	A & C	200	300	210	149	386.58	0.64	1.61
616	TSA(C)2500250GR1410	A & C	250	250	30	1410	40.85	0.07	0.17
617	TSA(C)2500250GR705	A & C	250	250	60	705	81.7	0.13	0.34
618	TSA(C)2500250GR446	A & C	250	250	90	446	129.15	0.21	0.54
619	TSA(C)2500250GR297	A & C	250	250	120	297	193.94	0.31	0.81
620	TSA(C)2500250GR235	A & C	250	250	150	235	245.11	0.39	1.02
621	TSA(C)2500250GR187	A & C	250	250	180	187	308.02	0.49	1.28
622	TSA(C)2500250GR158	A & C	250	250	210	158	364.56	0.58	1.52
623	TSA(C)2500300GR1190	A & C	250	300	30	1190	48.4	0.06	0.2
624	TSA(C)2500300GR594	A & C	250	300	60	594	96.97	0.13	0.4
625	TSA(C)2500300GR375	A & C	250	300	90	375	153.6	0.20	0.64
626	TSA(C)2500300GR249	A & C	250	300	120	249	231.33	0.31	0.96
627	TSA(C)2500300GR198	A & C	250	300	150	198	290.91	0.39	1.21
628	TSA(C)2500300GR158	A & C	250	300	180	158	364.56	0.49	1.52
629	TSA(C)2500300GR133	A & C	250	300	210	133	433.08	0.58	1.8
630	TSA(C)3000300GR1000	A & C	300	300	30	1000	57.6	0.06	0.24
631	TSA(C)3000300GR500	A & C	300	300	60	500	115.2	0.13	0.48
632	TSA(C)3000300GR315	A & C	300	300	90	315	182.86	0.20	0.76
633	TSA(C)3000300GR222	A & C	300	300	120	222	259.46	0.29	1.08
634	TSA(C)3000300GR167	A & C	300	300	150	167	344.91	0.38	1.44
635	TSA(C)3000300GR141	A & C	300	300	180	141	408.51	0.45	1.7
636	TSA(C)3000300GR112	A & C	300	300	210	112	514.29	0.57	2.14

Dimensions and specifications are subject to change without notice.



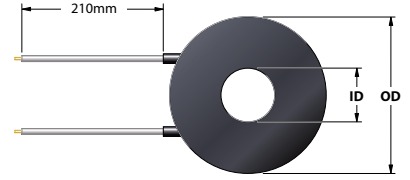
# STANDARD | Round 1.5V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSA(C)010d000aR11.2	A & C	10	0	30	11.2	0.2	0.25	0.13
2	TSA(C)010d000aR5.3	A & C	10	0	60	5.3	0.42	0.53	0.28
3	TSA(C)010d000aR3.34	A & C	10	0	90	3.34	0.67	0.85	0.45
4	TSA010d000aR2.35	A	10	0	120	2.35	0.96	1.22	0.64
5	TSA010d000aR1.77	A	10	0	150	1.77	1.27	1.62	0.85
6	TSA010d000aR1.41	A	10	0	180	1.41	1.6	2.04	1.07
7	TSA010d000aR1.19	A	10	0	210	1.19	1.89	2.41	1.26
8	TSA(C)010d005aR14.9	A & C	10	5	30	14.9	0.15	0.25	0.1
9	TSA(C)010d005aR7.05	A & C	10	5	60	7.05	0.32	0.54	0.21
10	TSA(C)010d005aR4.46	A & C	10	5	90	4.46	0.5	0.85	0.33
11	TSA(C)010d005aR3.15	A	10	5	120	3.15	0.71	1.21	0.47
12	TSA010d005aR2.35	A	10	5	150	2.35	0.96	1.63	0.64
13	TSA010d005aR1.87	A	10	5	180	1.87	1.2	2.04	0.8
14	TSA010d005aR1.58	A	10	5	210	1.58	1.42	2.41	0.95
15	TSA013d000aR1.19	A & C	13	0	30	7.47	0.3	0.23	0.2
16	TSA(C)013d000aR3.54	A & C	13	0	60	3.54	0.64	0.48	0.43
17	TSA013d000aR2.22	A	13	0	90	2.22	1.01	0.76	0.67
18	TSA013d000aR1.58	A	13	0	120	1.58	1.42	1.07	0.95
19	TSA013d000aR1.19	A	13	0	150	1.19	1.89	1.42	1.26
20	TSA013d000aR1	A	13	0	180	1	2.25	1.7	1.5
21	TSA013d000aR0.791	A	13	0	210	0.791	2.84	2.14	1.89
22	TSA(C)013d006aR9.41	A & C	13	6	30	9.41	0.24	0.23	0.16
23	TSA(C)013d006aR4.46	A & C	13	6	60	4.46	0.5	0.48	0.33
24	TSA013d006aR2.8	A	13	6	90	2.8	0.8	0.77	0.53
25	TSA013d006aR2.1	A	13	6	120	2.1	1.07	1.02	0.71
26	TSA013d006aR1.58	A	13	6	150	1.58	1.42	1.36	0.95
27	TSA013d006aR1.26	A	13	6	180	1.26	1.79	1.71	1.19
28	TSA013d006aR1	A	13	6	210	1	2.25	2.15	1.5
29	TSA(C)016d000aR5.61	A & C	16	0	30	5.61	0.4	0.2	0.27
30	TSA016d000aR2.8	A	16	0	60	2.8	0.8	0.4	0.53
31	TSA016d000aR1.77	A	16	0	90	1.77	1.27	0.63	0.85
32	TSA016d000aR1.26	A	16	0	120	1.26	1.79	0.89	1.19
33	TSA016d000aR0.941	A	16	0	150	0.941	2.39	1.19	1.59
34	TSA016d000aR0.747	A	16	0	180	0.747	3.01	1.5	2.01
35	TSA016d000aR0.629	A	16	0	210	0.629	3.58	1.78	2.39
36	TSA(C)016d008aR7.91	A & C	16	8	30	7.91	0.28	0.19	0.19
37	TSA(C)016d008aR3.75	A & C	16	8	60	3.75	0.6	0.4	0.4
38	TSA016d008aR2.35	A	16	8	90	2.35	0.96	0.64	0.64
39	TSA016d008aR1.67	A	16	8	120	1.67	1.35	0.9	0.9
40	TSA016d008aR1.26	A	16	8	150	1.26	1.79	1.19	1.19
41	TSA016d008aR1	A	16	8	180	1	2.25	1.49	1.5
42	TSA016d008aR0.838	A	16	8	210	0.838	2.68	1.78	1.79
43	TSA(C)020d000aR4.72	A & C	20	0	30	4.72	0.48	0.15	0.32
44	TSA020d000aR2.35	A	20	0	60	2.35	0.96	0.31	0.64
45	TSA020d000aR1.41	A	20	0	90	1.41	1.6	0.51	1.07
46	TSA020d000aR1	A	20	0	120	1	2.25	0.72	1.5
47	TSA020d000aR0.791	A	20	0	150	0.791	2.84	0.9	1.89
48	TSA020d000aR0.629	A	20	0	180	0.629	3.58	1.14	2.39
49	TSA020d000aR0.53	A	20	0	210	0.53	4.25	1.35	2.83
50	TSA(C)020d005aR5	A & C	20	5	30	5	0.45	0.15	0.3
51	TSA020d005aR2.49	A	20	5	60	2.49	0.9	0.31	0.6
52	TSA020d005aR1.49	A	20	5	90	1.49	1.51	0.51	1.01
53	TSA020d005aR1.06	A	20	5	120	1.06	2.12	0.72	1.41
54	TSA020d005aR0.838	A	20	5	150	0.838	2.68	0.91	1.79
55	TSA020d005aR0.666	A	20	5	180	0.666	3.38	1.15	2.25
56	TSA020d005aR0.561	A	20	5	210	0.561	4.01	1.36	2.67
57	TSA(C)020d010aR6.29	A & C	20	10	30	6.29	0.36	0.15	0.24
58	TSA(C)020d010aR3.15	A & C	20	10	60	3.15	0.71	0.3	0.47
59	TSA020d010aR1.87	A	20	10	90	1.87	1.2	0.51	0.8
60	TSA020d010aR1.33	A	20	10	120	1.33	1.69	0.72	1.13
61	TSA020d010aR1.06	A	20	10	150	1.06	2.12	0.9	1.41
62	TSA020d010aR0.838	A	20	10	180	0.838	2.68	1.14	1.79
63	TSA020d010aR0.705	A	20	10	210	0.705	3.19	1.35	2.13
64	TSA(C)025d000aR3.15	A & C	25	0	30	3.15	0.71	0.14	0.47
65	TSA025d000aR1.49	A	25	0	60	1.49	1.51	0.31	1.01
66	TSA025d000aR0.941	A	25	0	90	0.941	2.39	0.49	1.59
67	TSA025d000aR0.666	A	25	0	120	0.666	3.38	0.69	2.25
68	TSA025d000aR0.53	A	25	0	150	0.53	4.25	0.87	2.83
69	TSA025d000aR0.421	A	25	0	180	0.421	5.34	1.09	3.56
70	TSA025d000aR0.354	A	25	0	210	0.354	6.36	1.3	4.24
71	TSA(C)025d006aR3.34	A & C	25	6	30	3.34	0.67	0.14	0.45
72	TSA025d006aR1.58	A	25	6	60	1.58	1.42	0.31	0.95
73	TSA025d006aR1	A	25	6	90	1	2.25	0.49	1.5

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA025d006aR0.705	A	25	6	120	0.705	3.19	0.69	2.13
75	TSA025d006aR0.561	A	25	6	150	0.561	4.01	0.87	2.67
76	TSA025d006aR0.446	A	25	6	180	0.446	5.04	1.09	3.36
77	TSA025d006aR0.375	A	25	6	210	0.375	6	1.3	4
78	TSA(C)025d013aR4.46	A & C	25	13	30	4.46	0.5	0.14	0.33
79	TSA025d013aR2.1	A	25	13	60	2.1	1.07	0.3	0.71
80	TSA025d013aR1.33	A	25	13	90	1.33	1.69	0.47	1.13
81	TSA025d013aR0.941	A	25	13	120	0.941	2.39	0.67	1.59
82	TSA025d013aR0.705	A	25	13	150	0.705	3.19	0.89	2.13
83	TSA025d013aR0.594	A	25	13	180	0.594	3.79	1.06	2.53
84	TSA025d013aR0.5	A	25	13	210	0.5	4.5	1.26	3
85	TSA032d000aR2.1	A	32	0	30	2.1	1.07	0.13	0.71
86	TSA032d000aR1	A	32	0	60	1	2.25	0.28	1.5
87	TSA032d000aR0.594	A	32	0	90	0.594	3.79	0.47	2.53
88	TSA032d000aR0.446	A	32	0	120	0.446	5.04	0.63	3.36
89	TSA032d000aR0.354	A	32	0	150	0.354	6.36	0.79	4.24
90	TSA032d000aR0.28	A	32	0	180	0.28	8.04	1	5.36
91	TSA032d000aR0.235	A	32	0	210	0.235	9.57	1.19	6.38
92	TSA032d008aR2.22	A	32	8	30	2.22	1.01	0.13	0.67
93	TSA032d008aR1.06	A	32	8	60	1.06	2.12	0.28	1.41
94	TSA032d008aR0.666	A	32	8	90	0.666	3.38	0.45	2.25
95	TSA032d008aR0.472	A	32	8	120	0.472	4.77	0.63	3.18
96	TSA032d008aR0.375	A	32	8	150	0.375	6	0.8	4
97	TSA032d008aR0.297	A	32	8	180	0.297	7.58	1.01	5.05
98	TSA032d008aR0.249	A	32	8	210	0.249	9.04	1.2	6.03
99	TSA032d016aR2.8	A	32	16	30	2.8	0.8	0.13	0.53
100	TSA032d016aR1.33	A	32	16	60	1.33	1.69	0.28	1.13
101	TSA032d016aR0.791	A	32	16	90	0.791	2.84	0.47	1.89
102	TSA032d016aR0.594	A	32	16	120	0.594	3.79	0.63	2.53
103	TSA032d016aR0.472	A	32	16	150	0.472	4.77	0.79	3.18
104	TSA032d016aR0.375	A	32	16	180	0.375	6	0.99	4
105	TSA032d016aR0.315	A	32	16	210	0.315	7.14	1.18	4.76
106	TSA040d000aR1.41	A	40	0	30	1.41	1.6	0.13	1.07
107	TSA040d000aR0.666	A	40	0	60	0.666	3.38	0.27	2.25
108	TSA040d000aR0.421	A	40	0	90	0.421	5.34	0.42	3.56
109	TSA040d000aR0.297	A	40	0	120	0.297	7.58	0.6	5.05
110	TSA040d000aR0.235	A	40	0	150	0.235	9.57	0.76	6.38
111	TSA040d000aR0.187	A	40	0	180	0.187	12.03	0.96	8.02
112	TSA040d000aR0.158	A	40	0	210	0.158	14.24	1.13	9.49
113	TSA040d005aR1.41	A	40	5	30	1.41	1.6	0.13	1.07
114	TSA040d005aR0.666	A	40	5	60	0.666	3.38	0.27	2.25
115	TSA040d005aR0.421	A	40	5	90	0.421	5.34	0.43	3.56
116	TSA040d005aR0.297	A	40	5	120	0.297	7.58	0.61	5.05
117	TSA040d005aR0.235	A	40	5	150	0.235	9.57	0.77	6.38
118	TSA040d005aR0.187	A	40	5	180	0.187	12.03	0.97	8.02
119	TSA040d005aR0.158	A	40	5	210	0.158	14.24	1.15	9.49
120	TSA040d010aR1.49	A	40	10	30	1.49	1.51	0.13	1.01
121	TSA040d010aR0.705	A	40	10	60	0.705	3.19	0.27	2.13
122	TSA040d010aR0.446	A	40	10	90	0.446	5.04	0.43	3.36
123	TSA040d010aR0.315	A	40	10	120	0.315	7.14	0.61	4.76
124	TSA040d010aR0.249	A	40	10	150	0.249	9.04	0.77	6.03
125	TSA040d010aR0.198	A	40	10	180	0.198	11.36	0.96	7.57
126	TSA040d010aR0.167	A	40	10	210	0.167	13.47	1.14	8.98
127	TSA040d020aR1.87	A	40	20	30	1.87	1.2	0.13	0.8
128	TSA040d020aR0.888	A	40	20	60	0.888			

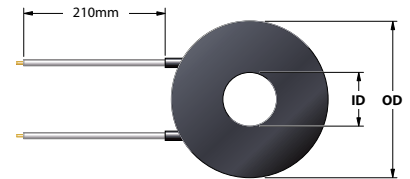
# STANDARD | Round 1.5V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA050d006aR0.112	A	50	6	210	0.112	20.09	1.04	13.39
148	TSA050d013aR1	A	50	13	30	1	2.25	0.12	1.5
149	TSA050d013aR0.472	A	50	13	60	0.472	4.77	0.26	3.18
150	TSA050d013aR0.297	A	50	13	90	0.297	7.58	0.41	5.05
151	TSA050d013aR0.222	A	50	13	120	0.222	10.14	0.55	6.76
152	TSA050d013aR0.167	A	50	13	150	0.167	13.47	0.74	8.98
153	TSA050d013aR0.141	A	50	13	180	0.141	15.96	0.87	10.64
154	TSA050d013aR0.119	A	50	13	210	0.119	18.91	1.03	12.61
155	TSA050d025aR1.26	A	50	25	30	1.26	1.79	0.12	1.19
156	TSA050d025aR0.594	A	50	25	60	0.594	3.79	0.26	2.53
157	TSA050d025aR0.375	A	50	25	90	0.375	6	0.41	4
158	TSA050d025aR0.264	A	50	25	120	0.264	8.52	0.58	5.68
159	TSA050d025aR0.21	A	50	25	150	0.21	10.71	0.73	7.14
160	TSA050d025aR0.167	A	50	25	180	0.167	13.47	0.91	8.98
161	TSA050d025aR0.141	A	50	25	210	0.141	15.96	1.08	10.64
162	TSA063d000aR0.629	A	63	0	30	0.629	3.58	0.11	2.39
163	TSA063d000aR0.297	A	63	0	60	0.297	7.58	0.24	5.05
164	TSA063d000aR0.187	A	63	0	90	0.187	12.03	0.39	8.02
165	TSA063d000aR0.133	A	63	0	120	0.133	16.92	0.54	11.28
166	TSA063d000aR0.106	A	63	0	150	0.106	21.23	0.68	14.15
167	TSA063d008aR0.629	A	63	8	30	0.629	3.58	0.12	2.39
168	TSA063d008aR0.315	A	63	8	60	0.315	7.14	0.23	4.76
169	TSA063d008aR0.198	A	63	8	90	0.198	11.36	0.37	7.57
170	TSA063d008aR0.141	A	63	8	120	0.141	15.96	0.52	10.64
171	TSA063d008aR0.106	A	63	8	150	0.106	21.23	0.69	14.15
172	TSA063d016aR0.666	A	63	16	30	0.666	3.38	0.12	2.25
173	TSA063d016aR0.315	A	63	16	60	0.315	7.14	0.24	4.76
174	TSA063d016aR0.21	A	63	16	90	0.21	10.71	0.37	7.14
175	TSA063d016aR0.141	A	63	16	120	0.141	15.96	0.55	10.64
176	TSA063d016aR0.112	A	63	16	150	0.112	20.09	0.69	13.39
177	TSA063d032aR0.838	A	63	32	30	0.838	2.68	0.12	1.79
178	TSA063d032aR0.397	A	63	32	60	0.397	5.67	0.25	3.78
179	TSA063d032aR0.264	A	63	32	90	0.264	8.52	0.37	5.68
180	TSA063d032aR0.187	A	63	32	120	0.187	12.03	0.52	8.02
181	TSA063d032aR0.141	A	63	32	150	0.141	15.96	0.69	10.64
182	TSA063d032aR0.119	A	63	32	180	0.119	18.91	0.82	12.61
183	TSA080d000aR0.421	A	80	0	30	0.421	5.34	0.11	3.56
184	TSA080d000aR0.21	A	80	0	60	0.21	10.71	0.21	7.14
185	TSA080d000aR0.133	A	80	0	90	0.133	16.92	0.34	11.28
186	TSA080d005aR0.421	A	80	5	30	0.421	5.34	0.11	3.56
187	TSA080d005aR0.21	A	80	5	60	0.21	10.71	0.21	7.14
188	TSA080d005aR0.133	A	80	5	90	0.133	16.92	0.34	11.28
189	TSA080d010aR0.421	A	80	10	30	0.421	5.34	0.11	3.56
190	TSA080d010aR0.21	A	80	10	60	0.21	10.71	0.22	7.14

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



# STANDARD | Round 3V

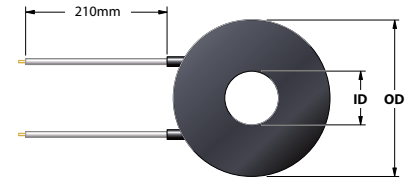
■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSA(C)010d000bR44.6	A & C	10	0	30	44.6	0.2	0.25	0.067
2	TSA(C)010d000bR21	A & C	10	0	60	21	0.43	0.55	0.143
3	TSA(C)010d000bR13.3	A & C	10	0	90	13.3	0.68	0.87	0.227
4	TSA(C)010d000bR9.41	A & C	10	0	120	9.41	0.96	1.22	0.32
5	TSA(C)010d000bR7.05	A & C	10	0	150	7.05	1.28	1.63	0.427
6	TSA(C)010d000bR5.61	A & C	10	0	180	5.61	1.6	2.04	0.533
7	TSA010d000bR4.72	A	10	0	210	4.72	1.91	2.43	0.637
8	TSC010d005bR59.4	C	10	5	30	59.4	0.15	0.25	0.05
9	TSA(C)010d005bR28	A & C	10	5	60	28	0.32	0.54	0.107
10	TSA(C)010d005bR17.7	A & C	10	5	90	17.7	0.51	0.87	0.17
11	TSA(C)010d005bR12.6	A & C	10	5	120	12.6	0.71	1.21	0.237
12	TSA(C)010d005bR9.41	A & C	10	5	150	9.41	0.96	1.63	0.32
13	TSA(C)010d005bR7.47	A & C	10	5	180	7.47	1.2	2.04	0.4
14	TSA(C)010d005bR6.29	A & C	10	5	210	6.29	1.43	2.43	0.477
15	TSA(C)013d000bR29.7	A & C	13	0	30	29.7	0.3	0.23	0.1
16	TSA(C)013d000bR14.1	A & C	13	0	60	14.1	0.64	0.48	0.213

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
191	TSA080d010aR0.133	A	80	10	90	0.133	16.92	0.34	11.28
192	TSA080d020aR0.446	A	80	20	30	0.446	5.04	0.11	3.36
193	TSA080d020aR0.222	A	80	20	60	0.222	10.14	0.22	6.76
194	TSA080d020aR0.141	A	80	20	90	0.141	15.96	0.34	10.64
195	TSA080d020aR0.1	A	80	20	120	0.1	22.5	0.48	15
196	TSA080d040aR0.561	A	80	40	30	0.561	4.01	0.11	2.67
197	TSA080d040aR0.28	A	80	40	60	0.28	8.04	0.21	5.36
198	TSA080d040aR0.177	A	80	40	90	0.177	12.71	0.34	8.47
199	TSA080d040aR0.119	A	80	40	120	0.119	18.91	0.5	12.61
200	TSA100d000aR0.297	A	100	0	30	0.297	7.58	0.1	5.05
201	TSA100d000aR0.149	A	100	0	60	0.149	15.1	0.19	10.07
202	TSA100d006aR0.315	A	100	6	30	0.315	7.14	0.09	4.76
203	TSA100d006aR0.149	A	100	6	60	0.149	15.1	0.19	10.07
204	TSA100d013aR0.315	A	100	13	30	0.315	7.14	0.09	4.76
205	TSA100d013aR0.158	A	100	13	60	0.158	14.24	0.18	9.49
206	TSA100d013aR0.1	A	100	13	90	0.1	22.5	0.29	15
207	TSA100d025aR0.334	A	100	25	30	0.334	6.74	0.09	4.49
208	TSA100d025aR0.167	A	100	25	60	0.167	13.47	0.18	8.98
209	TSA100d025aR0.1	A	100	25	90	0.1	22.5	0.31	15
210	TSA100d050aR0.397	A	100	50	30	0.397	5.67	0.1	3.78
211	TSA100d050aR0.198	A	100	50	60	0.198	11.36	0.19	7.57
212	TSA100d050aR0.126	A	100	50	90	0.126	17.86	0.3	11.91
213	TSA125d000aR0.21	A	125	0	30	0.21	10.71	0.09	7.14
214	TSA125d000aR0.106	A	125	0	60	0.106	21.23	0.17	14.15
215	TSA125d008aR0.21	A	125	8	30	0.21	10.71	0.09	7.14
216	TSA125d008aR0.106	A	125	8	60	0.106	21.23	0.17	14.15
217	TSA125d016aR0.222	A	125	16	30	0.222	10.14	0.08	6.76
218	TSA125d016aR0.106	A	125	16	60	0.106	21.23	0.18	14.15
219	TSA125d032aR0.222	A	125	32	30	0.222	10.14	0.09	6.76
220	TSA125d032aR0.112	A	125	32	60	0.112	20.09	0.18	13.39
221	TSA125d063aR0.28	A	125	63	30	0.28	8.04	0.09	5.36
222	TSA125d063aR0.141	A	125	63	60	0.141	15.96	0.17	10.64
223	TSA160d000aR0.141	A	160	0	30	0.141	15.96	0.08	10.64
224	TSA160d005aR0.149	A	160	5	30	0.149	15.1	0.08	10.07
225	TSA160d010aR0.149	A	160	10	30	0.149	15.1	0.08	10.07
226	TSA160d020aR0.149	A	160	20	30	0.149	15.1	0.08	10.07
227	TSA160d040aR0.158	A	160	40	30	0.158	14.24	0.08	9.49
228	TSA160d080aR0.198	A	160	80	30	0.198	11.36	0.08	7.57
229	TSA200d000aR0.1	A	200	0	30	0.1	22.5	0.07	15
230	TSA200d005aR0.1	A	200	5	30	0.1	22.5	0.07	15
231	TSA200d013aR0.1	A	200	13	30	0.1	22.5	0.07	15
232	TSA200d025aR0.1	A	200	25	30	0.1	22.5	0.07	15
233	TSA200d050aR0.106	A	200	50	30	0.106	21.23	0.07	14.15
234	TSA200d100aR0.133	A	200	100	30	0.133	16.92	0.07	11.28

Dimensions and specifications are subject to change without notice.

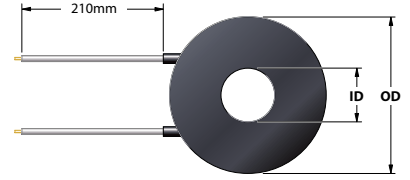
# STANDARD | Round 3V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
33	TSA(C)016d000bR3.75	A & C	16	0	150	3.75	2.4	1.19	0.8
34	TSA016d000bR2.97	A	16	0	180	2.97	3.03	1.51	1.01
35	TSA016d000bR2.49	A	16	0	210	2.49	3.61	1.8	1.203
36	TSA(C)016d008bR3.15	A & C	16	8	30	31.5	0.29	0.19	0.097
37	TSA(C)016d008bR14.9	A & C	16	8	60	14.9	0.6	0.4	0.2
38	TSA(C)016d008bR9.41	A & C	16	8	90	9.41	0.96	0.64	0.32
39	TSA(C)016d008bR6.66	A & C	16	8	120	6.66	1.35	0.9	0.45
40	TSA(C)016d008bR5	A & C	16	8	150	5	1.8	1.19	0.6
41	TSA(C)016d008bR3.97	A & C	16	8	180	3.97	2.27	1.51	0.757
42	TSA016d008bR3.34	A	16	8	210	3.34	2.69	1.78	0.897
43	TSA(C)020d000bR18.7	A & C	20	0	30	18.7	0.48	0.15	0.16
44	TSA(C)020d000bR9.41	A & C	20	0	60	9.41	0.96	0.31	0.32
45	TSA(C)020d000bR5.61	A & C	20	0	90	5.61	1.6	0.51	0.533
46	TSA(C)020d000bR3.97	A & C	20	0	120	3.97	2.27	0.72	0.757
47	TSA(C)020d000bR3.15	A & C	20	0	150	3.15	2.86	0.91	0.953
48	TSA020d000bR2.49	A	20	0	180	2.49	3.61	1.15	1.203
49	TSA020d000bR2.1	A	20	0	210	2.1	4.29	1.37	1.43
50	TSA(C)020d005bR19.8	A & C	20	5	30	19.8	0.45	0.15	0.15
51	TSA(C)020d005bR10	A & C	20	5	60	10	0.9	0.31	0.3
52	TSA(C)020d005bR5.94	A & C	20	5	90	5.94	1.52	0.52	0.507
53	TSA(C)020d005bR4.21	A & C	20	5	120	4.21	2.14	0.73	0.713
54	TSA(C)020d005bR3.34	A & C	20	5	150	3.34	2.69	0.91	0.897
55	TSA020d005bR2.8	A	20	5	180	2.8	3.21	1.09	1.07
56	TSA020d005bR2.22	A	20	5	210	2.22	4.05	1.38	1.35
57	TSA(C)020d010bR26.4	A & C	20	10	30	26.4	0.34	0.14	0.113
58	TSA(C)020d010bR12.6	A & C	20	10	60	12.6	0.71	0.3	0.237
59	TSA(C)020d010bR7.47	A & C	20	10	90	7.47	1.2	0.51	0.4
60	TSA(C)020d010bR5.3	A & C	20	10	120	5.3	1.7	0.72	0.567
61	TSA(C)020d010bR4.21	A & C	20	10	150	4.21	2.14	0.91	0.713
62	TSA(C)020d010bR3.34	A & C	20	10	180	3.34	2.69	1.14	0.897
63	TSA020d010bR2.8	A	20	10	210	2.8	3.21	1.36	1.07
64	TSA(C)025d000bR12.6	A & C	25	0	30	12.6	0.71	0.14	0.237
65	TSA(C)025d000bR6.29	A & C	25	0	60	6.29	1.43	0.29	0.477
66	TSA(C)025d000bR3.75	A & C	25	0	90	3.75	2.4	0.49	0.8
67	TSA025d000bR2.64	A	25	0	120	2.64	3.41	0.69	1.137
68	TSA025d000bR2.1	A	25	0	150	2.1	4.29	0.87	1.43
69	TSA025d000bR1.67	A	25	0	180	1.67	5.39	1.1	1.797
70	TSA025d000bR1.41	A	25	0	210	1.41	6.38	1.3	2.127
71	TSA(C)025d006bR13.3	A & C	25	6	30	13.3	0.68	0.15	0.227
72	TSA(C)025d006bR6.66	A & C	25	6	60	6.66	1.35	0.29	0.45
73	TSA(C)025d006bR3.97	A & C	25	6	90	3.97	2.27	0.49	0.757
74	TSA025d006bR2.8	A	25	6	120	2.8	3.21	0.69	1.07
75	TSA025d006bR2.22	A	25	6	150	2.22	4.05	0.88	1.35
76	TSA025d006bR1.87	A	25	6	180	1.87	4.81	1.04	1.603
77	TSA025d006bR1.49	A	25	6	210	1.49	6.04	1.31	2.013
78	TSA(C)025d013bR17.7	A & C	25	13	30	17.7	0.51	0.14	0.17
79	TSA(C)025d013bR8.38	A & C	25	13	60	8.38	1.07	0.3	0.357
80	TSA(C)025d013bR5.3	A & C	25	13	90	5.3	1.7	0.47	0.567
81	TSA(C)025d013bR3.75	A & C	25	13	120	3.75	2.4	0.67	0.8
82	TSA025d013bR2.97	A	25	13	150	2.97	3.03	0.85	1.01
83	TSA025d013bR2.35	A	25	13	180	2.35	3.83	1.07	1.277
84	TSA025d013bR1.98	A	25	13	210	1.98	4.55	1.27	1.517
85	TSA(C)032d000bR8.38	A & C	32	0	30	8.38	1.07	0.13	0.357
86	TSA(C)032d000bR3.97	A & C	32	0	60	3.97	2.27	0.28	0.757
87	TSA032d000bR2.49	A	32	0	90	2.49	3.61	0.45	1.203
88	TSA032d000bR1.77	A	32	0	120	1.77	5.08	0.63	1.693
89	TSA032d000bR1.41	A	32	0	150	1.41	6.38	0.79	2.127
90	TSA032d000bR1.12	A	32	0	180	1.12	8.04	1	2.68
91	TSA032d000bR0.941	A	32	0	210	0.941	9.56	1.19	3.187
92	TSA(C)032d008bR8.88	A & C	32	8	30	8.88	1.01	0.13	0.337
93	TSA(C)032d008bR4.21	A & C	32	8	60	4.21	2.14	0.28	0.713
94	TSA032d008bR2.64	A	32	8	90	2.64	3.41	0.45	1.137
95	TSA032d008bR1.87	A	32	8	120	1.87	4.81	0.64	1.603
96	TSA032d008bR1.49	A	32	8	150	1.49	6.04	0.8	2.013
97	TSA032d008bR1.19	A	32	8	180	1.19	7.56	1	2.52
98	TSA032d008bR1	A	32	8	210	1	9	1.19	3
99	TSA(C)032d016bR11.2	A & C	32	16	30	11.2	0.8	0.13	0.267
100	TSA(C)032d016bR5.3	A & C	32	16	60	5.3	1.7	0.28	0.567
101	TSA(C)032d016bR3.34	A & C	32	16	90	3.34	2.69	0.45	0.897
102	TSA032d016bR2.35	A	32	16	120	2.35	3.83	0.63	1.277
103	TSA032d016bR1.87	A	32	16	150	1.87	4.81	0.8	1.603
104	TSA032d016bR1.49	A	32	16	180	1.49	6.04	1	2.013
105	TSA032d016bR1.26	A	32	16	210	1.26	7.14	1.18	2.38

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
106	TSA(C)040d000bR5.61	A & C	40	0	30	5.61	1.6	0.13	0.533
107	TSA040d000bR2.64	A	40	0	60	2.64	3.41	0.27	1.137
108	TSA040d000bR1.67	A	40	0	90	1.67	5.39	0.43	1.797
109	TSA040d000bR1.19	A	40	0	120	1.19	7.56	0.6	2.52
110	TSA040d000bR0.941	A	40	0	150	0.941	9.56	0.76	3.187
111	TSA040d000bR0.747	A	40	0	180	0.747	12.05	0.96	4.017
112	TSA040d000bR0.629	A	40	0	210	0.629	14.31	1.14	4.77
113	TSA(C)040d005bR5.61	A & C	40	5	30	5.61	1.6	0.13	0.533
114	TSA040d005bR2.64	A	40	5	60	2.64	3.41	0.28	1.137
115	TSA040d005bR1.67	A	40	5	90	1.67	5.39	0.44	1.797
116	TSA040d005bR1.19	A	40	5	120	1.19	7.56	0.61	2.52
117	TSA040d005bR0.941	A	40	5	150	0.941	9.56	0.77	3.187
118	TSA040d005bR0.747	A	40	5	180	0.747	12.05	0.97	4.017
119	TSA040d005bR0.629	A	40	5	210	0.629	14.31	1.16	4.77
120	TSA(C)040d010bR5.94	A & C	40	10	30	5.94	1.52	0.13	0.507
121	TSA040d010bR2.8	A	40	10	60	2.8	3.21	0.27	1.07
122	TSA040d010bR1.77	A	40	10	90	1.77	5.08	0.43	1.693
123	TSA040d010bR1.26	A	40	10	120	1.26	7.14	0.61	2.38
124	TSA040d010bR1	A	40	10	150	1	9	0.76	3
125	TSA040d010bR0.791	A	40	10	180	0.791	11.38	0.97	3.793
126	TSA040d010bR0.666	A	40	10	210	0.666	13.51	1.15	4.503
127	TSA(C)040d020bR7.47	A & C	40	20	30	7.47	1.2	0.13	0.4
128	TSA(C)040d020bR3.54	A & C	40	20	60	3.54	2.54	0.27	0.847
129	TSA040d020bR2.22	A	40	20	90	2.22	4.05	0.43	1.35
130	TSA040d020bR1.58	A	40	20	120	1.58	5.7	0.6	1.9
131	TSA040d020bR1.26	A	40	20	150	1.26	7.14	0.76	2.38
132	TSA040d020bR1	A	40	20	180	1	9	0.95	3
133	TSA040d020bR0.838	A	40	20	210	0.838	10.74	1.14	3.58
134	TSA(C)050d000bR3.75	A & C	50	0	30	3.75	2.4	0.12	0.8
135	TSA050d000bR1.77	A	50	0	60	1.77	5.08	0.26	1.693
136	TSA050d000bR1.12	A	50	0	90	1.12	8.04	0.41	2.68
137	TSA050d000bR0.791	A	50	0	120	0.791	11.38	0.58	3.793
138	TSA050d000bR0.629	A	50	0	150	0.629	14.31	0.73	4.77
139	TSA050d000bR0.5	A	50	0	180	0.5	18	0.92	6
140	TSA050d000bR0.421	A	50	0	210	0.421	21.38	1.09	7.127
141	TSA(C)050d006bR3.75	A & C	50	6	30	3.75	2.4	0.12	0.8
142	TSA050d006bR1.77	A	50	6	60	1.77	5.08	0.26	1.693
143	TSA050d006bR1.12	A	50	6	90	1.12	8.04	0.42	2.68
144	TSA050d006bR0.838	A	50	6	120	0.838	10.74	0.55	3.58
145	TSA050d006bR0.629	A	50	6	150	0.629	14.31	0.74	4.77
146	TSA050d006bR0.53	A	50	6	180	0.53	16.98	0.88	5.66
147	TSA050d006bR0.446	A	50	6	210	0.446	20.18	1.04	6.727
148	TSA(C)050d013bR3.97	A & C	50	13	30	3.97	2.27	0.12	0.757
149	TSA050d013bR1.87	A	50	13	60	1.87	4.81	0.26	1.603
150	TSA050d013bR1.19	A	50	13	90	1.19	7.56	0.41	2.52
151	TSA050d013bR0.888	A	50	13	120	0.888	10.14	0.55	3.38
152	TSA050d013bR0.666	A	50	13	150	0.666	13.51	0.74	4.503
153	TSA050d013bR0.561	A	50	13	180	0.561	16.04	0.88	5.347
154	TSA050d013bR0.472	A	50	13	210	0.472	19.07	1.04	6.357
155	TSA(C)050d025bR5	A & C	50	25	30	5	1.8	0.12	0.6
156	TSA050d025bR2.35	A	50	25	60	2.35	3.83	0.26	1.277
157	TSA050d025bR1.49	A	50	25	90	1.49	6.04	0.41	2.013

# STANDARD | Round 3V

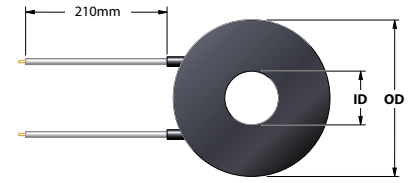


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
179	TSA063d016bR0.594	A	63	16	120	0.594	15.15	0.52	5.05
180	TSA063d016bR0.446	A	63	16	150	0.446	20.18	0.69	6.727
181	TSA063d016bR0.375	A	63	16	180	0.375	24	0.82	8
182	TSA063d016bR0.315	A	63	16	210	0.315	28.57	0.98	9.523
183	TSA(C)063d032bR3.34	A & C	63	32	30	3.34	2.69	0.12	0.897
184	TSA063d032bR1.67	A	63	32	60	1.67	5.39	0.23	1.797
185	TSA063d032bR1.06	A	63	32	90	1.06	8.49	0.37	2.83
186	TSA063d032bR0.747	A	63	32	120	0.747	12.05	0.52	4.017
187	TSA063d032bR0.561	A	63	32	150	0.561	16.04	0.69	5.347
188	TSA063d032bR0.472	A	63	32	180	0.472	19.07	0.82	6.357
189	TSA063d032bR0.397	A	63	32	210	0.397	22.67	0.98	7.557
190	TSA080d000bR1.67	A	80	0	30	1.67	5.39	0.11	1.797
191	TSA080d000bR0.838	A	80	0	60	0.838	10.74	0.21	3.58
192	TSA080d000bR0.53	A	80	0	90	0.53	16.98	0.34	5.66
193	TSA080d000bR0.375	A	80	0	120	0.375	24	0.48	8
194	TSA080d000bR0.28	A	80	0	150	0.28	32.14	0.64	10.713
195	TSA080d000bR0.235	A	80	0	180	0.235	38.3	0.76	12.767
196	TSA080d005bR1.67	A	80	5	30	1.67	5.39	0.11	1.797
197	TSA080d005bR0.838	A	80	5	60	0.838	10.74	0.21	3.58
198	TSA080d005bR0.53	A	80	5	90	0.53	16.98	0.34	5.66
199	TSA080d005bR0.375	A	80	5	120	0.375	24	0.48	8
200	TSA080d005bR0.28	A	80	5	150	0.28	32.14	0.64	10.713
201	TSA080d005bR0.235	A	80	5	180	0.235	38.3	0.76	12.767
202	TSA080d010bR1.67	A	80	10	30	1.67	5.39	0.11	1.797
203	TSA080d010bR0.838	A	80	10	60	0.838	10.74	0.22	3.58
204	TSA080d010bR0.53	A	80	10	90	0.53	16.98	0.34	5.66
205	TSA080d010bR0.375	A	80	10	120	0.375	24	0.49	8
206	TSA080d010bR0.28	A	80	10	150	0.28	32.14	0.65	10.713
207	TSA080d010bR0.235	A	80	10	180	0.235	38.3	0.77	12.767
208	TSA080d010bR0.198	A	80	10	210	0.198	45.45	0.92	15.15
209	TSA080d020bR1.77	A	80	20	30	1.77	5.08	0.11	1.693
210	TSA080d020bR0.888	A	80	20	60	0.888	10.14	0.22	3.38
211	TSA080d020bR0.561	A	80	20	90	0.561	16.04	0.34	5.347
212	TSA080d020bR0.397	A	80	20	120	0.397	22.67	0.48	7.557
213	TSA080d020bR0.297	A	80	20	150	0.297	30.3	0.64	10.1
214	TSA080d020bR0.249	A	80	20	180	0.249	36.14	0.77	12.047
215	TSA080d020bR0.21	A	80	20	210	0.21	42.86	0.91	14.287
216	TSA080d040bR2.22	A	80	40	30	2.22	4.05	0.11	1.35
217	TSA080d040bR1.12	A	80	40	60	1.12	8.04	0.21	2.68
218	TSA080d040bR0.705	A	80	40	90	0.705	12.77	0.34	4.257
219	TSA080d040bR0.5	A	80	40	120	0.5	18	0.48	6
220	TSA080d040bR0.375	A	80	40	150	0.375	24	0.64	8
221	TSA080d040bR0.315	A	80	40	180	0.315	28.57	0.76	9.523
222	TSA080d040bR0.249	A	80	40	210	0.249	36.14	0.96	12.047
223	TSA100d000bR1.19	A	100	0	30	1.19	7.56	0.1	2.52
224	TSA100d000bR0.629	A	100	0	60	0.629	14.31	0.18	4.77
225	TSA100d000bR0.375	A	100	0	90	0.375	24	0.31	8
226	TSA100d000bR0.264	A	100	0	120	0.264	34.09	0.43	11.363
227	TSA100d000bR0.198	A	100	0	150	0.198	45.45	0.58	15.15
228	TSA100d006bR1.26	A	100	6	30	1.26	7.14	0.09	2.38
229	TSA100d006bR0.629	A	100	6	60	0.629	14.31	0.18	4.77
230	TSA100d006bR0.375	A	100	6	90	0.375	24	0.31	8
231	TSA100d006bR0.264	A	100	6	120	0.264	34.09	0.44	11.363
232	TSA100d006bR0.198	A	100	6	150	0.198	45.45	0.58	15.15
233	TSA100d013bR1.26	A	100	13	30	1.26	7.14	0.09	2.38
234	TSA100d013bR0.629	A	100	13	60	0.629	14.31	0.19	4.77
235	TSA100d013bR0.397	A	100	13	90	0.397	22.67	0.29	7.557
236	TSA100d013bR0.264	A	100	13	120	0.264	34.09	0.44	11.363
237	TSA100d013bR0.21	A	100	13	150	0.21	42.86	0.56	14.287
238	TSA100d025bR1.33	A	100	25	30	1.33	6.77	0.09	2.257
239	TSA100d025bR0.666	A	100	25	60	0.666	13.51	0.18	4.503
240	TSA100d025bR0.397	A	100	25	90	0.397	22.67	0.31	7.557

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref.(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
241	TSA100d025bR0.28	A	100	25	120	0.28	32.14	0.44	10.713
242	TSA100d025bR0.21	A	100	25	150	0.21	42.86	0.58	14.287
243	TSA100d050bR1.67	A	100	50	30	1.67	5.39	0.09	1.797
244	TSA100d050bR0.838	A	100	50	60	0.838	10.74	0.18	3.58
245	TSA100d050bR0.5	A	100	50	90	0.5	18	0.31	6
246	TSA100d050bR0.354	A	100	50	120	0.354	25.42	0.43	8.473
247	TSA100d050bR0.264	A	100	50	150	0.264	34.09	0.58	11.363
248	TSA100d050bR0.222	A	100	50	180	0.222	40.54	0.69	13.513
249	TSA125d000bR0.838	A	125	0	30	0.838	10.74	0.09	3.58
250	TSA125d000bR0.421	A	125	0	60	0.421	21.38	0.17	7.127
251	TSA125d000bR0.264	A	125	0	90	0.264	34.09	0.28	11.363
252	TSA125d008bR0.838	A	125	8	30	0.838	10.74	0.09	3.58
253	TSA125d008bR0.421	A	125	8	60	0.421	21.38	0.17	7.127
254	TSA125d008bR0.264	A	125	8	90	0.264	34.09	0.28	11.363
255	TSA125d016bR0.888	A	125	16	30	0.888	10.14	0.08	3.38
256	TSA125d016bR0.421	A	125	16	60	0.421	21.38	0.18	7.127
257	TSA125d016bR0.264	A	125	16	90	0.264	34.09	0.28	11.363
258	TSA125d032bR0.888	A	125	32	30	0.888	10.14	0.09	3.38
259	TSA125d032bR0.446	A	125	32	60	0.446	20.18	0.18	6.727
260	TSA125d032bR0.28	A	125	32	90	0.28	32.14	0.28	10.713
261	TSA125d063bR1.12	A	125	63	30	1.12	8.04	0.09	2.68
262	TSA125d063bR0.561	A	125	63	60	0.561	16.04	0.18	5.347
263	TSA125d063bR0.354	A	125	63	90	0.354	25.42	0.28	8.473
264	TSA125d063bR0.249	A	125	63	120	0.249	36.14	0.39	12.047
265	TSA160d000bR0.594	A	160	0	30	0.594	15.15	0.08	5.05
266	TSA160d000bR0.297	A	160	0	60	0.297	30.3	0.15	10.1
267	TSA160d005bR0.594	A	160	5	30	0.594	15.15	0.08	5.05
268	TSA160d005bR0.297	A	160	5	60	0.297	30.3	0.15	10.1
269	TSA160d010bR0.594	A	160	10	30	0.594	15.15	0.08	5.05
270	TSA160d010bR0.297	A	160	10	60	0.297	30.3	0.15	10.1
271	TSA160d020bR0.594	A	160	20	30	0.594	15.15	0.08	5.05
272	TSA160d020bR0.297	A	160	20	60	0.297	30.3	0.15	10.1
273	TSA160d040bR0.629	A	160	40	30	0.629	14.31	0.08	4.77
274	TSA160d040bR0.315	A	160	40	60	0.315	28.57	0.15	9.523
275	TSA160d080bR0.791	A	160	80	30	0.791	11.38	0.08	3.793
276	TSA160d080bR0.397	A	160	80	60	0.397	22.67	0.15	7.557
277	TSA160d080bR0.235	A	160	80	90	0.235	38.3	0.25	12.767
278	TSA200d000bR0.397	A	200	0	30	0.397	22.67	0.07	7.557
279	TSA200d000bR0.198	A	200	0	60	0.198	45.45	0.14	15.15
280	TSA200d006bR0.397	A	200	6	30	0.397	22.67	0.07	7.557
281	TSA200d006bR0.198	A	200	6	60	0.198	45.45	0.14	15.15
282	TSA200d013bR0.397	A	200	13	30	0.397	22.67	0.07	7.557
283	TSA200d013bR0.198	A	200	13	60	0.198	45.45	0.15	15.15
284	TSA200d025bR0.421	A	200	25	30	0.421	21.38	0.07	7.127
285	TSA200d025bR0.21	A	200	25	60	0.21	42.86	0.14	14.287
286	TSA200d050bR0.421	A	200	50	30	0.421	21.38	0.07	7.127
287	TSA200d050bR0.21	A	200	50	60	0.21	42.86	0.15	14.287
288	TSA200d100bR0.53	A	200	100	30	0.53	16.98	0.07	5.66
289	TSA200d100bR0.264	A	200	100	60	0.264	34.09	0.14	11.363
290	TSA250d000bR0.28	A	250	0	30	0.28	32.14	0.07	10.713
291	TSA250d008bR0.28	A	250	8	30	0.28	32.14	0.07	10.713
292	TSA250d016bR0.28	A	250	16	30	0.28	32.14	0.07	10.713
293	TSA250d032bR0.28	A	250	32	30	0.28	32.14	0.07	10.713
294	TSA250d063bR0.297	A	250	63	30	0.297	30.3	0.07	10.1
295	TSA250d125bR0.375	A	250	125	30	0.375	24	0.07	8
296	TSA300d000bR0.198	A	300	0	30	0.198	45.45	0.06	15.15
297	TSA300d005bR0.198	A	300	5	30	0.198	45.45	0.06	15.15
298	TSA300d010bR0.198	A	300	10	30	0.198	45.45	0.06	15.15
299	TSA300d020bR0.21	A	300	20	30	0.21	42.86	0.06	14.287
300	TSA300d040bR0.21	A	300	40	30	0.21	42.86	0.06	14.287
301	TSA300d080bR0.222	A	300	80					

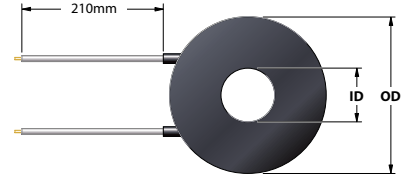


# STANDARD | Round 3.7V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000cR66.6	C	10	0	30	66.6	0.21	0.27	0.057
2	TSA(C)010d000cR31.5	A & C	10	0	60	31.5	0.43	0.55	0.116
3	TSA(C)010d000cR21	A & C	10	0	90	21	0.65	0.83	0.176
4	TSA(C)010d000cR14.9	A & C	10	0	120	14.9	0.92	1.17	0.249
5	TSA(C)010d000cR11.2	A & C	10	0	150	11.2	1.22	1.55	0.33
6	TSA(C)010d000cR8.88	A & C	10	0	180	8.88	1.54	1.96	0.416
7	TSA(C)010d000cR7.05	A & C	10	0	210	7.05	1.94	2.47	0.524
8	TSC010d005cR88.8	C	10	5	30	88.8	0.15	0.25	0.041
9	TSC010d005cR42.1	C	10	5	60	42.1	0.33	0.56	0.089
10	TSA(C)010d005cR26.4	A & C	10	5	90	26.4	0.52	0.88	0.141
11	TSA(C)010d005cR19.8	A & C	10	5	120	19.8	0.69	1.17	0.186
12	TSA(C)010d005cR14.9	A & C	10	5	150	14.9	0.92	1.56	0.249
13	TSA(C)010d005cR11.9	A & C	10	5	180	11.9	1.15	1.95	0.311
14	TSA(C)010d005cR9.41	A & C	10	5	210	9.41	1.45	2.46	0.392
15	TSA(C)013d000cR47.2	A & C	13	0	30	47.2	0.29	0.22	0.078
16	TSA(C)013d000cR22.2	A & C	13	0	60	22.2	0.62	0.47	0.168
17	TSA(C)013d000cR14.1	A & C	13	0	90	14.1	0.97	0.73	0.262
18	TSA(C)013d000cR10	A & C	13	0	120	10	1.37	1.03	0.37
19	TSA(C)013d000cR7.47	A & C	13	0	150	7.47	1.83	1.38	0.495
20	TSA(C)013d000cR5.94	A & C	13	0	180	5.94	2.3	1.73	0.622
21	TSA013d000cR5	A	13	0	210	5	2.74	2.06	0.741
22	TSA(C)013d006cR59.4	A & C	13	6	30	59.4	0.23	0.22	0.062
23	TSA(C)013d006cR28	A & C	13	6	60	28	0.49	0.47	0.132
24	TSA(C)013d006cR17.7	A & C	13	6	90	17.7	0.77	0.74	0.208
25	TSA(C)013d006cR12.6	A & C	13	6	120	12.6	1.09	1.04	0.295
26	TSA(C)013d006cR9.41	A & C	13	6	150	9.41	1.45	1.39	0.392
27	TSA(C)013d006cR7.47	A & C	13	6	180	7.47	1.83	1.75	0.495
28	TSA(C)013d006cR6.29	A & C	13	6	210	6.29	2.18	2.09	0.589
29	TSA(C)016d000cR35.4	A & C	16	0	30	35.4	0.39	0.19	0.105
30	TSA(C)016d000cR16.7	A & C	16	0	60	16.7	0.82	0.41	0.222
31	TSA(C)016d000cR10.6	A & C	16	0	90	10.6	1.29	0.64	0.349
32	TSA(C)016d000cR7.47	A & C	16	0	120	7.47	1.83	0.91	0.495
33	TSA(C)016d000cR5.61	A & C	16	0	150	5.61	2.44	1.21	0.659
34	TSA(C)016d000cR4.72	A & C	16	0	180	4.72	2.9	1.44	0.784
35	TSA016d000cR3.75	A	16	0	210	3.75	3.65	1.82	0.986
36	TSA(C)016d008cR47.2	A & C	16	8	30	47.2	0.29	0.19	0.078
37	TSA(C)016d008cR22.2	A & C	16	8	60	22.2	0.62	0.41	0.168
38	TSA(C)016d008cR14.1	A & C	16	8	90	14.1	0.97	0.64	0.262
39	TSA(C)016d008cR10	A & C	16	8	120	10	1.37	0.91	0.37
40	TSA(C)016d008cR7.91	A & C	16	8	150	7.91	1.73	1.15	0.468
41	TSA(C)016d008cR6.29	A & C	16	8	180	6.29	2.18	1.45	0.589
42	TSA(C)016d008cR5	A & C	16	8	210	5	2.74	1.82	0.741
43	TSA(C)020d000cR29.7	A & C	20	0	30	29.7	0.46	0.15	0.124
44	TSA(C)020d000cR14.1	A & C	20	0	60	14.1	0.97	0.31	0.262
45	TSA(C)020d000cR8.88	A & C	20	0	90	8.88	1.54	0.49	0.416
46	TSA(C)020d000cR6.29	A & C	20	0	120	6.29	2.18	0.69	0.589
47	TSA(C)020d000cR4.72	A & C	20	0	150	4.72	2.9	0.92	0.784
48	TSA(C)020d000cR3.97	A & C	20	0	180	3.97	3.45	1.1	0.932
49	TSA020d000cR3.34	A	20	0	210	3.34	4.1	1.31	1.108
50	TSA(C)020d005cR31.5	A & C	20	5	30	31.5	0.43	0.15	0.116
51	TSA(C)020d005cR14.9	A & C	20	5	60	14.9	0.92	0.31	0.249
52	TSA(C)020d005cR9.41	A & C	20	5	90	9.41	1.45	0.49	0.392
53	TSA(C)020d005cR6.66	A & C	20	5	120	6.66	2.06	0.7	0.557
54	TSA(C)020d005cR5	A & C	20	5	150	5	2.74	0.93	0.741
55	TSA(C)020d005cR4.21	A & C	20	5	180	4.21	3.25	1.1	0.878
56	TSA020d005cR3.54	A	20	5	210	3.54	3.87	1.31	1.046
57	TSA(C)020d010cR39.7	A & C	20	10	30	39.7	0.34	0.14	0.092
58	TSA(C)020d010cR18.7	A & C	20	10	60	18.7	0.73	0.31	0.197
59	TSA(C)020d010cR11.9	A & C	20	10	90	11.9	1.15	0.49	0.311
60	TSA(C)020d010cR8.38	A & C	20	10	120	8.38	1.63	0.69	0.441
61	TSA(C)020d010cR6.29	A & C	20	10	150	6.29	2.18	0.93	0.589
62	TSA(C)020d010cR5.3	A & C	20	10	180	5.3	2.58	1.09	0.697
63	TSA(C)020d010cR4.21	A & C	20	10	210	4.21	3.25	1.38	0.878
64	TSA(C)025d000cR19.8	A & C	25	0	30	19.8	0.69	0.14	0.186
65	TSA(C)025d000cR9.41	A & C	25	0	60	9.41	1.45	0.3	0.392
66	TSA(C)025d000cR5.61	A & C	25	0	90	5.61	2.44	0.5	0.659
67	TSA(C)025d000cR4.21	A & C	25	0	120	4.21	3.25	0.66	0.878
68	TSA(C)025d000cR3.15	A & C	25	0	150	3.15	4.35	0.89	1.176
69	TSA025d000cR2.64	A	25	0	180	2.64	5.19	1.06	1.403
70	TSA025d000cR2.22	A	25	0	210	2.22	6.17	1.26	1.668
71	TSA(C)025d006cR21	A & C	25	6	30	21	0.65	0.14	0.176
72	TSA(C)025d006cR10	A & C	25	6	60	10	1.37	0.3	0.37
73	TSA(C)025d006cR5.94	A & C	25	6	90	5.94	2.3	0.5	0.622

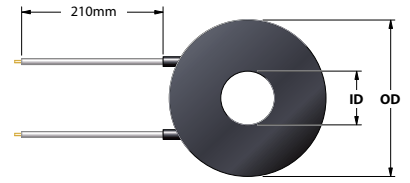
No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)025d006cR4.46	A & C	25	6	120	4.46	3.07	0.66	0.83
75	TSA(C)025d006cR3.34	A & C	25	6	150	3.34	4.1	0.89	1.108
76	TSA025d006cR2.8	A	25	6	180	2.8	4.89	1.06	1.322
77	TSA025d006cR2.35	A	25	6	210	2.35	5.83	1.26	1.576
78	TSA(C)025d013cR26.4	A & C	25	13	30	26.4	0.52	0.15	0.141
79	TSA(C)025d013cR12.6	A & C	25	13	60	12.6	1.09	0.3	0.295
80	TSA(C)025d013cR7.91	A & C	25	13	90	7.91	1.73	0.48	0.468
81	TSA(C)025d013cR5.61	A & C	25	13	120	5.61	2.44	0.68	0.659
82	TSA(C)025d013cR4.46	A & C	25	13	150	4.46	3.07	0.86	0.83
83	TSA(C)025d013cR3.54	A & C	25	13	180	3.54	3.87	1.08	1.046
84	TSA(C)025d013cR2.97	A	25	13	210	2.97	4.61	1.29	1.246
85	TSA(C)032d000cR12.6	A & C	32	0	30	12.6	1.09	0.14	0.295
86	TSA(C)032d000cR5.94	A & C	32	0	60	5.94	2.3	0.29	0.622
87	TSA(C)032d000cR3.75	A & C	32	0	90	3.75	3.65	0.45	0.986
88	TSA032d000cR2.64	A	32	0	120	2.64	5.19	0.65	1.403
89	TSA032d000cR2.1	A	32	0	150	2.1	6.52	0.81	1.762
90	TSA032d000cR1.67	A	32	0	180	1.67	8.2	1.02	2.216
91	TSA032d000cR1.41	A	32	0	210	1.41	9.71	1.21	2.624
92	TSA(C)032d008cR14.1	A & C	32	8	30	14.1	0.97	0.13	0.262
93	TSA(C)032d008cR6.29	A & C	32	8	60	6.29	2.18	0.29	0.589
94	TSA(C)032d008cR3.97	A & C	32	8	90	3.97	3.45	0.46	0.932
95	TSA032d008cR2.8	A	32	8	120	2.8	4.89	0.65	1.322
96	TSA032d008cR2.22	A	32	8	150	2.22	6.17	0.82	1.668
97	TSA032d008cR1.87	A	32	8	180	1.87	7.32	0.97	1.978
98	TSA032d008cR1.49	A	32	8	210	1.49	9.19	1.22	2.484
99	TSA(C)032d016cR16.7	A & C	32	16	30	16.7	0.82	0.14	0.222
100	TSA(C)032d016cR7.91	A & C	32	16	60	7.91	1.73	0.29	0.468
101	TSA(C)032d016cR5	A & C	32	16	90	5	2.74	0.45	0.741
102	TSA(C)032d016cR3.54	A & C	32	16	120	3.54	3.87	0.64	1.046
103	TSA032d016cR2.8	A	32	16	150	2.8	4.89	0.81	1.322
104	TSA032d016cR2.22	A	32	16	180	2.22	6.17	1.02	1.668
105	TSA032d016cR1.87	A	32	16	210	1.87	7.32	1.21	1.978
106	TSA(C)040d000cR8.38	A & C	40	0	30	8.38	1.63	0.13	0.441
107	TSA(C)040d000cR3.97	A & C	40	0	60	3.97	3.45	0.27	0.932
108	TSA040d000cR2.49	A	40	0	90	2.49	5.5	0.44	1.486
109	TSA040d000cR1.77	A	40	0	120	1.77	7.73	0.62	2.089
110	TSA040d000cR1.41	A	40	0	150	1.41	9.71	0.77	2.624
111	TSA040d000cR1.12	A	40	0	180	1.12	12.22	0.97	3.303
112	TSA040d000cR0.941	A	40	0	210	0.941	14.55	1.16	3.932
113	TSA(C)040d005cR8.38	A & C	40	5	30	8.38	1.63	0.13	0.441
114	TSA(C)040d005cR3.97	A & C	40	5	60	3.97	3.45	0.28	0.932
115	TSA040d005cR2.49	A	40	5	90	2.49	5.5	0.44	1.486
116	TSA040d005cR1.87	A	40	5	120	1.87	7.32	0.59	1.978
117	TSA040d005cR1.41	A	40	5	150	1.41	9.71	0.78	2.624
118	TSA040d005cR1.19	A	40	5	180	1.19	11.5	0.93	3.108
119	TSA040d005cR1	A	40	5	210	1	13.69	1.11	3.7
120	TSA(C)040d010cR8.88	A & C	40	10	30	8.88	1.54	0.13	0.416
121	TSA(C)040d010cR4.21	A & C	40	10	60	4.21	3.25	0.28	0.878
122	TSA040d010cR3.4	A	40	10	90	3.4	5.19	0.44	1.403
123	TSA040d010cR1.87	A	40	10	120	1.87	7.32	0.	



# STANDARD | Round 3.7V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)	No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA050d006cR0.666	A	50	6	210	0.666	20.56	1.06	5.557	220	TSA080d040cR1.06	A	80	40	90	1.06	12.92	0.34	3.492
148	TSA(C)050d013cR5.94	A & C	50	13	30	5.94	2.3	0.13	0.622	221	TSA080d040cR0.747	A	80	40	120	0.747	18.33	0.49	4.954
149	TSA050d013cR2.97	A	50	13	60	2.97	4.61	0.25	1.246	222	TSA080d040cR0.561	A	80	40	150	0.561	24.4	0.65	6.595
150	TSA050d013cR1.87	A	50	13	90	1.87	7.32	0.4	1.978	223	TSA080d040cR0.472	A	80	40	180	0.472	29	0.77	7.838
151	TSA050d013cR1.33	A	50	13	120	1.33	10.29	0.56	2.781	224	TSA080d040cR0.397	A	80	40	210	0.397	34.48	0.91	9.319
152	TSA050d013cR1	A	50	13	150	1	13.69	0.75	3.7	225	TSA100d000cR1.87	A	100	0	30	1.87	7.32	0.09	1.978
153	TSA050d013cR0.838	A	50	13	180	0.838	16.34	0.89	4.416	226	TSA100d000cR0.941	A	100	0	60	0.941	14.55	0.19	3.932
154	TSA050d013cR0.705	A	50	13	210	0.705	19.42	1.06	5.249	227	TSA100d000cR0.594	A	100	0	90	0.594	23.05	0.29	6.23
155	TSA(C)050d025cR7.47	A & C	50	25	30	7.47	1.83	0.12	0.495	228	TSA100d000cR0.397	A	100	0	120	0.397	34.48	0.44	9.319
156	TSA(C)050d025cR3.54	A & C	50	25	60	3.54	3.87	0.26	1.046	229	TSA100d000cR0.315	A	100	0	150	0.315	43.46	0.55	11.746
157	TSA050d025cR2.35	A	50	25	90	2.35	5.83	0.4	1.576	230	TSA100d000cR0.249	A	100	0	180	0.249	54.98	0.7	14.859
158	TSA050d025cR1.67	A	50	25	120	1.67	8.2	0.56	2.216	231	TSA100d006cR1.87	A	100	6	30	1.87	7.32	0.09	1.978
159	TSA050d025cR1.26	A	50	25	150	1.26	10.87	0.74	2.938	232	TSA100d006cR0.941	A	100	6	60	0.941	14.55	0.19	3.932
160	TSA050d025cR1.06	A	50	25	180	1.06	12.92	0.88	3.492	233	TSA100d006cR0.594	A	100	6	90	0.594	23.05	0.29	6.23
161	TSA050d025cR0.888	A	50	25	210	0.888	15.42	1.05	4.168	234	TSA100d006cR0.397	A	100	6	120	0.397	34.48	0.44	9.319
162	TSA(C)063d000cR3.75	A & C	63	0	30	3.75	3.65	0.12	0.986	235	TSA100d006cR0.315	A	100	6	150	0.315	43.46	0.56	11.746
163	TSA063d000cR1.87	A	63	0	60	1.87	7.32	0.23	1.978	236	TSA100d006cR0.249	A	100	6	180	0.249	54.98	0.7	14.859
164	TSA063d000cR1.19	A	63	0	90	1.19	11.5	0.37	3.108	237	TSA100d013cR1.87	A	100	13	30	1.87	7.32	0.09	1.978
165	TSA063d000cR0.838	A	63	0	120	0.838	16.34	0.52	4.416	238	TSA100d013cR0.941	A	100	13	60	0.941	14.55	0.19	3.932
166	TSA063d000cR0.629	A	63	0	150	0.629	21.76	0.7	5.881	239	TSA100d013cR0.594	A	100	13	90	0.594	23.05	0.3	6.23
167	TSA063d000cR0.53	A	63	0	180	0.53	25.83	0.83	6.981	240	TSA100d013cR0.397	A	100	13	120	0.397	34.48	0.45	9.319
168	TSA063d000cR0.446	A	63	0	210	0.446	30.7	0.98	8.297	241	TSA100d013cR0.315	A	100	13	150	0.315	43.46	0.56	11.746
169	TSA(C)063d008cR3.75	A & C	63	8	30	3.75	3.65	0.12	0.986	242	TSA100d013cR0.249	A	100	13	180	0.249	54.98	0.71	14.859
170	TSA063d008cR1.87	A	63	8	60	1.87	7.32	0.24	1.978	243	TSA100d013cR1.98	A	100	25	30	1.98	6.91	0.09	1.668
171	TSA063d008cR1.19	A	63	8	90	1.19	11.5	0.37	3.108	244	TSA100d025cR1	A	100	25	60	1	13.69	0.19	3.7
172	TSA063d008cR0.838	A	63	8	120	0.838	16.34	0.53	4.416	245	TSA100d025cR0.629	A	100	25	90	0.629	21.76	0.3	5.881
173	TSA063d008cR0.629	A	63	8	150	0.629	21.76	0.71	5.881	246	TSA100d025cR0.421	A	100	25	120	0.421	32.52	0.44	8.789
174	TSA063d008cR0.53	A	63	8	180	0.53	25.83	0.84	6.981	247	TSA100d025cR0.334	A	100	25	150	0.334	40.99	0.56	11.078
175	TSA063d008cR0.446	A	63	8	210	0.446	30.7	1	8.297	248	TSA100d025cR0.264	A	100	25	180	0.264	51.86	0.7	14.016
176	TSA(C)063d016cR3.97	A & C	63	16	30	3.97	3.45	0.12	0.932	249	TSA100d050cR2.49	A	100	50	30	2.49	5.5	0.09	1.486
177	TSA063d016cR1.98	A	63	16	60	1.98	6.91	0.24	1.868	250	TSA100d050cR1.26	A	100	50	60	1.26	10.87	0.18	2.938
178	TSA063d016cR1.26	A	63	16	90	1.26	10.87	0.37	2.938	251	TSA100d050cR0.791	A	100	50	90	0.791	17.31	0.29	4.678
179	TSA063d016cR0.888	A	63	16	120	0.888	15.42	0.53	4.168	252	TSA100d050cR0.53	A	100	50	120	0.53	25.83	0.44	6.981
180	TSA063d016cR0.666	A	63	16	150	0.666	20.56	0.71	5.557	253	TSA100d050cR0.421	A	100	50	150	0.421	32.52	0.55	8.789
181	TSA063d016cR0.561	A	63	16	180	0.561	24.4	0.84	6.595	254	TSA100d050cR0.334	A	100	50	180	0.334	40.99	0.7	11.078
182	TSA063d016cR0.472	A	63	16	210	0.472	29	0.99	7.838	255	TSA100d050cR0.28	A	100	50	210	0.28	48.89	0.83	13.214
183	TSA(C)063d032cR5	A & C	63	32	30	5	2.74	0.12	0.741	256	TSA125d000cR1.33	A	125	0	30	1.33	10.29	0.08	2.781
184	TSA063d032cR2.49	A	63	32	60	2.49	5.5	0.24	1.486	257	TSA125d000cR0.666	A	125	0	60	0.666	20.56	0.17	5.557
185	TSA063d032cR1.58	A	63	32	90	1.58	8.66	0.37	2.341	258	TSA125d000cR0.397	A	125	0	90	0.397	34.48	0.28	9.319
186	TSA063d032cR1.12	A	63	32	120	1.12	12.22	0.53	3.303	259	TSA125d000cR0.28	A	125	0	120	0.28	48.89	0.4	13.214
187	TSA063d032cR0.838	A	63	32	150	0.838	16.34	0.71	4.416	260	TSA125d008cR1.33	A	125	8	30	1.33	10.29	0.08	2.781
188	TSA063d032cR0.705	A	63	32	180	0.705	19.42	0.84	5.249	261	TSA125d008cR0.666	A	125	8	60	0.666	20.56	0.17	5.557
189	TSA063d032cR0.594	A	63	32	210	0.594	23.05	1	6.23	262	TSA125d008cR0.397	A	125	8	90	0.397	34.48	0.28	9.319
190	TSA080d000cR2.64	A	80	0	30	2.64	5.19	0.1	1.403	263	TSA125d008cR0.28	A	125	8	120	0.28	48.89	0.4	13.214
191	TSA080d000cR1.26	A	80	0	60	1.26	10.87	0.22	2.938	264	TSA125d016cR1.33	A	125	16	30	1.33	10.29	0.09	2.781
192	TSA080d000cR0.791	A	80	0	90	0.791	17.31	0.34	4.678	265	TSA125d016cR0.666	A	125	16	60	0.666	20.56	0.17	5.557
193	TSA080d000cR0.561	A	80	0	120	0.561	24.4	0.49	6.595	266	TSA125d016cR0.421	A	125	16	90	0.421	32.52	0.27	8.789
194	TSA080d000cR0.421	A	80	0	150	0.421	32.52	0.65	8.789	267	TSA125d016cR0.28	A	125	16	120	0.28	48.89	0.41	13.214
195	TSA080d000cR0.354	A	80	0	180	0.354	38.67	0.77	10.451	268	TSA125d016cR1.41	A	125	32	30	1.41	9.71	0.08	2.624
196	TSA080d000cR0.297	A	80	0	210	0.297	46.09	0.92	12.457	269	TSA125d032cR0.705	A	125	32	60	0.705	19.42	0.17	5.249
197	TSA080d005cR2.64	A	80	5	30	2.64	5.19	0.1	1.403	270	TSA125d032cR0.446	A	125	32	90	0.446	30.7	0.27	8.297
198	TSA080d005cR1.26	A	80	5	60	1.26	10.87	0.22	2.938	271	TSA125d032cR0.297	A	125	32	120	0.297	46.09	0.4	12.457
199	TSA080d005cR0.791	A	80	5	90	0.791	17.31	0.35	4.678	272	TSA125d063cR1.77	A	125	63	30	1.77	7.73	0.08	2.089
200	TSA080d005cR0.561	A	80	5	120	0.561	24.4	0.49	6.595	273	TSA125d063cR0.888	A	125	63	60	0.888	15.42	0.17	4.168
201	TSA080d005cR0.421	A	80	5	150	0.421	32.52	0.65	8.789	274	TSA125d063cR0.53	A	125	63	90	0.53	25.83	0.28	6.981
202	TSA080d005cR0.354	A	80	5	180	0.354	38.67	0.77	10.451	275	TSA125d063cR0.375	A	125	63	120	0.375	36.51	0.4	9.868
203	TSA080d005cR0.297	A	80	5	210	0.297	46.09	0.92	12.457	276	TSA125d063cR0.28	A	125	63	150	0.28	48.89	0.53	13.214
204	TSA080d010cR2.64	A	80	10	30	2.64	5.19	0.1	1.403	277	TSA160d000cR0.888	A	160	0	30	0.888	15.42	0.08	4.168
205	TSA080d010cR1.26	A	80	10	60	1.26	10.87	0.22	2.938	278	TSA160d000cR0.446	A	160	0	60	0.446	30.7	0.15	8.297
206	TSA080d010cR0.791	A	80	10	90	0.791	17.31	0.35	4.678	279	TSA160d000cR0.28	A	160	0	90	0.28	48.89	0.24	13.214
207	TSA080d010cR0.561	A	80	10	120	0.561	24.4	0.49	6.595	280	TSA160d005cR0.888	A	160	5	30	0.888	15.42	0.08	4.168
208	TSA080d010cR0.446	A	80	10	150	0.446	30.7	0.62	8.297	281	TSA160d005cR0.446	A	160	5	60	0.446	30.7	0.15	8.297
209	TSA080d010cR0.354	A	80	10	180	0.354	38.67	0.78	10.451	282	TSA160d005cR0.28	A	160	5	90	0.28	48.89	0.24	13.214
210	TSA080d010cR0.297	A	80	10	210	0.297	46.09												

# STANDARD | Round 3.7V

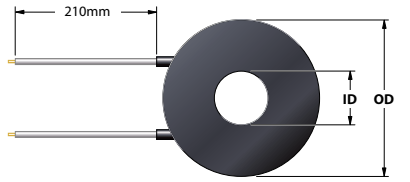


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA160d080cR0.594	A	160	80	60	0.594	23.05	0.15	6.23
294	TSA160d080cR0.375	A	160	80	90	0.375	36.51	0.24	9.868
295	TSA160d080cR0.249	A	160	80	120	0.249	54.98	0.36	14.859
296	TSA200d000cR0.629	A	200	0	30	0.629	21.76	0.07	5.881
297	TSA200d000cR0.315	A	200	0	60	0.315	43.46	0.14	11.746
298	TSA200d006cR0.629	A	200	6	30	0.629	21.76	0.07	5.881
299	TSA200d006cR0.315	A	200	6	60	0.315	43.46	0.14	11.746
300	TSA200d013cR0.629	A	200	13	30	0.629	21.76	0.07	5.881
301	TSA200d013cR0.315	A	200	13	60	0.315	43.46	0.14	11.746
302	TSA200d025cR0.629	A	200	25	30	0.629	21.76	0.07	5.881
303	TSA200d025cR0.315	A	200	25	60	0.315	43.46	0.14	11.746
304	TSA200d050cR0.666	A	200	50	30	0.666	20.56	0.07	5.557
305	TSA200d050cR0.334	A	200	50	60	0.334	40.99	0.14	11.078
306	TSA200d100cR0.838	A	200	100	30	0.838	16.34	0.07	4.416
307	TSA200d100cR0.397	A	200	100	60	0.397	34.48	0.15	9.319

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
308	TSA200d100cR0.249	A	200	100	90	0.249	54.98	0.23	14.859
309	TSA250d000cR0.421	A	250	0	30	0.421	32.52	0.07	8.789
310	TSA250d008cR0.421	A	250	8	30	0.421	32.52	0.07	8.789
311	TSA250d016cR0.421	A	250	16	30	0.421	32.52	0.07	8.789
312	TSA250d032cR0.446	A	250	32	30	0.446	30.7	0.06	8.297
313	TSA250d063cR0.446	A	250	63	30	0.446	30.7	0.07	8.297
314	TSA250d125cR0.561	A	250	125	30	0.561	24.4	0.07	6.595
315	TSA250d125cR0.28	A	250	125	60	0.28	48.89	0.13	13.214
316	TSA300d000cR0.315	A	300	0	30	0.315	43.46	0.06	11.746
317	TSA300d005cR0.315	A	300	5	30	0.315	43.46	0.06	11.746
318	TSA300d10cR0.315	A	300	10	30	0.315	43.46	0.06	11.746
319	TSA300d020cR0.315	A	300	20	30	0.315	43.46	0.06	11.746
320	TSA300d040cR0.315	A	300	40	30	0.315	43.46	0.06	11.746
321	TSA300d080cR0.334	A	300	80	30	0.334	40.99	0.06	11.078
322	TSA300d160cR0.421	A	300	160	30	0.421	32.52	0.06	8.789

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

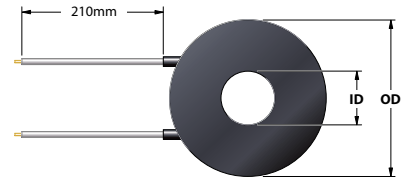
Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



# STANDARD | Round 4.2V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000cR66.6	C	10	0	30	66.6	0.21	0.27	0.057
2	TSA(C)010d000cR31.5	A & C	10	0	60	31.5	0.43	0.55	0.116
3	TSA(C)010d000cR21	A & C	10	0	90	21	0.65	0.83	0.176
4	TSA(C)010d000cR14.9	A & C	10	0	120	14.9	0.92	1.17	0.249
5	TSA(C)010d000cR11.2	A & C	10	0	150	11.2	1.22	1.55	0.33
6	TSA(C)010d000cR8.88	A & C	10	0	180	8.88	1.54	1.96	0.416
7	TSA(C)010d000cR7.05	A & C	10	0	210	7.05	1.94	2.47	0.524
8	TSC010d005cR88.8	C	10	5	30	88.8	0.15	0.25	0.041
9	TSC010d005cR42.1	C	10	5	60	42.1	0.33	0.56	0.089
10	TSA(C)010d005cR26.4	A & C	10	5	90	26.4	0.52	0.88	0.141
11	TSA(C)010d005cR19.8	A & C	10	5	120	19.8	0.69	1.17	0.186
12	TSA(C)010d005cR14.9	A & C	10	5	150	14.9	0.92	1.56	0.249
13	TSA(C)010d005cR11.9	A & C	10	5	180	11.9	1.15	1.95	0.311
14	TSA(C)010d005cR9.41	A & C	10	5	210	9.41	1.45	2.46	0.392
15	TSA(C)013d000cR47.2	A & C	13	0	30	47.2	0.29	0.22	0.078
16	TSA(C)013d000cR22.2	A & C	13	0	60	22.2	0.62	0.47	0.168
17	TSA(C)013d000cR14.1	A & C	13	0	90	14.1	0.97	0.73	0.262
18	TSA(C)013d000cR10	A & C	13	0	120	10	1.37	1.03	0.37
19	TSA(C)013d000cR7.47	A & C	13	0	150	7.47	1.83	1.38	0.495
20	TSA(C)013d000cR5.94	A & C	13	0	180	5.94	2.3	1.73	0.622
21	TSA013d000cR5	A	13	0	210	5	2.74	2.06	0.741
22	TSA(C)013d006cR59.4	A & C	13	6	30	59.4	0.23	0.22	0.062
23	TSA(C)013d006cR28	A & C	13	6	60	28	0.49	0.47	0.132
24	TSA(C)013d006cR17.7	A & C	13	6	90	17.7	0.77	0.74	0.208
25	TSA(C)013d006cR12.6	A & C	13	6	120	12.6	1.09	1.04	0.295
26	TSA(C)013d006cR9.41	A & C	13	6	150	9.41	1.45	1.39	0.392
27	TSA(C)013d006cR7.47	A & C	13	6	180	7.47	1.83	1.75	0.495
28	TSA(C)013d006cR6.29	A & C	13	6	210	6.29	2.18	2.09	0.589
29	TSA(C)016d000cR35.4	A & C	16	0	30	35.4	0.39	0.19	0.105
30	TSA(C)016d000cR16.7	A & C	16	0	60	16.7	0.82	0.41	0.222
31	TSA(C)016d000cR10.6	A & C	16	0	90	10.6	1.29	0.64	0.349
32	TSA(C)016d000cR7.47	A & C	16	0	120	7.47	1.83	0.91	0.495
33	TSA(C)016d000cR5.61	A & C	16	0	150	5.61	2.44	1.21	0.659
34	TSA(C)016d000cR4.72	A & C	16	0	180	4.72	2.9	1.44	0.784
35	TSA016d000cR3.75	A	16	0	210	3.75	3.65	1.82	0.986
36	TSA(C)016d008cR47.2	A & C	16	8	30	47.2	0.29	0.19	0.078
37	TSA(C)016d008cR22.2	A & C	16	8	60	22.2	0.62	0.41	0.168
38	TSA(C)016d008cR14.1	A & C	16	8	90	14.1	0.97	0.64	0.262
39	TSA(C)016d008cR10	A & C	16	8	120	10	1.37	0.91	0.37
40	TSA(C)016d008cR7.91	A & C	16	8	150	7.91	1.73	1.15	0.468
41	TSA(C)016d008cR6.29	A & C	16	8	180	6.29	2.18	1.45	0.589
42	TSA(C)016d008cR5	A & C	16	8	210	5	2.74	1.82	0.741
43	TSA(C)020d000cR29.7	A & C	20	0	30	29.7	0.46	0.15	0.124
44	TSA(C)020d000cR14.1	A & C	20	0	60	14.1	0.97	0.31	0.262
45	TSA(C)020d000cR8.88	A & C	20	0	90	8.88	1.54	0.49	0.416

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
46	TSA(C)020d000cR6.29	A & C	20	0	120	6.29	2.18	0.69	0.589
47	TSA(C)020d000cR4.72	A & C	20	0	150	4.72	2.9	0.92	0.784
48	TSA(C)020d000cR3.97	A & C	20	0	180	3.97	3.45	1.1	0.932
49	TSA020d000cR3.34	A	20	0	210	3.34	4.1	1.31	1.108
50	TSA(C)020d005cR31.5	A & C	20	5	30	31.5	0.43	0.15	0.116
51	TSA(C)020d005cR14.9	A & C	20	5	60	14.9	0.92	0.31	0.249
52	TSA(C)020d005cR9.41	A & C	20	5	90	9.41	1.45	0.49	0.392
53	TSA(C)020d005cR6.66	A & C	20	5	120	6.66	2.06	0.7	0.557
54	TSA(C)020d005cR5	A & C	20	5	150	5	2.74	0.93	0.741
55	TSA(C)020d005cR4.21	A & C	20	5	180	4.21	3.25	1.1	0.878
56	TSA020d005cR3.54	A	20	5	210	3.54	3.87	1.31	1.046
57	TSA(C)020d010cR39.7	A & C	20	10	30	39.7	0.34	0.14	0.092
58	TSA(C)020d010cR18.7	A & C	20	10	60	18.7	0.73	0.31	0.197
59	TSA(C)020d010cR11.9	A & C	20	10	90	11.9	1.15	0.49	0.311
60	TSA(C)020d010cR8.38	A & C	20	10	120	8.38	1.63	0.69	0.441
61	TSA(C)020d010cR6.29	A & C	20	10	150	6.29	2.18	0.93	0.589
62	TSA(C)020d010cR5.3	A & C	20	10	180	5.3	2.58	1.09	0.697
63	TSA(C)020d010cR4.21	A & C	20	10	210	4.21	3.25	1.38	0.878
64	TSA(C)025d000cR19.8	A & C	25	0	30	19.8	0.69	0.14	0.186
65	TSA(C)025d000cR9.41	A & C	25	0	60	9.41	1.45	0.3	0.392
66	TSA(C)025d000cR5.61	A & C	25	0	90	5.61	2.44	0.5	0.659
67	TSA(C)025d000cR4.21	A & C	25	0	120	4.21	3.25	0.66	0.878
68	TSA(C)025d000cR3.15	A & C	25	0	150	3.15	4.35	0.89	1.176
69	TSA025d000cR2.64	A	25	0	180	2.64	5.19	1.06	1.403
70	TSA(C)025d013cR22.2	A	25	0	210	22.2	6.17	1.26	1.668
71	TSA(C)025d006cR21	A & C	25	6	30	21	0.65	0.14	0.176
72	TSA(C)025d006cR10	A & C	25	6	60	10	1.37	0.3	0.37
73	TSA(C)025d006cR5.94	A & C	25	6	90	5.94	2.3	0.5	0.622
74	TSA(C)025d006cR4.46	A & C	25	6	120	4.46	3.07	0.66	0.83
75	TSA(C)025d006cR3.34	A & C	25	6	150	3.34	4.1	0.89	1.108
76	TSA025d006cR2.8	A	25	6	180	2.8	4.89	1.06	1.322
77	TSA025d006cR2.35	A	25	6	210	2.35	5.83	1.26	1.576
78	TSA(C)025d013cR26.4	A & C	25	13	30	26.4	0.52	0.15	0.141
79	TSA(C)025d013cR12.6	A & C	25	13	60	12.6	1.09	0.3	0.295
80	TSA(C)025d013cR7.91	A & C	25	13	90	7.91	1.73	0.48	0.468
81	TSA(C)025d013cR5.61	A & C	25	13	120	5.61	2.44	0.68	0.659
82	TSA(C)025d013cR4.46	A & C	25	13	150	4.46	3.07	0.86	0.83
83	TSA(C)025d013cR3.54	A & C	25	13	180	3.54	3.87	1.08	1.046
84	TSA025d013cR2.97	A	25						



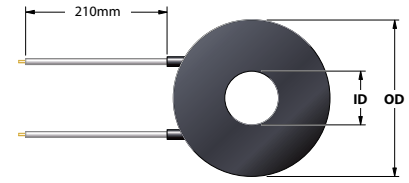
# STANDARD | Round 4.2V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
91	TSA032d000cR1.41	A	32	0	210	1.41	9.71	1.21	2.624
92	TSA(C)032d008cR14.1	A & C	32	8	30	14.1	0.97	0.13	0.262
93	TSA(C)032d008cR6.29	A & C	32	8	60	6.29	2.18	0.29	0.589
94	TSA(C)032d008cR3.97	A & C	32	8	90	3.97	3.45	0.46	0.932
95	TSA032d008cR2.8	A	32	8	120	2.8	4.89	0.65	1.322
96	TSA032d008cR2.22	A	32	8	150	2.22	6.17	0.82	1.668
97	TSA032d008cR1.87	A	32	8	180	1.87	7.32	0.97	1.978
98	TSA032d008cR1.49	A	32	8	210	1.49	9.19	1.22	2.484
99	TSA(C)032d016cR16.7	A & C	32	16	30	16.7	0.82	0.14	0.222
100	TSA(C)032d016cR7.91	A & C	32	16	60	7.91	1.73	0.29	0.468
101	TSA(C)032d016cR5	A & C	32	16	90	5	2.74	0.45	0.741
102	TSA(C)032d016cR3.54	A & C	32	16	120	3.54	3.87	0.64	1.046
103	TSA032d016cR2.8	A	32	16	150	2.8	4.89	0.81	1.322
104	TSA032d016cR2.22	A	32	16	180	2.22	6.17	1.02	1.668
105	TSA032d016cR1.87	A	32	16	210	1.87	7.32	1.21	1.978
106	TSA(C)040d000cR8.38	A & C	40	0	30	8.38	1.63	0.13	0.441
107	TSA(C)040d000cR3.97	A & C	40	0	60	3.97	3.45	0.27	0.932
108	TSA040d000cR2.49	A	40	0	90	2.49	5.5	0.44	1.486
109	TSA040d000cR1.77	A	40	0	120	1.77	7.73	0.62	2.089
110	TSA040d000cR1.41	A	40	0	150	1.41	9.71	0.77	2.624
111	TSA040d000cR1.12	A	40	0	180	1.12	12.22	0.97	3.303
112	TSA040d000cR0.941	A	40	0	210	0.941	14.55	1.16	3.932
113	TSA(C)040d005cR8.38	A & C	40	5	30	8.38	1.63	0.13	0.441
114	TSA(C)040d005cR3.97	A & C	40	5	60	3.97	3.45	0.28	0.932
115	TSA040d005cR2.49	A	40	5	90	2.49	5.5	0.44	1.486
116	TSA040d005cR1.87	A	40	5	120	1.87	7.32	0.59	1.978
117	TSA040d005cR1.41	A	40	5	150	1.41	9.71	0.78	2.624
118	TSA040d005cR1.19	A	40	5	180	1.19	11.5	0.93	3.108
119	TSA040d005cR1	A	40	5	210	1	13.69	1.11	3.7
120	TSA(C)040d010cR8.88	A & C	40	10	30	8.88	1.54	0.13	0.416
121	TSA(C)040d010cR4.21	A & C	40	10	60	4.21	3.25	0.28	0.878
122	TSA040d010cR2.64	A	40	10	90	2.64	5.19	0.44	1.403
123	TSA040d010cR1.87	A	40	10	120	1.87	7.32	0.62	1.978
124	TSA040d010cR1.49	A	40	10	150	1.49	9.19	0.78	2.484
125	TSA040d010cR1.19	A	40	10	180	1.19	11.5	0.98	3.108
126	TSA040d010cR1	A	40	10	210	1	13.69	1.16	3.7
127	TSA(C)040d020cR11.2	A & C	40	20	30	11.2	1.22	0.13	0.33
128	TSA(C)040d020cR5.3	A & C	40	20	60	5.3	2.58	0.27	0.697
129	TSA(C)040d020cR3.34	A & C	40	20	90	3.34	4.1	0.44	1.108
130	TSA040d020cR2.35	A	40	20	120	2.35	5.83	0.62	1.576
131	TSA040d020cR1.87	A	40	20	150	1.87	7.32	0.78	1.978
132	TSA040d020cR1.49	A	40	20	180	1.49	9.19	0.98	2.484
133	TSA040d020cR1.26	A	40	20	210	1.26	10.87	1.15	2.938
134	TSA(C)050d000cR5.61	A & C	50	0	30	5.61	2.44	0.12	0.659
135	TSA050d000cR2.64	A	50	0	60	2.64	5.19	0.26	1.403
136	TSA050d000cR1.77	A	50	0	90	1.77	7.73	0.39	2.089
137	TSA050d000cR1.26	A	50	0	120	1.26	10.87	0.55	2.938
138	TSA050d000cR0.941	A	50	0	150	0.941	14.55	0.74	3.932
139	TSA050d000cR0.791	A	50	0	180	0.791	17.31	0.88	4.678
140	TSA050d000cR0.666	A	50	0	210	0.666	20.56	1.05	5.557
141	TSA(C)050d006cR5.61	A & C	50	6	30	5.61	2.44	0.13	0.659
142	TSA050d006cR2.8	A	50	6	60	2.8	4.89	0.25	1.322
143	TSA050d006cR1.77	A	50	6	90	1.77	7.73	0.4	2.089
144	TSA050d006cR1.26	A	50	6	120	1.26	10.87	0.56	2.938
145	TSA050d006cR0.941	A	50	6	150	0.941	14.55	0.75	3.932
146	TSA050d006cR0.791	A	50	6	180	0.791	17.31	0.89	4.678
147	TSA050d006cR0.666	A	50	6	210	0.666	20.56	1.06	5.557
148	TSA(C)050d013cR5.94	A & C	50	13	30	5.94	2.3	0.13	0.622
149	TSA050d013cR2.97	A	50	13	60	2.97	4.61	0.25	1.246
150	TSA050d013cR1.87	A	50	13	90	1.87	7.32	0.4	1.978
151	TSA050d013cR1.33	A	50	13	120	1.33	10.29	0.56	2.781
152	TSA050d013cR1	A	50	13	150	1	13.69	0.75	3.7
153	TSA050d013cR0.838	A	50	13	180	0.838	16.34	0.89	4.416
154	TSA050d013cR0.705	A	50	13	210	0.705	19.42	1.06	5.249
155	TSA(C)050d025cR7.47	A & C	50	25	30	7.47	1.83	0.12	0.495
156	TSA(C)050d025cR3.54	A & C	50	25	60	3.54	3.87	0.26	1.046
157	TSA050d025cR2.35	A	50	25	90	2.35	5.83	0.4	1.576
158	TSA050d025cR1.67	A	50	25	120	1.67	8.2	0.56	2.216
159	TSA050d025cR1.26	A	50	25	150	1.26	10.87	0.74	2.938
160	TSA050d025cR1.06	A	50	25	180	1.06	12.92	0.88	3.492
161	TSA050d025cR0.888	A	50	25	210	0.888	15.42	1.05	4.168
162	TSA(C)063d000cR3.75	A & C	63	0	30	3.75	3.65	0.12	0.986
163	TSA063d000cR1.87	A	63	0	60	1.87	7.32	0.23	1.978

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
164	TSA063d000cR1.19	A	63	0	90	1.19	11.5	0.37	3.108
165	TSA063d000cR0.838	A	63	0	120	0.838	16.34	0.52	4.416
166	TSA063d000cR0.629	A	63	0	150	0.629	21.76	0.7	5.881
167	TSA063d000cR0.53	A	63	0	180	0.53	25.83	0.83	6.981
168	TSA063d000cR0.446	A	63	0	210	0.446	30.7	0.98	8.297
169	TSA(C)063d008cR3.75	A & C	63	8	30	3.75	3.65	0.12	0.986
170	TSA063d008cR1.87	A	63	8	60	1.87	7.32	0.24	1.978
171	TSA063d008cR1.19	A	63	8	90	1.19	11.5	0.37	3.108
172	TSA063d008cR0.838	A	63	8	120	0.838	16.34	0.53	4.416
173	TSA063d008cR0.629	A	63	8	150	0.629	21.76	0.71	5.881
174	TSA063d008cR0.53	A	63	8	180	0.53	25.83	0.84	6.981
175	TSA063d008cR0.446	A	63	8	210	0.446	30.7	1	8.297
176	TSA(C)063d016cR3.97	A & C	63	16	30	3.97	3.45	0.12	0.932
177	TSA063d016cR1.98	A	63	16	60	1.98	6.91	0.24	1.868
178	TSA063d016cR1.26	A	63	16	90	1.26	10.87	0.37	2.938
179	TSA063d016cR0.888	A	63	16	120	0.888	15.42	0.53	4.168
180	TSA063d016cR0.666	A	63	16	150	0.666	20.56	0.71	5.557
181	TSA063d016cR0.561	A	63	16	180	0.561	24.4	0.84	6.595
182	TSA063d016cR0.472	A	63	16	210	0.472	29	0.99	7.838
183	TSA(C)063d032cR5	A & C	63	32	30	5	2.74	0.12	0.741
184	TSA063d032cR2.49	A	63	32	60	2.49	5.5	0.24	1.486
185	TSA063d032cR1.58	A	63	32	90	1.58	8.66	0.37	2.341
186	TSA063d032cR1.12	A	63	32	120	1.12	12.22	0.53	3.303
187	TSA063d032cR0.838	A	63	32	150	0.838	16.34	0.71	4.416
188	TSA063d032cR0.705	A	63	32	180	0.705	19.42	0.84	5.249
189	TSA063d032cR0.594	A	63	32	210	0.594	23.05	1	6.23
190	TSA080d000cR2.64	A	80	0	30	2.64	5.19	0.1	1.403
191	TSA080d000cR1.26	A	80	0	60	1.26	10.87	0.22	2.938
192	TSA080d000cR0.791	A	80	0	90	0.791	17.31	0.34	4.678
193	TSA080d000cR0.561	A	80	0	120	0.561	24.4	0.49	6.595
194	TSA080d000cR0.421	A	80	0	150	0.421	32.52	0.65	8.789
195	TSA080d000cR0.354	A	80	0	180	0.354	38.67	0.77	10.451
196	TSA080d000cR0.297	A	80	0	210	0.297	46.09	0.92	12.457
197	TSA080d005cR2.64	A	80	5	30	2.64	5.19	0.1	1.403
198	TSA080d005cR1.26	A	80	5	60	1.26	10.87	0.22	2.938
199	TSA080d005cR0.791	A	80	5	90	0.791	17.31	0.35	4.678
200	TSA080d005cR0.561	A	80	5	120	0.561	24.4	0.49	6.595
201	TSA080d005cR0.421	A	80	5	150	0.421	32.52	0.65	8.789
202	TSA080d005cR0.354	A	80	5	180	0.354	38.67	0.77	10.451
203	TSA080d005cR0.297	A	80	5	210	0.297	46.09	0.92	12.457
204	TSA080d010cR2.64	A	80	10	30	2.64	5.19	0.1	1.403
205	TSA080d010cR1.26	A	80	10	60	1.26	10.87	0.22	2.938
206	TSA080d010cR0.791	A	80	10	90	0.791	17.31	0.35	4.678
207	TSA080d010cR0.561	A	80	10	120	0.561	24.4	0.49	6.595
208	TSA080d010cR0.446	A	80	10	150	0.446	30.7	0.62	8.297
209	TSA080d010cR0.354	A	80	10	180	0.354	38.67	0.78	10.451
210	TSA080d010cR0.297	A	80	10	210	0.297	46.09	0.93	12.457
211	TSA080d020cR2.8	A	80	20	30	2.8	4.89	0.1	1.322
212	TSA080d020cR1.33	A	80	20	60	1.33	10.29	0.22	2.781
213	TSA080d020cR0.838	A	80	20	90	0.838	16.34	0.35	4.416
214	TSA080d020cR0.594	A	80	20	120	0.594	23.05		



# STANDARD | Round 4.2V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
237	TSA100d013cR1.87	A	100	13	30	1.87	7.32	0.09	1.978
238	TSA100d013cR0.941	A	100	13	60	0.941	14.55	0.19	3.932
239	TSA100d013cR0.594	A	100	13	90	0.594	23.05	0.3	6.23
240	TSA100d013cR0.397	A	100	13	120	0.397	34.48	0.45	9.319
241	TSA100d013cR0.315	A	100	13	150	0.315	43.46	0.56	11.746
242	TSA100d013cR0.249	A	100	13	180	0.249	54.98	0.71	14.859
243	TSA100d025cR1.98	A	100	25	30	1.98	6.91	0.09	1.868
244	TSA100d025cR1	A	100	25	60	1	13.69	0.19	3.7
245	TSA100d025cR0.629	A	100	25	90	0.629	21.76	0.3	5.881
246	TSA100d025cR0.421	A	100	25	120	0.421	32.52	0.44	8.789
247	TSA100d025cR0.334	A	100	25	150	0.334	40.99	0.56	11.078
248	TSA100d025cR0.264	A	100	25	180	0.264	51.86	0.7	14.016
249	TSA100d050cR2.49	A	100	50	30	2.49	5.5	0.09	1.486
250	TSA100d050cR1.26	A	100	50	60	1.26	10.87	0.18	2.938
251	TSA100d050cR0.791	A	100	50	90	0.791	17.31	0.29	4.678
252	TSA100d050cR0.53	A	100	50	120	0.53	25.83	0.44	6.981
253	TSA100d050cR0.421	A	100	50	150	0.421	32.52	0.55	8.789
254	TSA100d050cR0.334	A	100	50	180	0.334	40.99	0.7	11.078
255	TSA100d050cR0.28	A	100	50	210	0.28	48.89	0.83	13.214
256	TSA125d000cR1.33	A	125	0	30	1.33	10.29	0.08	2.781
257	TSA125d000cR0.666	A	125	0	60	0.666	20.56	0.17	5.557
258	TSA125d000cR0.397	A	125	0	90	0.397	34.48	0.28	9.319
259	TSA125d000cR0.28	A	125	0	120	0.28	48.89	0.4	13.214
260	TSA125d008cR1.33	A	125	8	30	1.33	10.29	0.08	2.781
261	TSA125d008cR0.666	A	125	8	60	0.666	20.56	0.17	5.557
262	TSA125d008cR0.397	A	125	8	90	0.397	34.48	0.28	9.319
263	TSA125d008cR0.28	A	125	8	120	0.28	48.89	0.4	13.214
264	TSA125d016cR1.33	A	125	16	30	1.33	10.29	0.09	2.817
265	TSA125d016cR0.666	A	125	16	60	0.666	20.56	0.17	5.557
266	TSA125d016cR0.421	A	125	16	90	0.421	32.52	0.27	8.789
267	TSA125d016cR0.28	A	125	16	120	0.28	48.89	0.41	13.214
268	TSA125d032cR1.41	A	125	32	30	1.41	9.71	0.08	2.624
269	TSA125d032cR0.705	A	125	32	60	0.705	19.42	0.17	5.249
270	TSA125d032cR0.446	A	125	32	90	0.446	30.7	0.27	8.297
271	TSA125d032cR0.297	A	125	32	120	0.297	46.09	0.4	12.457
272	TSA125d063cR1.77	A	125	63	30	1.77	7.73	0.08	2.089
273	TSA125d063cR0.888	A	125	63	60	0.888	15.42	0.17	4.168
274	TSA125d063cR0.53	A	125	63	90	0.53	25.83	0.28	6.981
275	TSA125d063cR0.375	A	125	63	120	0.375	36.51	0.4	9.868
276	TSA125d063cR0.28	A	125	63	150	0.28	48.89	0.53	13.214
277	TSA160d000cR0.888	A	160	0	30	0.888	15.42	0.08	4.168
278	TSA160d000cR0.446	A	160	0	60	0.446	30.7	0.15	8.297
279	TSA160d000cR0.28	A	160	0	90	0.28	48.89	0.24	13.214

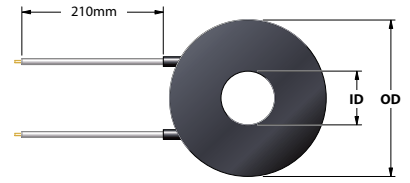
No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
280	TSA160d005cR0.888	A	160	5	30	0.888	15.42	0.08	4.168
281	TSA160d005cR0.446	A	160	5	60	0.446	30.7	0.15	8.297
282	TSA160d005cR0.28	A	160	5	90	0.28	48.89	0.24	13.214
283	TSA160d010cR0.888	A	160	10	30	0.888	15.42	0.08	4.168
284	TSA160d010cR0.446	A	160	10	60	0.446	30.7	0.15	8.297
285	TSA160d010cR0.28	A	160	10	90	0.28	48.89	0.24	13.214
286	TSA160d020cR0.888	A	160	20	30	0.888	15.42	0.08	4.168
287	TSA160d020cR0.446	A	160	20	60	0.446	30.7	0.16	8.297
288	TSA160d020cR0.28	A	160	20	90	0.28	48.89	0.25	13.214
289	TSA160d040cR0.941	A	160	40	30	0.941	14.55	0.08	3.932
290	TSA160d040cR0.472	A	160	40	60	0.472	29	0.15	7.838
291	TSA160d040cR0.297	A	160	40	90	0.297	46.09	0.24	12.457
292	TSA160d080cR1.19	A	160	80	30	1.19	11.5	0.08	3.108
293	TSA160d080cR0.594	A	160	80	60	0.594	23.05	0.15	6.23
294	TSA160d080cR0.375	A	160	80	90	0.375	36.51	0.24	9.868
295	TSA160d080cR0.249	A	160	80	120	0.249	54.98	0.36	14.859
296	TSA200d000cR0.629	A	200	0	30	0.629	21.76	0.07	5.881
297	TSA200d000cR0.315	A	200	0	60	0.315	43.46	0.14	11.746
298	TSA200d006cR0.629	A	200	6	30	0.629	21.76	0.07	5.881
299	TSA200d006cR0.315	A	200	6	60	0.315	43.46	0.14	11.746
300	TSA200d013cR0.629	A	200	13	30	0.629	21.76	0.07	5.881
301	TSA200d013cR0.315	A	200	13	60	0.315	43.46	0.14	11.746
302	TSA200d025cR0.629	A	200	25	30	0.629	21.76	0.07	5.881
303	TSA200d025cR0.315	A	200	25	60	0.315	43.46	0.14	11.746
304	TSA200d050cR0.666	A	200	50	30	0.666	20.56	0.07	5.557
305	TSA200d050cR0.334	A	200	50	60	0.334	40.99	0.14	11.078
306	TSA200d100cR0.838	A	200	100	30	0.838	16.34	0.07	4.416
307	TSA200d100cR0.397	A	200	100	60	0.397	34.48	0.15	9.319
308	TSA200d100cR0.249	A	200	100	90	0.249	54.98	0.23	14.859
309	TSA250d000cR0.421	A	250	0	30	0.421	32.52	0.07	8.789
310	TSA250d008cR0.421	A	250	8	30	0.421	32.52	0.07	8.789
311	TSA250d016cR0.421	A	250	16	30	0.421	32.52	0.07	8.789
312	TSA250d032cR0.446	A	250	32	30	0.446	30.7	0.06	8.297
313	TSA250d063cR0.446	A	250	63	30	0.446	30.7	0.07	8.297
314	TSA250d125cR0.561	A	250	125	30	0.561	24.4	0.07	6.595
315	TSA250d125cR0.28	A	250	125	60	0.28	48.89	0.13	13.214
316	TSA300d000cR0.315	A	300	0	30	0.315	43.46	0.06	11.746
317	TSA300d005cR0.315	A	300	5	30	0.315	43.46	0.06	11.746
318	TSA300d010cR0.315	A	300	10	30	0.315	43.46	0.06	11.746
319	TSA300d020cR0.315	A	300	20	30	0.315	43.46	0.06	11.746
320	TSA300d040cR0.315	A	300	40	30	0.315	43.46	0.06	11.746
321	TSA300d080cR0.334	A	300	80	30	0.334	40.99	0.06	11.078
322	TSA300d160cR0.421	A	300	160	30	0.421	32.52	0.06	8.789

Dimensions and specifications are subject to change without notice.

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape	: ROUND
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Outer Diameter	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Inner Diameter	: 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

# STANDARD | Round 5V

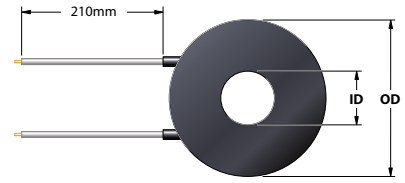


■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000eR119	C	10	0	30	119	0.21	0.27	0.042
2	TSC010d000eR59.4	C	10	0	60	59.4	0.42	0.53	0.084
3	TSA(C)010d000eR37.5	A & C	10	0	90	37.5	0.67	0.85	0.134
4	TSA(C)010d000eR26.4	A & C	10	0	120	26.4	0.95	1.21	0.19
5	TSA(C)010d000eR19.8	A & C	10	0	150	19.8	1.26	1.6	0.252
6	TSA(C)010d000eR15.8	A & C	10	0	180	15.8	1.58	2.01	0.316
7	TSA(C)010d000eR13.3	A & C	10	0	210	13.3	1.88	2.39	0.376
8	TSC010d005eR158	C	10	5	30	158	0.16	0.27	0.032
9	TSC010d005eR79.1	C	10	5	60	79.1	0.32	0.54	0.064
10	TSC010d005eR50	C	10	5	90	50	0.5	0.85	0.1
11	TSC010d005eR35.4	C	10	5	120	35.4	0.71	1.21	0.142
12	TSA(C)010d005eR26.4	A & C	10	5	150	26.4	0.95	1.61	0.19
13	TSA(C)010d005eR21	A & C	10	5	180	21	1.19	2.02	0.238
14	TSA(C)010d005eR17.7	A & C	10	5	210	17.7	1.41	2.39	0.282
15	TSC013d000eR83.8	C	13	0	30	83.8	0.3	0.23	0.06
16	TSA(C)013d000eR39.7	A & C	13	0	60	39.7	0.63	0.47	0.126
17	TSA(C)013d000eR24.9	A & C	13	0	90	24.9	1	0.75	0.2
18	TSA(C)013d000eR17.7	A & C	13	0	120	17.7	1.41	1.06	0.282
19	TSA(C)013d000eR13.3	A & C	13	0	150	13.3	1.88	1.42	0.376
20	TSA(C)013d000eR10.6	A & C	13	0	180	10.6	2.36	1.78	0.472
21	TSA(C)013d000eR8.88	A & C	13	0	210	8.88	2.82	2.12	0.564
22	TSC013d006eR106	C	13	6	30	106	0.24	0.23	0.048
23	TSA(C)013d006eR50	A & C	13	6	60	50	0.5	0.48	0.1
24	TSA(C)013d006eR31.5	A & C	13	6	90	31.5	0.79	0.76	0.158
25	TSA(C)013d006eR23.5	A & C	13	6	120	23.5	1.06	1.01	0.212
26	TSA(C)013d006eR17.7	A & C	13	6	150	17.7	1.41	1.35	0.282
27	TSA(C)013d006eR14.1	A & C	13	6	180	14.1	1.77	1.69	0.354
28	TSA(C)013d006eR11.2	A & C	13	6	210	11.2	2.23	2.13	0.446
29	TSA(C)016d000eR62.9	A & C	16	0	30	62.9	0.4	0.2	0.08
30	TSA(C)016d000eR31.5	A & C	16	0	60	31.5	0.79	0.39	0.158
31	TSA(C)016d000eR19.8	A & C	16	0	90	19.8	1.26	0.63	0.252
32	TSA(C)016d000eR14.1	A & C	16	0	120	14.1	1.77	0.88	0.354
33	TSA(C)016d000eR10.6	A & C	16	0	150	10.6	2.36	1.17	0.472
34	TSA(C)016d000eR8.38	A & C	16	0	180	8.38	2.98	1.48	0.596
35	TSA(C)016d000eR7.05	A & C	16	0	210	7.05	3.55	1.77	0.71
36	TSA(C)016d008eR88.8	A & C	16	8	30	88.8	0.28	0.19	0.056
37	TSA(C)016d008eR42.1	A & C	16	8	60	42.1	0.59	0.39	0.118
38	TSA(C)016d008eR26.4	A & C	16	8	90	26.4	0.95	0.63	0.19
39	TSA(C)016d008eR18.7	A & C	16	8	120	18.7	1.34	0.89	0.268
40	TSA(C)016d008eR14.1	A & C	16	8	150	14.1	1.77	1.17	0.354
41	TSA(C)016d008eR11.2	A & C	16	8	180	11.2	2.23	1.48	0.446
42	TSA(C)016d008eR9.41	A & C	16	8	210	9.41	2.66	1.76	0.532
43	TSA(C)020d000eR53	A & C	20	0	30	53	0.47	0.15	0.094
44	TSA(C)020d000eR24.9	A & C	20	0	60	24.9	1	0.32	0.2
45	TSA(C)020d000eR15.8	A & C	20	0	90	15.8	1.58	0.5	0.316
46	TSA(C)020d000eR11.2	A & C	20	0	120	11.2	2.23	0.71	0.446
47	TSA(C)020d000eR8.88	A & C	20	0	150	8.88	2.82	0.9	0.564
48	TSA(C)020d000eR7.05	A & C	20	0	180	7.05	3.55	1.13	0.71
49	TSA(C)020d000eR5.94	A & C	20	0	210	5.94	4.21	1.34	0.842
50	TSA(C)020d005eR56.1	A & C	20	5	30	56.1	0.45	0.15	0.09
51	TSA(C)020d005eR28	A & C	20	5	60	28	0.89	0.3	0.178
52	TSA(C)020d005eR16.7	A & C	20	5	90	16.7	1.5	0.51	0.3
53	TSA(C)020d005eR11.9	A & C	20	5	120	11.9	2.1	0.71	0.42
54	TSA(C)020d005eR9.41	A & C	20	5	150	9.41	2.66	0.9	0.532
55	TSA(C)020d005eR7.47	A & C	20	5	180	7.47	3.35	1.14	0.67
56	TSA(C)020d005eR6.29	A & C	20	5	210	6.29	3.97	1.35	0.794
57	TSA(C)020d010eR70.5	A & C	20	10	30	70.5	0.35	0.15	0.07
58	TSA(C)020d010eR33.4	A & C	20	10	60	33.4	0.75	0.32	0.15
59	TSA(C)020d010eR21	A & C	20	10	90	21	1.19	0.51	0.238
60	TSA(C)020d010eR14.9	A & C	20	10	120	14.9	1.68	0.71	0.336
61	TSA(C)020d010eR11.9	A & C	20	10	150	11.9	2.1	0.89	0.42
62	TSA(C)020d010eR9.41	A & C	20	10	180	9.41	2.66	1.13	0.532
63	TSA(C)020d010eR7.91	A & C	20	10	210	7.91	3.16	1.34	0.632
64	TSA(C)025d000eR35.4	A & C	25	0	30	35.4	0.71	0.14	0.142
65	TSA(C)025d000eR16.7	A & C	25	0	60	16.7	1.5	0.31	0.3
66	TSA(C)025d000eR10.6	A & C	25	0	90	10.6	2.36	0.48	0.472
67	TSA(C)025d000eR7.47	A & C	25	0	120	7.47	3.35	0.68	0.67
68	TSA(C)025d000eR5.94	A & C	25	0	150	5.94	4.21	0.86	0.842
69	TSA(C)025d000eR4.72	A & C	25	0	180	4.72	5.3	1.08	1.06
70	TSA(C)025d000eR3.97	A & C	25	0	210	3.97	6.3	1.28	1.26
71	TSA(C)025d006eR37.5	A & C	25	6	30	37.5	0.67	0.14	0.134
72	TSA(C)025d006eR17.7	A & C	25	6	60	17.7	1.41	0.3	0.282
73	TSA(C)025d006eR11.2	A & C	25	6	90	11.2	2.23	0.48	0.446

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)025d006eR7.91	A & C	25	6	120	7.91	3.16	0.68	0.632
75	TSA(C)025d006eR6.29	A & C	25	6	150	6.29	3.97	0.86	0.794
76	TSA(C)025d006eR5	A & C	25	6	180	5	5	1.08	1
77	TSA(C)025d006eR4.21	A & C	25	6	210	4.21	5.94	1.28	1.188
78	TSA(C)025d013eR50	A & C	25	13	30	50	0.5	0.14	0.1
79	TSA(C)025d013eR23.5	A & C	25	13	60	23.5	1.06	0.3	0.212
80	TSA(C)025d013eR14.1	A & C	25	13	90	14.1	1.77	0.49	0.354
81	TSA(C)025d013eR10	A & C	25	13	120	10	2.5	0.7	0.5
82	TSA(C)025d013eR7.91	A & C	25	13	150	7.91	3.16	0.88	0.632
83	TSA(C)025d013eR6.66	A & C	25	13	180	6.66	3.75	1.05	0.75
84	TSA(C)025d013eR5.61	A & C	25	13	210	5.61	4.46	1.25	0.892
85	TSA(C)032d000eR23.5	A & C	32	0	30	23.5	1.06	0.13	0.212
86	TSA(C)032d000eR11.2	A & C	32	0	60	11.2	2.23	0.28	0.446
87	TSA(C)032d000eR6.66	A & C	32	0	90	6.66	3.75	0.47	0.75
88	TSA(C)032d000eR5	A & C	32	0	120	5	5	0.62	1
89	TSA(C)032d000eR3.75	A & C	32	0	150	3.75	6.67	0.83	1.334
90	TSA(C)032d000eR3.15	A & C	32	0	180	3.15	7.94	0.99	1.588
91	TSA032d000eR2.64	A	32	0	210	2.64	9.47	1.18	1.894
92	TSA(C)032d008eR24.9	A & C	32	8	30	24.9	1	0.13	0.2
93	TSA(C)032d008eR11.9	A & C	32	8	60	11.9	2.1	0.28	0.42
94	TSA(C)032d008eR7.05	A & C	32	8	90	7.05	3.55	0.47	0.71
95	TSA(C)032d008eR5.3	A & C	32	8	120	5.3	4.72	0.63	0.944
96	TSA(C)032d008eR3.97	A & C	32	8	150	3.97	6.3	0.84	1.26
97	TSA(C)032d008eR3.34	A & C	32	8	180	3.34	7.49	0.99	1.498
98	TSA032d008eR2.8	A	32	8	210	2.8	8.93	1.18	1.786
99	TSA(C)032d016eR31.5	A & C	32	16	30	31.5	0.79	0.13	0.158
100	TSA(C)032d016eR14.9	A & C	32	16	60	14.9	1.68	0.28	0.336
101	TSA(C)032d016eR8.88	A & C	32	16	90	8.88	2.82	0.47	0.564
102	TSA(C)032d016eR6.66	A & C	32	16	120	6.66	3.75	0.62	0.75
103	TSA(C)032d016eR5	A & C	32	16	150	5	5	0.83	1
104	TSA(C)032d016eR4.21	A & C	32	16	180	4.21	5.94	0.98	1.188
105	TSA(C)032d016eR3.54	A & C	32	16	210	3.54	7.06	1.17	1.412
106	TSA(C)040d000eR15.8	A & C	40	0	30	15.8	1.58	0.13	0.316
107	TSA(C)040d000eR7.47	A & C	40	0	60	7.47	3.35	0.27	0.67
108	TSA(C)040d000eR4.46	A & C	40	0	90	4.46	5.61	0.45	1.122
109	TSA(C)040d000eR3.34	A & C	40	0	120	3.34	7.49	0.6	1.498
110	TSA040d000eR2.49	A	40	0	150	2.49	10.04	0.8	2.008
111	TSA040d000eR2.1	A	40	0	180	2.1	11.9	0.95	2.38
112	TSA040d000eR1.77	A	40	0	210	1.77	14.12	1.12	2.824
113	TSA(C)040d005eR15.8	A & C	40	5	30	15.8	1.58	0.13	0.316
114	TSA(C)040d005eR7.47	A & C	40	5	60	7.47	3.35	0.27	0.67
115	TSA(C)040d005eR4.72	A & C	40	5	90	4.72	5.3	0.43	1.06
116	TSA(C)040d005eR3.34	A & C	40	5	120	3.34	7.49	0.61	1.498
117	TSA040d005eR2.64	A	40	5	150	2.64	9.47	0.77	1.894
118	TSA040d005eR2.1	A	40	5	180	2.1	11.9	0.96	2.38
119	TSA040d005eR1.77	A	40	5	210	1.77	14.12	1.14	2.824
120	TSA(C)040d010eR16.7	A & C	40	10	30	16.7	1.5	0.13	0.3
121	TSA(C)040d010eR7.91	A & C	40	10	60	7.91	3.16	0.27	0.632
122	TSA(C)040d010eR5	A							

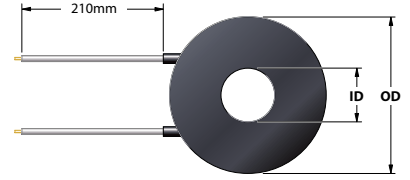
# STANDARD | Round 5V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA050d006eR1.19	A	50	6	210	1.19	21.01	1.09	4.202
148	TSA(C)050d013eR11.2	A & C	50	13	30	11.2	2.23	0.12	0.446
149	TSA(C)050d013eR5.3	A & C	50	13	60	5.3	4.72	0.26	0.944
150	TSA(C)050d013eR3.34	A & C	50	13	90	3.34	7.49	0.41	1.498
151	TSA050d013eR2.35	A	50	13	120	2.35	10.64	0.58	2.128
152	TSA050d013eR1.87	A	50	13	150	1.87	13.37	0.73	2.674
153	TSA050d013eR1.49	A	50	13	180	1.49	16.78	0.92	3.356
154	TSA050d013eR1.26	A	50	13	210	1.26	19.84	1.08	3.968
155	TSA(C)050d025eR13.3	A & C	50	25	30	13.3	1.88	0.13	0.376
156	TSA(C)050d025eR6.66	A & C	50	25	60	6.66	3.75	0.25	0.75
157	TSA(C)050d025eR4.21	A & C	50	25	90	4.21	5.94	0.4	1.188
158	TSA050d025eR2.97	A	50	25	120	2.97	8.42	0.57	1.684
159	TSA050d025eR2.35	A	50	25	150	2.35	10.64	0.72	2.128
160	TSA050d025eR1.87	A	50	25	180	1.87	13.37	0.91	2.674
161	TSA050d025eR1.58	A	50	25	210	1.58	15.82	1.07	3.164
162	TSA(C)063d000eR7.05	A & C	63	0	30	7.05	3.55	0.11	0.71
163	TSA(C)063d000eR3.34	A & C	63	0	60	3.34	7.49	0.24	1.498
164	TSA063d000eR2.1	A	63	0	90	2.1	11.9	0.38	2.38
165	TSA063d000eR1.49	A	63	0	120	1.49	16.78	0.54	3.356
166	TSA063d000eR1.19	A	63	0	150	1.19	21.01	0.67	4.202
167	TSA063d000eR0.941	A	63	0	180	0.941	26.57	0.85	5.314
168	TSA063d000eR0.791	A	63	0	210	0.791	31.61	1.01	6.322
169	TSA(C)063d008eR7.05	A & C	63	8	30	7.05	3.55	0.12	0.71
170	TSA(C)063d008eR3.34	A & C	63	8	60	3.34	7.49	0.24	1.498
171	TSA063d008eR2.22	A	63	8	90	2.22	11.26	0.37	2.252
172	TSA063d008eR1.49	A	63	8	120	1.49	16.78	0.55	3.356
173	TSA063d008eR1.19	A	63	8	150	1.19	21.01	0.69	4.202
174	TSA063d008eR0.941	A	63	8	180	0.941	26.57	0.87	5.314
175	TSA063d008eR0.791	A	63	8	210	0.791	31.61	1.03	6.322
176	TSA(C)063d016eR7.47	A & C	63	16	30	7.47	3.35	0.11	0.67
177	TSA(C)063d016eR3.54	A & C	63	16	60	3.54	7.06	0.24	1.412
178	TSA063d016eR2.22	A	63	16	90	2.22	11.26	0.39	2.252
179	TSA063d016eR1.58	A	63	16	120	1.58	15.82	0.54	3.164
180	TSA063d016eR1.26	A	63	16	150	1.26	19.84	0.68	3.968
181	TSA063d016eR1	A	63	16	180	1	25	0.86	5
182	TSA063d016eR0.838	A	63	16	210	0.838	29.83	1.02	5.966
183	TSA(C)063d032eR9.41	A & C	63	32	30	9.41	2.66	0.12	0.532
184	TSA(C)063d032eR4.46	A & C	63	32	60	4.46	5.61	0.24	1.122
185	TSA063d032eR2.8	A	63	32	90	2.8	8.93	0.39	1.786
186	TSA063d032eR1.98	A	63	32	120	1.98	12.63	0.55	2.526
187	TSA063d032eR1.58	A	63	32	150	1.58	15.82	0.68	3.164
188	TSA063d032eR1.26	A	63	32	180	1.26	19.84	0.86	3.968
189	TSA063d032eR1.06	A	63	32	210	1.06	23.58	1.02	4.716
190	TSA(C)080d000eR4.72	A & C	80	0	30	4.72	5.3	0.11	1.06
191	TSA080d000eR2.35	A	80	0	60	2.35	10.64	0.21	2.128
192	TSA080d000eR1.49	A	80	0	90	1.49	16.78	0.33	3.356
193	TSA080d000eR1	A	80	0	120	1	25	0.5	5
194	TSA080d000eR0.791	A	80	0	150	0.791	31.61	0.63	6.322
195	TSA080d000eR0.629	A	80	0	180	0.629	39.75	0.79	7.95
196	TSA080d000eR0.53	A	80	0	210	0.53	47.17	0.94	9.434
197	TSA(C)080d005eR4.72	A & C	80	5	30	4.72	5.3	0.11	1.06
198	TSA080d005eR2.35	A	80	5	60	2.35	10.64	0.21	2.128
199	TSA080d005eR1.49	A	80	5	90	1.49	16.78	0.34	3.356
200	TSA080d005eR1	A	80	5	120	1	25	0.5	5
201	TSA080d005eR0.791	A	80	5	150	0.791	31.61	0.63	6.322
202	TSA080d005eR0.629	A	80	5	180	0.629	39.75	0.79	7.95
203	TSA080d005eR0.53	A	80	5	210	0.53	47.17	0.94	9.434
204	TSA(C)080d010eR4.72	A & C	80	10	30	4.72	5.3	0.11	1.06
205	TSA080d010eR2.35	A	80	10	60	2.35	10.64	0.22	2.128
206	TSA080d010eR1.49	A	80	10	90	1.49	16.78	0.34	3.356
207	TSA080d010eR1	A	80	10	120	1	25	0.51	5
208	TSA080d010eR0.791	A	80	10	150	0.791	31.61	0.64	6.322
209	TSA080d010eR0.666	A	80	10	180	0.666	37.54	0.76	7.508
210	TSA080d010eR0.53	A	80	10	210	0.53	47.17	0.95	9.434
211	TSA(C)080d020eR5	A & C	80	20	30	5	5	0.11	1
212	TSA080d020eR2.49	A	80	20	60	2.49	10.04	0.21	2.008
213	TSA080d020eR1.58	A	80	20	90	1.58	15.82	0.34	3.164
214	TSA080d020eR1.06	A	80	20	120	1.06	23.58	0.5	4.716
215	TSA080d020eR0.838	A	80	20	150	0.838	29.83	0.63	5.966
216	TSA080d020eR0.666	A	80	20	180	0.666	37.54	0.8	7.508
217	TSA080d020eR0.561	A	80	20	210	0.561	44.56	0.95	8.912
218	TSA(C)080d040eR6.29	A & C	80	40	30	6.29	3.97	0.11	0.794
219	TSA(C)080d040eR3.15	A & C	80	40	60	3.15	7.94	0.21	1.588

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA080d040eR1.98	A	80	40	90	1.98	12.63	0.34	2.526
221	TSA080d040eR1.33	A	80	40	120	1.33	18.8	0.5	3.76
222	TSA080d040eR1.06	A	80	40	150	1.06	23.58	0.63	4.716
223	TSA080d040eR0.838	A	80	40	180	0.838	29.83	0.79	5.966
224	TSA080d040eR0.705	A	80	40	210	0.705	35.46	0.94	7.092
225	TSA(C)100d000eR3.34	A & C	100	0	30	3.34	7.49	0.1	1.498
226	TSA100d000eR1.67	A	100	0	60	1.67	14.97	0.19	2.994
227	TSA100d000eR1.06	A	100	0	90	1.06	23.58	0.3	4.716
228	TSA100d000eR0.705	A	100	0	120	0.705	35.46	0.45	7.092
229	TSA100d000eR0.561	A	100	0	150	0.561	44.56	0.57	8.912
230	TSA100d000eR0.446	A	100	0	180	0.446	56.05	0.71	11.21
231	TSA100d000eR0.375	A	100	0	210	0.375	66.67	0.85	13.334
232	TSA(C)100d006eR3.34	A & C	100	6	30	3.34	7.49	0.1	1.498
233	TSA100d006eR1.67	A	100	6	60	1.67	14.97	0.19	2.994
234	TSA100d006eR1.06	A	100	6	90	1.06	23.58	0.3	4.716
235	TSA100d006eR0.705	A	100	6	120	0.705	35.46	0.45	7.092
236	TSA100d006eR0.561	A	100	6	150	0.561	44.56	0.57	8.912
237	TSA100d006eR0.446	A	100	6	180	0.446	56.05	0.72	11.21
238	TSA100d006eR0.375	A	100	6	210	0.375	66.67	0.85	13.334
239	TSA(C)100d013eR3.54	A & C	100	13	30	3.54	7.06	0.09	1.412
240	TSA100d013eR1.77	A	100	13	60	1.77	14.12	0.18	2.824
241	TSA100d013eR1.06	A	100	13	90	1.06	23.58	0.31	4.716
242	TSA100d013eR0.747	A	100	13	120	0.747	33.47	0.43	6.694
243	TSA100d013eR0.561	A	100	13	150	0.561	44.56	0.58	8.912
244	TSA100d013eR0.472	A	100	13	180	0.472	52.97	0.69	10.594
245	TSA100d013eR0.375	A	100	13	210	0.375	66.67	0.86	13.334
246	TSA(C)100d025eR3.54	A & C	100	25	30	3.54	7.06	0.1	1.412
247	TSA100d025eR1.77	A	100	25	60	1.77	14.12	0.19	2.824
248	TSA100d025eR1.12	A	100	25	90	1.12	22.32	0.3	4.464
249	TSA100d025eR0.791	A	100	25	120	0.791	31.61	0.43	6.322
250	TSA100d025eR0.594	A	100	25	150	0.594	42.09	0.57	8.418
251	TSA100d025eR0.5	A	100	25	180	0.5	50	0.68	10
252	TSA100d025eR0.397	A	100	25	210	0.397	62.97	0.86	12.594
253	TSA(C)100d050eR4.46	A & C	100	50	30	4.46	5.61	0.1	1.122
254	TSA100d050eR2.22	A	100	50	60	2.22	11.26	0.19	2.252
255	TSA100d050eR1.41	A	100	50	90	1.41	17.73	0.3	3.546
256	TSA100d050eR0.941	A	100	50	120	0.941	26.57	0.45	5.314
257	TSA100d050eR0.747	A	100	50	150	0.747	33.47	0.57	6.694
258	TSA100d050eR0.594	A	100	50	180	0.594	42.09	0.71	8.418
259	TSA100d050eR0.5	A	100	50	210	0.5	50	0.85	10
260	TSA125d000eR2.35	A	125	0	30	2.35	10.64	0.09	2.128
261	TSA125d000eR1.19	A	125	0	60	1.19	21.01	0.17	4.202
262	TSA125d000eR0.747	A	125	0	90	0.747	33.47	0.27	6.694
263	TSA125d000eR0.5	A	125	0	120	0.5	50	0.41	10
264	TSA125d000eR0.397	A	125	0	150	0.397	62.97	0.51	12.594
265	TSA125d008eR2.35	A	125	8	30	2.35	10.64	0.09	2.128
266	TSA125d008eR1.19	A	125	8	60	1.19	21.01	0.17	4.202
267	TSA125d008eR0.747	A	125	8	90	0.747	33.47	0.27	6.694
268	TSA125d008eR0.5	A	125	8	120	0.5	50	0.41	10
269	TSA125d008eR0.397	A	125	8	150	0.397	62.97	0.52	12.594
270	TSA125d016eR2.35	A							

# STANDARD | Round 5V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA160d005eR0.791	A	160	5	60	0.791	31.61	0.16	6.322
294	TSA160d005eR0.5	A	160	5	90	0.5	50	0.25	10
295	TSA160d005eR0.334	A	160	5	120	0.334	74.85	0.37	14.97
296	TSA160d010eR1.58	A	160	10	30	1.58	15.82	0.08	3.164
297	TSA160d010eR0.791	A	160	10	60	0.791	31.61	0.16	6.322
298	TSA160d010eR0.5	A	160	10	90	0.5	50	0.25	10
299	TSA160d010eR0.334	A	160	10	120	0.334	74.85	0.37	14.97
300	TSA160d020eR1.67	A	160	20	30	1.67	14.97	0.08	2.994
301	TSA160d020eR0.838	A	160	20	60	0.838	29.83	0.15	5.966
302	TSA160d020eR0.5	A	160	20	90	0.5	50	0.25	10
303	TSA160d020eR0.354	A	160	20	120	0.354	70.62	0.36	14.124
304	TSA160d040eR1.67	A	160	40	30	1.67	14.97	0.08	2.994
305	TSA160d040eR0.838	A	160	40	60	0.838	29.83	0.16	5.966
306	TSA160d040eR0.53	A	160	40	90	0.53	47.17	0.25	9.434
307	TSA160d040eR0.375	A	160	40	120	0.375	66.67	0.35	13.334
308	TSA160d080eR2.1	A	160	80	30	2.1	11.9	0.08	2.38
309	TSA160d080eR1.06	A	160	80	60	1.06	23.58	0.16	4.716
310	TSA160d080eR0.666	A	160	80	90	0.666	37.54	0.25	7.508
311	TSA160d080eR0.446	A	160	80	120	0.446	56.05	0.37	11.21
312	TSA160d080eR0.354	A	160	80	150	0.354	70.62	0.47	14.124
313	TSA200d000eR1.12	A	200	0	30	1.12	22.32	0.07	4.464
314	TSA200d000eR0.561	A	200	0	60	0.561	44.56	0.14	8.912
315	TSA200d000eR0.354	A	200	0	90	0.354	70.62	0.22	14.124
316	TSA200d006eR1.12	A	200	6	30	1.12	22.32	0.07	4.464
317	TSA200d006eR0.561	A	200	6	60	0.561	44.56	0.14	8.912
318	TSA200d006eR0.354	A	200	6	90	0.354	70.62	0.22	14.124
319	TSA200d013eR1.12	A	200	13	30	1.12	22.32	0.07	4.464
320	TSA200d013eR0.561	A	200	13	60	0.561	44.56	0.14	8.912
321	TSA200d013eR0.354	A	200	13	90	0.354	70.62	0.23	14.124
322	TSA200d025eR1.12	A	200	25	30	1.12	22.32	0.07	4.464

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
323	TSA200d025eR0.561	A	200	25	60	0.561	44.56	0.14	8.912
324	TSA200d025eR0.354	A	200	25	90	0.354	70.62	0.23	14.124
325	TSA200d050eR1.19	A	200	50	30	1.19	21.01	0.07	4.202
326	TSA200d050eR0.594	A	200	50	60	0.594	42.09	0.14	8.418
327	TSA200d050eR0.375	A	200	50	90	0.375	66.67	0.23	13.334
328	TSA200d100eR1.49	A	200	100	30	1.49	16.78	0.07	3.356
329	TSA200d100eR0.747	A	200	100	60	0.747	33.47	0.14	6.694
330	TSA200d100eR0.472	A	200	100	90	0.472	52.97	0.22	10.594
331	TSA250d000eR0.791	A	250	0	30	0.791	31.61	0.06	6.322
332	TSA250d000eR0.397	A	250	0	60	0.397	62.97	0.13	12.594
333	TSA250d008eR0.791	A	250	8	30	0.791	31.61	0.06	6.322
334	TSA250d008eR0.397	A	250	8	60	0.397	62.97	0.13	12.594
335	TSA250d016eR0.791	A	250	16	30	0.791	31.61	0.06	6.322
336	TSA250d016eR0.397	A	250	16	60	0.397	62.97	0.13	12.594
337	TSA250d032eR0.791	A	250	32	30	0.791	31.61	0.07	6.322
338	TSA250d032eR0.397	A	250	32	60	0.397	62.97	0.13	12.594
339	TSA250d063eR0.838	A	250	63	30	0.838	29.83	0.06	5.966
340	TSA250d063eR0.421	A	250	63	60	0.421	59.38	0.13	11.876
341	TSA250d125eR1.06	A	250	125	30	1.06	23.58	0.06	4.716
342	TSA250d125eR0.53	A	250	125	60	0.53	47.17	0.13	9.434
343	TSA250d125eR0.334	A	250	125	90	0.334	74.85	0.2	14.97
344	TSA300d000eR0.561	A	300	0	30	0.561	44.56	0.06	8.912
345	TSA300d005eR0.561	A	300	5	30	0.561	44.56	0.06	8.912
346	TSA300d010eR0.561	A	300	10	30	0.561	44.56	0.06	8.912
347	TSA300d020eR0.561	A	300	20	30	0.561	44.56	0.06	8.912
348	TSA300d040eR0.561	A	300	40	30	0.561	44.56	0.06	8.912
349	TSA300d080eR0.594	A	300	80	30	0.594	42.09	0.06	8.418
350	TSA300d160eR0.791	A	300	160	30	0.791	31.61	0.06	6.322
351	TSA300d160eR0.397	A	300	160	60	0.397	62.97	0.12	12.594

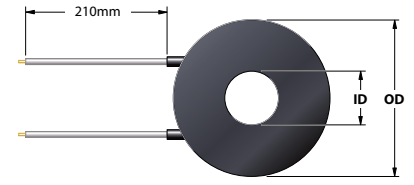
Dimensions and specifications are subject to change without notice.

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape	: <b>ROUND</b>
Materials/Type	: <b>TSA</b> (Etched); <b>TSC</b> (Nano-Carbon)
Outer Diameter	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Inner Diameter	: 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

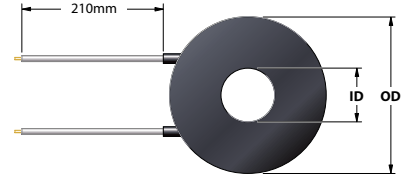


# STANDARD | Round 9V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000fR397	C	10	0	30	397	0.2	0.25	0.022
2	TSC010d000fR187	C	10	0	60	187	0.43	0.55	0.048
3	TSC010d000fR119	C	10	0	90	119	0.68	0.87	0.076
4	TSC010d000fR88.8	C	10	0	120	88.8	0.91	1.16	0.101
5	TSC010d000fR66.6	C	10	0	150	66.6	1.22	1.55	0.136
6	TSC010d000fR50	C	10	0	180	50	1.62	2.06	0.18
7	TSA(C)010d000fR42.1	A & C	10	0	210	42.1	1.92	2.44	0.213
8	TSC010d005fR530	C	10	5	30	530	0.15	0.25	0.017
9	TSC010d005fR249	C	10	5	60	249	0.33	0.56	0.037
10	TSC010d005fR158	C	10	5	90	158	0.51	0.87	0.057
11	TSC010d005fR119	C	10	5	120	119	0.68	1.15	0.076
12	TSC010d005fR88.8	C	10	5	150	88.8	0.91	1.54	0.101
13	TSC010d005fR70.5	C	10	5	180	70.5	1.15	1.95	0.128
14	TSC010d005fR56.1	C	10	5	210	56.1	1.44	2.44	0.16
15	TSC013d000fR264	C	13	0	30	264	0.31	0.23	0.034
16	TSC013d000fR126	C	13	0	60	126	0.64	0.48	0.071
17	TSC013d000fR79.1	C	13	0	90	79.1	1.02	0.77	0.113
18	TSA(C)013d000fR59.4	A & C	13	0	120	59.4	1.36	1.02	0.151
19	TSA(C)013d000fR44.6	A & C	13	0	150	44.6	1.82	1.37	0.202
20	TSA(C)013d000fR35.4	A & C	13	0	180	35.4	2.29	1.73	0.254
21	TSA(C)013d000fR29.7	A & C	13	0	210	29.7	2.73	2.06	0.303
22	TSC013d006fR334	C	13	6	30	334	0.24	0.23	0.027
23	TSC013d006fR167	C	13	6	60	167	0.49	0.47	0.054
24	TSC013d006fR106	C	13	6	90	106	0.76	0.73	0.084
25	TSC013d006fR74.7	C	13	6	120	74.7	1.08	1.03	0.12
26	TSA(C)013d006fR56.1	A & C	13	6	150	56.1	1.44	1.38	0.16
27	TSA(C)013d006fR44.6	A & C	13	6	180	44.6	1.82	1.74	0.202
28	TSA(C)013d006fR37.5	A & C	13	6	210	37.5	2.16	2.07	0.24
29	TSC016d000fR210	C	16	0	30	210	0.39	0.19	0.043
30	TSA(C)016d000fR100	A & C	16	0	60	100	0.81	0.4	0.09
31	TSA(C)016d000fR62.9	A & C	16	0	90	62.9	1.29	0.64	0.143
32	TSA(C)016d000fR44.6	A & C	16	0	120	44.6	1.82	0.91	0.202
33	TSA(C)016d000fR33.4	A & C	16	0	150	33.4	2.43	1.21	0.27
34	TSA(C)016d000fR28	A & C	16	0	180	28	2.89	1.44	0.321
35	TSA(C)016d000fR22.2	A & C	16	0	210	22.2	3.65	1.82	0.406
36	TSC016d008fR280	C	16	8	30	280	0.29	0.19	0.032
37	TSC016d008fR133	C	16	8	60	133	0.61	0.4	0.068
38	TSA(C)016d008fR83.8	A & C	16	8	90	83.8	0.97	0.64	0.108
39	TSA(C)016d008fR59.4	A & C	16	8	120	59.4	1.36	0.9	0.151
40	TSA(C)016d008fR44.6	A & C	16	8	150	44.6	1.82	1.21	0.202
41	TSA(C)016d008fR37.5	A & C	16	8	180	37.5	2.16	1.43	0.24
42	TSA(C)016d008fR29.7	A & C	16	8	210	29.7	2.73	1.81	0.303
43	TSA(C)020d000fR167	A & C	20	0	30	167	0.49	0.16	0.054
44	TSA(C)020d000fR83.8	A & C	20	0	60	83.8	0.97	0.31	0.108
45	TSA(C)020d000fR50	A & C	20	0	90	50	1.62	0.52	0.18
46	TSA(C)020d000fR37.5	A & C	20	0	120	37.5	2.16	0.69	0.24
47	TSA(C)020d000fR28	A & C	20	0	150	28	2.89	0.92	0.321
48	TSA(C)020d000fR23.5	A & C	20	0	180	23.5	3.45	1.1	0.383
49	TSA(C)020d000fR19.8	A & C	20	0	210	19.8	4.09	1.3	0.454
50	TSC020d005fR187	C	20	5	30	187	0.43	0.15	0.048
51	TSA(C)020d005fR88.8	A & C	20	5	60	88.8	0.91	0.31	0.101
52	TSA(C)020d005fR56.1	A & C	20	5	90	56.1	1.44	0.49	0.16
53	TSA(C)020d005fR39.7	A & C	20	5	120	39.7	2.04	0.69	0.227
54	TSA(C)020d005fR29.7	A & C	20	5	150	29.7	2.73	0.93	0.303
55	TSA(C)020d005fR24.9	A & C	20	5	180	24.9	3.25	1.1	0.361
56	TSA(C)020d005fR21	A & C	20	5	210	21	3.86	1.31	0.429
57	TSC020d010fR235	C	20	10	30	235	0.34	0.14	0.038
58	TSA(C)020d010fR112	A & C	20	10	60	112	0.72	0.31	0.08
59	TSA(C)020d010fR66.6	A & C	20	10	90	66.6	1.22	0.52	0.136
60	TSA(C)020d010fR50	A & C	20	10	120	50	1.62	0.69	0.18
61	TSA(C)020d010fR37.5	A & C	20	10	150	37.5	2.16	0.92	0.24
62	TSA(C)020d010fR31.5	A & C	20	10	180	31.5	2.57	1.09	0.286
63	TSA(C)020d010fR24.9	A & C	20	10	210	24.9	3.25	1.38	0.361
64	TSA(C)025d000fR119	A & C	25	0	30	119	0.68	0.14	0.076
65	TSA(C)025d000fR56.1	A & C	25	0	60	56.1	1.44	0.29	0.16
66	TSA(C)025d000fR33.4	A & C	25	0	90	33.4	2.43	0.5	0.27
67	TSA(C)025d000fR24.9	A & C	25	0	120	24.9	3.25	0.66	0.361
68	TSA(C)025d000fR18.7	A & C	25	0	150	18.7	4.33	0.88	0.481
69	TSA(C)025d000fR15.8	A & C	25	0	180	15.8	5.13	1.05	0.57
70	TSA(C)025d000fR13.3	A & C	25	0	210	13.3	6.09	1.24	0.677
71	TSA(C)025d006fR126	A & C	25	6	30	126	0.64	0.14	0.071
72	TSA(C)025d006fR59.4	A & C	25	6	60	59.4	1.36	0.29	0.151
73	TSA(C)025d006fR35.4	A & C	25	6	90	35.4	2.29	0.5	0.254

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)025d006fR26.4	A & C	25	6	120	26.4	3.07	0.66	0.341
75	TSA(C)025d006fR19.8	A & C	25	6	150	19.8	4.09	0.88	0.454
76	TSA(C)025d006fR16.7	A & C	25	6	180	16.7	4.85	1.05	0.539
77	TSA(C)025d006fR14.1	A & C	25	6	210	14.1	5.74	1.24	0.638
78	TSA(C)025d013fR158	A & C	25	13	30	158	0.51	0.14	0.057
79	TSA(C)025d013fR74.7	A & C	25	13	60	74.7	1.08	0.3	0.12
80	TSA(C)025d013fR47.2	A & C	25	13	90	47.2	1.72	0.48	0.191
81	TSA(C)025d013fR33.4	A & C	25	13	120	33.4	2.43	0.68	0.27
82	TSA(C)025d013fR26.4	A & C	25	13	150	26.4	3.07	0.86	0.341
83	TSA(C)025d013fR21	A & C	25	13	180	21	3.86	1.08	0.429
84	TSA(C)025d013fR17.7	A & C	25	13	210	17.7	4.58	1.28	0.509
85	TSA(C)032d000fR74.7	A & C	32	0	30	74.7	1.08	0.13	0.12
86	TSA(C)032d000fR35.4	A & C	32	0	60	35.4	2.29	0.28	0.254
87	TSA(C)032d000fR22.2	A & C	32	0	90	22.2	3.65	0.45	0.406
88	TSA(C)032d000fR15.8	A & C	32	0	120	15.8	5.13	0.64	0.57
89	TSA(C)032d000fR12.6	A & C	32	0	150	12.6	6.43	0.8	0.714
90	TSA(C)032d000fR10	A & C	32	0	180	10	8.1	1.01	0.9
91	TSA(C)032d000fR8.38	A & C	32	0	210	8.38	9.67	1.2	1.074
92	TSA(C)032d008fR79.1	A & C	32	8	30	79.1	1.02	0.14	0.113
93	TSA(C)032d008fR37.5	A & C	32	8	60	37.5	2.16	0.29	0.24
94	TSA(C)032d008fR23.5	A & C	32	8	90	23.5	3.45	0.46	0.383
95	TSA(C)032d008fR16.7	A & C	32	8	120	16.7	4.85	0.64	0.539
96	TSA(C)032d008fR13.3	A & C	32	8	150	13.3	6.09	0.81	0.677
97	TSA(C)032d008fR10.6	A & C	32	8	180	10.6	7.64	1.01	0.849
98	TSA(C)032d008fR8.88	A & C	32	8	210	8.88	9.12	1.21	1.013
99	TSA(C)032d016fR100	A & C	32	16	30	100	0.81	0.13	0.09
100	TSA(C)032d016fR47.2	A & C	32	16	60	47.2	1.72	0.29	0.191
101	TSA(C)032d016fR29.7	A & C	32	16	90	29.7	2.73	0.45	0.303
102	TSA(C)032d016fR21	A & C	32	16	120	21	3.86	0.64	0.429
103	TSA(C)032d016fR16.7	A & C	32	16	150	16.7	4.85	0.8	0.539
104	TSA(C)032d016fR13.3	A & C	32	16	180	13.3	6.09	1.01	0.677
105	TSA(C)032d016fR11.2	A & C	32	16	210	11.2	7.23	1.2	0.803
106	TSA(C)040d000fR50	A & C	40	0	30	50	1.62	0.13	0.18
107	TSA(C)040d000fR23.5	A & C	40	0	60	23.5	3.45	0.27	0.383
108	TSA(C)040d000fR14.9	A & C	40	0	90	14.9	5.44	0.43	0.604
109	TSA(C)040d000fR10.6	A & C	40	0	120	10.6	7.64	0.61	0.849
110	TSA(C)040d000fR8.38	A & C	40	0	150	8.38	9.67	0.77	1.074
111	TSA(C)040d000fR6.66	A & C	40	0	180	6.66	12.16	0.97	1.351
112	TSA(C)040d000fR5.61	A & C	40	0	210	5.61	14.44	1.15	1.604
113	TSA(C)040d005fR50	A & C	40	5	30	50	1.62	0.13	0.18
114	TSA(C)040d005fR23.5	A & C	40	5	60	23.5	3.45	0.28	0.383
115	TSA(C)040d005fR14.9	A & C	40	5	90	14.9	5.44	0.44	0.604
116	TSA(C)040d005fR10.6	A & C	40	5	120	10.6	7.64	0.62	0.849
117	TSA(C)040d005fR8.38	A & C	40	5	150	8.38	9.67	0.78	1.074
118	TSA(C)040d005fR7.05	A & C	40	5	180	7.05	11.49	0.93	1.277
119	TSA(C)040d005fR5.94	A & C	40	5	210	5.94	13.64	1.1	1.516
120	TSA(C)040d010fR53	A & C	40	10	30	53	1.53	0.13	0.17
121	TSA(C)040d010fR24.9	A & C	40	10	60	24.9	3.25	0.28	0.361
122	TSA(C)040d010fR15.8	A & C	40	10	90	15.8	5.13	0.44	0.57
123	TSA(C)040d010fR11.2	A & C	40	10	120	11.2	7.		

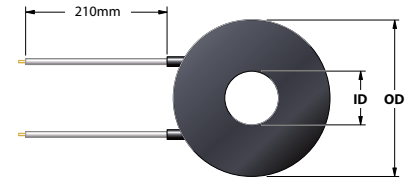


# STANDARD | Round 9V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref (°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)050d006fR3.97	A & C	50	6	210	3.97	20.4	1.05	2.267
148	TSA(C)050d013fR35.4	A & C	50	13	30	35.4	2.29	0.13	0.254
149	TSA(C)050d013fR16.7	A & C	50	13	60	16.7	4.85	0.26	0.539
150	TSA(C)050d013fR11.2	A & C	50	13	90	11.2	7.23	0.39	0.803
151	TSA(C)050d013fR7.91	A & C	50	13	120	7.91	10.24	0.56	1.138
152	TSA(C)050d013fR5.94	A & C	50	13	150	5.94	13.64	0.75	1.516
153	TSA(C)050d013fR5	A & C	50	13	180	5	16.2	0.88	1.8
154	TSA(C)050d013fR4.21	A & C	50	13	210	4.21	19.24	1.05	2.138
155	TSA(C)050d025fR44.6	A & C	50	25	30	44.6	1.82	0.12	0.202
156	TSA(C)050d025fR21	A & C	50	25	60	21	3.86	0.26	0.429
157	TSA(C)063d000fR13.3	A & C	50	25	90	13.3	6.09	0.41	0.677
158	TSA(C)050d025fR9.41	A & C	50	25	120	9.41	8.61	0.58	0.957
159	TSA(C)050d025fR7.47	A & C	50	25	150	7.47	10.84	0.74	1.204
160	TSA(C)050d025fR6.29	A & C	50	25	180	6.29	12.88	0.87	1.431
161	TSA(C)050d025fR5.3	A & C	50	25	210	5.3	15.28	1.04	1.698
162	TSA(C)063d000fR22.2	A & C	63	0	30	22.2	3.65	0.12	0.406
163	TSA(C)063d000fR10.6	A & C	63	0	60	10.6	7.64	0.25	0.849
164	TSA(C)063d000fR7.05	A & C	63	0	90	7.05	11.49	0.37	1.277
165	TSA(C)063d000fR5	A & C	63	0	120	5	16.2	0.52	1.8
166	TSA(C)063d000fR3.75	A & C	63	0	150	3.75	21.6	0.69	2.4
167	TSA(C)063d000fR3.15	A & C	63	0	180	3.15	25.71	0.82	2.857
168	TSA063d000fR2.64	A	63	0	210	2.64	30.68	0.98	3.409
169	TSA(C)063d008fR22.2	A & C	63	8	30	22.2	3.65	0.12	0.406
170	TSA(C)063d008fR11.2	A & C	63	8	60	11.2	7.23	0.24	0.803
171	TSA(C)063d008fR7.05	A & C	63	8	90	7.05	11.49	0.37	1.277
172	TSA(C)063d008fR5	A & C	63	8	120	5	16.2	0.53	1.8
173	TSA(C)063d008fR3.75	A & C	63	8	150	3.75	21.6	0.7	2.4
174	TSA(C)063d008fR3.15	A & C	63	8	180	3.15	25.71	0.84	2.857
175	TSA063d008fR2.64	A	63	8	210	2.64	30.68	1	3.409
176	TSA(C)063d016fR23.5	A & C	63	16	30	23.5	3.45	0.12	0.383
177	TSA(C)063d016fR11.9	A & C	63	16	60	11.9	6.81	0.23	0.757
178	TSA(C)063d016fR7.47	A & C	63	16	90	7.47	10.84	0.37	1.204
179	TSA(C)063d016fR5.3	A & C	63	16	120	5.3	15.28	0.52	1.698
180	TSA(C)063d016fR3.97	A & C	63	16	150	3.97	20.4	0.7	2.267
181	TSA(C)063d016fR3.34	A & C	63	16	180	3.34	24.25	0.83	2.694
182	TSA063d016fR2.8	A	63	16	210	2.8	28.93	0.99	3.214
183	TSA(C)063d032fR29.7	A & C	63	32	30	29.7	2.73	0.12	0.303
184	TSA(C)063d032fR14.9	A & C	63	32	60	14.9	5.44	0.24	0.604
185	TSA(C)063d032fR9.41	A & C	63	32	90	9.41	8.61	0.37	0.957
186	TSA(C)063d032fR6.66	A & C	63	32	120	6.66	12.16	0.53	1.351
187	TSA(C)063d032fR5	A & C	63	32	150	5	16.2	0.7	1.8
188	TSA(C)063d032fR4.21	A & C	63	32	180	4.21	19.24	0.83	2.138
189	TSA(C)063d032fR3.54	A & C	63	32	210	3.54	22.88	0.99	2.542
190	TSA(C)080d000fR14.9	A & C	80	0	30	14.9	5.44	0.11	0.604
191	TSA(C)080d000fR7.47	A & C	80	0	60	7.47	10.84	0.22	1.204
192	TSA(C)080d000fR4.72	A & C	80	0	90	4.72	17.16	0.34	1.907
193	TSA(C)080d000fR3.34	A & C	80	0	120	3.34	24.25	0.48	2.694
194	TSA080d000fR2.49	A	80	0	150	2.49	32.53	0.65	3.614
195	TSA080d000fR2.1	A	80	0	180	2.1	38.57	0.77	4.286
196	TSA080d000fR1.77	A	80	0	210	1.77	45.76	0.91	5.084
197	TSA(C)080d005fR14.9	A & C	80	5	30	14.9	5.44	0.11	0.604
198	TSA(C)080d005fR7.47	A & C	80	5	60	7.47	10.84	0.22	1.204
199	TSA(C)080d005fR4.72	A & C	80	5	90	4.72	17.16	0.34	1.907
200	TSA(C)080d005fR3.34	A & C	80	5	120	3.34	24.25	0.48	2.694
201	TSA080d005fR2.49	A	80	5	150	2.49	32.53	0.65	3.614
202	TSA080d005fR2.1	A	80	5	180	2.1	38.57	0.77	4.286
203	TSA080d005fR1.77	A	80	5	210	1.77	45.76	0.91	5.084
204	TSA(C)080d010fR15.8	A & C	80	10	30	15.8	5.13	0.1	0.57
205	TSA(C)080d010fR7.47	A & C	80	10	60	7.47	10.84	0.22	1.204
206	TSA(C)080d010fR4.72	A & C	80	10	90	4.72	17.16	0.35	1.907
207	TSA(C)080d010fR3.34	A & C	80	10	120	3.34	24.25	0.49	2.694
208	TSA080d010fR2.64	A	80	10	150	2.64	30.68	0.62	3.409
209	TSA080d010fR2.1	A	80	10	180	2.1	38.57	0.78	4.286
210	TSA080d010fR1.77	A	80	10	210	1.77	45.76	0.92	5.084
211	TSA(C)080d020fR16.7	A & C	80	20	30	16.7	4.85	0.1	0.539
212	TSA(C)080d020fR7.91	A & C	80	20	60	7.91	10.24	0.22	1.138
213	TSA(C)080d020fR5	A & C	80	20	90	5	16.2	0.34	1.8
214	TSA(C)080d020fR3.54	A & C	80	20	120	3.54	22.88	0.49	2.542
215	TSA080d020fR2.64	A	80	20	150	2.64	30.68	0.65	3.409
216	TSA080d020fR2.22	A	80	20	180	2.22	36.49	0.77	4.054
217	TSA080d020fR1.87	A	80	20	210	1.87	43.32	0.92	4.813
218	TSA(C)080d040fR19.8	A & C	80	40	30	19.8	4.09	0.11	0.454
219	TSA(C)080d040fR10	A & C	80	40	60	10	8.1	0.21	0.9

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref (°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)080d040fR6.29	A & C	80	40	90	6.29	12.88	0.34	1.431
221	TSA(C)080d040fR4.46	A & C	80	40	120	4.46	18.16	0.48	2.018
222	TSA(C)080d040fR3.34	A & C	80	40	150	3.34	24.25	0.64	2.694
223	TSA080d040fR2.8	A	80	40	180	2.8	28.93	0.77	3.214
224	TSA080d040fR2.35	A	80	40	210	2.35	34.47	0.91	3.83
225	TSA(C)100d000fR11.2	A & C	100	0	30	11.2	7.23	0.09	0.803
226	TSA(C)100d000fR5.61	A & C	100	0	60	5.61	14.44	0.18	1.604
227	TSA(C)100d000fR3.54	A & C	100	0	90	3.54	22.88	0.29	2.542
228	TSA100d000fR2.35	A	100	0	120	2.35	34.47	0.44	3.83
229	TSA100d000fR1.87	A	100	0	150	1.87	43.32	0.55	4.813
230	TSA100d000fR1.49	A	100	0	180	1.49	54.36	0.69	6.04
231	TSA100d000fR1.19	A	100	0	210	1.19	68.07	0.87	7.563
232	TSA(C)100d006fR11.2	A & C	100	6	30	11.2	7.23	0.09	0.803
233	TSA(C)100d006fR5.61	A & C	100	6	60	5.61	14.44	0.18	1.604
234	TSA(C)100d006fR3.54	A & C	100	6	90	3.54	22.88	0.29	2.542
235	TSA100d006fR2.35	A	100	6	120	2.35	34.47	0.44	3.83
236	TSA100d006fR1.87	A	100	6	150	1.87	43.32	0.55	4.813
237	TSA100d006fR1.49	A	100	6	180	1.49	54.36	0.69	6.04
238	TSA100d006fR1.26	A	100	6	210	1.26	64.29	0.82	7.143
239	TSA(C)100d013fR11.2	A & C	100	13	30	11.2	7.23	0.09	0.803
240	TSA(C)100d013fR5.61	A & C	100	13	60	5.61	14.44	0.19	1.604
241	TSA(C)100d013fR3.54	A & C	100	13	90	3.54	22.88	0.3	2.542
242	TSA100d013fR2.35	A	100	13	120	2.35	34.47	0.45	3.83
243	TSA100d013fR1.87	A	100	13	150	1.87	43.32	0.56	4.813
244	TSA100d013fR1.49	A	100	13	180	1.49	54.36	0.7	6.04
245	TSA100d013fR1.26	A	100	13	210	1.26	64.29	0.83	7.143
246	TSA(C)100d025fR11.9	A & C	100	25	30	11.9	6.81	0.09	0.757
247	TSA(C)100d025fR5.94	A & C	100	25	60	5.94	13.64	0.19	1.516
248	TSA(C)100d025fR3.75	A & C	100	25	90	3.75	21.6	0.29	2.4
249	TSA100d025fR2.49	A	100	25	120	2.49	32.53	0.44	3.614
250	TSA100d025fR1.98	A	100	25	150	1.98	40.91	0.56	4.546
251	TSA100d025fR1.58	A	100	25	180	1.58	51.27	0.7	5.697
252	TSA100d025fR1.33	A	100	25	210	1.33	60.9	0.83	6.767
253	TSA(C)100d050fR14.9	A & C	100	50	30	14.9	5.44	0.09	0.604
254	TSA(C)100d050fR7.47	A & C	100	50	60	7.47	10.84	0.18	1.204
255	TSA(C)100d050fR4.72	A & C	100	50	90	4.72	17.16	0.29	1.907
256	TSA(C)100d050fR3.15	A & C	100	50	120	3.15	25.71	0.44	2.857
257	TSA100d050fR2.49	A	100	50	150	2.49	32.53	0.55	3.614
258	TSA100d050fR1.98	A	100	50	180	1.98	40.91	0.69	4.546
259	TSA100d050fR1.67	A	100	50	210	1.67	48.5	0.82	5.389
260	TSA(C)125d000fR7.47	A & C	125	0	30	7.47	10.84	0.09	1.204
261	TSA(C)125d000fR3.75	A & C	125	0	60	3.75	21.6	0.18	2.4
262	TSA125d000fR2.35	A	125	0	90	2.35	34.47	0.28	3.83
263	TSA125d000fR1.67	A	125	0	120	1.67	48.5	0.4	5.389
264	TSA125d000fR1.26	A	125	0	150	1.26	64.29	0.52	7.143
265	TSA125d000fR1	A	125	0	180	1	81	0.66	9
266	TSA125d000fR0.838	A	125	0	210	0.838	96.66	0.79	10.74
267	TSA(C)125d008fR7.91	A & C	125	8	30				

# STANDARD | Round 9V



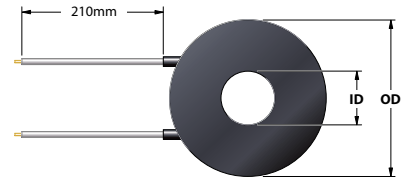
No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA125d063fR1.41	A	125	63	180	1.41	57.45	0.63	6.383
294	TSA125d063fR1.12	A	125	63	210	1.12	72.32	0.79	8.036
295	TSA(C)160d000fR5.3	A & C	160	0	30	5.3	15.28	0.08	1.698
296	TSA160d000fR2.64	A	160	0	60	2.64	30.68	0.15	3.409
297	TSA160d000fR1.67	A	160	0	90	1.67	48.5	0.24	5.389
298	TSA160d000fR1.12	A	160	0	120	1.12	72.32	0.36	8.036
299	TSA160d000fR0.838	A	160	0	150	0.838	96.66	0.48	10.74
300	TSA160d000fR0.705	A	160	0	180	0.705	114.89	0.57	12.766
301	TSA(C)160d005fR5.3	A & C	160	5	30	5.3	15.28	0.08	1.698
302	TSA160d005fR2.64	A	160	5	60	2.64	30.68	0.15	3.409
303	TSA160d005fR1.67	A	160	5	90	1.67	48.5	0.24	5.389
304	TSA160d005fR1.12	A	160	5	120	1.12	72.32	0.36	8.036
305	TSA160d005fR0.838	A	160	5	150	0.838	96.66	0.48	10.74
306	TSA160d005fR0.705	A	160	5	180	0.705	114.89	0.57	12.766
307	TSA(C)160d010fR5.3	A & C	160	10	30	5.3	15.28	0.08	1.698
308	TSA160d010fR2.64	A	160	10	60	2.64	30.68	0.15	3.409
309	TSA160d010fR1.67	A	160	10	90	1.67	48.5	0.24	5.389
310	TSA160d010fR1.12	A	160	10	120	1.12	72.32	0.36	8.036
311	TSA160d010fR0.888	A	160	10	150	0.888	91.22	0.46	10.136
312	TSA160d010fR0.705	A	160	10	180	0.705	114.89	0.57	12.766
313	TSA(C)160d020fR5.3	A & C	160	20	30	5.3	15.28	0.08	1.698
314	TSA160d020fR2.64	A	160	20	60	2.64	30.68	0.16	3.409
315	TSA160d020fR1.67	A	160	20	90	1.67	48.5	0.25	5.389
316	TSA160d020fR1.12	A	160	20	120	1.12	72.32	0.37	8.036
317	TSA160d020fR0.888	A	160	20	150	0.888	91.22	0.46	10.136
318	TSA160d020fR0.705	A	160	20	180	0.705	114.89	0.58	12.766
319	TSA160d020fR0.594	A	160	20	210	0.594	136.36	0.69	15.151
320	TSA(C)160d040fR5.61	A & C	160	40	30	5.61	14.44	0.08	1.604
321	TSA160d040fR2.8	A	160	40	60	2.8	28.93	0.15	3.214
322	TSA160d040fR1.77	A	160	40	90	1.77	45.76	0.24	5.084
323	TSA160d040fR1.19	A	160	40	120	1.19	68.07	0.36	7.563
324	TSA160d040fR0.941	A	160	40	150	0.941	86.08	0.46	9.564
325	TSA160d040fR0.747	A	160	40	180	0.747	108.43	0.58	12.048
326	TSA160d040fR0.629	A	160	40	210	0.629	128.78	0.68	14.309
327	TSA(C)160d080fR7.05	A & C	160	80	30	7.05	11.49	0.08	1.277
328	TSA(C)160d080fR3.54	A & C	160	80	60	3.54	22.88	0.15	2.542
329	TSA160d080fR2.22	A	160	80	90	2.22	36.49	0.24	4.054
330	TSA160d080fR1.49	A	160	80	120	1.49	54.36	0.36	6.04
331	TSA160d080fR1.12	A	160	80	150	1.12	72.32	0.48	8.036
332	TSA160d080fR0.941	A	160	80	180	0.941	86.08	0.57	9.564
333	TSA160d080fR0.791	A	160	80	210	0.791	102.4	0.68	11.378
334	TSA(C)200d000fR3.54	A & C	200	0	30	3.54	22.88	0.07	2.542
335	TSA200d000fR1.77	A	200	0	60	1.77	45.76	0.15	5.084
336	TSA200d000fR1.12	A	200	0	90	1.12	72.32	0.23	8.036
337	TSA200d000fR0.791	A	200	0	120	0.791	102.4	0.33	11.378
338	TSA200d000fR0.594	A	200	0	150	0.594	136.36	0.43	15.151
339	TSA(C)200d006fR3.54	A & C	200	6	30	3.54	22.88	0.07	2.542
340	TSA200d006fR1.77	A	200	6	60	1.77	45.76	0.15	5.084
341	TSA200d006fR1.12	A	200	6	90	1.12	72.32	0.23	8.036
342	TSA200d006fR0.791	A	200	6	120	0.791	102.4	0.33	11.378
343	TSA200d006fR0.594	A	200	6	150	0.594	136.36	0.43	15.151
344	TSA(C)200d013fR3.54	A & C	200	13	30	3.54	22.88	0.07	2.542
345	TSA200d013fR1.87	A	200	13	60	1.87	43.32	0.14	4.813
346	TSA200d013fR1.12	A	200	13	90	1.12	72.32	0.23	8.036

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
347	TSA200d013fR0.791	A	200	13	120	0.791	102.4	0.33	11.378
348	TSA200d013fR0.594	A	200	13	150	0.594	136.36	0.44	15.151
349	TSA(C)200d025fR3.75	A & C	200	25	30	3.75	21.6	0.07	2.4
350	TSA200d025fR1.87	A	200	25	60	1.87	43.32	0.14	4.813
351	TSA200d025fR1.12	A	200	25	90	1.12	72.32	0.23	8.036
352	TSA200d025fR0.791	A	200	25	120	0.791	102.4	0.33	11.378
353	TSA200d025fR0.594	A	200	25	150	0.594	136.36	0.44	15.151
354	TSA(C)200d050fR3.97	A & C	200	50	30	3.97	20.4	0.07	2.267
355	TSA200d050fR1.98	A	200	50	60	1.98	40.91	0.14	4.546
356	TSA200d050fR1.19	A	200	50	90	1.19	68.07	0.23	7.563
357	TSA200d050fR0.838	A	200	50	120	0.838	96.66	0.33	10.74
358	TSA200d050fR0.629	A	200	50	150	0.629	128.78	0.44	14.309
359	TSA(C)200d100fR4.72	A & C	200	100	30	4.72	17.16	0.07	1.907
360	TSA200d100fR2.35	A	200	100	60	2.35	34.47	0.15	3.83
361	TSA200d100fR1.49	A	200	100	90	1.49	54.36	0.23	6.04
362	TSA200d100fR1	A	200	100	120	1	81	0.34	9
363	TSA200d100fR0.791	A	200	100	150	0.791	102.4	0.43	11.378
364	TSA200d100fR0.666	A	200	100	180	0.666	121.62	0.52	13.513
365	TSA250d000fR2.49	A	250	0	30	2.49	32.53	0.07	3.614
366	TSA250d000fR1.26	A	250	0	60	1.26	64.29	0.13	7.143
367	TSA250d000fR0.791	A	250	0	90	0.791	102.4	0.21	11.378
368	TSA250d008fR2.49	A	250	8	30	2.49	32.53	0.07	3.614
369	TSA250d008fR1.26	A	250	8	60	1.26	64.29	0.13	7.143
370	TSA250d008fR0.791	A	250	8	90	0.791	102.4	0.21	11.378
371	TSA250d016fR2.49	A	250	16	30	2.49	32.53	0.07	3.614
372	TSA250d016fR1.26	A	250	16	60	1.26	64.29	0.13	7.143
373	TSA250d016fR0.791	A	250	16	90	0.791	102.4	0.21	11.378
374	TSA250d032fR2.64	A	250	32	30	2.64	30.68	0.06	3.409
375	TSA250d032fR1.26	A	250	32	60	1.26	64.29	0.13	7.143
376	TSA250d032fR0.791	A	250	32	90	0.791	102.4	0.21	11.378
377	TSA250d063fR2.64	A	250	63	30	2.64	30.68	0.07	3.409
378	TSA250d063fR1.33	A	250	63	60	1.33	60.9	0.13	6.767
379	TSA250d063fR0.838	A	250	63	90	0.838	96.66	0.21	10.74
380	TSA(C)250d125fR3.34	A & C	250	125	30	3.34	24.25	0.07	2.694
381	TSA250d125fR1.67	A	250	125	60	1.67	48.5	0.13	5.389
382	TSA250d125fR1.06	A	250	125	90	1.06	76.42	0.21	8.491
383	TSA250d125fR0.705	A	250	125	120	0.705	114.89	0.31	12.766
384	TSA300d000fR1.87	A	300	0	30	1.87	43.32	0.06	4.813
385	TSA300d000fR0.888	A	300	0	60	0.888	91.22	0.13	10.136
386	TSA300d005fR1.87	A	300	5	30	1.87	43.32	0.06	4.813
387	TSA300d005fR0.941	A	300	5	60	0.941	86.08	0.12	9.564
388	TSA300d010fR1.87	A	300	10	30	1.87	43.32	0.06	4.813
389	TSA300d010fR0.941	A	300	10	60	0.941	86.08	0.12	9.564
390	TSA300d020fR1.87	A	300	20	30	1.87	43.32	0.06	4.813
391	TSA300d020fR0.941	A	300	20	60	0.941	86.08	0.12	9.564
392	TSA300d040fR1.87	A	300	40	30	1.87	43.32	0.06	4.813
393	TSA300d040fR0.941	A	300	40	60	0.941	86.08	0.12	9.564
394	TSA300d080fR1.98	A	300	80	30	1.98	40.91	0.06	4.546
395	TSA300d080fR1	A	300	80	60	1	81	0.12	9
396	TSA300d080fR0.629	A	300	80	90	0.629	128.78	0.2	14.309
397	TSA300d160fR2.49	A	300	160	30	2.49	32.53	0.06	3.614
398	TSA300d160fR1.26	A	300	160	60	1.26	64.29	0.13	7.143
399	TSA300d160fR0.791	A	300	160	90	0.791	102.4	0.2	11.378

Dimensions and specifications are subject to change without notice.

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape	: ROUND
Materials/Type	: TSA (Etched); TSC (Nano-Carbon)
Outer Diameter	: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm
Inner Diameter	: 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm
Temp. Rise Ref. (°C)	: 30, 60, 90, 150, 180, 210°C
Voltage(V)	: 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



# STANDARD | Round 12V

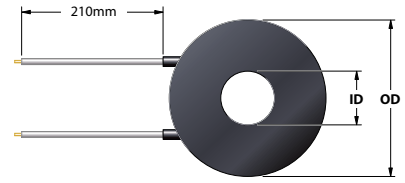
■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000gR705	C	10	0	30	705	0.2	0.25	0.017
2	TSC010d000gR334	C	10	0	60	334	0.43	0.55	0.036
3	TSC010d000gR210	C	10	0	90	210	0.69	0.88	0.058
4	TSC010d000gR158	C	10	0	120	158	0.91	1.16	0.076
5	TSC010d000gR119	C	10	0	150	119	1.21	1.54	0.101
6	TSC010d000gR94.1	C	10	0	180	94.1	1.53	1.95	0.128
7	TSC010d000gR74.7	C	10	0	210	74.7	1.93	2.46	0.161
8	TSC010d005gR941	C	10	5	30	941	0.15	0.25	0.013
9	TSC010d005gR446	C	10	5	60	446	0.32	0.54	0.027
10	TSC010d005gR280	C	10	5	90	280	0.51	0.87	0.043
11	TSC010d005gR210	C	10	5	120	210	0.69	1.17	0.058
12	TSC010d005gR158	C	10	5	150	158	0.91	1.54	0.076
13	TSC010d005gR126	C	10	5	180	126	1.14	1.94	0.095
14	TSC010d005gR100	C	10	5	210	100	1.44	2.44	0.12
15	TSC013d000gR472	C	13	0	30	472	0.31	0.23	0.026
16	TSC013d000gR235	C	13	0	60	235	0.61	0.46	0.051
17	TSC013d000gR141	C	13	0	90	141	1.02	0.77	0.085
18	TSC013d000gR106	C	13	0	120	106	1.36	1.02	0.113
19	TSC013d000gR79.1	C	13	0	150	79.1	1.82	1.37	0.152
20	TSA(C)013d000gR62.9	A & C	13	0	180	62.9	2.29	1.73	0.191
21	TSA(C)013d000gR53	A & C	13	0	210	53	2.72	2.05	0.227
22	TSC013d006gR594	C	13	6	30	594	0.24	0.23	0.02
23	TSC013d006gR297	C	13	6	60	297	0.48	0.46	0.04
24	TSC013d006gR187	C	13	6	90	187	0.77	0.74	0.064
25	TSC013d006gR133	C	13	6	120	133	1.08	1.03	0.09
26	TSC013d006gR100	C	13	6	150	100	1.44	1.38	0.12
27	TSC013d006gR79.1	C	13	6	180	79.1	1.82	1.74	0.152
28	TSC013d006gR66.6	C	13	6	210	66.6	2.16	2.07	0.18
29	TSC016d000gR375	C	16	0	30	375	0.38	0.19	0.032
30	TSC016d000gR177	C	16	0	60	177	0.81	0.4	0.068
31	TSA(C)016d000gR112	A & C	16	0	90	112	1.29	0.64	0.108
32	TSA(C)016d000gR79.1	A & C	16	0	120	79.1	1.82	0.91	0.152
33	TSA(C)016d000gR59.4	A & C	16	0	150	59.4	2.42	1.2	0.202
34	TSA(C)016d000gR50	A & C	16	0	180	50	2.88	1.43	0.24
35	TSA(C)016d000gR39.7	A & C	16	0	210	39.7	3.63	1.81	0.303
36	TSC016d008gR500	C	16	8	30	500	0.29	0.19	0.024
37	TSC016d008gR235	C	16	8	60	235	0.61	0.4	0.051
38	TSC016d008gR149	C	16	8	90	149	0.97	0.64	0.081
39	TSC016d008gR106	C	16	8	120	106	1.36	0.9	0.113
40	TSA(C)016d008gR79.1	A & C	16	8	150	79.1	1.82	1.21	0.152
41	TSA(C)016d008gR66.6	A & C	16	8	180	66.6	2.16	1.43	0.18
42	TSA(C)016d008gR53	A & C	16	8	210	53	2.72	1.8	0.227
43	TSC020d000gR297	C	20	0	30	297	0.48	0.15	0.04
44	TSA(C)020d000gR149	A & C	20	0	60	149	0.97	0.31	0.081
45	TSA(C)020d000gR94.1	A & C	20	0	90	94.1	1.53	0.49	0.128
46	TSA(C)020d000gR66.6	A & C	20	0	120	66.6	2.16	0.69	0.18
47	TSA(C)020d000gR50	A & C	20	0	150	50	2.88	0.92	0.24
48	TSA(C)020d000gR39.7	A & C	20	0	180	39.7	3.63	1.16	0.303
49	TSA(C)020d000gR33.4	A & C	20	0	210	33.4	4.31	1.37	0.359
50	TSC020d005gR334	C	20	5	30	334	0.43	0.15	0.036
51	TSA(C)020d005gR158	A & C	20	5	60	158	0.91	0.31	0.076
52	TSA(C)020d005gR100	A & C	20	5	90	100	1.44	0.49	0.12
53	TSA(C)020d005gR70.5	A & C	20	5	120	70.5	2.04	0.69	0.17
54	TSA(C)020d005gR53	A & C	20	5	150	53	2.72	0.92	0.227
55	TSA(C)020d005gR44.6	A & C	20	5	180	44.6	3.23	1.1	0.269
56	TSA(C)020d005gR37.5	A & C	20	5	210	37.5	3.84	1.3	0.32
57	TSC020d010gR421	C	20	10	30	421	0.34	0.14	0.028
58	TSC020d010gR198	C	20	10	60	198	0.73	0.31	0.061
59	TSA(C)020d010gR119	A & C	20	10	90	119	1.21	0.51	0.101
60	TSA(C)020d010gR88.8	A & C	20	10	120	88.8	1.62	0.69	0.135
61	TSA(C)020d010gR66.6	A & C	20	10	150	66.6	2.16	0.92	0.18
62	TSA(C)020d010gR53	A & C	20	10	180	53	2.72	1.15	0.227
63	TSA(C)020d010gR44.6	A & C	20	10	210	44.6	3.23	1.37	0.269
64	TSA(C)025d000gR210	A & C	25	0	30	210	0.69	0.14	0.058
65	TSA(C)025d000gR100	A & C	25	0	60	100	1.44	0.29	0.12
66	TSA(C)025d000gR59.4	A & C	25	0	90	59.4	2.42	0.49	0.202
67	TSA(C)025d000gR42.1	A & C	25	0	120	42.1	3.42	0.7	0.285
68	TSA(C)025d000gR33.4	A & C	25	0	150	33.4	4.31	0.88	0.359
69	TSA(C)025d000gR28	A & C	25	0	180	28	5.14	1.05	0.428
70	TSA(C)025d000gR23.5	A & C	25	0	210	23.5	6.13	1.25	0.511
71	TSA(C)025d006gR222	A & C	25	6	30	222	0.65	0.14	0.054
72	TSA(C)025d006gR106	A & C	25	6	60	106	1.36	0.29	0.113
73	TSA(C)025d006gR62.9	A & C	25	6	90	62.9	2.29	0.5	0.191

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)025d006gR47.2	A & C	25	6	120	47.2	3.05	0.66	0.254
75	TSA(C)025d006gR35.4	A & C	25	6	150	35.4	4.07	0.88	0.339
76	TSA(C)025d006gR29.7	A & C	25	6	180	29.7	4.85	1.05	0.404
77	TSA(C)025d006gR24.9	A & C	25	6	210	24.9	5.78	1.25	0.482
78	TSC025d013gR280	C	25	13	30	280	0.51	0.14	0.043
79	TSA(C)025d013gR133	A & C	25	13	60	133	1.08	0.3	0.09
80	TSA(C)025d013gR83.8	A & C	25	13	90	83.8	1.72	0.48	0.143
81	TSA(C)025d013gR59.4	A & C	25	13	120	59.4	2.42	0.68	0.202
82	TSA(C)025d013gR47.2	A & C	25	13	150	47.2	3.05	0.85	0.254
83	TSA(C)025d013gR37.5	A & C	25	13	180	37.5	3.84	1.07	0.32
84	TSA(C)025d013gR31.5	A & C	25	13	210	31.5	4.57	1.28	0.381
85	TSA(C)032d000gR133	A & C	32	0	30	133	1.08	0.13	0.09
86	TSA(C)032d000gR62.9	A & C	32	0	60	62.9	2.29	0.28	0.191
87	TSA(C)032d000gR39.7	A & C	32	0	90	39.7	3.63	0.45	0.303
88	TSA(C)032d000gR28	A & C	32	0	120	28	5.14	0.64	0.428
89	TSA(C)032d000gR22.2	A & C	32	0	150	22.2	6.49	0.81	0.541
90	TSA(C)032d000gR17.7	A & C	32	0	180	17.7	8.14	1.01	0.678
91	TSA(C)032d000gR14.9	A & C	32	0	210	14.9	9.66	1.2	0.805
92	TSA(C)032d008gR141	A & C	32	8	30	141	1.02	0.14	0.085
93	TSA(C)032d008gR66.6	A & C	32	8	60	66.6	2.16	0.29	0.18
94	TSA(C)032d008gR42.1	A & C	32	8	90	42.1	3.42	0.45	0.285
95	TSA(C)032d008gR29.7	A & C	32	8	120	29.7	4.85	0.64	0.404
96	TSA(C)032d008gR23.5	A & C	32	8	150	23.5	6.13	0.81	0.511
97	TSA(C)032d016gR18.7	A & C	32	8	180	18.7	7.7	1.02	0.642
98	TSA(C)032d016gR15.8	A & C	32	8	210	15.8	9.11	1.21	0.759
99	TSA(C)032d016gR177	A & C	32	16	30	177	0.81	0.13	0.068
100	TSA(C)032d016gR83.8	A & C	32	16	60	83.8	1.72	0.29	0.143
101	TSA(C)032d016gR53	A & C	32	16	90	53	2.72	0.45	0.227
102	TSA(C)032d016gR37.5	A & C	32	16	120	37.5	3.84	0.64	0.32
103	TSA(C)032d016gR29.7	A & C	32	16	150	29.7	4.85	0.8	0.404
104	TSA(C)032d016gR23.5	A & C	32	16	180	23.5	6.13	1.02	0.511
105	TSA(C)032d016gR19.8	A & C	32	16	210	19.8	7.27	1.21	0.606
106	TSA(C)040d000gR88.8	A & C	40	0	30	88.8	1.62	0.13	0.135
107	TSA(C)040d000gR42.1	A & C	40	0	60	42.1	3.42	0.27	0.285
108	TSA(C)040d000gR26.4	A & C	40	0	90	26.4	5.45	0.43	0.454
109	TSA(C)040d000gR18.7	A & C	40	0	120	18.7	7.7	0.61	0.642
110	TSA(C)040d000gR14.9	A & C	40	0	150	14.9	9.66	0.77	0.805
111	TSA(C)040d000gR11.9	A & C	40	0	180	11.9	12.1	0.96	1.008
112	TSA(C)040d000gR10	A & C	40	0	210	10	14.4	1.15	1.2
113	TSA(C)040d005gR88.8	A & C	40	5	30	88.8	1.62	0.13	0.135
114	TSA(C)040d005gR42.1	A & C	40	5	60	42.1	3.42	0.28	0.285
115	TSA(C)040d005gR26.4	A & C	40	5	90	26.4	5.45	0.44	0.454
116	TSA(C)040d005gR18.7	A & C	40	5	120	18.7	7.7	0.62	0.642
117	TSA(C)040d005gR14.9	A & C	40	5	150	14.9	9.66	0.78	0.805
118	TSA(C)040d005gR12.6	A & C	40	5	180	12.6	11.43	0.92	0.953
119	TSA(C)040d005gR10	A & C	40	5	210	10	14.4	1.16	1.2
120	TSA(C)040d010gR94.1	A & C	40	10	30	94.1	1.53	0.13	0.128
121	TSA(C)040d010gR44.6	A & C	40	10	60	44.6	3.23	0.27	0.269
122	TSA(C)040d010gR28	A & C	40	10	90	28	5.14	0.44	0.428
123	TSA(C)040d010gR19.8	A & C	40	10	120	19.8	7.27	0.62	0.606
124	TSA(C)040d010gR15.8								

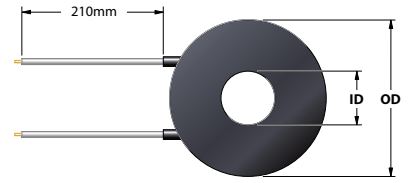


# STANDARD | Round 12V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)050d006gR7.05	A & C	50	6	210	7.05	20.43	1.06	1.703
148	TSA(C)050d013gR62.9	A & C	50	13	30	62.9	2.29	0.13	0.191
149	TSA(C)050d013gR29.7	A & C	50	13	60	29.7	4.85	0.26	0.404
150	TSA(C)050d013gR19.8	A & C	50	13	90	19.8	7.27	0.4	0.606
151	TSA(C)050d013gR14.1	A & C	50	13	120	14.1	10.21	0.56	0.851
152	TSA(C)050d013gR10.6	A & C	50	13	150	10.6	13.58	0.74	1.132
153	TSA(C)050d013gR8.88	A & C	50	13	180	8.88	16.22	0.89	1.352
154	TSA(C)050d013gR7.47	A & C	50	13	210	7.47	19.28	1.05	1.607
155	TSA(C)050d025gR79.1	A & C	50	25	30	79.1	1.82	0.12	0.152
156	TSA(C)050d025gR37.5	A & C	50	25	60	37.5	3.84	0.26	0.32
157	TSA(C)050d025gR24.9	A & C	50	25	90	24.9	5.78	0.39	0.482
158	TSA(C)050d025gR17.7	A & C	50	25	120	17.7	8.14	0.55	0.678
159	TSA(C)050d025gR13.3	A & C	50	25	150	13.3	10.83	0.74	0.903
160	TSA(C)050d025gR11.2	A & C	50	25	180	11.2	12.86	0.87	1.072
161	TSA(C)063d002gR9.41	A & C	50	25	210	9.41	15.3	1.04	1.275
162	TSA(C)063d000gR39.7	A & C	63	0	30	39.7	3.63	0.12	0.303
163	TSA(C)063d000gR19.8	A & C	63	0	60	19.8	7.27	0.23	0.606
164	TSA(C)063d000gR12.6	A & C	63	0	90	12.6	11.43	0.37	0.953
165	TSA(C)063d000gR8.88	A & C	63	0	120	8.88	16.22	0.52	1.352
166	TSA(C)063d000gR6.66	A & C	63	0	150	6.66	21.62	0.69	1.802
167	TSA(C)063d000gR5.61	A & C	63	0	180	5.61	25.67	0.82	2.139
168	TSA(C)063d000gR4.72	A & C	63	0	210	4.72	30.51	0.98	2.543
169	TSA(C)063d008gR39.7	A & C	63	8	30	39.7	3.63	0.12	0.303
170	TSA(C)063d008gR19.8	A & C	63	8	60	19.8	7.27	0.24	0.606
171	TSA(C)063d008gR12.6	A & C	63	8	90	12.6	11.43	0.37	0.953
172	TSA(C)063d008gR8.88	A & C	63	8	120	8.88	16.22	0.53	1.352
173	TSA(C)063d008gR6.66	A & C	63	8	150	6.66	21.62	0.7	1.802
174	TSA(C)063d008gR5.61	A & C	63	8	180	5.61	25.67	0.84	2.139
175	TSA(C)063d008gR4.72	A & C	63	8	210	4.72	30.51	0.99	2.543
176	TSA(C)063d016gR42.1	A & C	63	16	30	42.1	3.42	0.12	0.285
177	TSA(C)063d016gR21	A & C	63	16	60	21	6.86	0.24	0.572
178	TSA(C)063d016gR13.3	A & C	63	16	90	13.3	10.83	0.37	0.903
179	TSA(C)063d016gR9.41	A & C	63	16	120	9.41	15.3	0.52	1.275
180	TSA(C)063d016gR7.05	A & C	63	16	150	7.05	20.43	0.7	1.703
181	TSA(C)063d016gR5.94	A & C	63	16	180	5.94	24.24	0.83	2.02
182	TSA(C)063d016gR5	A & C	63	16	210	5	28.8	0.99	2.4
183	TSA(C)063d032gR53	A & C	63	32	30	53	2.72	0.12	0.227
184	TSA(C)063d032gR26.4	A & C	63	32	60	26.4	5.45	0.24	0.454
185	TSA(C)063d032gR16.7	A & C	63	32	90	16.7	8.62	0.37	0.718
186	TSA(C)063d032gR11.9	A & C	63	32	120	11.9	12.1	0.52	1.008
187	TSA(C)063d032gR8.88	A & C	63	32	150	8.88	16.22	0.7	1.352
188	TSA(C)063d032gR7.47	A & C	63	32	180	7.47	19.28	0.83	1.607
189	TSA(C)063d032gR6.29	A & C	63	32	210	6.29	22.89	0.99	1.908
190	TSA(C)080d000gR26.4	A & C	80	0	30	26.4	5.45	0.11	0.454
191	TSA(C)080d000gR13.3	A & C	80	0	60	13.3	10.83	0.22	0.903
192	TSA(C)080d000gR8.38	A & C	80	0	90	8.38	17.18	0.34	1.432
193	TSA(C)080d000gR5.94	A & C	80	0	120	5.94	24.24	0.48	2.02
194	TSA(C)080d000gR4.46	A & C	80	0	150	4.46	32.29	0.64	2.691
195	TSA(C)080d000gR3.75	A & C	80	0	180	3.75	38.4	0.76	3.2
196	TSA(C)080d000gR3.15	A & C	80	0	210	3.15	45.71	0.91	3.809
197	TSA(C)080d005gR26.4	A & C	80	5	30	26.4	5.45	0.11	0.454
198	TSA(C)080d005gR13.3	A & C	80	5	60	13.3	10.83	0.22	0.903
199	TSA(C)080d005gR8.38	A & C	80	5	90	8.38	17.18	0.34	1.432
200	TSA(C)080d005gR5.94	A & C	80	5	120	5.94	24.24	0.48	2.02
201	TSA(C)080d005gR4.46	A & C	80	5	150	4.46	32.29	0.64	2.691
202	TSA(C)080d005gR3.75	A & C	80	5	180	3.75	38.4	0.77	3.2
203	TSA(C)080d005gR3.15	A & C	80	5	210	3.15	45.71	0.91	3.809
204	TSA(C)080d010gR28	A & C	80	10	30	28	5.14	0.1	0.428
205	TSA(C)080d010gR13.3	A & C	80	10	60	13.3	10.83	0.22	0.903
206	TSA(C)080d010gR8.38	A & C	80	10	90	8.38	17.18	0.35	1.432
207	TSA(C)080d010gR5.94	A & C	80	10	120	5.94	24.24	0.49	2.02
208	TSA(C)080d010gR4.72	A & C	80	10	150	4.72	30.51	0.62	2.543
209	TSA(C)080d010gR3.75	A & C	80	10	180	3.75	38.4	0.78	3.2
210	TSA(C)080d010gR3.15	A & C	80	10	210	3.15	45.71	0.92	3.809
211	TSA(C)080d020gR28	A & C	80	20	30	28	5.14	0.11	0.428
212	TSA(C)080d020gR14.1	A & C	80	20	60	14.1	10.21	0.22	0.851
213	TSA(C)080d020gR8.88	A & C	80	20	90	8.88	16.22	0.34	1.352
214	TSA(C)080d020gR6.29	A & C	80	20	120	6.29	22.89	0.49	1.908
215	TSA(C)080d020gR4.72	A & C	80	20	150	4.72	30.51	0.65	2.543
216	TSA(C)080d020gR3.97	A & C	80	20	180	3.97	36.27	0.77	3.023
217	TSA(C)080d020gR3.34	A & C	80	20	210	3.34	43.11	0.91	3.593
218	TSA(C)080d040gR35.4	A & C	80	40	30	35.4	4.07	0.11	0.339
219	TSA(C)080d040gR17.7	A & C	80	40	60	17.7	8.14	0.22	0.678

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)080d040gR11.2	A & C	80	40	90	11.2	12.86	0.34	1.072
221	TSA(C)080d040gR7.91	A & C	80	40	120	7.91	18.2	0.48	1.517
222	TSA(C)080d040gR5.94	A & C	80	40	150	5.94	24.24	0.64	2.02
223	TSA(C)080d040gR5	A & C	80	40	180	5	28.8	0.76	2.4
224	TSA(C)080d040gR4.21	A & C	80	40	210	4.21	34.2	0.91	2.85
225	TSA(C)100d000gR19.8	A & C	100	0	30	19.8	7.27	0.09	0.606
226	TSA(C)100d000gR10	A & C	100	0	60	10	14.4	0.18	1.2
227	TSA(C)100d000gR6.29	A & C	100	0	90	6.29	22.89	0.29	1.908
228	TSA(C)100d000gR4.21	A & C	100	0	120	4.21	34.2	0.44	2.85
229	TSA(C)100d000gR3.15	A & C	100	0	150	3.15	45.71	0.58	3.809
230	TSA100d000gR2.64	A	100	0	180	2.64	54.55	0.69	4.546
231	TSA100d000gR2.22	A	100	0	210	2.22	64.86	0.83	5.405
232	TSA(C)100d006gR19.8	A & C	100	6	30	19.8	7.27	0.09	0.606
233	TSA(C)100d006gR10	A & C	100	6	60	10	14.4	0.18	1.2
234	TSA(C)100d006gR6.29	A & C	100	6	90	6.29	22.89	0.29	1.908
235	TSA(C)100d006gR4.21	A & C	100	6	120	4.21	34.2	0.44	2.85
236	TSA(C)100d006gR3.15	A & C	100	6	150	3.15	45.71	0.58	3.809
237	TSA100d006gR2.64	A	100	6	180	2.64	54.55	0.7	4.546
238	TSA100d006gR2.22	A	100	6	210	2.22	64.86	0.83	5.405
239	TSA(C)100d013gR19.8	A & C	100	13	30	19.8	7.27	0.09	0.606
240	TSA(C)100d013gR10	A & C	100	13	60	10	14.4	0.19	1.2
241	TSA(C)100d013gR6.29	A & C	100	13	90	6.29	22.89	0.3	1.908
242	TSA(C)100d013gR4.21	A & C	100	13	120	4.21	34.2	0.44	2.85
243	TSA(C)100d013gR3.34	A & C	100	13	150	3.34	43.11	0.56	3.593
244	TSA100d013gR2.64	A	100	13	180	2.64	54.55	0.71	4.546
245	TSA100d013gR2.22	A	100	13	210	2.22	64.86	0.84	5.405
246	TSA(C)100d025gR21	A & C	100	25	30	21	6.86	0.09	0.572
247	TSA(C)100d025gR10.6	A & C	100	25	60	10.6	13.58	0.18	1.132
248	TSA(C)100d025gR6.66	A & C	100	25	90	6.66	21.62	0.29	1.802
249	TSA(C)100d025gR4.46	A & C	100	25	120	4.46	32.29	0.44	2.691
250	TSA(C)100d025gR3.54	A & C	100	25	150	3.54	40.68	0.55	3.39
251	TSA100d025gR2.8	A	100	25	180	2.8	51.43	0.7	4.286
252	TSA100d025gR2.35	A	100	25	210	2.35	61.28	0.83	5.107
253	TSA(C)100d050gR26.4	A & C	100	50	30	26.4	5.45	0.09	0.454
254	TSA(C)100d050gR13.3	A & C	100	50	60	13.3	10.83	0.18	0.903
255	TSA(C)100d050gR8.38	A & C	100	50	90	8.38	17.18	0.29	1.432
256	TSA(C)100d050gR5.61	A & C	100	50	120	5.61	25.67	0.44	2.139
257	TSA(C)100d050gR4.21	A & C	100	50	150	4.21	34.2	0.58	2.85
258	TSA(C)100d050gR3.54	A & C	100	50	180	3.54	40.68	0.69	3.39
259	TSA100d050gR2.97	A	100	50	210	2.97	48.48	0.82	4.04
260	TSA(C)125d000gR13.3	A & C	125	0	30	13.3	10.83	0.09	0.903
261	TSA(C)125d000gR6.66	A & C	125	0	60	6.66	21.62	0.18	1.802
262	TSA(C)125d000gR4.21	A & C	125	0	90	4.21	34.2	0.28	2.85
263	TSA125d000gR2.97	A	125	0	120	2.97	48.48	0.4	4.04
264	TSA125d000gR2.22	A	125	0	150	2.22	64.86	0.53	5.405
265	TSA125d000gR1.87	A	125	0	180	1.87	77.01		

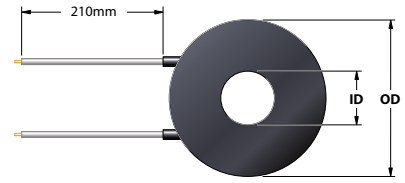


# STANDARD | Round 12V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA125d063gR2.49	A	125	63	180	2.49	57.83	0.63	4.819
294	TSA125d063gR1.98	A	125	63	210	1.98	72.73	0.79	6.061
295	TSA(C)160d000gR9.41	A & C	160	0	30	9.41	15.3	0.08	1.275
296	TSA(C)160d000gR4.72	A & C	160	0	60	4.72	30.51	0.15	2.543
297	TSA160d000gR2.97	A	160	0	90	2.97	48.48	0.24	4.04
298	TSA160d000gR1.98	A	160	0	120	1.98	72.73	0.36	6.061
299	TSA160d000gR1.49	A	160	0	150	1.49	96.64	0.48	8.053
300	TSA160d000gR1.26	A	160	0	180	1.26	114.29	0.57	9.524
301	TSA160d000gR1	A	160	0	210	1	144	0.72	12
302	TSA(C)160d005gR9.41	A & C	160	5	30	9.41	15.3	0.08	1.275
303	TSA(C)160d005gR4.72	A & C	160	5	60	4.72	30.51	0.15	2.543
304	TSA160d005gR2.97	A	160	5	90	2.97	48.48	0.24	4.04
305	TSA160d005gR1.98	A	160	5	120	1.98	72.73	0.36	6.061
306	TSA160d005gR1.49	A	160	5	150	1.49	96.64	0.48	8.053
307	TSA160d005gR1.26	A	160	5	180	1.26	114.29	0.57	9.524
308	TSA160d005gR1	A	160	5	210	1	144	0.72	12
309	TSA(C)160d010gR9.41	A & C	160	10	30	9.41	15.3	0.08	1.275
310	TSA(C)160d010gR4.72	A & C	160	10	60	4.72	30.51	0.15	2.543
311	TSA160d010gR2.97	A	160	10	90	2.97	48.48	0.24	4.04
312	TSA160d010gR1.98	A	160	10	120	1.98	72.73	0.36	6.061
313	TSA160d010gR1.49	A	160	10	150	1.49	96.64	0.48	8.053
314	TSA160d010gR1.26	A	160	10	180	1.26	114.29	0.57	9.524
315	TSA160d010gR1.06	A	160	10	210	1.06	135.85	0.68	11.321
316	TSA(C)160d020gR9.41	A & C	160	20	30	9.41	15.3	0.08	1.275
317	TSA(C)160d020gR4.72	A & C	160	20	60	4.72	30.51	0.15	2.543
318	TSA160d020gR2.97	A	160	20	90	2.97	48.48	0.24	4.04
319	TSA160d020gR1.98	A	160	20	120	1.98	72.73	0.36	6.061
320	TSA160d020gR1.58	A	160	20	150	1.58	91.14	0.46	7.595
321	TSA160d020gR1.26	A	160	20	180	1.26	114.29	0.58	9.524
322	TSA160d020gR1.06	A	160	20	210	1.06	135.85	0.69	11.321
323	TSA(C)160d040gR10	A & C	160	40	30	10	14.4	0.08	1.2
324	TSA(C)160d040gR5	A & C	160	40	60	5	28.8	0.15	2.4
325	TSA(C)160d040gR3.15	A & C	160	40	90	3.15	45.71	0.24	3.809
326	TSA160d040gR2.1	A	160	40	120	2.1	68.57	0.36	5.714
327	TSA160d040gR1.67	A	160	40	150	1.67	86.23	0.46	7.186
328	TSA160d040gR1.33	A	160	40	180	1.33	108.27	0.57	9.023
329	TSA160d040gR1.12	A	160	40	210	1.12	128.57	0.68	10.714
330	TSA(C)160d080gR12.6	A & C	160	80	30	12.6	11.43	0.08	0.953
331	TSA(C)160d080gR6.29	A & C	160	80	60	6.29	22.89	0.15	1.908
332	TSA(C)160d080gR3.97	A & C	160	80	90	3.97	36.27	0.24	3.023
333	TSA160d080gR2.64	A	160	80	120	2.64	54.55	0.36	4.546
334	TSA160d080gR1.98	A	160	80	150	1.98	72.73	0.48	6.061
335	TSA160d080gR1.67	A	160	80	180	1.67	86.23	0.57	7.186
336	TSA160d080gR1.41	A	160	80	210	1.41	102.13	0.68	8.511
337	TSA(C)200d000gR6.29	A & C	200	0	30	6.29	22.89	0.07	1.908
338	TSA(C)200d000gR3.15	A & C	200	0	60	3.15	45.71	0.15	3.809
339	TSA200d000gR1.98	A	200	0	90	1.98	72.73	0.23	6.061
340	TSA200d000gR1.33	A	200	0	120	1.33	108.27	0.34	9.023
341	TSA200d000gR1.06	A	200	0	150	1.06	135.85	0.43	11.321
342	TSA200d000gR0.888	A	200	0	180	0.888	162.16	0.52	13.513
343	TSA(C)200d006gR6.29	A & C	200	6	30	6.29	22.89	0.07	1.908
344	TSA(C)200d006gR3.15	A & C	200	6	60	3.15	45.71	0.15	3.809
345	TSA200d006gR1.98	A	200	6	90	1.98	72.73	0.23	6.061
346	TSA200d006gR1.41	A	200	6	120	1.41	102.13	0.33	8.511
347	TSA200d006gR1.06	A	200	6	150	1.06	135.85	0.43	11.321
348	TSA200d006gR0.888	A	200	6	180	0.888	162.16	0.52	13.513
349	TSA(C)200d013gR6.66	A & C	200	13	30	6.66	21.62	0.07	1.802
350	TSA(C)200d013gR3.15	A & C	200	13	60	3.15	45.71	0.15	3.809
351	TSA200d013gR1.98	A	200	13	90	1.98	72.73	0.23	6.061
352	TSA200d013gR1.41	A	200	13	120	1.41	102.13	0.33	8.511
353	TSA200d013gR1.06	A	200	13	150	1.06	135.85	0.43	11.321
354	TSA200d013gR0.888	A	200	13	180	0.888	162.16	0.52	13.513
355	TSA(C)200d025gR6.66	A & C	200	25	30	6.66	21.62	0.07	1.802
356	TSA(C)200d025gR3.34	A & C	200	25	60	3.34	43.11	0.14	3.593
357	TSA200d025gR2.1	A	200	25	90	2.1	68.57	0.22	5.714

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
358	TSA200d025gR1.41	A	200	25	120	1.41	102.13	0.33	8.511
359	TSA200d025gR1.06	A	200	25	150	1.06	135.85	0.44	11.321
360	TSA200d025gR0.888	A	200	25	180	0.888	162.16	0.52	13.513
361	TSA(C)200d050gR7.05	A & C	200	50	30	7.05	20.43	0.07	1.703
362	TSA(C)200d050gR3.34	A & C	200	50	60	3.34	43.11	0.15	3.593
363	TSA200d050gR2.1	A	200	50	90	2.1	68.57	0.23	5.714
364	TSA200d050gR1.49	A	200	50	120	1.49	96.64	0.33	8.053
365	TSA200d050gR1.12	A	200	50	150	1.12	128.57	0.44	10.714
366	TSA200d050gR0.941	A	200	50	180	0.941	153.03	0.52	12.753
367	TSA(C)200d100gR8.38	A & C	200	100	30	8.38	17.18	0.07	1.432
368	TSA(C)200d100gR4.21	A & C	200	100	60	4.21	34.2	0.15	2.85
369	TSA200d100gR2.64	A	200	100	90	2.64	54.55	0.23	4.546
370	TSA200d100gR1.87	A	200	100	120	1.87	77.01	0.33	6.418
371	TSA200d100gR1.41	A	200	100	150	1.41	102.13	0.43	8.511
372	TSA200d100gR1.12	A	200	100	180	1.12	128.57	0.55	10.714
373	TSA200d100gR0.941	A	200	100	210	0.941	153.03	0.65	12.753
374	TSA(C)250d000gR4.46	A & C	250	0	30	4.46	32.29	0.07	2.691
375	TSA250d000gR2.22	A	250	0	60	2.22	64.86	0.13	5.405
376	TSA250d000gR1.41	A	250	0	90	1.41	102.13	0.21	8.511
377	TSA250d000gR0.941	A	250	0	120	0.941	153.03	0.31	12.753
378	TSA(C)250d008gR4.46	A & C	250	8	30	4.46	32.29	0.07	2.691
379	TSA250d008gR2.22	A	250	8	60	2.22	64.86	0.13	5.405
380	TSA250d008gR1.41	A	250	8	90	1.41	102.13	0.21	8.511
381	TSA250d008gR0.941	A	250	8	120	0.941	153.03	0.31	12.753
382	TSA(C)250d016gR4.46	A & C	250	16	30	4.46	32.29	0.07	2.691
383	TSA250d016gR2.22	A	250	16	60	2.22	64.86	0.13	5.405
384	TSA250d016gR1.41	A	250	16	90	1.41	102.13	0.21	8.511
385	TSA250d016gR0.941	A	250	16	120	0.941	153.03	0.31	12.753
386	TSA(C)250d032gR4.46	A & C	250	32	30	4.46	32.29	0.07	2.691
387	TSA250d032gR2.22	A	250	32	60	2.22	64.86	0.13	5.405
388	TSA250d032gR1.41	A	250	32	90	1.41	102.13	0.21	8.511
389	TSA250d032gR0.941	A	250	32	120	0.941	153.03	0.32	12.753
390	TSA(C)250d063gR4.72	A & C	250	63	30	4.72	30.51	0.07	2.543
391	TSA250d063gR2.35	A	250	63	60	2.35	61.28	0.13	5.107
392	TSA250d063gR1.49	A	250	63	90	1.49	96.64	0.21	8.053
393	TSA250d063gR1	A	250	63	120	1	144	0.31	12
394	TSA250d063gR0.791	A	250	63	150	0.791	182.05	0.4	15.171
395	TSA(C)250d125gR5.94	A & C	250	125	30	5.94	24.24	0.07	2.02
396	TSA250d125gR2.97	A	250	125	60	2.97	48.48	0.13	4.04
397	TSA250d125gR1.87	A	250	125	90	1.87	77.01	0.21	6.418
398	TSA250d125gR1.26	A	250	125	120	1.26	114.29	0.31	9.524
399	TSA250d125gR1	A	250	125	150	1	144	0.39	12
400	TSA250d125gR0.791	A	250	125	180	0.791	182.05	0.49	15.171
401	TSA(C)300d000gR3.34	A & C	300	0	30	3.34	43.11	0.06	3.593
402	TSA300d000gR1.67	A	300	0	60	1.67	86.23	0.12	7.186
403	TSA300d000gR1	A	300	0	90	1	144	0.2	12
404	TSA(C)300d005gR3.34	A & C	300	5	30	3.34	43.11	0.06	3.593
405	TSA300d005gR1.67	A	300	5	60	1.67	86.23	0.12	7.186
406	TSA300d005gR1	A	300	5	90	1	144	0.2	12
407	TSA(C)300d010gR3.34	A & C	300	10	30	3.34	43.11	0.06	3.593
408	TSA300d010gR1.67	A	300	10	60	1.67	86.23	0.12	7.186
409	TSA300d010gR1	A	300	10	90	1	144	0.2	12
410	TSA(C)300d020gR3.34	A & C	300	20	30	3.34	43.11	0.06	3.593
411	TSA300d020gR1.67	A	300	20	60	1.67	86.23	0.12	7.186
412	TSA300d020gR1	A	300	20	90	1	144	0.2	12
413	TSA(C)300d040gR3.34	A & C	300	40	30	3.34	43.11	0.06	3.593
414	TSA300d040gR1.67	A							

# STANDARD | Round 24V

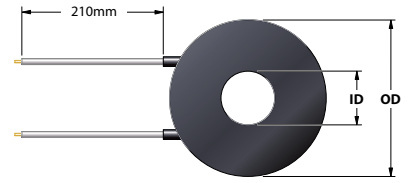


■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000hR2800	C	10	0	30	2800	0.21	0.27	0.009
2	TSC010d000hR1330	C	10	0	60	1330	0.43	0.55	0.018
3	TSC010d000hR838	C	10	0	90	838	0.69	0.88	0.029
4	TSC010d000hR629	C	10	0	120	629	0.92	1.17	0.038
5	TSC010d000hR472	C	10	0	150	472	1.22	1.55	0.051
6	TSC010d000hR375	C	10	0	180	375	1.54	1.96	0.064
7	TSC010d000hR297	C	10	0	210	297	1.94	2.47	0.081
8	TSC010d005hR3750	C	10	5	30	3750	0.15	0.25	0.006
9	TSC010d005hR1770	C	10	5	60	1770	0.33	0.56	0.014
10	TSC010d005hR1120	C	10	5	90	1120	0.51	0.87	0.021
11	TSC010d005hR838	C	10	5	120	838	0.69	1.17	0.029
12	TSC010d005hR629	C	10	5	150	629	0.92	1.56	0.038
13	TSC010d005hR500	C	10	5	180	500	1.15	1.95	0.048
14	TSC010d005hR397	C	10	5	210	397	1.45	2.46	0.06
15	TSC013d000hR1980	C	13	0	30	1980	0.29	0.22	0.012
16	TSC013d000hR941	C	13	0	60	941	0.61	0.46	0.025
17	TSC013d000hR561	C	13	0	90	561	1.03	0.78	0.043
18	TSC013d000hR421	C	13	0	120	421	1.37	1.03	0.057
19	TSC013d000hR315	C	13	0	150	315	1.83	1.38	0.076
20	TSC013d000hR249	C	13	0	180	249	2.31	1.74	0.096
21	TSC013d000hR210	C	13	0	210	210	2.74	2.06	0.114
22	TSC013d006hR2490	C	13	6	30	2490	0.23	0.22	0.01
23	TSC013d006hR1190	C	13	6	60	1190	0.48	0.46	0.02
24	TSC013d006hR747	C	13	6	90	747	0.77	0.74	0.032
25	TSC013d006hR530	C	13	6	120	530	1.09	1.04	0.045
26	TSC013d006hR397	C	13	6	150	397	1.45	1.39	0.06
27	TSC013d006hR315	C	13	6	180	315	1.83	1.75	0.076
28	TSC013d006hR264	C	13	6	210	264	2.18	2.09	0.091
29	TSC016d000hR1490	C	16	0	30	1490	0.39	0.19	0.016
30	TSC016d000hR705	C	16	0	60	705	0.82	0.41	0.034
31	TSC016d000hR446	C	16	0	90	446	1.29	0.64	0.054
32	TSC016d000hR315	C	16	0	120	315	1.83	0.91	0.076
33	TSC016d000hR249	C	16	0	150	249	2.31	1.15	0.096
34	TSC016d000hR198	C	16	0	180	198	2.91	1.45	0.121
35	TSC016d000hR158	C	16	0	210	158	3.65	1.82	0.152
36	TSC016d008hR1980	C	16	8	30	1980	0.29	0.19	0.012
37	TSC016d008hR941	C	16	8	60	941	0.61	0.4	0.025
38	TSC016d008hR594	C	16	8	90	594	0.97	0.64	0.04
39	TSC016d008hR421	C	16	8	120	421	1.37	0.91	0.057
40	TSC016d008hR315	C	16	8	150	315	1.83	1.21	0.076
41	TSC016d008hR264	C	16	8	180	264	2.18	1.45	0.091
42	TSC016d008hR210	C	16	8	210	210	2.74	1.82	0.114
43	TSC020d000hR1190	C	20	0	30	1190	0.48	0.15	0.02
44	TSC020d000hR594	C	20	0	60	594	0.97	0.31	0.04
45	TSC020d000hR375	C	20	0	90	375	1.54	0.49	0.064
46	TSC020d000hR264	C	20	0	120	264	2.18	0.69	0.091
47	TSC020d000hR198	C	20	0	150	198	2.91	0.93	0.121
48	TSA(C)020d000hR167	A & C	20	0	180	167	3.45	1.1	0.144
49	TSA(C)020d000hR133	A & C	20	0	210	133	4.33	1.38	0.18
50	TSC020d005hR1330	C	20	5	30	1330	0.43	0.15	0.018
51	TSC020d005hR629	C	20	5	60	629	0.92	0.31	0.038
52	TSC020d005hR397	C	20	5	90	397	1.45	0.49	0.06
53	TSC020d005hR280	C	20	5	120	280	2.06	0.7	0.086
54	TSC020d005hR210	C	20	5	150	210	2.74	0.93	0.114
55	TSC020d005hR177	C	20	5	180	177	3.25	1.1	0.135
56	TSA(C)020d005hR149	A & C	20	5	210	149	3.87	1.31	0.161
57	TSC020d010hR1670	C	20	10	30	1670	0.34	0.14	0.014
58	TSC020d010hR791	C	20	10	60	791	0.73	0.31	0.03
59	TSC020d010hR500	C	20	10	90	500	1.15	0.49	0.048
60	TSC020d010hR354	C	20	10	120	354	1.63	0.69	0.068
61	TSC020d010hR264	C	20	10	150	264	2.18	0.93	0.091
62	TSC020d010hR222	C	20	10	180	222	2.59	1.1	0.108
63	TSC020d010hR187	C	20	10	210	187	3.08	1.31	0.128
64	TSC025d000hR838	C	25	0	30	838	0.69	0.14	0.029
65	TSC025d000hR397	C	25	0	60	397	1.45	0.3	0.06
66	TSA(C)025d000hR249	A & C	25	0	90	249	2.31	0.47	0.096
67	TSA(C)025d000hR177	A & C	25	0	120	177	3.25	0.66	0.135
68	TSA(C)025d000hR133	A & C	25	0	150	133	4.33	0.88	0.18
69	TSA(C)025d000hR112	A & C	25	0	180	112	5.14	1.05	0.214
70	TSA(C)025d000hR94.1	A & C	25	0	210	94.1	6.12	1.25	0.255
71	TSC025d006hR888	C	25	6	30	888	0.65	0.14	0.027
72	TSC025d006hR421	C	25	6	60	421	1.37	0.3	0.057
73	TSA(C)025d006hR264	A & C	25	6	90	264	2.18	0.47	0.091

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSA(C)025d006hR187	A & C	25	6	120	187	3.08	0.67	0.128
75	TSA(C)025d006hR141	A & C	25	6	150	141	4.09	0.88	0.17
76	TSA(C)025d006hR119	A & C	25	6	180	119	4.84	1.05	0.202
77	TSA(C)025d006hR100	A & C	25	6	210	100	5.76	1.25	0.24
78	TSC025d013hR1120	C	25	13	30	1120	0.51	0.14	0.021
79	TSC025d013hR530	C	25	13	60	530	1.09	0.3	0.045
80	TSC025d013hR334	C	25	13	90	334	1.72	0.48	0.072
81	TSC025d013hR235	C	25	13	120	235	2.45	0.68	0.102
82	TSA(C)025d013hR187	A & C	25	13	150	187	3.08	0.86	0.128
83	TSA(C)025d013hR149	A & C	25	13	180	149	3.87	1.08	0.161
84	TSA(C)025d013hR126	A & C	25	13	210	126	4.57	1.28	0.19
85	TSC032d000hR530	C	32	0	30	530	1.09	0.14	0.045
86	TSA(C)032d000hR249	A & C	32	0	60	249	2.31	0.29	0.096
87	TSA(C)032d000hR158	A & C	32	0	90	158	3.65	0.45	0.152
88	TSA(C)032d000hR112	A & C	32	0	120	112	5.14	0.64	0.214
89	TSA(C)032d000hR88.8	A & C	32	0	150	88.8	6.49	0.81	0.27
90	TSA(C)032d000hR70.5	A & C	32	0	180	70.5	8.17	1.02	0.34
91	TSA(C)032d000hR59.4	A & C	32	0	210	59.4	9.7	1.21	0.404
92	TSC032d008hR561	C	32	8	30	561	1.03	0.14	0.043
93	TSA(C)032d008hR264	A & C	32	8	60	264	2.18	0.29	0.091
94	TSA(C)032d008hR167	A & C	32	8	90	167	3.45	0.46	0.144
95	TSA(C)032d008hR119	A & C	32	8	120	119	4.84	0.64	0.202
96	TSA(C)032d008hR94.1	A & C	32	8	150	94.1	6.12	0.81	0.255
97	TSA(C)032d008hR74.7	A & C	32	8	180	74.7	7.71	1.02	0.321
98	TSA(C)032d008hR62.9	A & C	32	8	210	62.9	9.16	1.21	0.382
99	TSC032d016hR705	C	32	16	30	705	0.82	0.14	0.034
100	TSA(C)032d016hR334	A & C	32	16	60	334	1.72	0.29	0.072
101	TSA(C)032d016hR210	A & C	32	16	90	210	2.74	0.45	0.114
102	TSA(C)032d016hR149	A & C	32	16	120	149	3.87	0.64	0.161
103	TSA(C)032d016hR119	A & C	32	16	150	119	4.84	0.8	0.202
104	TSA(C)032d016hR94.1	A & C	32	16	180	94.1	6.12	1.01	0.255
105	TSA(C)032d016hR79.1	A & C	32	16	210	79.1	7.28	1.21	0.303
106	TSA(C)040d000hR354	A & C	40	0	30	354	1.63	0.13	0.068
107	TSA(C)040d000hR167	A & C	40	0	60	167	3.45	0.27	0.144
108	TSA(C)040d000hR106	A & C	40	0	90	106	5.43	0.43	0.226
109	TSA(C)040d000hR74.7	A & C	40	0	120	74.7	7.71	0.61	0.321
110	TSA(C)040d000hR59.4	A & C	40	0	150	59.4	9.7	0.77	0.404
111	TSA(C)040d000hR47.2	A & C	40	0	180	47.2	12.2	0.97	0.508
112	TSA(C)040d000hR39.7	A & C	40	0	210	39.7	14.51	1.15	0.605
113	TSA(C)040d005hR354	A & C	40	5	30	354	1.63	0.13	0.068
114	TSA(C)040d005hR167	A & C	40	5	60	167	3.45	0.28	0.144
115	TSA(C)040d005hR106	A & C	40	5	90	106	5.43	0.44	0.226
116	TSA(C)040d005hR74.7	A & C	40	5	120	74.7	7.71	0.62	0.321
117	TSA(C)040d005hR59.4	A & C	40	5	150	59.4	9.7	0.78	0.404
118	TSA(C)040d005hR50	A & C	40	5	180	50	11.52	0.93	0.48
119	TSA(C)040d005hR42.1	A & C	40	5	210	42.1	13.68	1.11	0.57
120	TSA(C)040d010hR375	A & C	40	10	30	375	1.54	0.13	0.064
121	TSA(C)040d010hR177	A & C	40	10	60	177	3.25	0.28	0.135
122	TSA(C)040d010hR112	A & C	40	10	90	112	5.14	0.44	0.214
123	TSA(C)040d010hR79.1	A & C	40	10	120	79.1	7.28	0.62	0.303
124	TSA(C)040d010hR62.9	A & C	40	10	150	62.9	9.16	0.78	0.382
125	TSA(C)040d010hR50	A & C	40	10	180	50	11.52	0.98	0.48
126	TSA(C)040d010hR42.1	A & C	40	10	210	42.1			





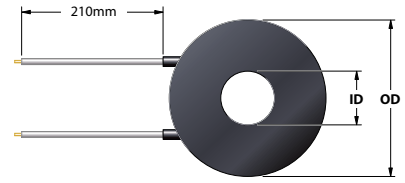
# STANDARD | Round 24V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)050d006hR28	A & C	50	6	210	28	20.57	1.06	0.857
148	TSA(C)050d013hR249	A & C	50	13	30	249	2.31	0.13	0.096
149	TSA(C)050d013hR119	A & C	50	13	60	119	4.84	0.26	0.202
150	TSA(C)050d013hR79.1	A & C	50	13	90	79.1	7.28	0.4	0.303
151	TSA(C)050d013hR56.1	A & C	50	13	120	56.1	10.27	0.56	0.428
152	TSA(C)050d013hR42.1	A & C	50	13	150	42.1	13.68	0.75	0.57
153	TSA(C)050d013hR35.4	A & C	50	13	180	35.4	16.27	0.89	0.678
154	TSA(C)050d013hR29.7	A & C	50	13	210	29.7	19.39	1.06	0.808
155	TSA(C)050d025hR315	A & C	50	25	30	315	1.83	0.12	0.076
156	TSA(C)050d025hR149	A & C	50	25	60	149	3.87	0.26	0.161
157	TSA(C)050d025hR94.1	A & C	50	25	90	94.1	6.12	0.42	0.255
158	TSA(C)050d025hR70.5	A & C	50	25	120	70.5	8.17	0.55	0.34
159	TSA(C)050d025hR53	A & C	50	25	150	53	10.87	0.74	0.453
160	TSA(C)050d025hR44.6	A & C	50	25	180	44.6	12.91	0.88	0.538
161	TSA(C)050d025hR37.5	A & C	50	25	210	37.5	15.36	1.04	0.64
162	TSA(C)063d000hR158	A & C	63	0	30	158	3.65	0.12	0.152
163	TSA(C)063d000hR79.1	A & C	63	0	60	79.1	7.28	0.23	0.303
164	TSA(C)063d000hR50	A & C	63	0	90	50	11.52	0.37	0.48
165	TSA(C)063d000hR35.4	A & C	63	0	120	35.4	16.27	0.52	0.678
166	TSA(C)063d000hR26.4	A & C	63	0	150	26.4	21.82	0.7	0.909
167	TSA(C)063d000hR22.2	A & C	63	0	180	22.2	25.95	0.83	1.081
168	TSA(C)063d000hR18.7	A & C	63	0	210	18.7	30.8	0.99	1.283
169	TSA(C)063d008hR158	A & C	63	8	30	158	3.65	0.12	0.152
170	TSA(C)063d008hR79.1	A & C	63	8	60	79.1	7.28	0.24	0.303
171	TSA(C)063d008hR50	A & C	63	8	90	50	11.52	0.38	0.48
172	TSA(C)063d008hR35.4	A & C	63	8	120	35.4	16.27	0.53	0.678
173	TSA(C)063d008hR28	A & C	63	8	150	28	20.57	0.67	0.857
174	TSA(C)063d008hR22.2	A & C	63	8	180	22.2	25.95	0.85	1.081
175	TSA(C)063d008hR18.7	A & C	63	8	210	18.7	30.8	1	1.283
176	TSA(C)063d016hR167	A & C	63	16	30	167	3.45	0.12	0.144
177	TSA(C)063d016hR83.8	A & C	63	16	60	83.8	6.87	0.24	0.286
178	TSA(C)063d016hR53	A & C	63	16	90	53	10.87	0.37	0.453
179	TSA(C)063d016hR37.5	A & C	63	16	120	37.5	15.36	0.53	0.64
180	TSA(C)063d016hR28	A & C	63	16	150	28	20.57	0.71	0.857
181	TSA(C)063d016hR23.5	A & C	63	16	180	23.5	24.51	0.84	1.021
182	TSA(C)063d016hR19.8	A & C	63	16	210	19.8	29.09	1	1.212
183	TSA(C)063d032hR210	A & C	63	32	30	210	2.74	0.12	0.114
184	TSA(C)063d032hR106	A & C	63	32	60	106	5.43	0.23	0.226
185	TSA(C)063d032hR66.6	A & C	63	32	90	66.6	8.65	0.37	0.36
186	TSA(C)063d032hR47.2	A & C	63	32	120	47.2	12.2	0.53	0.508
187	TSA(C)063d032hR35.4	A & C	63	32	150	35.4	16.27	0.7	0.678
188	TSA(C)063d032hR29.7	A & C	63	32	180	29.7	19.39	0.84	0.808
189	TSA(C)063d032hR24.9	A & C	63	32	210	24.9	23.13	1	0.964
190	TSA(C)080d000hR106	A & C	80	0	30	106	5.43	0.11	0.226
191	TSA(C)080d000hR53	A & C	80	0	60	53	10.87	0.22	0.453
192	TSA(C)080d000hR33.4	A & C	80	0	90	33.4	17.25	0.34	0.719
193	TSA(C)080d000hR23.5	A & C	80	0	120	23.5	24.51	0.49	1.021
194	TSA(C)080d000hR17.7	A & C	80	0	150	17.7	32.54	0.65	1.356
195	TSA(C)080d000hR14.9	A & C	80	0	180	14.9	38.66	0.77	1.611
196	TSA(C)080d000hR12.6	A & C	80	0	210	12.6	45.71	0.91	1.905
197	TSA(C)080d005hR106	A & C	80	5	30	106	5.43	0.11	0.226
198	TSA(C)080d005hR53	A & C	80	5	60	53	10.87	0.22	0.453
199	TSA(C)080d005hR33.4	A & C	80	5	90	33.4	17.25	0.34	0.719
200	TSA(C)080d005hR23.5	A & C	80	5	120	23.5	24.51	0.49	1.021
201	TSA(C)080d005hR17.7	A & C	80	5	150	17.7	32.54	0.65	1.356
202	TSA(C)080d005hR14.9	A & C	80	5	180	14.9	38.66	0.77	1.611
203	TSA(C)080d005hR12.6	A & C	80	5	210	12.6	45.71	0.91	1.905
204	TSA(C)080d010hR112	A & C	80	10	30	112	5.14	0.1	0.214
205	TSA(C)080d010hR53	A & C	80	10	60	53	10.87	0.22	0.453
206	TSA(C)080d010hR33.4	A & C	80	10	90	33.4	17.25	0.35	0.719
207	TSA(C)080d010hR23.5	A & C	80	10	120	23.5	24.51	0.5	1.021
208	TSA(C)080d010hR18.7	A & C	80	10	150	18.7	30.8	0.62	1.283
209	TSA(C)080d010hR14.9	A & C	80	10	180	14.9	38.66	0.78	1.611
210	TSA(C)080d010hR12.6	A & C	80	10	210	12.6	45.71	0.92	1.905
211	TSA(C)080d020hR112	A & C	80	20	30	112	5.14	0.11	0.214
212	TSA(C)080d020hR56.1	A & C	80	20	60	56.1	10.27	0.22	0.428
213	TSA(C)080d020hR35.4	A & C	80	20	90	35.4	16.27	0.35	0.678
214	TSA(C)080d020hR24.9	A & C	80	20	120	24.9	23.13	0.49	0.964
215	TSA(C)080d020hR19.8	A & C	80	20	150	19.8	29.09	0.62	1.212
216	TSA(C)080d020hR15.8	A & C	80	20	180	15.8	36.46	0.77	1.519
217	TSA(C)080d020hR13.3	A & C	80	20	210	13.3	43.31	0.92	1.805
218	TSA(C)080d040hR141	A & C	80	40	30	141	4.09	0.11	0.17
219	TSA(C)080d040hR70.5	A & C	80	40	60	70.5	8.17	0.22	0.34

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)080d040hR44.6	A & C	80	40	90	44.6	12.91	0.34	0.538
221	TSA(C)080d040hR31.5	A & C	80	40	120	31.5	18.29	0.49	0.762
222	TSA(C)080d040hR23.5	A & C	80	40	150	23.5	24.51	0.65	1.021
223	TSA(C)080d040hR19.8	A & C	80	40	180	19.8	29.09	0.77	1.212
224	TSA(C)080d040hR16.7	A & C	80	40	210	16.7	34.49	0.91	1.437
225	TSA(C)100d000hR79.1	A & C	100	0	30	79.1	7.28	0.09	0.303
226	TSA(C)100d000hR39.7	A & C	100	0	60	39.7	14.51	0.18	0.605
227	TSA(C)100d000hR24.9	A & C	100	0	90	24.9	23.13	0.29	0.964
228	TSA(C)100d000hR16.7	A & C	100	0	120	16.7	34.49	0.44	1.437
229	TSA(C)100d000hR12.6	A & C	100	0	150	12.6	45.71	0.58	1.905
230	TSA(C)100d000hR10.6	A & C	100	0	180	10.6	54.34	0.69	2.264
231	TSA(C)100d000hR8.88	A & C	100	0	210	8.88	64.86	0.83	2.703
232	TSA(C)100d006hR79.1	A & C	100	6	30	79.1	7.28	0.09	0.303
233	TSA(C)100d006hR39.7	A & C	100	6	60	39.7	14.51	0.19	0.605
234	TSA(C)100d006hR24.9	A & C	100	6	90	24.9	23.13	0.3	0.964
235	TSA(C)100d006hR16.7	A & C	100	6	120	16.7	34.49	0.44	1.437
236	TSA(C)100d006hR13.3	A & C	100	6	150	13.3	43.31	0.55	1.805
237	TSA(C)100d006hR10.6	A & C	100	6	180	10.6	54.34	0.69	2.264
238	TSA(C)100d006hR8.88	A & C	100	6	210	8.88	64.86	0.83	2.703
239	TSA(C)100d013hR79.1	A & C	100	13	30	79.1	7.28	0.09	0.303
240	TSA(C)100d013hR39.7	A & C	100	13	60	39.7	14.51	0.19	0.605
241	TSA(C)100d013hR24.9	A & C	100	13	90	24.9	23.13	0.3	0.964
242	TSA(C)100d013hR16.7	A & C	100	13	120	16.7	34.49	0.45	1.437
243	TSA(C)100d013hR13.3	A & C	100	13	150	13.3	43.31	0.56	1.805
244	TSA(C)100d013hR10.6	A & C	100	13	180	10.6	54.34	0.7	2.264
245	TSA(C)100d013hR8.88	A & C	100	13	210	8.88	64.86	0.84	2.703
246	TSA(C)100d025hR83.8	A & C	100	25	30	83.8	6.87	0.09	0.286
247	TSA(C)100d025hR42.1	A & C	100	25	60	42.1	13.68	0.19	0.57
248	TSA(C)100d025hR26.4	A & C	100	25	90	26.4	21.82	0.3	0.909
249	TSA(C)100d025hR17.7	A & C	100	25	120	17.7	32.54	0.44	1.356
250	TSA(C)100d025hR14.1	A & C	100	25	150	14.1	40.85	0.55	1.702
251	TSA(C)100d025hR11.2	A & C	100	25	180	11.2	51.43	0.7	2.143
252	TSA(C)100d025hR9.41	A & C	100	25	210	9.41	61.21	0.83	2.55
253	TSA(C)100d050hR106	A & C	100	50	30	106	5.43	0.09	0.226
254	TSA(C)100d050hR53	A & C	100	50	60	53	10.87	0.18	0.453
255	TSA(C)100d050hR33.4	A & C	100	50	90	33.4	17.25	0.29	0.719
256	TSA(C)100d050hR22.2	A & C	100	50	120	22.2	25.95	0.44	1.081
257	TSA(C)100d050hR17.7	A & C	100	50	150	17.7	32.54	0.55	1.356
258	TSA(C)100d050hR14.1	A & C	100	50	180	14.1	40.85	0.69	1.702
259	TSA(C)100d050hR11.9	A & C	100	50	210	11.9	48.4	0.82	2.017
260	TSA(C)125d000hR53	A & C	125	0	30	53	10.87	0.09	0.453
261	TSA(C)125d000hR28	A & C	125	0	60	28	20.57	0.17	0.857
262	TSA(C)125d000hR16.7	A & C	125	0	90	16.7	34.49	0.28	1.437
263	TSA(C)125d000hR11.9	A & C	125	0	120	11.9	48.4	0.39	2.017
264	TSA(C)125d000hR8.88	A & C	125	0	150	8.88	64.86	0.53	2.703
265	TSA(C)125d0								



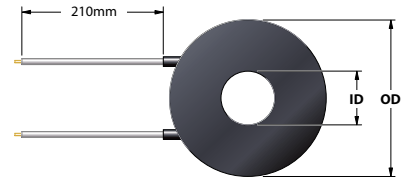
# STANDARD | Round 24V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)125d063hR10	A & C	125	63	180	10	57.6	0.63	2.4
294	TSA(C)125d063hR7.91	A & C	125	63	210	7.91	72.82	0.8	3.034
295	TSA(C)160d000hR37.5	A & C	160	0	30	37.5	15.36	0.08	0.64
296	TSA(C)160d000hR18.7	A & C	160	0	60	18.7	30.8	0.15	1.283
297	TSA(C)160d000hR11.9	A & C	160	0	90	11.9	48.4	0.24	2.017
298	TSA(C)160d000hR7.91	A & C	160	0	120	7.91	72.82	0.36	3.034
299	TSA(C)160d000hR6.29	A & C	160	0	150	6.29	91.57	0.46	3.815
300	TSA(C)160d000hR5	A & C	160	0	180	5	115.2	0.57	4.8
301	TSA160d000hR4.21	A	160	0	210	4.21	136.82	0.68	5.701
302	TSA(C)160d005hR37.5	A & C	160	5	30	37.5	15.36	0.08	0.64
303	TSA(C)160d005hR18.7	A & C	160	5	60	18.7	30.8	0.15	1.283
304	TSA(C)160d005hR11.9	A & C	160	5	90	11.9	48.4	0.24	2.017
305	TSA(C)160d005hR7.91	A & C	160	5	120	7.91	72.82	0.36	3.034
306	TSA(C)160d005hR6.29	A & C	160	5	150	6.29	91.57	0.46	3.815
307	TSA(C)160d005hR5	A & C	160	5	180	5	115.2	0.57	4.8
308	TSA160d005hR4.21	A	160	5	210	4.21	136.82	0.68	5.701
309	TSA(C)160d010hR37.5	A & C	160	10	30	37.5	15.36	0.08	0.64
310	TSA(C)160d010hR18.7	A & C	160	10	60	18.7	30.8	0.15	1.283
311	TSA(C)160d010hR11.9	A & C	160	10	90	11.9	48.4	0.24	2.017
312	TSA(C)160d010hR7.91	A & C	160	10	120	7.91	72.82	0.36	3.034
313	TSA(C)160d010hR6.29	A & C	160	10	150	6.29	91.57	0.46	3.815
314	TSA(C)160d010hR5	A & C	160	10	180	5	115.2	0.57	4.8
315	TSA160d010hR4.21	A	160	10	210	4.21	136.82	0.68	5.701
316	TSA(C)160d020hR37.5	A & C	160	20	30	37.5	15.36	0.08	0.64
317	TSA(C)160d020hR18.7	A & C	160	20	60	18.7	30.8	0.16	1.283
318	TSA(C)160d020hR11.9	A & C	160	20	90	11.9	48.4	0.24	2.017
319	TSA(C)160d020hR7.91	A & C	160	20	120	7.91	72.82	0.37	3.034
320	TSA(C)160d020hR6.29	A & C	160	20	150	6.29	91.57	0.46	3.815
321	TSA(C)160d020hR5	A & C	160	20	180	5	115.2	0.58	4.8
322	TSA(C)160d020hR4.21	A & C	160	20	210	4.21	136.82	0.69	5.701
323	TSA(C)160d040hR39.7	A & C	160	40	30	39.7	14.51	0.08	0.605
324	TSA(C)160d040hR19.8	A & C	160	40	60	19.8	29.09	0.15	1.212
325	TSA(C)160d040hR12.6	A & C	160	40	90	12.6	45.71	0.24	1.905
326	TSA(C)160d040hR8.38	A & C	160	40	120	8.38	68.74	0.36	2.864
327	TSA(C)160d040hR6.66	A & C	160	40	150	6.66	86.49	0.46	3.604
328	TSA(C)160d040hR5.3	A & C	160	40	180	5.3	108.68	0.58	4.528
329	TSA(C)160d040hR4.46	A & C	160	40	210	4.46	129.15	0.69	5.381
330	TSA(C)160d080hR50	A & C	160	80	30	50	11.52	0.08	0.48
331	TSA(C)160d080hR24.9	A & C	160	80	60	24.9	23.13	0.15	0.964
332	TSA(C)160d080hR15.8	A & C	160	80	90	15.8	36.46	0.24	1.519
333	TSA(C)160d080hR10.6	A & C	160	80	120	10.6	54.34	0.36	2.264
334	TSA(C)160d080hR8.38	A & C	160	80	150	8.38	68.74	0.46	2.864
335	TSA(C)160d080hR6.66	A & C	160	80	180	6.66	86.49	0.57	3.604
336	TSA(C)160d080hR5.61	A & C	160	80	210	5.61	102.67	0.68	4.278
337	TSA(C)200d000hR26.4	A & C	200	0	30	26.4	21.82	0.07	0.909
338	TSA(C)200d000hR12.6	A & C	200	0	60	12.6	45.71	0.15	1.905
339	TSA(C)200d000hR7.91	A & C	200	0	90	7.91	72.82	0.23	3.034
340	TSA(C)200d000hR5.61	A & C	200	0	120	5.61	102.67	0.33	4.278
341	TSA(C)200d000hR4.21	A & C	200	0	150	4.21	136.82	0.44	5.701
342	TSA200d000hR3.54	A	200	0	180	3.54	162.71	0.52	6.78
343	TSA200d000hR2.8	A	200	0	210	2.8	205.71	0.65	8.571
344	TSA(C)200d006hR26.4	A & C	200	6	30	26.4	21.82	0.07	0.909
345	TSA(C)200d006hR12.6	A & C	200	6	60	12.6	45.71	0.15	1.905
346	TSA(C)200d006hR7.91	A & C	200	6	90	7.91	72.82	0.23	3.034
347	TSA(C)200d006hR5.61	A & C	200	6	120	5.61	102.67	0.33	4.278
348	TSA(C)200d006hR4.21	A & C	200	6	150	4.21	136.82	0.44	5.701
349	TSA200d006hR3.54	A	200	6	180	3.54	162.71	0.52	6.78
350	TSA200d006hR2.8	A	200	6	210	2.8	205.71	0.66	8.571
351	TSA(C)200d013hR26.4	A & C	200	13	30	26.4	21.82	0.07	0.909
352	TSA(C)200d013hR13.3	A & C	200	13	60	13.3	43.31	0.14	1.805
353	TSA(C)200d013hR7.91	A & C	200	13	90	7.91	72.82	0.23	3.034
354	TSA(C)200d013hR5.61	A & C	200	13	120	5.61	102.67	0.33	4.278
355	TSA(C)200d013hR4.21	A & C	200	13	150	4.21	136.82	0.44	5.701
356	TSA200d013hR3.54	A	200	13	180	3.54	162.71	0.52	6.78
357	TSA200d013hR2.8	A	200	13	210	2.8	205.71	0.66	8.571
358	TSA(C)200d025hR26.4	A & C	200	25	30	26.4	21.82	0.07	0.909
359	TSA(C)200d025hR13.3	A & C	200	25	60	13.3	43.31	0.14	1.805
360	TSA(C)200d025hR8.38	A & C	200	25	90	8.38	68.74	0.22	2.864
361	TSA(C)200d025hR5.61	A & C	200	25	120	5.61	102.67	0.33	4.278
362	TSA(C)200d025hR4.21	A & C	200	25	150	4.21	136.82	0.44	5.701
363	TSA200d025hR3.54	A	200	25	180	3.54	162.71	0.53	6.78
364	TSA200d025hR2.97	A	200	25	210	2.97	193.94	0.63	8.081
365	TSA(C)200d050hR28	A & C	200	50	30	28	20.57	0.07	0.857

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)200d050hR14.1	A & C	200	50	60	14.1	40.85	0.14	1.702
367	TSA(C)200d050hR8.38	A & C	200	50	90	8.38	68.74	0.23	2.864
368	TSA(C)200d050hR5.94	A & C	200	50	120	5.94	96.97	0.33	4.04
369	TSA(C)200d050hR4.46	A & C	200	50	150	4.46	129.15	0.44	5.381
370	TSA(C)200d050hR3.75	A & C	200	50	180	3.75	153.6	0.52	6.4
371	TSA200d050hR2.97	A	200	50	210	2.97	193.94	0.66	8.081
372	TSA(C)250d100hR33.4	A & C	200	100	30	33.4	17.25	0.07	0.719
373	TSA(C)200d100hR16.7	A & C	200	100	60	16.7	34.49	0.15	1.437
374	TSA(C)200d100hR10.6	A & C	200	100	90	10.6	54.34	0.23	2.264
375	TSA(C)200d100hR7.47	A & C	200	100	120	7.47	77.11	0.33	3.213
376	TSA(C)250d100hR5.61	A & C	200	100	150	5.61	102.67	0.44	4.278
377	TSA(C)200d100hR4.72	A & C	200	100	180	4.72	122.03	0.52	5.085
378	TSA(C)200d100hR3.75	A & C	200	100	210	3.75	153.6	0.65	6.4
379	TSA(C)250d000hR17.7	A & C	250	0	30	17.7	32.54	0.07	1.356
380	TSA(C)250d000hR8.88	A & C	250	0	60	8.88	64.86	0.13	2.703
381	TSA(C)250d000hR5.61	A & C	250	0	90	5.61	102.67	0.21	4.278
382	TSA(C)250d000hR3.75	A & C	250	0	120	3.75	153.6	0.31	6.4
383	TSA250d000hR2.97	A	250	0	150	2.97	193.94	0.4	8.081
384	TSA250d000hR2.35	A	250	0	180	2.35	245.11	0.5	10.213
385	TSA250d000hR1.98	A	250	0	210	1.98	290.91	0.59	12.121
386	TSA(C)250d008hR17.7	A & C	250	8	30	17.7	32.54	0.07	1.356
387	TSA(C)250d008hR8.88	A & C	250	8	60	8.88	64.86	0.13	2.703
388	TSA(C)250d008hR5.61	A & C	250	8	90	5.61	102.67	0.21	4.278
389	TSA(C)250d008hR3.75	A & C	250	8	120	3.75	153.6	0.31	6.4
390	TSA250d008hR2.97	A	250	8	150	2.97	193.94	0.4	8.081
391	TSA250d008hR2.35	A	250	8	180	2.35	245.11	0.5	10.213
392	TSA250d008hR1.98	A	250	8	210	1.98	290.91	0.59	12.121
393	TSA(C)250d016hR17.7	A & C	250	16	30	17.7	32.54	0.07	1.356
394	TSA(C)250d016hR8.88	A & C	250	16	60	8.88	64.86	0.13	2.703
395	TSA(C)250d016hR5.61	A & C	250	16	90	5.61	102.67	0.21	4.278
396	TSA(C)250d016hR3.75	A & C	250	16	120	3.75	153.6	0.31	6.4
397	TSA250d016hR2.97	A	250	16	150	2.97	193.94	0.4	8.081
398	TSA250d016hR2.49	A	250	16	180	2.49	231.33	0.47	9.639
399	TSA250d016hR1.98	A	250	16	210	1.98	290.91	0.6	12.121
400	TSA(C)250d032hR18.8	A & C	250	32	30	18.8	30.8	0.06	1.283
401	TSA(C)250d032hR8.88	A & C	250	32	60	8.88	64.86	0.13	2.703
402	TSA(C)250d032hR5.61	A & C	250	32	90	5.61	102.67	0.21	4.278
403	TSA(C)250d032hR3.97	A & C	250	32	120	3.97	145.09	0.3	6.045
404	TSA250d032hR2.97	A	250	32	150	2.97	193.94	0.4	8.081
405	TSA250d032hR2.49	A	250	32	180	2.49	231.33	0.48	9.639
406	TSA250d032hR1.98	A	250	32	210	1.98	290.91	0.6	12.121
407	TSA(C)250d063hR18.7	A & C	250	63	30	18.7	30.8	0.07	1.283
408	TSA(C)250d063hR9.41	A & C	250	63	60	9.41	61.21	0.13	2.55
409	TSA(C)250d063hR5.94	A & C	250	63	90	5.94	96.97	0.21	4.04
410	TSA(C)250d063hR3.97	A & C	250	63	120	3.97	145.09		

# STANDARD | Round 24V

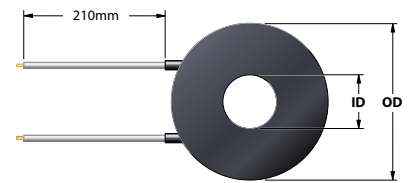


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)300d020hR13.3	A & C	300	20	30	13.3	43.31	0.06	1.805
440	TSA(C)300d020hR6.66	A & C	300	20	60	6.66	86.49	0.12	3.604
441	TSA(C)300d020hR3.97	A & C	300	20	90	3.97	145.09	0.21	6.045
442	TSA300d020hR2.8	A	300	20	120	2.8	205.71	0.29	8.571
443	TSA300d020hR2.1	A	300	20	150	2.1	274.29	0.39	11.429
444	TSA300d020hR1.77	A	300	20	180	1.77	325.42	0.46	13.559
445	TSA(C)300d040hR13.3	A & C	300	40	30	13.3	43.31	0.06	1.805
446	TSA(C)300d040hR6.66	A & C	300	40	60	6.66	86.49	0.12	3.604
447	TSA(C)300d040hR4.21	A & C	300	40	90	4.21	136.82	0.2	5.701
448	TSA300d040hR2.8	A	300	40	120	2.8	205.71	0.3	8.571
449	TSA300d040hR2.22	A	300	40	150	2.22	259.46	0.37	10.811
450	TSA300d040hR1.77	A	300	40	180	1.77	325.42	0.47	13.559
451	TSA(C)300d080hR14.1	A & C	300	80	30	14.1	40.85	0.06	1.702

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
452	TSA(C)300d080hR7.05	A & C	300	80	60	7.05	81.7	0.12	3.404
453	TSA(C)300d080hR4.46	A & C	300	80	90	4.46	129.15	0.2	5.381
454	TSA300d080hR2.97	A	300	80	120	2.97	193.94	0.3	8.081
455	TSA300d080hR2.35	A	300	80	150	2.35	245.11	0.37	10.213
456	TSA300d080hR1.87	A	300	80	180	1.87	308.02	0.47	12.834
457	TSA(C)300d160hR18.7	A & C	300	160	30	18.7	30.8	0.06	1.283
458	TSA(C)300d160hR8.88	A & C	300	160	60	8.88	64.86	0.13	2.703
459	TSA(C)300d160hR5.61	A & C	300	160	90	5.61	102.67	0.2	4.278
460	TSA(C)300d160hR3.97	A & C	300	160	120	3.97	145.09	0.29	6.045
461	TSA300d160hR2.97	A	300	160	150	2.97	193.94	0.38	8.081
462	TSA300d160hR2.49	A	300	160	180	2.49	231.33	0.46	9.639
463	TSA300d160hR1.98	A	300	160	210	1.98	290.91	0.58	12.121

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

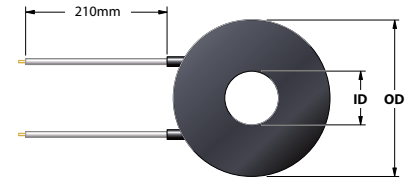


# STANDARD | Round 42V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000iR8380	C	10	0	30	8380	0.21	0.27	0.005
2	TSC010d000iR3970	C	10	0	60	3970	0.44	0.56	0.01
3	TSC010d000iR2640	C	10	0	90	2640	0.67	0.85	0.016
4	TSC010d000iR1870	C	10	0	120	1870	0.94	1.2	0.022
5	TSC010d000iR1410	C	10	0	150	1410	1.25	1.59	0.03
6	TSC010d000iR1120	C	10	0	180	1120	1.58	2.01	0.038
7	TSC010d000iR941	C	10	0	210	941	1.87	2.38	0.045
8	TSC010d005iR11200	C	10	5	30	11200	0.16	0.27	0.004
9	TSC010d005iR5610	C	10	5	60	5610	0.31	0.53	0.007
10	TSC010d005iR3540	C	10	5	90	3540	0.5	0.85	0.012
11	TSC010d005iR2490	C	10	5	120	2490	0.71	1.21	0.017
12	TSC010d005iR1870	C	10	5	150	1870	0.94	1.6	0.022
13	TSC010d005iR1490	C	10	5	180	1490	1.18	2	0.028
14	TSC010d005iR1260	C	10	5	210	1260	1.4	2.38	0.033
15	TSC013d000iR5940	C	13	0	30	5940	0.3	0.23	0.007
16	TSC013d000iR2800	C	13	0	60	2800	0.63	0.47	0.015
17	TSC013d000iR1770	C	13	0	90	1770	1	0.75	0.024
18	TSC013d000iR1260	C	13	0	120	1260	1.4	1.05	0.033
19	TSC013d000iR941	C	13	0	150	941	1.87	1.41	0.045
20	TSC013d000iR747	C	13	0	180	747	2.36	1.78	0.056
21	TSC013d000iR629	C	13	0	210	629	2.8	2.11	0.067
22	TSC013d006iR7470	C	13	6	30	7470	0.24	0.23	0.006
23	TSC013d006iR3540	C	13	6	60	3540	0.5	0.48	0.012
24	TSC013d006iR2220	C	13	6	90	2220	0.79	0.76	0.019
25	TSC013d006iR1580	C	13	6	120	1580	1.12	1.07	0.027
26	TSC013d006iR1190	C	13	6	150	1190	1.48	1.42	0.035
27	TSC013d006iR1000	C	13	6	180	1000	1.76	1.68	0.042
28	TSC013d006iR791	C	13	6	210	791	2.23	2.13	0.053
29	TSC016d000iR4460	C	16	0	30	4460	0.4	0.2	0.01
30	TSC016d000iR2220	C	16	0	60	2220	0.79	0.39	0.019
31	TSC016d000iR1330	C	16	0	90	1330	1.33	0.66	0.032
32	TSC016d000iR1000	C	16	0	120	1000	1.76	0.88	0.042
33	TSC016d000iR747	C	16	0	150	747	2.36	1.17	0.056
34	TSC016d000iR594	C	16	0	180	594	2.97	1.48	0.071
35	TSC016d000iR500	C	16	0	210	500	3.53	1.76	0.084
36	TSC016d008iR6290	C	16	8	30	6290	0.28	0.19	0.007
37	TSC016d008iR2970	C	16	8	60	2970	0.59	0.39	0.014
38	TSC016d008iR1870	C	16	8	90	1870	0.94	0.62	0.022
39	TSC016d008iR1330	C	16	8	120	1330	1.33	0.88	0.032
40	TSC016d008iR1000	C	16	8	150	1000	1.76	1.17	0.042
41	TSC016d008iR791	C	16	8	180	791	2.23	1.48	0.053
42	TSC016d008iR666	C	16	8	210	666	2.65	1.76	0.063
43	TSC020d000iR3750	C	20	0	30	3750	0.47	0.15	0.011
44	TSC020d000iR1770	C	20	0	60	1770	1	0.32	0.024
45	TSC020d000iR1120	C	20	0	90	1120	1.58	0.5	0.038
46	TSC020d000iR791	C	20	0	120	791	2.23	0.71	0.053
47	TSC020d000iR629	C	20	0	150	629	2.8	0.89	0.067

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
48	TSC020d000iR500	C	20	0	180	500	3.53	1.12	0.084
49	TSC020d000iR421	C	20	0	210	421	4.19	1.33	0.1
50	TSC020d005iR3970	C	20	5	30	3970	0.44	0.15	0.01
51	TSC020d005iR1980	C	20	5	60	1980	0.89	0.3	0.021
52	TSC020d005iR1190	C	20	5	90	1190	1.48	0.5	0.035
53	TSC020d005iR838	C	20	5	120	838	2.11	0.72	0.05
54	TSC020d005iR666	C	20	5	150	666	2.65	0.9	0.063
55	TSC020d005iR530	C	20	5	180	530	3.33	1.13	0.079
56	TSC020d005iR446	C	20	5	210	446	3.96	1.34	0.094
57	TSC020d010iR5000	C	20	10	30	5000	0.35	0.15	0.008
58	TSC020d010iR2350	C	20	10	60	2350	0.75	0.32	0.018
59	TSC020d010iR1490	C	20	10	90	1490	1.18	0.5	0.028
60	TSC020d010iR1060	C	20	10	120	1060	1.66	0.7	0.04
61	TSC020d010iR838	C	20	10	150	838	2.11	0.9	0.05
62	TSC020d010iR666	C	20	10	180	666	2.65	1.12	0.063
63	TSC020d010iR561	C	20	10	210	561	3.14	1.33	0.075
64	TSC025d000iR2490	C	25	0	30	2490	0.71	0.14	0.017
65	TSC025d000iR1190	C	25	0	60	1190	1.48	0.3	0.035
66	TSC025d000iR747	C	25	0	90	747	2.36	0.48	0.056
67	TSC025d000iR530	C	25	0	120	530	3.33	0.68	0.079
68	TSC025d000iR421	C	25	0	150	421	4.19	0.85	0.1
69	TSC025d000iR334	C	25	0	180	334	5.28	1.08	0.126
70	TSA(C)025d000iR280	A & C	25	0	210	280	6.3	1.28	0.15
71	TSC025d006iR2640	C	25	6	30	2640	0.67	0.14	0.016
72	TSC025d006iR1260	C	25	6	60	1260	1.4	0.3	0.033
73	TSC025d006iR791	C	25	6	90	791	2.23	0.48	0.053
74	TSC025d006iR561	C	25	6	120	561	3.14	0.68	0.075
75	TSC025d006iR446	C	25	6	150	446	3.96	0.86	0.094
76	TSC025d006iR354	C	25	6	180	354	4.98	1.08	0.119
77	TSC025d006iR297	C	25	6	210	297	5.94	1.28	0.141
78	TSC025d013iR3340	C	25	13	30	3340	0.53	0.15	0.013
79	TSC025d013iR1670	C	25	13	60	1670	1.06	0.3	0.025
80	TSC025d013iR1000	C	25	13	90	1000	1.76	0.49	0.042
81	TSC025d013iR747	C	25	13	120	747	2.36	0.66	0.056
82	TSC025d013iR561	C	25	13	150	561	3.14	0.88	0.075
83	TSC025d013iR472	C	25	13	180	472	3.74	1.04	0.089
84	TSC025d013iR397	C	25	13	210	397	4.44	1.24	0.106
85	TSC032d000iR1670	C	32	0	30	1670	1.06	0.13	0.025
86	TSC032d000iR791	C	32	0	60	791	2.23	0.28	0.053
87	TSC032d000iR472	C	32	0	90	472	3.74	0.47	0.089
88	TSA(C)032d000iR334	A & C	32	0	120	334	5.28	0.66	0.126
89	TSA(C)032d000iR264	A & C	32	0	150	264	6.68	0.83	0.159
90	TSA(C)032d000iR222	A & C	32	0	180	222	7.95	0.99	0.189
91	TSA(C)032d000iR187	A & C	32	0	210	187	9.43	1.17	0.225
92	TSC032d008iR1770	C	32	8	30	1770	1	0.13	0.024
93	TSC032d008iR838	C	32						

# STANDARD | Round 42V

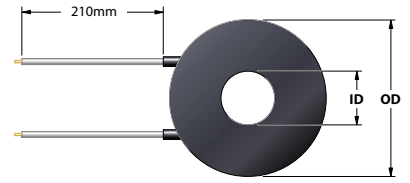


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
95	TSA(C)032d008iR375	A & C	32	8	120	375	4.7	0.62	0.112
96	TSA(C)032d008iR280	A & C	32	8	150	280	6.3	0.84	0.15
97	TSA(C)032d008iR235	A & C	32	8	180	235	7.51	1	0.179
98	TSA(C)032d008iR198	A & C	32	8	210	198	8.91	1.18	0.212
99	TSC032d016iR2220	C	32	16	30	2220	0.79	0.13	0.019
100	TSC032d016iR1060	C	32	16	60	1060	1.66	0.28	0.04
101	TSC032d016iR629	C	32	16	90	629	2.8	0.46	0.067
102	TSC032d016iR446	C	32	16	120	446	3.96	0.66	0.094
103	TSC032d016iR354	C	32	16	150	354	4.98	0.83	0.119
104	TSA(C)032d016iR297	A & C	32	16	180	297	5.94	0.98	0.141
105	TSA(C)032d016iR249	A & C	32	16	210	249	7.08	1.17	0.169
106	TSC040d000iR1120	C	40	0	30	1120	1.58	0.13	0.038
107	TSA(C)040d000iR530	A & C	40	0	60	530	3.33	0.26	0.079
108	TSA(C)040d000iR315	A & C	40	0	90	315	5.6	0.45	0.133
109	TSA(C)040d000iR235	A & C	40	0	120	235	7.51	0.6	0.179
110	TSA(C)040d000iR177	A & C	40	0	150	177	9.97	0.79	0.237
111	TSA(C)040d000iR149	A & C	40	0	180	149	11.84	0.94	0.282
112	TSA(C)040d000iR126	A & C	40	0	210	126	14	1.11	0.333
113	TSC040d005iR1120	C	40	5	30	1120	1.58	0.13	0.038
114	TSA(C)040d005iR530	A & C	40	5	60	530	3.33	0.27	0.079
115	TSA(C)040d005iR334	A & C	40	5	90	334	5.28	0.43	0.126
116	TSA(C)040d005iR235	A & C	40	5	120	235	7.51	0.61	0.179
117	TSA(C)040d005iR187	A & C	40	5	150	187	9.43	0.76	0.225
118	TSA(C)040d005iR149	A & C	40	5	180	149	11.84	0.96	0.282
119	TSA(C)040d005iR126	A & C	40	5	210	126	14	1.13	0.333
120	TSC040d010iR1190	C	40	10	30	1190	1.48	0.13	0.035
121	TSA(C)040d010iR561	A & C	40	10	60	561	3.14	0.27	0.075
122	TSA(C)040d010iR354	A & C	40	10	90	354	4.98	0.42	0.119
123	TSA(C)040d010iR249	A & C	40	10	120	249	7.08	0.6	0.169
124	TSA(C)040d010iR198	A & C	40	10	150	198	8.91	0.76	0.212
125	TSA(C)040d010iR158	A & C	40	10	180	158	11.16	0.95	0.266
126	TSA(C)040d010iR133	A & C	40	10	210	133	13.26	1.13	0.316
127	TSC040d020iR1490	C	40	20	30	1490	1.18	0.13	0.028
128	TSC040d020iR705	C	40	20	60	705	2.5	0.27	0.06
129	TSA(C)040d020iR421	A & C	40	20	90	421	4.19	0.44	0.1
130	TSA(C)040d020iR315	A & C	40	20	120	315	5.6	0.59	0.133
131	TSA(C)040d020iR235	A & C	40	20	150	235	7.51	0.8	0.179
132	TSA(C)040d020iR198	A & C	40	20	180	198	8.91	0.95	0.212
133	TSA(C)040d020iR167	A & C	40	20	210	167	10.56	1.12	0.251
134	TSA(C)050d000iR705	A & C	50	0	30	705	2.5	0.13	0.06
135	TSA(C)050d000iR354	A & C	50	0	60	354	4.98	0.25	0.119
136	TSA(C)050d000iR222	A & C	50	0	90	222	7.95	0.4	0.189
137	TSA(C)050d000iR158	A & C	50	0	120	158	11.16	0.57	0.266
138	TSA(C)050d000iR126	A & C	50	0	150	126	14	0.71	0.333
139	TSA(C)050d000iR100	A & C	50	0	180	100	17.64	0.9	0.42
140	TSA(C)050d000iR83.8	A & C	50	0	210	83.8	21.05	1.07	0.501
141	TSA(C)050d006iR747	A & C	50	6	30	747	2.36	0.12	0.056
142	TSA(C)050d006iR354	A & C	50	6	60	354	4.98	0.26	0.119
143	TSA(C)050d006iR222	A & C	50	6	90	222	7.95	0.41	0.189
144	TSA(C)050d006iR158	A & C	50	6	120	158	11.16	0.58	0.266
145	TSA(C)050d006iR126	A & C	50	6	150	126	14	0.72	0.333
146	TSA(C)050d006iR100	A & C	50	6	180	100	17.64	0.91	0.42
147	TSA(C)050d006iR83.8	A & C	50	6	210	83.8	21.05	1.09	0.501
148	TSA(C)050d013iR791	A & C	50	13	30	791	2.23	0.12	0.053
149	TSA(C)050d013iR375	A & C	50	13	60	375	4.7	0.26	0.112
150	TSA(C)050d013iR235	A & C	50	13	90	235	7.51	0.41	0.179
151	TSA(C)050d013iR167	A & C	50	13	120	167	10.56	0.58	0.251
152	TSA(C)050d013iR133	A & C	50	13	150	133	13.26	0.72	0.316
153	TSA(C)050d013iR106	A & C	50	13	180	106	16.64	0.91	0.396
154	TSA(C)050d013iR88.8	A & C	50	13	210	88.8	19.86	1.08	0.473
155	TSC050d025iR941	C	50	25	30	941	1.87	0.13	0.045
156	TSA(C)050d025iR472	A & C	50	25	60	472	3.74	0.25	0.089
157	TSA(C)050d025iR297	A & C	50	25	90	297	5.94	0.4	0.141
158	TSA(C)050d025iR210	A & C	50	25	120	210	8.4	0.57	0.2
159	TSA(C)050d025iR167	A & C	50	25	150	167	10.56	0.72	0.251
160	TSA(C)050d025iR133	A & C	50	25	180	133	13.26	0.9	0.316
161	TSA(C)050d025iR112	A & C	50	25	210	112	15.75	1.07	0.375
162	TSA(C)063d000iR472	A & C	63	0	30	472	3.74	0.12	0.089
163	TSA(C)063d000iR235	A & C	63	0	60	235	7.51	0.24	0.179
164	TSA(C)063d000iR149	A & C	63	0	90	149	11.84	0.38	0.282
165	TSA(C)063d000iR106	A & C	63	0	120	106	16.64	0.53	0.396
166	TSA(C)063d000iR83.8	A & C	63	0	150	83.8	21.05	0.68	0.501
167	TSA(C)063d000iR66.6	A & C	63	0	180	66.6	26.49	0.85	0.631

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
168	TSA(C)063d000iR56.1	A & C	63	0	210	56.1	31.44	1.01	0.749
169	TSA(C)063d008iR500	A & C	63	8	30	500	3.53	0.12	0.084
170	TSA(C)063d008iR235	A & C	63	8	60	235	7.51	0.24	0.179
171	TSA(C)063d008iR149	A & C	63	8	90	149	11.84	0.39	0.282
172	TSA(C)063d008iR106	A & C	63	8	120	106	16.64	0.54	0.396
173	TSA(C)063d008iR83.8	A & C	63	8	150	83.8	21.05	0.69	0.501
174	TSA(C)063d008iR66.6	A & C	63	8	180	66.6	26.49	0.86	0.631
175	TSA(C)063d008iR56.1	A & C	63	8	210	56.1	31.44	1.03	0.749
176	TSA(C)063d016iR530	A & C	63	16	30	530	3.33	0.11	0.079
177	TSA(C)063d016iR249	A & C	63	16	60	249	7.08	0.24	0.169
178	TSA(C)063d016iR158	A & C	63	16	90	158	11.16	0.38	0.266
179	TSA(C)063d016iR112	A & C	63	16	120	112	15.75	0.54	0.375
180	TSA(C)063d016iR88.8	A & C	63	16	150	88.8	19.86	0.68	0.473
181	TSA(C)063d016iR70.5	A & C	63	16	180	70.5	25.02	0.86	0.596
182	TSA(C)063d016iR59.4	A & C	63	16	210	59.4	29.7	1.02	0.707
183	TSA(C)063d032iR666	A & C	63	32	30	666	2.65	0.11	0.063
184	TSA(C)063d032iR315	A & C	63	32	60	315	5.6	0.24	0.133
185	TSA(C)063d032iR198	A & C	63	32	90	198	8.91	0.39	0.212
186	TSA(C)063d032iR141	A & C	63	32	120	141	12.51	0.54	0.298
187	TSA(C)063d032iR112	A & C	63	32	150	112	15.75	0.68	0.375
188	TSA(C)063d032iR88.8	A & C	63	32	180	88.8	19.86	0.86	0.473
189	TSA(C)063d032iR74.7	A & C	63	32	210	74.7	23.61	1.02	0.562
190	TSA(C)080d000iR334	A & C	80	0	30	334	5.28	0.11	0.126
191	TSA(C)080d000iR167	A & C	80	0	60	167	10.56	0.21	0.251
192	TSA(C)080d000iR100	A & C	80	0	90	100	17.64	0.35	0.42
193	TSA(C)080d000iR70.5	A & C	80	0	120	70.5	25.02	0.5	0.596
194	TSA(C)080d000iR56.1	A & C	80	0	150	56.1	31.44	0.63	0.749
195	TSA(C)080d000iR44.6	A & C	80	0	180	44.6	39.55	0.79	0.942
196	TSA(C)080d000iR37.5	A & C	80	0	210	37.5	47.04	0.94	1.12
197	TSA(C)080d005iR334	A & C	80	5	30	334	5.28	0.11	0.126
198	TSA(C)080d005iR167	A & C	80	5	60	167	10.56	0.21	0.251
199	TSA(C)080d005iR106	A & C	80	5	90	106	16.64	0.33	0.396
200	TSA(C)080d005iR70.5	A & C	80	5	120	70.5	25.02	0.5	0.596
201	TSA(C)080d005iR56.1	A & C	80	5	150	56.1	31.44	0.63	0.749
202	TSA(C)080d005iR44.6	A & C	80	5	180	44.6	39.55	0.79	0.942
203	TSA(C)080d005iR37.5	A & C	80	5	210	37.5	47.04	0.94	1.12
204	TSA(C)080d010iR334	A & C	80	10	30	334	5.28	0.11	0.126
205	TSA(C)080d010iR167	A & C	80	10	60	167	10.56	0.21	0.251
206	TSA(C)080d010iR106	A & C	80	10	90	106	16.64	0.34	0.396
207	TSA(C)080d010iR70.5	A & C	80	10	120	70.5	25.02	0.51	0.596
208	TSA(C)080d010iR56.1	A & C	80	10	150	56.1	31.44	0.64	0.749
209	TSA(C)080d010iR47.2	A & C	80	10	180	47.2	37.37	0.76	0.89
210	TSA(C)080d010iR37.5	A & C	80	10	210	37.5	47.04	0.95	1.12
211	TSA(C)080d020iR354	A & C	80	20	30	354	4.98	0.11	0.119
212	TSA(C)080d020iR177	A & C	80	20	60	177	9.97	0.21	0.237
213	TSA(C)080d020iR112	A & C	80	20	90	112	15.75	0.33	0.375
214	TSA(C)080d020iR74.7	A & C	80	20	120	74.7	23.61	0.5	0.562
215	TSA(C)080d020iR59.4	A & C	80	20	150	59.4	29.7		



# STANDARD | Round 42V

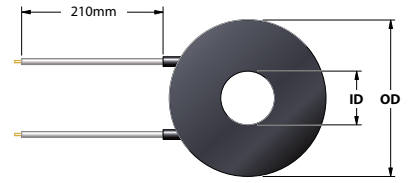


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
241	TSA(C)100d013iR74.7	A & C	100	13	90	74.7	23.61	0.31	0.562
242	TSA(C)100d013iR53	A & C	100	13	120	53	33.28	0.43	0.792
243	TSA(C)100d013iR39.7	A & C	100	13	150	39.7	44.43	0.58	1.058
244	TSA(C)100d013iR33.4	A & C	100	13	180	33.4	52.81	0.68	1.257
245	TSA(C)100d013iR26.4	A & C	100	13	210	26.4	66.82	0.87	1.591
246	TSA(C)100d025iR249	A & C	100	25	30	249	7.08	0.1	0.169
247	TSA(C)100d025iR126	A & C	100	25	60	126	14	0.19	0.333
248	TSA(C)100d025iR79.1	A & C	100	25	90	79.1	22.3	0.3	0.531
249	TSA(C)100d025iR53	A & C	100	25	120	53	33.28	0.45	0.792
250	TSA(C)100d025iR42.1	A & C	100	25	150	42.1	41.9	0.57	0.998
251	TSA(C)100d025iR33.4	A & C	100	25	180	33.4	52.81	0.72	1.257
252	TSA(C)100d025iR28	A & C	100	25	210	28	63	0.86	1.5
253	TSA(C)100d050iR315	A & C	100	50	30	315	5.6	0.1	0.133
254	TSA(C)100d050iR158	A & C	100	50	60	158	11.16	0.19	0.266
255	TSA(C)100d050iR100	A & C	100	50	90	100	17.64	0.3	0.42
256	TSA(C)100d050iR66.6	A & C	100	50	120	66.6	26.49	0.45	0.631
257	TSA(C)100d050iR53	A & C	100	50	150	53	33.28	0.56	0.792
258	TSA(C)100d050iR42.1	A & C	100	50	180	42.1	41.9	0.71	0.998
259	TSA(C)100d050iR35.4	A & C	100	50	210	35.4	49.83	0.85	1.186
260	TSA(C)125d000iR167	A & C	125	0	30	167	10.56	0.09	0.251
261	TSA(C)125d000iR83.8	A & C	125	0	60	83.8	21.05	0.17	0.501
262	TSA(C)125d000iR53	A & C	125	0	90	53	33.28	0.27	0.792
263	TSA(C)125d000iR35.4	A & C	125	0	120	35.4	49.83	0.41	1.186
264	TSA(C)125d000iR28	A & C	125	0	150	28	63	0.51	1.5
265	TSA(C)125d000iR22.2	A & C	125	0	180	22.2	79.46	0.65	1.892
266	TSA(C)125d000iR18.7	A & C	125	0	210	18.7	94.33	0.77	2.246
267	TSA(C)125d008iR167	A & C	125	8	30	167	10.56	0.09	0.251
268	TSA(C)125d008iR83.8	A & C	125	8	60	83.8	21.05	0.17	0.501
269	TSA(C)125d008iR53	A & C	125	8	90	53	33.28	0.27	0.792
270	TSA(C)125d008iR35.4	A & C	125	8	120	35.4	49.83	0.41	1.186
271	TSA(C)125d008iR28	A & C	125	8	150	28	63	0.52	1.5
272	TSA(C)125d008iR22.2	A & C	125	8	180	22.2	79.46	0.65	1.892
273	TSA(C)125d008iR18.7	A & C	125	8	210	18.7	94.33	0.77	2.246
274	TSA(C)125d016iR167	A & C	125	16	30	167	10.56	0.09	0.251
275	TSA(C)125d016iR83.8	A & C	125	16	60	83.8	21.05	0.17	0.501
276	TSA(C)125d016iR53	A & C	125	16	90	53	33.28	0.28	0.792
277	TSA(C)125d016iR35.4	A & C	125	16	120	35.4	49.83	0.41	1.186
278	TSA(C)125d016iR28	A & C	125	16	150	28	63	0.52	1.5
279	TSA(C)125d016iR22.2	A & C	125	16	180	22.2	79.46	0.66	1.892
280	TSA(C)125d016iR18.7	A & C	125	16	210	18.7	94.33	0.78	2.246
281	TSA(C)125d032iR177	A & C	125	32	30	177	9.97	0.09	0.237
282	TSA(C)125d032iR88.8	A & C	125	32	60	88.8	19.86	0.17	0.473
283	TSA(C)125d032iR56.1	A & C	125	32	90	56.1	31.44	0.27	0.749
284	TSA(C)125d032iR37.5	A & C	125	32	120	37.5	47.04	0.41	1.12
285	TSA(C)125d032iR29.7	A & C	125	32	150	29.7	59.39	0.52	1.414
286	TSA(C)125d032iR23.5	A & C	125	32	180	23.5	75.06	0.65	1.787
287	TSA(C)125d032iR19.8	A & C	125	32	210	19.8	89.09	0.78	2.121
288	TSA(C)125d063iR222	A & C	125	63	30	222	7.95	0.09	0.189
289	TSA(C)125d063iR112	A & C	125	63	60	112	15.75	0.17	0.375
290	TSA(C)125d063iR70.5	A & C	125	63	90	70.5	25.02	0.27	0.596
291	TSA(C)125d063iR47.2	A & C	125	63	120	47.2	37.37	0.41	0.89
292	TSA(C)125d063iR37.5	A & C	125	63	150	37.5	47.04	0.51	1.12
293	TSA(C)125d063iR29.7	A & C	125	63	180	29.7	59.39	0.65	1.414
294	TSA(C)125d063iR24.9	A & C	125	63	210	24.9	70.84	0.77	1.687
295	TSA(C)160d000iR112	A & C	160	0	30	112	15.75	0.08	0.375
296	TSA(C)160d000iR56.1	A & C	160	0	60	56.1	31.44	0.16	0.749
297	TSA(C)160d000iR35.4	A & C	160	0	90	35.4	49.83	0.25	1.186
298	TSA(C)160d000iR23.5	A & C	160	0	120	23.5	75.06	0.37	1.787
299	TSA(C)160d000iR18.7	A & C	160	0	150	18.7	94.33	0.47	2.246
300	TSA(C)160d000iR14.9	A & C	160	0	180	14.9	118.39	0.59	2.819
301	TSA(C)160d000iR12.6	A & C	160	0	210	12.6	140	0.7	3.333
302	TSA(C)160d005iR112	A & C	160	5	30	112	15.75	0.08	0.375
303	TSA(C)160d005iR56.1	A & C	160	5	60	56.1	31.44	0.16	0.749
304	TSA(C)160d005iR35.4	A & C	160	5	90	35.4	49.83	0.25	1.186
305	TSA(C)160d005iR23.5	A & C	160	5	120	23.5	75.06	0.37	1.787
306	TSA(C)160d005iR18.7	A & C	160	5	150	18.7	94.33	0.47	2.246
307	TSA(C)160d005iR14.9	A & C	160	5	180	14.9	118.39	0.59	2.819
308	TSA(C)160d005iR12.6	A & C	160	5	210	12.6	140	0.7	3.333
309	TSA(C)160d010iR112	A & C	160	10	30	112	15.75	0.08	0.375
310	TSA(C)160d010iR56.1	A & C	160	10	60	56.1	31.44	0.16	0.749
311	TSA(C)160d010iR35.4	A & C	160	10	90	35.4	49.83	0.25	1.186
312	TSA(C)160d010iR24.9	A & C	160	10	120	24.9	70.84	0.35	1.687
313	TSA(C)160d010iR18.7	A & C	160	10	150	18.7	94.33	0.47	2.246

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
314	TSA(C)160d010iR14.9	A & C	160	10	180	14.9	118.39	0.59	2.819
315	TSA(C)160d010iR12.6	A & C	160	10	210	12.6	140	0.7	3.333
316	TSA(C)160d020iR112	A & C	160	20	30	112	15.75	0.08	0.375
317	TSA(C)160d020iR56.1	A & C	160	20	60	56.1	31.44	0.16	0.749
318	TSA(C)160d020iR35.4	A & C	160	20	90	35.4	49.83	0.25	1.186
319	TSA(C)160d020iR24.9	A & C	160	20	120	24.9	70.84	0.36	1.687
320	TSA(C)160d020iR18.7	A & C	160	20	150	18.7	94.33	0.48	2.246
321	TSA(C)160d020iR15.8	A & C	160	20	180	15.8	111.65	0.56	2.658
322	TSA(C)160d020iR12.6	A & C	160	20	210	12.6	140	0.71	3.333
323	TSA(C)160d040iR119	A & C	160	40	30	119	14.82	0.08	0.353
324	TSA(C)160d040iR59.4	A & C	160	40	60	59.4	29.7	0.16	0.707
325	TSA(C)160d040iR37.5	A & C	160	40	90	37.5	47.04	0.25	1.12
326	TSA(C)160d040iR26.4	A & C	160	40	120	26.4	66.82	0.35	1.591
327	TSA(C)160d040iR19.8	A & C	160	40	150	19.8	89.09	0.47	2.121
328	TSA(C)160d040iR16.7	A & C	160	40	180	16.7	105.63	0.56	2.515
329	TSA(C)160d040iR13.3	A & C	160	40	210	13.3	132.63	0.7	3.158
330	TSA(C)160d080iR149	A & C	160	80	30	149	11.84	0.08	0.282
331	TSA(C)160d080iR74.7	A & C	160	80	60	74.7	23.61	0.16	0.562
332	TSA(C)160d080iR47.2	A & C	160	80	90	47.2	37.37	0.25	0.89
333	TSA(C)160d080iR31.5	A & C	160	80	120	31.5	56	0.37	1.333
334	TSA(C)160d080iR24.9	A & C	160	80	150	24.9	70.84	0.47	1.687
335	TSA(C)160d080iR19.8	A & C	160	80	180	19.8	89.09	0.59	2.121
336	TSA(C)160d080iR16.7	A & C	160	80	210	16.7	105.63	0.7	2.515
337	TSA(C)200d000iR79.1	A & C	200	0	30	79.1	22.3	0.07	0.531
338	TSA(C)200d000iR39.7	A & C	200	0	60	39.7	44.43	0.14	1.058
339	TSA(C)200d000iR24.9	A & C	200	0	90	24.9	70.84	0.23	1.687
340	TSA(C)200d000iR16.7	A & C	200	0	120	16.7	105.63	0.34	2.515
341	TSA(C)200d000iR13.3	A & C	200	0	150	13.3	132.63	0.42	3.158
342	TSA(C)200d000iR10.6	A & C	200	0	180	10.6	166.42	0.53	3.962
343	TSA(C)200d000iR8.88	A & C	200	0	210	8.88	198.65	0.63	4.73
344	TSA(C)200d006iR79.1	A & C	200	6	30	79.1	22.3	0.07	0.531
345	TSA(C)200d006iR39.7	A & C	200	6	60	39.7	44.43	0.14	1.058
346	TSA(C)200d006iR24.9	A & C	200	6	90	24.9	70.84	0.23	1.687
347	TSA(C)200d006iR16.7	A & C	200	6	120	16.7	105.63	0.34	2.515
348	TSA(C)200d006iR13.3	A & C	200	6	150	13.3	132.63	0.42	3.158
349	TSA(C)200d006iR10.6	A & C	200	6	180	10.6	166.42	0.53	3.962
350	TSA(C)200d006iR8.88	A & C	200	6	210	8.88	198.65	0.63	4.73
351	TSA(C)200d013iR79.1	A & C	200	13	30	79.1	22.3	0.07	0.531
352	TSA(C)200d013iR39.7	A & C	200	13	60	39.7	44.43	0.14	1.058
353	TSA(C)200d013iR24.9	A & C	200	13	90	24.9	70.84	0.23	1.687
354	TSA(C)200d013iR16.7	A & C	200	13	120	16.7	105.63	0.34	2.515
355	TSA(C)200d013iR13.3	A & C	200	13	150	13.3	132.63	0.42	3.158
356	TSA(C)200d013iR10.6	A & C	200	13	180	10.6	166.42	0.53	3.962
357	TSA(C)200d013iR8.88	A & C	200	13	21				



# STANDARD | Round 42V

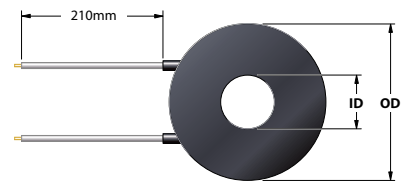


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
387	TSA(C)250d008iR28	A & C	250	8	60	28	63	0.13	1.5
388	TSA(C)250d008iR17.7	A & C	250	8	90	17.7	99.66	0.2	2.373
389	TSA(C)250d008iR11.9	A & C	250	8	120	11.9	148.24	0.3	3.53
390	TSA(C)250d008iR8.88	A & C	250	8	150	8.88	198.65	0.41	4.73
391	TSA(C)250d008iR7.47	A & C	250	8	180	7.47	236.14	0.48	5.622
392	TSA(C)250d008iR5.94	A & C	250	8	210	5.94	296.97	0.61	7.071
393	TSA(C)250d016iR56.1	A & C	250	16	30	56.1	31.44	0.06	0.749
394	TSA(C)250d016iR28	A & C	250	16	60	28	63	0.13	1.5
395	TSA(C)250d016iR17.7	A & C	250	16	90	17.7	99.66	0.2	2.373
396	TSA(C)250d016iR11.9	A & C	250	16	120	11.9	148.24	0.3	3.53
397	TSA(C)250d016iR8.88	A & C	250	16	150	8.88	198.65	0.41	4.73
398	TSA(C)250d016iR7.47	A & C	250	16	180	7.47	236.14	0.48	5.622
399	TSA(C)250d016iR6.29	A & C	250	16	210	6.29	280.45	0.57	6.677
400	TSA(C)250d032iR56.1	A & C	250	32	30	56.1	31.44	0.07	0.749
401	TSA(C)250d032iR28	A & C	250	32	60	28	63	0.13	1.5
402	TSA(C)250d032iR17.7	A & C	250	32	90	17.7	99.66	0.21	2.373
403	TSA(C)250d032iR11.9	A & C	250	32	120	11.9	148.24	0.31	3.53
404	TSA(C)250d032iR9.41	A & C	250	32	150	9.41	187.46	0.39	4.463
405	TSA(C)250d032iR7.47	A & C	250	32	180	7.47	236.14	0.49	5.622
406	TSA(C)250d032iR6.29	A & C	250	32	210	6.29	280.45	0.58	6.677
407	TSA(C)250d063iR59.4	A & C	250	63	30	59.4	29.7	0.06	0.707
408	TSA(C)250d063iR29.7	A & C	250	63	60	29.7	59.39	0.13	1.414
409	TSA(C)250d063iR18.7	A & C	250	63	90	18.7	94.33	0.21	2.246
410	TSA(C)250d063iR12.6	A & C	250	63	120	12.6	140	0.3	3.333
411	TSA(C)250d063iR9.41	A & C	250	63	150	9.41	187.46	0.41	4.463
412	TSA(C)250d063iR7.91	A & C	250	63	180	7.91	223.01	0.49	5.31
413	TSA(C)250d063iR6.66	A & C	250	63	210	6.66	264.86	0.58	6.306
414	TSA(C)250d125iR74.7	A & C	250	125	30	74.7	23.61	0.06	0.562
415	TSA(C)250d125iR37.5	A & C	250	125	60	37.5	47.04	0.13	1.12
416	TSA(C)250d125iR23.5	A & C	250	125	90	23.5	75.06	0.2	1.787
417	TSA(C)250d125iR15.8	A & C	250	125	120	15.8	111.65	0.3	2.658
418	TSA(C)250d125iR11.9	A & C	250	125	150	11.9	148.24	0.4	3.53
419	TSA(C)250d125iR10	A & C	250	125	180	10	176.4	0.48	4.2
420	TSA(C)250d125iR7.91	A & C	250	125	210	7.91	223.01	0.61	5.31
421	TSA(C)300d000iR39.7	A & C	300	0	30	39.7	44.43	0.06	1.058
422	TSA(C)300d000iR19.8	A & C	300	0	60	19.8	89.09	0.13	2.121
423	TSA(C)300d000iR12.6	A & C	300	0	90	12.6	140	0.2	3.333
424	TSA(C)300d000iR8.38	A & C	300	0	120	8.38	210.5	0.3	5.012
425	TSA(C)300d000iR6.66	A & C	300	0	150	6.66	264.86	0.37	6.306
426	TSA(C)300d000iR5.3	A & C	300	0	180	5.3	332.83	0.47	7.925
427	TSA300d000iR4.46	A	300	0	210	4.46	395.52	0.56	9.417
428	TSA(C)300d005iR39.7	A & C	300	5	30	39.7	44.43	0.06	1.058

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
429	TSA(C)300d005iR19.8	A & C	300	5	60	19.8	89.09	0.13	2.121
430	TSA(C)300d005iR12.6	A & C	300	5	90	12.6	140	0.2	3.333
431	TSA(C)300d005iR8.38	A & C	300	5	120	8.38	210.5	0.3	5.012
432	TSA(C)300d005iR6.66	A & C	300	5	150	6.66	264.86	0.37	6.306
433	TSA(C)300d005iR5.3	A & C	300	5	180	5.3	332.83	0.47	7.925
434	TSA300d005iR4.46	A	300	5	210	4.46	395.52	0.56	9.417
435	TSA(C)300d010iR39.7	A & C	300	10	30	39.7	44.43	0.06	1.058
436	TSA(C)300d010iR19.8	A & C	300	10	60	19.8	89.09	0.13	2.121
437	TSA(C)300d010iR12.6	A & C	300	10	90	12.6	140	0.2	3.333
438	TSA(C)300d010iR8.38	A & C	300	10	120	8.38	210.5	0.3	5.012
439	TSA(C)300d010iR6.66	A & C	300	10	150	6.66	264.86	0.38	6.306
440	TSA(C)300d010iR5.3	A & C	300	10	180	5.3	332.83	0.47	7.925
441	TSA300d010iR4.46	A	300	10	210	4.46	395.52	0.56	9.417
442	TSA(C)300d020iR39.7	A & C	300	20	30	39.7	44.43	0.06	1.058
443	TSA(C)300d020iR19.8	A & C	300	20	60	19.8	89.09	0.13	2.121
444	TSA(C)300d020iR12.6	A & C	300	20	90	12.6	140	0.2	3.333
445	TSA(C)300d020iR8.38	A & C	300	20	120	8.38	210.5	0.3	5.012
446	TSA(C)300d020iR6.66	A & C	300	20	150	6.66	264.86	0.38	6.306
447	TSA(C)300d020iR5.3	A & C	300	20	180	5.3	332.83	0.47	7.925
448	TSA300d020iR4.46	A	300	20	210	4.46	395.52	0.56	9.417
449	TSA(C)300d040iR39.7	A & C	300	40	30	39.7	44.43	0.06	1.058
450	TSA(C)300d040iR19.8	A & C	300	40	60	19.8	89.09	0.13	2.121
451	TSA(C)300d040iR12.6	A & C	300	40	90	12.6	140	0.2	3.333
452	TSA(C)300d040iR8.38	A & C	300	40	120	8.38	210.5	0.3	5.012
453	TSA(C)300d040iR6.66	A & C	300	40	150	6.66	264.86	0.38	6.306
454	TSA(C)300d040iR5.3	A & C	300	40	180	5.3	332.83	0.48	7.925
455	TSA300d040iR4.46	A	300	40	210	4.46	395.52	0.57	9.417
456	TSA(C)300d080iR42.1	A & C	300	80	30	42.1	41.9	0.06	0.998
457	TSA(C)300d080iR21	A & C	300	80	60	21	84	0.13	2
458	TSA(C)300d080iR13.3	A & C	300	80	90	13.3	132.63	0.2	3.158
459	TSA(C)300d080iR8.88	A & C	300	80	120	8.88	198.65	0.3	4.73
460	TSA(C)300d080iR7.05	A & C	300	80	150	7.05	250.21	0.38	5.957
461	TSA(C)300d080iR5.61	A & C	300	80	180	5.61	314.44	0.48	7.487
462	TSA300d080iR4.72	A	300	80	210	4.72	373.73	0.57	8.898
463	TSA(C)300d160iR56.1	A & C	300	160	30	56.1	31.44	0.06	0.749
464	TSA(C)300d160iR28	A & C	300	160	60	28	63	0.12	1.5
465	TSA(C)300d160iR17.7	A & C	300	160	90	17.7	99.66	0.2	2.373
466	TSA(C)300d160iR11.9	A & C	300	160	120	11.9	148.24	0.29	3.53
467	TSA(C)300d160iR9.41	A & C	300	160	150	9.41	187.46	0.37	4.463
468	TSA(C)300d160iR7.47	A & C	300	160	180	7.47	236.14	0.47	5.622
469	TSA(C)300d160iR6.29	A & C	300	160	210	6.29	280.45	0.55	6.677

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5.9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

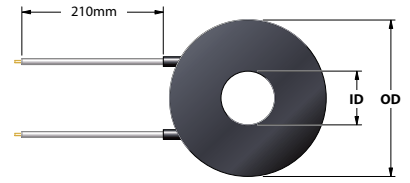


# STANDARD | Round 48V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000jR11200	C	10	0	30	11200	0.21	0.27	0.004
2	TSC010d000jR5300	C	10	0	60	5300	0.43	0.55	0.009
3	TSC010d000jR3540	C	10	0	90	3540	0.65	0.83	0.014
4	TSC010d000jR2490	C	10	0	120	2490	0.93	1.18	0.019
5	TSC010d000jR1870	C	10	0	150	1870	1.23	1.57	0.026
6	TSC010d000jR1490	C	10	0	180	1490	1.55	1.97	0.032
7	TSC010d000jR1190	C	10	0	210	1190	1.94	2.47	0.04
8	TSC010d005jR14900	C	10	5	30	14900	0.15	0.25	0.003
9	TSC010d005jR7050	C	10	5	60	7050	0.33	0.56	0.007
10	TSC010d005jR4460	C	10	5	90	4460	0.52	0.88	0.011
11	TSC010d005jR3340	C	10	5	120	3340	0.69	1.17	0.014
12	TSC010d005jR2490	C	10	5	150	2490	0.93	1.58	0.019
13	TSC010d005jR1980	C	10	5	180	1980	1.16	1.97	0.024
14	TSC010d005jR1580	C	10	5	210	1580	1.46	2.48	0.03
15	TSC013d000jR7910	C	13	0	30	7910	0.29	0.22	0.006
16	TSC013d000jR3750	C	13	0	60	3750	0.61	0.46	0.013
17	TSC013d000jR2350	C	13	0	90	2350	0.98	0.74	0.02

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
18	TSC013d000jR1670	C	13	0	120	1670	1.38	1.04	0.029
19	TSC013d000jR1260	C	13	0	150	1260	1.83	1.38	0.038
20	TSC013d000jR1000	C	13	0	180	1000	2.3	1.73	0.048
21	TSC013d000jR838	C	13	0	210	838	2.75	2.07	0.057
22	TSC013d006jR10000	C	13	6	30	10000	0.23	0.22	0.005
23	TSC013d006jR4720	C	13	6	60	4720	0.49	0.47	0.01
24	TSC013d006jR2970	C	13	6	90	2970	0.78	0.75	0.016
25	TSC013d006jR2100	C	13	6	120	2100	1.1	1.05	0.023
26	TSC013d006jR1580	C	13	6	150	1580	1.46	1.4	0.03
27	TSC013d006jR1260	C	13	6	180	1260	1.83	1.75	0.038
28	TSC013d006jR1060	C	13	6	210	1060	2.17	2.08	0.045
29	TSC016d000jR5940	C	16	0	30	5940			

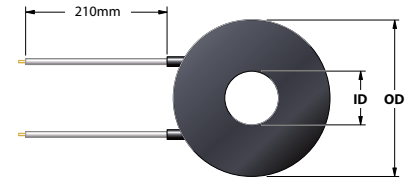
## STANDARD | Round 48V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
35	TSC016d000JR629	C	16	0	210	629	3.66	1.82	0.076
36	TSC016d008JR7910	C	16	8	30	7910	0.29	0.19	0.006
37	TSC016d008JR3750	C	16	8	60	3750	0.61	0.4	0.013
38	TSC016d008JR2350	C	16	8	90	2350	0.98	0.65	0.02
39	TSC016d008JR1670	C	16	8	120	1670	1.38	0.92	0.029
40	TSC016d008JR1330	C	16	8	150	1330	1.73	1.15	0.036
41	TSC016d008JR1060	C	16	8	180	1060	2.17	1.44	0.045
42	TSC016d008JR838	C	16	8	210	838	2.75	1.82	0.057
43	TSC020d000JR5000	C	20	0	30	5000	0.46	0.15	0.01
44	TSC020d000JR2350	C	20	0	60	2350	0.98	0.31	0.02
45	TSC020d000JR1490	C	20	0	90	1490	1.55	0.49	0.032
46	TSC020d000JR1060	C	20	0	120	1060	2.17	0.69	0.045
47	TSC020d000JR791	C	20	0	150	791	2.91	0.93	0.061
48	TSC020d000JR666	C	20	0	180	666	3.46	1.1	0.072
49	TSC020d000JR561	C	20	0	210	561	4.11	1.31	0.086
50	TSC020d005JR5300	C	20	5	30	5300	0.43	0.15	0.009
51	TSC020d005JR2490	C	20	5	60	2490	0.93	0.32	0.019
52	TSC020d005JR1580	C	20	5	90	1580	1.46	0.5	0.03
53	TSC020d005JR1120	C	20	5	120	1120	2.06	0.7	0.043
54	TSC020d005JR838	C	20	5	150	838	2.75	0.93	0.057
55	TSC020d005JR705	C	20	5	180	705	3.27	1.11	0.068
56	TSC020d005JR594	C	20	5	210	594	3.88	1.32	0.081
57	TSC020d010JR6660	C	20	10	30	6660	0.35	0.15	0.007
58	TSC020d010JR3150	C	20	10	60	3150	0.73	0.31	0.015
59	TSC020d010JR1980	C	20	10	90	1980	1.16	0.49	0.024
60	TSC020d010JR1410	C	20	10	120	1410	1.63	0.69	0.034
61	TSC020d010JR1060	C	20	10	150	1060	2.17	0.92	0.045
62	TSC020d010JR888	C	20	10	180	888	2.59	1.1	0.054
63	TSC020d010JR747	C	20	10	210	747	3.08	1.31	0.064
64	TSC025d000JR3340	C	25	0	30	3340	0.69	0.14	0.014
65	TSC025d000JR1580	C	25	0	60	1580	1.46	0.3	0.03
66	TSC025d000JR941	C	25	0	90	941	2.45	0.5	0.051
67	TSC025d000JR705	C	25	0	120	705	3.27	0.67	0.068
68	TSC025d000JR530	C	25	0	150	530	4.35	0.89	0.091
69	TSC025d000JR446	C	25	0	180	446	5.17	1.05	0.108
70	TSC025d000JR375	C	25	0	210	375	6.14	1.25	0.128
71	TSC025d006JR3540	C	25	6	30	3540	0.65	0.14	0.014
72	TSC025d006JR1670	C	25	6	60	1670	1.38	0.3	0.029
73	TSC025d006JR1000	C	25	6	90	1000	2.3	0.5	0.048
74	TSC025d006JR747	C	25	6	120	747	3.08	0.67	0.064
75	TSC025d006JR561	C	25	6	150	561	4.11	0.89	0.086
76	TSC025d006JR472	C	25	6	180	472	4.88	1.05	0.102
77	TSC025d006JR397	C	25	6	210	397	5.8	1.25	0.121
78	TSC025d013JR4460	C	25	13	30	4460	0.52	0.15	0.011
79	TSC025d013JR2100	C	25	13	60	2100	1.1	0.31	0.023
80	TSC025d013JR1330	C	25	13	90	1330	1.73	0.48	0.036
81	TSC025d013JR941	C	25	13	120	941	2.45	0.68	0.051
82	TSC025d013JR747	C	25	13	150	747	3.08	0.86	0.064
83	TSC025d013JR594	C	25	13	180	594	3.88	1.08	0.081
84	TSC025d013JR500	C	25	13	210	500	4.61	1.29	0.096
85	TSC032d000JR2100	C	32	0	30	2100	1.1	0.14	0.023
86	TSC032d000JR1000	C	32	0	60	1000	2.3	0.29	0.048
87	TSC032d000JR629	C	32	0	90	629	3.66	0.46	0.076
88	TSA(C)032d000JR446	A & C	32	0	120	446	5.17	0.64	0.108
89	TSA(C)032d000JR354	A & C	32	0	150	354	6.51	0.81	0.136
90	TSA(C)032d000JR280	A & C	32	0	180	280	8.23	1.02	0.171
91	TSA(C)032d000JR235	A & C	32	0	210	235	9.8	1.22	0.204
92	TSC032d008JR2350	C	32	8	30	2350	0.98	0.13	0.02
93	TSC032d008JR1060	C	32	8	60	1060	2.17	0.29	0.045
94	TSC032d008JR666	C	32	8	90	666	3.46	0.46	0.072
95	TSC032d008JR472	C	32	8	120	472	4.88	0.65	0.102
96	TSA(C)032d008JR375	A & C	32	8	150	375	6.14	0.81	0.128
97	TSA(C)032d008JR315	A & C	32	8	180	315	7.31	0.97	0.152
98	TSA(C)032d008JR264	A & C	32	8	210	264	8.73	1.16	0.182
99	TSC032d016JR2800	C	32	16	30	2800	0.82	0.14	0.017
100	TSC032d016JR1330	C	32	16	60	1330	1.73	0.29	0.036
101	TSC032d016JR838	C	32	16	90	838	2.75	0.46	0.057
102	TSC032d016JR594	C	32	16	120	594	3.88	0.64	0.081
103	TSC032d016JR472	C	32	16	150	472	4.88	0.81	0.102
104	TSC032d016JR375	C	32	16	180	375	6.14	1.02	0.128
105	TSA(C)032d016JR315	A & C	32	16	210	315	7.31	1.21	0.152
106	TSC040d000JR1410	C	40	0	30	1410	1.63	0.13	0.034
107	TSA(C)040d000JR666	A & C	40	0	60	666	3.46	0.28	0.072

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
108	TSA(C)040d000JR421	A & C	40	0	90	421	5.47	0.44	0.114
109	TSA(C)040d000JR297	A & C	40	0	120	297	7.76	0.62	0.162
110	TSA(C)040d000JR235	A & C	40	0	150	235	9.8	0.78	0.204
111	TSA(C)040d000JR198	A & C	40	0	180	198	11.64	0.93	0.243
112	TSA(C)040d000JR158	A & C	40	0	210	158	14.58	1.16	0.304
113	TSC040d005JR1410	C	40	5	30	1410	1.63	0.13	0.034
114	TSA(C)040d005JR666	A & C	40	5	60	666	3.46	0.28	0.072
115	TSA(C)040d005JR421	A & C	40	5	90	421	5.47	0.44	0.114
116	TSA(C)040d005JR315	A & C	40	5	120	315	7.31	0.59	0.152
117	TSA(C)040d005JR235	A & C	40	5	150	235	9.8	0.79	0.204
118	TSA(C)040d005JR198	A & C	40	5	180	198	11.64	0.94	0.243
119	TSA(C)040d005JR167	A & C	40	5	210	167	13.8	1.12	0.288
120	TSC040d010JR1490	C	40	10	30	1490	1.55	0.13	0.032
121	TSC040d010JR705	C	40	10	60	705	3.27	0.28	0.068
122	TSA(C)040d010JR446	A & C	40	10	90	446	5.17	0.44	0.108
123	TSA(C)040d010JR315	A & C	40	10	120	315	7.31	0.62	0.152
124	TSA(C)040d010JR249	A & C	40	10	150	249	9.25	0.79	0.193
125	TSA(C)040d010JR210	A & C	40	10	180	210	10.97	0.93	0.229
126	TSA(C)040d010JR177	A & C	40	10	210	177	13.02	1.11	0.271
127	TSC040d020JR1870	C	40	20	30	1870	1.23	0.13	0.026
128	TSC040d020JR888	C	40	20	60	888	2.59	0.27	0.054
129	TSC040d020JR561	C	40	20	90	561	4.11	0.44	0.086
130	TSA(C)040d020JR397	A & C	40	20	120	397	5.8	0.62	0.121
131	TSA(C)040d020JR315	A & C	40	20	150	315	7.31	0.78	0.152
132	TSA(C)040d020JR264	A & C	40	20	180	264	8.73	0.93	0.182
133	TSA(C)040d020JR222	A & C	40	20	210	222	10.38	1.1	0.216
134	TSA(C)050d000JR941	A & C	50	0	30	941	2.45	0.12	0.051
135	TSA(C)050d000JR446	A & C	50	0	60	446	5.17	0.26	0.108
136	TSA(C)050d000JR297	A & C	50	0	90	297	7.76	0.4	0.162
137	TSA(C)050d000JR210	A & C	50	0	120	210	10.97	0.56	0.229
138	TSA(C)050d000JR158	A & C	50	0	150	158	14.58	0.74	0.304
139	TSA(C)050d000JR133	A & C	50	0	180	133	17.32	0.88	0.361
140	TSA(C)050d000JR112	A & C	50	0	210	112	20.57	1.05	0.429
141	TSA(C)050d006JR941	A & C	50	6	30	941	2.45	0.13	0.051
142	TSA(C)050d006JR472	A & C	50	6	60	472	4.88	0.25	0.102
143	TSA(C)050d006JR297	A & C	50	6	90	297	7.76	0.4	0.162
144	TSA(C)050d006JR210	A & C	50	6	120	210	10.97	0.57	0.229
145	TSA(C)050d006JR167	A & C	50	6	150	167	13.8	0.71	0.288
146	TSA(C)050d006JR133	A & C	50	6	180	133	17.32	0.89	0.361
147	TSA(C)050d006JR112	A & C	50	6	210	112	20.57	1.06	0.429
148	TSA(C)050d013JR1000	A & C	50	13	30	1000	2.3	0.13	0.048
149	TSA(C)050d013JR500	A & C	50	13	60	500	4.61	0.25	0.096
150	TSA(C)050d013JR315	A & C	50	13	90	315	7.31	0.4	0.152
151	TSA(C)050d013JR222	A & C	50	13	120	222	10.38	0.57	0.216
152	TSA(C)050d013JR167	A & C	50	13	150	167	13.8	0.75	0.288
153	TSA(C)050d013JR141	A & C	50	13	180	141	16.34	0.89	0.34
154	TSA(C)050d013JR119	A & C	50	13	210	119	19.36	1.06	0.403
155	TSC050d025JR1260	C	50	25	30	1260	1.83	0.12	0.038
156	TSA(C)050d025JR594	A & C	50	25	60	594	3.88	0.26	0.081
157	TSA(C)050d025JR397	A & C	50	25	90	397	5.8	0.39	0.121
158	TSA(C)050d025JR280	A & C	50	25	120	280	8.23	0.56	0.171
159	TSA(C)050d025JR210	A & C	50	25	150	210	10.97	0.74	0.229
160	TSA(C)050d025JR177	A & C	50	25	180	177	13.02	0.88	0.271
161	TSA(C)050d025JR149								

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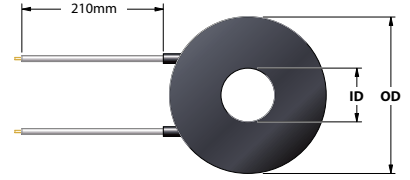


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
181	TSA(C)063d016jR94.1	A & C	63	16	180	94.1	24.48	0.84	0.51
182	TSA(C)063d016jR79.1	A & C	63	16	210	79.1	29.13	1	0.607
183	TSA(C)063d032jR838	A & C	63	32	30	838	2.75	0.12	0.057
184	TSA(C)063d032jR421	A & C	63	32	60	421	5.47	0.24	0.114
185	TSA(C)063d032jR264	A & C	63	32	90	264	8.73	0.38	0.182
186	TSA(C)063d032jR187	A & C	63	32	120	187	12.32	0.53	0.257
187	TSA(C)063d032jR141	A & C	63	32	150	141	16.34	0.71	0.34
188	TSA(C)063d032jR119	A & C	63	32	180	119	19.36	0.84	0.403
189	TSA(C)063d032jR100	A & C	63	32	210	100	23.04	1	0.48
190	TSA(C)080d000jR421	A & C	80	0	30	421	5.47	0.11	0.114
191	TSA(C)080d000jR210	A & C	80	0	60	210	10.97	0.22	0.229
192	TSA(C)080d000jR133	A & C	80	0	90	133	17.32	0.34	0.361
193	TSA(C)080d000jR94.1	A & C	80	0	120	94.1	24.48	0.49	0.51
194	TSA(C)080d000jR70.5	A & C	80	0	150	70.5	32.68	0.65	0.681
195	TSA(C)080d000jR59.4	A & C	80	0	180	59.4	38.79	0.77	0.808
196	TSA(C)080d000jR50	A & C	80	0	210	50	46.08	0.92	0.96
197	TSA(C)080d005jR446	A & C	80	5	30	446	5.17	0.1	0.108
198	TSA(C)080d005jR210	A & C	80	5	60	210	10.97	0.22	0.229
199	TSA(C)080d005jR133	A & C	80	5	90	133	17.32	0.35	0.361
200	TSA(C)080d005jR94.1	A & C	80	5	120	94.1	24.48	0.49	0.51
201	TSA(C)080d005jR74.7	A & C	80	5	150	74.7	30.84	0.62	0.643
202	TSA(C)080d005jR59.4	A & C	80	5	180	59.4	38.79	0.77	0.808
203	TSA(C)080d005jR50	A & C	80	5	210	50	46.08	0.92	0.96
204	TSA(C)080d010jR446	A & C	80	10	30	446	5.17	0.1	0.108
205	TSA(C)080d010jR222	A & C	80	10	60	222	10.38	0.21	0.216
206	TSA(C)080d010jR133	A & C	80	10	90	133	17.32	0.35	0.361
207	TSA(C)080d010jR94.1	A & C	80	10	120	94.1	24.48	0.49	0.51
208	TSA(C)080d010jR74.7	A & C	80	10	150	74.7	30.84	0.62	0.643
209	TSA(C)080d010jR59.4	A & C	80	10	180	59.4	38.79	0.78	0.808
210	TSA(C)080d010jR50	A & C	80	10	210	50	46.08	0.93	0.96
211	TSA(C)080d020jR472	A & C	80	20	30	472	4.88	0.1	0.102
212	TSA(C)080d020jR222	A & C	80	20	60	222	10.38	0.22	0.216
213	TSA(C)080d020jR141	A & C	80	20	90	141	16.34	0.35	0.34
214	TSA(C)080d020jR100	A & C	80	20	120	100	23.04	0.49	0.48
215	TSA(C)080d020jR79.1	A & C	80	20	150	79.1	29.13	0.62	0.607
216	TSA(C)080d020jR62.9	A & C	80	20	180	62.9	36.63	0.78	0.763
217	TSA(C)080d020jR53	A & C	80	20	210	53	43.47	0.92	0.906
218	TSA(C)080d040jR561	A & C	80	40	30	561	4.11	0.11	0.086
219	TSA(C)080d040jR280	A & C	80	40	60	280	8.23	0.22	0.171
220	TSA(C)080d040jR177	A & C	80	40	90	177	13.02	0.35	0.271
221	TSA(C)080d040jR126	A & C	80	40	120	126	18.29	0.49	0.381
222	TSA(C)080d040jR94.1	A & C	80	40	150	94.1	24.48	0.65	0.51
223	TSA(C)080d040jR79.1	A & C	80	40	180	79.1	29.13	0.77	0.607
224	TSA(C)080d040jR66.6	A & C	80	40	210	66.6	34.59	0.92	0.721
225	TSA(C)100d000jR315	A & C	100	0	30	315	7.31	0.09	0.152
226	TSA(C)100d000jR158	A & C	100	0	60	158	14.58	0.19	0.304
227	TSA(C)100d000jR100	A & C	100	0	90	100	23.04	0.29	0.48
228	TSA(C)100d000jR66.6	A & C	100	0	120	66.6	34.59	0.44	0.721
229	TSA(C)100d000jR53	A & C	100	0	150	53	43.47	0.55	0.906
230	TSA(C)100d000jR42.1	A & C	100	0	180	42.1	54.73	0.7	1.14
231	TSA(C)100d000jR35.4	A & C	100	0	210	35.4	65.08	0.83	1.356
232	TSA(C)100d006jR315	A & C	100	6	30	315	7.31	0.09	0.152
233	TSA(C)100d006jR158	A & C	100	6	60	158	14.58	0.19	0.304
234	TSA(C)100d006jR100	A & C	100	6	90	100	23.04	0.29	0.48
235	TSA(C)100d006jR66.6	A & C	100	6	120	66.6	34.59	0.44	0.721
236	TSA(C)100d006jR53	A & C	100	6	150	53	43.47	0.56	0.906
237	TSA(C)100d006jR42.1	A & C	100	6	180	42.1	54.73	0.7	1.14
238	TSA(C)100d006jR35.4	A & C	100	6	210	35.4	65.08	0.83	1.356
239	TSA(C)100d013jR315	A & C	100	13	30	315	7.31	0.09	0.152
240	TSA(C)100d013jR158	A & C	100	13	60	158	14.58	0.19	0.304
241	TSA(C)100d013jR100	A & C	100	13	90	100	23.04	0.3	0.48
242	TSA(C)100d013jR66.6	A & C	100	13	120	66.6	34.59	0.45	0.721
243	TSA(C)100d013jR53	A & C	100	13	150	53	43.47	0.56	0.906
244	TSA(C)100d013jR42.1	A & C	100	13	180	42.1	54.73	0.71	1.14
245	TSA(C)100d013jR35.4	A & C	100	13	210	35.4	65.08	0.84	1.356
246	TSA(C)100d025jR334	A & C	100	25	30	334	6.9	0.09	0.144
247	TSA(C)100d025jR167	A & C	100	25	60	167	13.8	0.19	0.288
248	TSA(C)100d025jR106	A & C	100	25	90	106	21.74	0.3	0.453
249	TSA(C)100d025jR70.5	A & C	100	25	120	70.5	32.68	0.44	0.681
250	TSA(C)100d025jR56.1	A & C	100	25	150	56.1	41.07	0.56	0.856
251	TSA(C)100d025jR44.6	A & C	100	25	180	44.6	51.66	0.7	1.076
252	TSA(C)100d025jR37.5	A & C	100	25	210	37.5	61.44	0.83	1.28
253	TSA(C)100d050jR421	A & C	100	50	30	421	5.47	0.09	0.114

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
254	TSA(C)100d050jR210	A & C	100	50	60	210	10.97	0.19	0.229
255	TSA(C)100d050jR133	A & C	100	50	90	133	17.32	0.29	0.361
256	TSA(C)100d050jR88.8	A & C	100	50	120	88.8	25.95	0.44	0.541
257	TSA(C)100d050jR70.5	A & C	100	50	150	70.5	32.68	0.55	0.681
258	TSA(C)100d050jR56.1	A & C	100	50	180	56.1	41.07	0.7	0.856
259	TSA(C)100d050jR47.2	A & C	100	50	210	47.2	48.81	0.83	1.017
260	TSA(C)125d000jR222	A & C	125	0	30	222	10.38	0.08	0.216
261	TSA(C)125d000jR112	A & C	125	0	60	112	20.57	0.17	0.429
262	TSA(C)125d000jR66.6	A & C	125	0	90	66.6	34.59	0.28	0.721
263	TSA(C)125d000jR47.2	A & C	125	0	120	47.2	48.81	0.4	1.017
264	TSA(C)125d000jR35.4	A & C	125	0	150	35.4	65.08	0.53	1.356
265	TSA(C)125d000jR29.7	A & C	125	0	180	29.7	77.58	0.63	1.616
266	TSA(C)125d000jR24.9	A & C	125	0	210	24.9	92.53	0.75	1.928
267	TSA(C)125d008jR222	A & C	125	8	30	222	10.38	0.08	0.216
268	TSA(C)125d008jR112	A & C	125	8	60	112	20.57	0.17	0.429
269	TSA(C)125d008jR66.6	A & C	125	8	90	66.6	34.59	0.28	0.721
270	TSA(C)125d008jR47.2	A & C	125	8	120	47.2	48.81	0.4	1.017
271	TSA(C)125d008jR35.4	A & C	125	8	150	35.4	65.08	0.53	1.356
272	TSA(C)125d008jR29.7	A & C	125	8	180	29.7	77.58	0.63	1.616
273	TSA(C)125d008jR24.9	A & C	125	8	210	24.9	92.53	0.76	1.928
274	TSA(C)125d016jR222	A & C	125	16	30	222	10.38	0.09	0.216
275	TSA(C)125d016jR112	A & C	125	16	60	112	20.57	0.17	0.429
276	TSA(C)125d016jR70.5	A & C	125	16	90	70.5	32.68	0.27	0.681
277	TSA(C)125d016jR47.2	A & C	125	16	120	47.2	48.81	0.4	1.017
278	TSA(C)125d016jR37.5	A & C	125	16	150	37.5	61.44	0.51	1.28
279	TSA(C)125d016jR29.7	A & C	125	16	180	29.7	77.58	0.64	1.616
280	TSA(C)125d016jR24.9	A & C	125	16	210	24.9	92.53	0.77	1.928
281	TSA(C)125d032jR235	A & C	125	32	30	235	9.8	0.09	0.204
282	TSA(C)125d032jR119	A & C	125	32	60	119	19.36	0.17	0.403
283	TSA(C)125d032jR74.7	A & C	125	32	90	74.7	30.84	0.27	0.643
284	TSA(C)125d032jR50	A & C	125	32	120	50	46.08	0.4	0.96
285	TSA(C)125d032jR37.5	A & C	125	32	150	37.5	61.44	0.54	1.28
286	TSA(C)125d032jR31.5	A & C	125	32	180	31.5	73.14	0.64	1.524
287	TSA(C)125d032jR26.4	A & C	125	32	210	26.4	87.27	0.76	1.818
288	TSA(C)125d063jR297	A & C	125	63	30	297	7.76	0.08	0.162
289	TSA(C)125d063jR149	A & C	125	63	60	149	15.46	0.17	0.322
290	TSA(C)125d063jR88.8	A & C	125	63	90	88.8	25.95	0.28	0.541
291	TSA(C)125d063jR62.9	A & C	125	63	120	62.9	36.63	0.4	0.763
292	TSA(C)125d063jR47.2	A & C	125	63	150	47.2	48.81	0.53	1.017
293	TSA(C)125d063jR39.7	A & C	125	63	180	39.7	58.04	0.63	1.209
294	TSA(C)125d063jR31.5	A & C	125	63	210	31.5	73.14	0.8	1.524
295	TSA(C)160d000jR149	A & C	160	0	30	149	15.46	0.08	0.322
296	TSA(C)160d000jR74.7	A & C	160	0	60	74.7	30.84	0.15	0.643
297	TSA(C)160d000jR47.2	A & C	160	0	90	47.2	48.81	0.24	1.017
298	TSA(C)160d000jR31.5	A & C	160	0	120	31.5	73.14	0.36	1.524
299	TSA(C)160d000jR24.9	A &							



## STANDARD | Round 48V

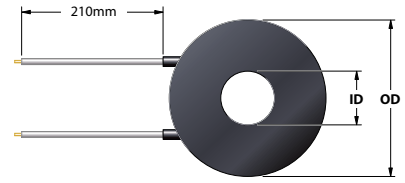


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
327	TSA(C)160d040jR26.4	A & C	160	40	150	26.4	87.27	0.46	1.818
328	TSA(C)160d040jR21	A & C	160	40	180	21	109.71	0.58	2.286
329	TSA(C)160d040jR17.7	A & C	160	40	210	17.7	130.17	0.69	2.712
330	TSA(C)160d080jR198	A & C	160	80	30	198	11.64	0.08	0.243
331	TSA(C)160d080jR100	A & C	160	80	60	100	23.04	0.15	0.48
332	TSA(C)160d080jR62.9	A & C	160	80	90	62.9	36.63	0.24	0.763
333	TSA(C)160d080jR42.1	A & C	160	80	120	42.1	54.73	0.36	1.14
334	TSA(C)160d080jR33.4	A & C	160	80	150	33.4	68.98	0.46	1.437
335	TSA(C)160d080jR26.4	A & C	160	80	180	26.4	87.27	0.58	1.818
336	TSA(C)160d080jR22.2	A & C	160	80	210	22.2	103.78	0.69	2.162
337	TSA(C)200d000jR106	A & C	200	0	30	106	21.74	0.07	0.453
338	TSA(C)200d000jR53	A & C	200	0	60	53	43.47	0.14	0.906
339	TSA(C)200d000jR31.5	A & C	200	0	90	31.5	73.14	0.23	1.524
340	TSA(C)200d000jR22.2	A & C	200	0	120	22.2	103.78	0.33	2.162
341	TSA(C)200d000jR16.7	A & C	200	0	150	16.7	137.96	0.44	2.874
342	TSA(C)200d000jR14.1	A & C	200	0	180	14.1	163.4	0.52	3.404
343	TSA(C)200d000jR11.2	A & C	200	0	210	11.2	205.71	0.65	4.286
344	TSA(C)200d006jR106	A & C	200	6	30	106	21.74	0.07	0.453
345	TSA(C)200d006jR53	A & C	200	6	60	53	43.47	0.14	0.906
346	TSA(C)200d006jR31.5	A & C	200	6	90	31.5	73.14	0.23	1.524
347	TSA(C)200d006jR22.2	A & C	200	6	120	22.2	103.78	0.33	2.162
348	TSA(C)200d006jR16.7	A & C	200	6	150	16.7	137.96	0.44	2.874
349	TSA(C)200d006jR14.1	A & C	200	6	180	14.1	163.4	0.52	3.404
350	TSA(C)200d006jR11.2	A & C	200	6	210	11.2	205.71	0.66	4.286
351	TSA(C)200d013jR106	A & C	200	13	30	106	21.74	0.07	0.453
352	TSA(C)200d013jR53	A & C	200	13	60	53	43.47	0.14	0.906
353	TSA(C)200d013jR31.5	A & C	200	13	90	31.5	73.14	0.23	1.524
354	TSA(C)200d013jR22.2	A & C	200	13	120	22.2	103.78	0.33	2.162
355	TSA(C)200d013jR16.7	A & C	200	13	150	16.7	137.96	0.44	2.874
356	TSA(C)200d013jR14.1	A & C	200	13	180	14.1	163.4	0.52	3.404
357	TSA(C)200d013jR11.2	A & C	200	13	210	11.2	205.71	0.66	4.286
358	TSA(C)200d025jR106	A & C	200	25	30	106	21.74	0.07	0.453
359	TSA(C)200d025jR53	A & C	200	25	60	53	43.47	0.14	0.906
360	TSA(C)200d025jR33.4	A & C	200	25	90	33.4	68.98	0.22	1.437
361	TSA(C)200d025jR22.2	A & C	200	25	120	22.2	103.78	0.34	2.162
362	TSA(C)200d025jR17.7	A & C	200	25	150	17.7	130.17	0.42	2.712
363	TSA(C)200d025jR14.1	A & C	200	25	180	14.1	163.4	0.53	3.404
364	TSA(C)200d025jR11.9	A & C	200	25	210	11.9	193.61	0.63	4.034
365	TSA(C)200d050jR112	A & C	200	50	30	112	20.57	0.07	0.429
366	TSA(C)200d050jR56.1	A & C	200	50	60	56.1	41.07	0.14	0.856
367	TSA(C)200d050jR35.4	A & C	200	50	90	35.4	65.08	0.22	1.356
368	TSA(C)200d050jR23.5	A & C	200	50	120	23.5	98.04	0.33	2.043
369	TSA(C)200d050jR17.7	A & C	200	50	150	17.7	130.17	0.44	2.712
370	TSA(C)200d050jR14.9	A & C	200	50	180	14.9	154.63	0.53	3.221
371	TSA(C)200d050jR11.9	A & C	200	50	210	11.9	193.61	0.66	4.034
372	TSA(C)200d100jR141	A & C	200	100	30	141	16.34	0.07	0.34
373	TSA(C)200d100jR70.5	A & C	200	100	60	70.5	32.68	0.14	0.681
374	TSA(C)200d100jR42.1	A & C	200	100	90	42.1	54.73	0.23	1.14
375	TSA(C)200d100jR29.7	A & C	200	100	120	29.7	77.58	0.33	1.616
376	TSA(C)200d100jR22.2	A & C	200	100	150	22.2	103.78	0.44	2.162
377	TSA(C)200d100jR18.7	A & C	200	100	180	18.7	123.21	0.52	2.567
378	TSA(C)200d100jR14.9	A & C	200	100	210	14.9	154.63	0.66	3.221
379	TSA(C)250d000jR70.5	A & C	250	0	30	70.5	32.68	0.07	0.681
380	TSA(C)250d000jR35.4	A & C	250	0	60	35.4	65.08	0.13	1.356
381	TSA(C)250d000jR22.2	A & C	250	0	90	22.2	103.78	0.21	2.162
382	TSA(C)250d000jR14.9	A & C	250	0	120	14.9	154.63	0.32	3.221
383	TSA(C)250d000jR11.9	A & C	250	0	150	11.9	193.61	0.39	4.034
384	TSA(C)250d000jR9.41	A & C	250	0	180	9.41	244.85	0.5	5.101
385	TSA(C)250d000jR7.91	A & C	250	0	210	7.91	291.28	0.59	6.068
386	TSA(C)250d008jR70.5	A & C	250	8	30	70.5	32.68	0.07	0.681
387	TSA(C)250d008jR35.4	A & C	250	8	60	35.4	65.08	0.13	1.356
388	TSA(C)250d008jR22.2	A & C	250	8	90	22.2	103.78	0.21	2.162
389	TSA(C)250d008jR14.9	A & C	250	8	120	14.9	154.63	0.32	3.221
390	TSA(C)250d008jR11.9	A & C	250	8	150	11.9	193.61	0.39	4.034
391	TSA(C)250d008jR9.41	A & C	250	8	180	9.41	244.85	0.5	5.101
392	TSA(C)250d008jR7.91	A & C	250	8	210	7.91	291.28	0.59	6.068
393	TSA(C)250d016jR70.5	A & C	250	16	30	70.5	32.68	0.07	0.681
394	TSA(C)250d016jR35.4	A & C	250	16	60	35.4	65.08	0.13	1.356
395	TSA(C)250d016jR22.2	A & C	250	16	90	22.2	103.78	0.21	2.162
396	TSA(C)250d016jR14.9	A & C	250	16	120	14.9	154.63	0.32	3.221
397	TSA(C)250d016jR11.9	A & C	250	16	150	11.9	193.61	0.4	4.034
398	TSA(C)250d016jR9.41	A & C	250	16	180	9.41	244.85	0.5	5.101

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
399	TSA(C)250d016jR7.91	A & C	250	16	210	7.91	291.28	0.6	6.068
400	TSA(C)250d032jR74.7	A & C	250	32	30	74.7	30.84	0.06	0.643
401	TSA(C)250d032jR37.5	A & C	250	32	60	37.5	61.44	0.13	1.28
402	TSA(C)250d032jR22.2	A & C	250	32	90	22.2	103.78	0.21	2.162
403	TSA(C)250d032jR15.8	A & C	250	32	120	15.8	145.82	0.3	3.038
404	TSA(C)250d032jR11.9	A & C	250	32	150	11.9	193.61	0.4	4.034
405	TSA(C)250d032jR10	A & C	250	32	180	10	230.4	0.48	4.8
406	TSA(C)250d032jR7.91	A & C	250	32	210	7.91	291.28	0.6	6.068
407	TSA(C)250d063jR74.7	A & C	250	63	30	74.7	30.84	0.07	0.643
408	TSA(C)250d063jR37.5	A & C	250	63	60	37.5	61.44	0.13	1.28
409	TSA(C)250d063jR23.5	A & C	250	63	90	23.5	98.04	0.21	2.043
410	TSA(C)250d063jR16.7	A & C	250	63	120	16.7	137.96	0.3	2.874
411	TSA(C)250d063jR12.6	A & C	250	63	150	12.6	182.86	0.4	3.81
412	TSA(C)250d063jR10	A & C	250	63	180	10	230.4	0.5	4.8
413	TSA(C)250d063jR8.38	A & C	250	63	210	8.38	274.94	0.6	5.728
414	TSA(C)250d125jR94.1	A & C	250	125	30	94.1	24.48	0.07	0.51
415	TSA(C)250d125jR47.2	A & C	250	125	60	47.2	48.81	0.13	1.017
416	TSA(C)250d125jR29.7	A & C	250	125	90	29.7	77.58	0.21	1.616
417	TSA(C)250d125jR19.8	A & C	250	125	120	19.8	116.36	0.32	2.424
418	TSA(C)250d125jR15.8	A & C	250	125	150	15.8	145.82	0.4	3.038
419	TSA(C)250d125jR12.6	A & C	250	125	180	12.6	182.86	0.5	3.81
420	TSA(C)250d125jR10.6	A & C	250	125	210	10.6	217.36	0.59	4.528
421	TSA(C)300d000jR53	A & C	300	0	30	53	43.47	0.06	0.906
422	TSA(C)300d000jR26.4	A & C	300	0	60	26.4	87.27	0.12	1.818
423	TSA(C)300d000jR16.7	A & C	300	0	90	16.7	137.96	0.2	2.874
424	TSA(C)300d000jR11.2	A & C	300	0	120	11.2	205.71	0.29	4.286
425	TSA(C)300d000jR8.38	A & C	300	0	150	8.38	274.94	0.39	5.728
426	TSA(C)300d000jR7.05	A & C	300	0	180	7.05	326.81	0.46	6.809
427	TSA(C)300d000jR5.94	A & C	300	0	210	5.94	387.88	0.55	8.081
428	TSA(C)300d005jR53	A & C	300	5	30	53	43.47	0.06	0.906
429	TSA(C)300d005jR26.4	A & C	300	5	60	26.4	87.27	0.12	1.818
430	TSA(C)300d005jR16.7	A & C	300	5	90	16.7	137.96	0.2	2.874
431	TSA(C)300d005jR11.2	A & C	300	5	120	11.2	205.71	0.29	4.286
432	TSA(C)300d005jR8.38	A & C	300	5	150	8.38	274.94	0.39	5.728
433	TSA(C)300d005jR7.05	A & C	300	5	180	7.05	326.81	0.46	6.809
434	TSA(C)300d005jR5.94	A & C	300	5	210	5.94	387.88	0.55	8.081
435	TSA(C)300d010jR53	A & C	300	10	30	53	43.47	0.06	0.906
436	TSA(C)300d010jR26.4	A & C	300	10	60	26.4	87.27	0.12	1.818
437	TSA(C)300d010jR16.7	A & C	300	10	90	16.7	137.96	0.2	2.874
438	TSA(C)300d010jR11.2	A & C	300	10	120	11.2	205.71	0.29	4.286
439	TSA(C)300d010jR8.38	A & C	300	10	150	8.38	274.94	0.39	5.728
440	TSA(C)300d010jR7.05	A & C	300	10	180	7.05	326.81	0.46	6.809
441	TSA(C)300d010jR5.94	A & C	300	10	210	5.94	387.88	0.55	8.081
442	TSA(C)300d020jR53	A & C	300	20	30	53	43.47	0.06	



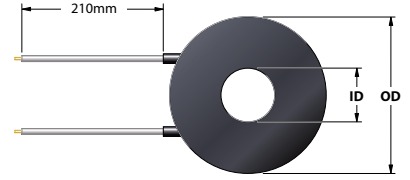
# STANDARD | Round 56V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000kR14900	C	10	0	30	14900	0.21	0.27	0.004
2	TSC010d000kR7050	C	10	0	60	7050	0.44	0.56	0.008
3	TSC010d000kR4720	C	10	0	90	4720	0.66	0.84	0.012
4	TSC010d000kR3340	C	10	0	120	3340	0.94	1.2	0.017
5	TSC010d000kR2490	C	10	0	150	2490	1.26	1.6	0.023
6	TSC010d000kR1980	C	10	0	180	1980	1.58	2.01	0.028
7	TSC010d000kR1670	C	10	0	210	1670	1.88	2.39	0.034
8	TSC010d005kR19800	C	10	5	30	19800	0.16	0.27	0.003
9	TSC010d005kR10000	C	10	5	60	10000	0.31	0.53	0.006
10	TSC010d005kR6290	C	10	5	90	6290	0.5	0.85	0.009
11	TSC010d005kR4460	C	10	5	120	4460	0.7	1.19	0.013
12	TSC010d005kR3340	C	10	5	150	3340	0.94	1.6	0.017
13	TSC010d005kR2640	C	10	5	180	2640	1.19	2.02	0.021
14	TSC010d005kR2220	C	10	5	210	2220	1.41	2.39	0.025
15	TSC013d000kR10600	C	13	0	30	10600	0.3	0.23	0.005
16	TSC013d000kR5000	C	13	0	60	5000	0.63	0.47	0.011
17	TSC013d000kR3150	C	13	0	90	3150	1	0.75	0.018
18	TSC013d000kR2220	C	13	0	120	2220	1.41	1.06	0.025
19	TSC013d000kR1670	C	13	0	150	1670	1.88	1.42	0.034
20	TSC013d000kR1330	C	13	0	180	1330	2.36	1.78	0.042
21	TSC013d000kR1120	C	13	0	210	1120	2.8	2.11	0.05
22	TSC013d006kR13300	C	13	6	30	13300	0.24	0.23	0.004
23	TSC013d006kR6290	C	13	6	60	6290	0.5	0.48	0.009
24	TSC013d006kR3970	C	13	6	90	3970	0.79	0.76	0.014
25	TSC013d006kR2800	C	13	6	120	2800	1.12	1.07	0.02
26	TSC013d006kR2220	C	13	6	150	2220	1.41	1.35	0.025
27	TSC013d006kR1770	C	13	6	180	1770	1.77	1.69	0.032
28	TSC013d006kR1410	C	13	6	210	1410	2.22	2.13	0.04
29	TSC016d000kR7910	C	16	0	30	7910	0.4	0.2	0.007
30	TSC016d000kR3750	C	16	0	60	3750	0.84	0.42	0.015
31	TSC016d000kR2350	C	16	0	90	2350	1.33	0.66	0.024
32	TSC016d000kR1770	C	16	0	120	1770	1.77	0.88	0.032
33	TSC016d000kR1330	C	16	0	150	1330	2.36	1.17	0.042
34	TSC016d000kR1060	C	16	0	180	1060	2.96	1.47	0.053
35	TSC016d000kR888	C	16	0	210	888	3.53	1.76	0.063
36	TSC016d008kR10600	C	16	8	30	10600	0.3	0.2	0.005
37	TSC016d008kR5300	C	16	8	60	5300	0.59	0.39	0.011
38	TSC016d008kR3150	C	16	8	90	3150	1	0.66	0.018
39	TSC016d008kR2350	C	16	8	120	2350	1.33	0.88	0.024
40	TSC016d008kR1770	C	16	8	150	1770	1.77	1.17	0.032
41	TSC016d008kR1410	C	16	8	180	1410	2.22	1.47	0.04
42	TSC016d008kR1190	C	16	8	210	1190	2.64	1.75	0.047
43	TSC020d000kR6660	C	20	0	30	6660	0.47	0.15	0.008
44	TSC020d000kR3150	C	20	0	60	3150	1	0.32	0.018
45	TSC020d000kR1980	C	20	0	90	1980	1.58	0.5	0.028
46	TSC020d000kR1410	C	20	0	120	1410	2.22	0.71	0.04
47	TSC020d000kR1120	C	20	0	150	1120	2.8	0.89	0.05
48	TSC020d000kR888	C	20	0	180	888	3.53	1.12	0.063
49	TSC020d000kR747	C	20	0	210	747	4.2	1.34	0.075
50	TSC020d005kR7050	C	20	5	30	7050	0.44	0.15	0.008
51	TSC020d005kR3340	C	20	5	60	3340	0.94	0.32	0.017
52	TSC020d005kR2100	C	20	5	90	2100	1.49	0.51	0.027
53	TSC020d005kR1490	C	20	5	120	1490	2.1	0.71	0.038
54	TSC020d005kR1190	C	20	5	150	1190	2.64	0.9	0.047
55	TSC020d005kR941	C	20	5	180	941	3.33	1.13	0.059
56	TSC020d005kR791	C	20	5	210	791	3.96	1.34	0.071
57	TSC020d010kR8880	C	20	10	30	8880	0.35	0.15	0.006
58	TSC020d010kR4210	C	20	10	60	4210	0.74	0.31	0.013
59	TSC020d010kR2640	C	20	10	90	2640	1.19	0.51	0.021
60	TSC020d010kR1870	C	20	10	120	1870	1.68	0.71	0.03
61	TSC020d010kR1490	C	20	10	150	1490	2.1	0.89	0.038
62	TSC020d010kR1190	C	20	10	180	1190	2.64	1.12	0.047
63	TSC020d010kR1000	C	20	10	210	1000	3.14	1.33	0.056
64	TSC025d000kR4460	C	25	0	30	4460	0.7	0.14	0.013
65	TSC025d000kR2100	C	25	0	60	2100	1.49	0.3	0.027
66	TSC025d000kR1330	C	25	0	90	1330	2.36	0.48	0.042
67	TSC025d000kR941	C	25	0	120	941	3.33	0.68	0.059
68	TSC025d000kR747	C	25	0	150	747	4.2	0.86	0.075
69	TSC025d000kR594	C	25	0	180	594	5.28	1.08	0.094
70	TSC025d000kR500	C	25	0	210	500	6.27	1.28	0.112
71	TSC025d006kR4720	C	25	6	30	4720	0.66	0.14	0.012
72	TSC025d006kR2220	C	25	6	60	2220	1.41	0.3	0.025
73	TSC025d006kR1410	C	25	6	90	1410	2.22	0.48	0.04

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSC025d006kR1000	C	25	6	120	1000	3.14	0.68	0.056
75	TSC025d006kR791	C	25	6	150	791	3.96	0.86	0.071
76	TSC025d006kR629	C	25	6	180	629	4.99	1.08	0.089
77	TSC025d006kR530	C	25	6	210	530	5.92	1.28	0.106
78	TSC025d013kR5940	C	25	13	30	5940	0.53	0.15	0.009
79	TSC025d013kR2970	C	25	13	60	2970	1.06	0.3	0.019
80	TSC025d013kR1770	C	25	13	90	1770	1.77	0.49	0.032
81	TSC025d013kR1260	C	25	13	120	1260	2.49	0.7	0.044
82	TSC025d013kR1000	C	25	13	150	1000	3.14	0.88	0.056
83	TSC025d013kR838	C	25	13	180	838	3.74	1.04	0.067
84	TSC025d013kR705	C	25	13	210	705	4.45	1.24	0.079
85	TSC032d000kR2970	C	32	0	30	2970	1.06	0.13	0.019
86	TSC032d000kR1410	C	32	0	60	1410	2.22	0.28	0.04
87	TSC032d000kR838	C	32	0	90	838	3.74	0.47	0.067
88	TSC032d000kR594	C	32	0	120	594	5.28	0.66	0.094
89	TSC032d000kR472	C	32	0	150	472	6.64	0.83	0.119
90	TSA(C)032d000kR397	A & C	32	0	180	397	7.9	0.98	0.141
91	TSA(C)032d000kR334	A & C	32	0	210	334	9.39	1.17	0.168
92	TSC032d008kR3150	C	32	8	30	3150	1	0.13	0.018
93	TSC032d008kR1490	C	32	8	60	1490	2.1	0.28	0.038
94	TSC032d008kR888	C	32	8	90	888	3.53	0.47	0.063
95	TSC032d008kR666	C	32	8	120	666	4.71	0.62	0.084
96	TSC032d008kR500	C	32	8	150	500	6.27	0.83	0.112
97	TSA(C)032d008kR421	A & C	32	8	180	421	7.45	0.99	0.133
98	TSA(C)032d008kR354	A & C	32	8	210	354	8.86	1.18	0.158
99	TSC032d016kR3970	C	32	16	30	3970	0.79	0.13	0.014
100	TSC032d016kR1870	C	32	16	60	1870	1.68	0.28	0.03
101	TSC032d016kR1120	C	32	16	90	1120	2.8	0.46	0.05
102	TSC032d016kR838	C	32	16	120	838	3.74	0.62	0.067
103	TSC032d016kR629	C	32	16	150	629	4.99	0.83	0.089
104	TSC032d016kR530	C	32	16	180	530	5.92	0.98	0.106
105	TSC032d016kR446	C	32	16	210	446	7.03	1.17	0.126
106	TSC040d000kR1980	C	40	0	30	1980	1.58	0.13	0.028
107	TSC040d000kR941	C	40	0	60	941	3.33	0.26	0.059
108	TSA(C)040d000kR561	A & C	40	0	90	561	5.59	0.44	0.1
109	TSA(C)040d000kR421	A & C	40	0	120	421	7.45	0.59	0.133
110	TSA(C)040d000kR315	A & C	40	0	150	315	9.96	0.79	0.178
111	TSA(C)040d000kR264	A & C	40	0	180	264	11.88	0.95	0.212
112	TSA(C)040d000kR222	A & C	40	0	210	222	14.13	1.12	0.252
113	TSC040d005kR1980	C	40	5	30	1980	1.58	0.13	0.028
114	TSC040d005kR941	C	40	5	60	941	3.33	0.27	0.059
115	TSA(C)040d005kR594	A & C	40	5	90	594	5.28	0.43	0.094
116	TSA(C)040d005kR421	A & C	40	5	120	421	7.45	0.6	0.133
117	TSA(C)040d005kR334	A & C	40	5	150	334	9.39	0.76	0.168
118	TSA(C)040d005kR264	A & C	40	5	180	264	11.88	0.96	0.212
119	TSA(C)040d005kR222	A & C	40	5	210	222	14.13	1.14	0.252
120	TSC040d010kR2100	C	40	10	30	2100	1.49	0.13	0.027
121	TSC040d010kR1000	C	40	10	60	1000	3.14	0.27	0.056
122	TSC040d010kR629	A & C	40	10	90	629	4.99	0.42	0.089
123	TSA(C)040d010kR446	A & C	40	10	120	446	7.03	0.6	0.126
124	TSA(C)040d010kR334	A & C	40	10	150	334	9.39	0.8	0.168
125	TSA(C)040d010kR280	A & C	40	10	180	280	11.2	0.95	0.2
126	TSA(C)040d010kR235	A & C	40	10	210	235	13.34	1.13	0.238
127	TSC040d020kR2640	C	40	20	30	2640	1.19	0.13	0.021
128	TSC040d020kR1190	C	40	20	60	119			

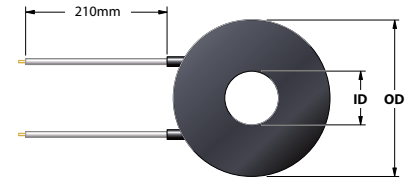
# STANDARD | Round 56V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)050d006kR149	A & C	50	6	210	149	21.05	1.09	0.376
148	TSC050d013kR1410	C	50	13	30	1410	2.22	0.12	0.04
149	TSA(C)050d013kR666	A & C	50	13	60	666	4.71	0.26	0.084
150	TSA(C)050d013kR421	A & C	50	13	90	421	7.45	0.41	0.133
151	TSA(C)050d013kR297	A & C	50	13	120	297	10.56	0.58	0.189
152	TSA(C)050d013kR235	A & C	50	13	150	235	13.34	0.73	0.238
153	TSA(C)050d013kR187	A & C	50	13	180	187	16.77	0.92	0.299
154	TSA(C)050d013kR158	A & C	50	13	210	158	19.85	1.08	0.354
155	TSC050d025kR1670	C	50	25	30	1670	1.88	0.13	0.034
156	TSA(C)050d025kR838	A & C	50	25	60	838	3.74	0.25	0.067
157	TSA(C)050d025kR530	A & C	50	25	90	530	5.92	0.4	0.106
158	TSA(C)050d025kR375	A & C	50	25	120	375	8.36	0.57	0.149
159	TSA(C)050d025kR297	A & C	50	25	150	297	10.56	0.72	0.189
160	TSA(C)050d025kR235	A & C	50	25	180	235	13.34	0.91	0.238
161	TSA(C)050d025kR198	A & C	50	25	210	198	15.84	1.08	0.283
162	TSA(C)063d000kR888	A & C	63	0	30	888	3.53	0.11	0.063
163	TSA(C)063d000kR421	A & C	63	0	60	421	7.45	0.24	0.133
164	TSA(C)063d000kR264	A & C	63	0	90	264	11.88	0.38	0.212
165	TSA(C)063d000kR187	A & C	63	0	120	187	16.77	0.54	0.299
166	TSA(C)063d000kR149	A & C	63	0	150	149	21.05	0.68	0.376
167	TSA(C)063d000kR119	A & C	63	0	180	119	26.35	0.85	0.471
168	TSA(C)063d000kR100	A & C	63	0	210	100	31.36	1.01	0.56
169	TSA(C)063d008kR888	A & C	63	8	30	888	3.53	0.12	0.063
170	TSA(C)063d008kR421	A & C	63	8	60	421	7.45	0.24	0.133
171	TSA(C)063d008kR264	A & C	63	8	90	264	11.88	0.39	0.212
172	TSA(C)063d008kR187	A & C	63	8	120	187	16.77	0.55	0.299
173	TSA(C)063d008kR149	A & C	63	8	150	149	21.05	0.69	0.376
174	TSA(C)063d008kR119	A & C	63	8	180	119	26.35	0.86	0.471
175	TSA(C)063d008kR100	A & C	63	8	210	100	31.36	1.02	0.56
176	TSA(C)063d016kR941	A & C	63	16	30	941	3.33	0.11	0.059
177	TSA(C)063d016kR446	A & C	63	16	60	446	7.03	0.24	0.126
178	TSA(C)063d016kR280	A & C	63	16	90	280	11.2	0.38	0.2
179	TSA(C)063d016kR198	A & C	63	16	120	198	15.84	0.54	0.283
180	TSA(C)063d016kR158	A & C	63	16	150	158	19.85	0.68	0.354
181	TSA(C)063d016kR126	A & C	63	16	180	126	24.89	0.85	0.444
182	TSA(C)063d016kR106	A & C	63	16	210	106	29.58	1.01	0.528
183	TSA(C)063d032kR1190	A & C	63	32	30	1190	2.64	0.11	0.047
184	TSA(C)063d032kR561	A & C	63	32	60	561	5.59	0.24	0.1
185	TSA(C)063d032kR354	A & C	63	32	90	354	8.86	0.38	0.158
186	TSA(C)063d032kR249	A & C	63	32	120	249	12.59	0.54	0.225
187	TSA(C)063d032kR198	A & C	63	32	150	198	15.84	0.68	0.283
188	TSA(C)063d032kR158	A & C	63	32	180	158	19.85	0.86	0.354
189	TSA(C)063d032kR133	A & C	63	32	210	133	23.58	1.02	0.421
190	TSA(C)080d000kR594	A & C	80	0	30	594	5.28	0.11	0.094
191	TSA(C)080d000kR297	A & C	80	0	60	297	10.56	0.21	0.189
192	TSA(C)080d000kR187	A & C	80	0	90	187	16.77	0.33	0.299
193	TSA(C)080d000kR126	A & C	80	0	120	126	24.89	0.5	0.444
194	TSA(C)080d000kR100	A & C	80	0	150	100	31.36	0.62	0.56
195	TSA(C)080d000kR79.1	A & C	80	0	180	79.1	39.65	0.79	0.708
196	TSA(C)080d000kR66.6	A & C	80	0	210	66.6	47.09	0.94	0.841
197	TSA(C)080d005kR594	A & C	80	5	30	594	5.28	0.11	0.094
198	TSA(C)080d005kR297	A & C	80	5	60	297	10.56	0.21	0.189
199	TSA(C)080d005kR187	A & C	80	5	90	187	16.77	0.33	0.299
200	TSA(C)080d005kR126	A & C	80	5	120	126	24.89	0.5	0.444
201	TSA(C)080d005kR100	A & C	80	5	150	100	31.36	0.63	0.56
202	TSA(C)080d005kR79.1	A & C	80	5	180	79.1	39.65	0.79	0.708
203	TSA(C)080d005kR66.6	A & C	80	5	210	66.6	47.09	0.94	0.841
204	TSA(C)080d010kR594	A & C	80	10	30	594	5.28	0.11	0.094
205	TSA(C)080d010kR297	A & C	80	10	60	297	10.56	0.21	0.189
206	TSA(C)080d010kR187	A & C	80	10	90	187	16.77	0.34	0.299
207	TSA(C)080d010kR126	A & C	80	10	120	126	24.89	0.5	0.444
208	TSA(C)080d010kR100	A & C	80	10	150	100	31.36	0.63	0.56
209	TSA(C)080d010kR83.8	A & C	80	10	180	83.8	37.42	0.76	0.668
210	TSA(C)080d010kR66.6	A & C	80	10	210	66.6	47.09	0.95	0.841
211	TSA(C)080d020kR629	A & C	80	20	30	629	4.99	0.11	0.089
212	TSA(C)080d020kR315	A & C	80	20	60	315	9.96	0.21	0.178
213	TSA(C)080d020kR198	A & C	80	20	90	198	15.84	0.34	0.283
214	TSA(C)080d020kR133	A & C	80	20	120	133	23.58	0.5	0.421
215	TSA(C)080d020kR106	A & C	80	20	150	106	29.58	0.63	0.528
216	TSA(C)080d020kR83.8	A & C	80	20	180	83.8	37.42	0.79	0.668
217	TSA(C)080d020kR70.5	A & C	80	20	210	70.5	44.48	0.94	0.794
218	TSA(C)080d040kR791	A & C	80	40	30	791	3.96	0.11	0.071
219	TSA(C)080d040kR397	A & C	80	40	60	397	7.9	0.21	0.141

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)080d040kR249	A & C	80	40	90	249	12.59	0.33	0.225
221	TSA(C)080d040kR167	A & C	80	40	120	167	18.78	0.5	0.335
222	TSA(C)080d040kR133	A & C	80	40	150	133	23.58	0.63	0.421
223	TSA(C)080d040kR106	A & C	80	40	180	106	29.58	0.78	0.528
224	TSA(C)080d040kR88.8	A & C	80	40	210	88.8	35.32	0.94	0.631
225	TSA(C)100d000kR421	A & C	100	0	30	421	7.45	0.09	0.133
226	TSA(C)100d000kR210	A & C	100	0	60	210	14.93	0.19	0.267
227	TSA(C)100d000kR133	A & C	100	0	90	133	23.58	0.3	0.421
228	TSA(C)100d000kR88.8	A & C	100	0	120	88.8	35.32	0.45	0.631
229	TSA(C)100d000kR70.5	A & C	100	0	150	70.5	44.48	0.57	0.794
230	TSA(C)100d000kR56.1	A & C	100	0	180	56.1	55.9	0.71	0.998
231	TSA(C)100d000kR47.2	A & C	100	0	210	47.2	66.44	0.85	1.186
232	TSA(C)100d006kR421	A & C	100	6	30	421	7.45	0.1	0.133
233	TSA(C)100d006kR210	A & C	100	6	60	210	14.93	0.19	0.267
234	TSA(C)100d006kR133	A & C	100	6	90	133	23.58	0.3	0.421
235	TSA(C)100d006kR88.8	A & C	100	6	120	88.8	35.32	0.45	0.631
236	TSA(C)100d006kR70.5	A & C	100	6	150	70.5	44.48	0.57	0.794
237	TSA(C)100d006kR56.1	A & C	100	6	180	56.1	55.9	0.71	0.998
238	TSA(C)100d006kR47.2	A & C	100	6	210	47.2	66.44	0.85	1.186
239	TSA(C)100d013kR446	A & C	100	13	30	446	7.03	0.09	0.126
240	TSA(C)100d013kR222	A & C	100	13	60	222	14.13	0.18	0.252
241	TSA(C)100d013kR133	A & C	100	13	90	133	23.58	0.31	0.421
242	TSA(C)100d013kR94.1	A & C	100	13	120	94.1	33.33	0.43	0.595
243	TSA(C)100d013kR70.5	A & C	100	13	150	70.5	44.48	0.58	0.794
244	TSA(C)100d013kR59.4	A & C	100	13	180	59.4	52.79	0.68	0.943
245	TSA(C)100d013kR47.2	A & C	100	13	210	47.2	66.44	0.86	1.186
246	TSA(C)100d025kR446	A & C	100	25	30	446	7.03	0.1	0.126
247	TSA(C)100d025kR222	A & C	100	25	60	222	14.13	0.19	0.252
248	TSA(C)100d025kR141	A & C	100	25	90	141	22.24	0.3	0.397
249	TSA(C)100d025kR94.1	A & C	100	25	120	94.1	33.33	0.45	0.595
250	TSA(C)100d025kR74.7	A & C	100	25	150	74.7	41.98	0.57	0.75
251	TSA(C)100d025kR59.4	A & C	100	25	180	59.4	52.79	0.72	0.943
252	TSA(C)100d025kR50	A & C	100	25	210	50	62.72	0.85	1.12
253	TSA(C)100d050kR561	A & C	100	50	30	561	5.59	0.09	0.1
254	TSA(C)100d050kR280	A & C	100	50	60	280	11.2	0.19	0.2
255	TSA(C)100d050kR177	A & C	100	50	90	177	17.72	0.3	0.316
256	TSA(C)100d050kR119	A & C	100	50	120	119	26.35	0.45	0.471
257	TSA(C)100d050kR94.1	A & C	100	50	150	94.1	33.33	0.57	0.595
258	TSA(C)100d050kR74.7	A & C	100	50	180	74.7	41.98	0.71	0.75
259	TSA(C)100d050kR62.9	A & C	100	50	210	62.9	49.86	0.85	0.89
260	TSA(C)125d000kR297	A & C	125	0	30	297	10.56	0.09	0.189
261	TSA(C)125d000kR149	A & C	125	0	60	149	21.05	0.17	0.376
262	TSA(C)125d000kR94.1	A & C	125	0	90	94.1	33.33	0.27	0.595
263	TSA(C)125d000kR62.9	A & C	125	0	120	62.9	49.86	0.41	0.89
264	TSA(C)125d000kR50	A & C	125	0	150	50	62.72	0.51	1.12
265	TSA(C)125d000kR39.7	A & C	125	0	180	39.7	78.99	0.64	1.411

# STANDARD | Round 56V

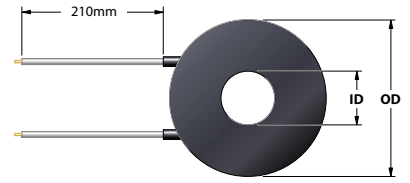


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)125d063kR53	A & C	125	63	180	53	59.17	0.65	1.057
294	TSA(C)125d063kR44.6	A & C	125	63	210	44.6	70.31	0.77	1.256
295	TSA(C)160d000kR198	A & C	160	0	30	198	15.84	0.08	0.283
296	TSA(C)160d000kR100	A & C	160	0	60	100	31.36	0.16	0.56
297	TSA(C)160d000kR62.9	A & C	160	0	90	62.9	49.86	0.25	0.89
298	TSA(C)160d000kR42.1	A & C	160	0	120	42.1	74.49	0.37	1.33
299	TSA(C)160d000kR33.4	A & C	160	0	150	33.4	93.89	0.47	1.677
300	TSA(C)160d000kR26.4	A & C	160	0	180	26.4	118.79	0.59	2.121
301	TSA(C)160d000kR22.2	A & C	160	0	210	22.2	141.26	0.7	2.523
302	TSA(C)160d005kR198	A & C	160	5	30	198	15.84	0.08	0.283
303	TSA(C)160d005kR100	A & C	160	5	60	100	31.36	0.16	0.56
304	TSA(C)160d005kR62.9	A & C	160	5	90	62.9	49.86	0.25	0.89
305	TSA(C)160d005kR42.1	A & C	160	5	120	42.1	74.49	0.37	1.33
306	TSA(C)160d005kR33.4	A & C	160	5	150	33.4	93.89	0.47	1.677
307	TSA(C)160d005kR26.4	A & C	160	5	180	26.4	118.79	0.59	2.121
308	TSA(C)160d005kR22.2	A & C	160	5	210	22.2	141.26	0.7	2.523
309	TSA(C)160d010kR198	A & C	160	10	30	198	15.84	0.08	0.283
310	TSA(C)160d010kR100	A & C	160	10	60	100	31.36	0.16	0.56
311	TSA(C)160d010kR62.9	A & C	160	10	90	62.9	49.86	0.25	0.89
312	TSA(C)160d010kR42.1	A & C	160	10	120	42.1	74.49	0.37	1.33
313	TSA(C)160d010kR33.4	A & C	160	10	150	33.4	93.89	0.47	1.677
314	TSA(C)160d010kR26.4	A & C	160	10	180	26.4	118.79	0.59	2.121
315	TSA(C)160d010kR22.2	A & C	160	10	210	22.2	141.26	0.7	2.523
316	TSA(C)160d020kR210	A & C	160	20	30	210	14.93	0.08	0.267
317	TSA(C)160d020kR100	A & C	160	20	60	100	31.36	0.16	0.56
318	TSA(C)160d020kR62.9	A & C	160	20	90	62.9	49.86	0.25	0.89
319	TSA(C)160d020kR44.6	A & C	160	20	120	44.6	70.31	0.36	1.256
320	TSA(C)160d020kR33.4	A & C	160	20	150	33.4	93.89	0.47	1.677
321	TSA(C)160d020kR28	A & C	160	20	180	28	112	0.57	2
322	TSA(C)160d020kR22.2	A & C	160	20	210	22.2	141.26	0.71	2.523
323	TSA(C)160d040kR210	A & C	160	40	30	210	14.93	0.08	0.267
324	TSA(C)160d040kR106	A & C	160	40	60	106	29.58	0.16	0.528
325	TSA(C)160d040kR66.6	A & C	160	40	90	66.6	47.09	0.25	0.841
326	TSA(C)160d040kR44.6	A & C	160	40	120	44.6	70.31	0.37	1.256
327	TSA(C)160d040kR35.4	A & C	160	40	150	35.4	88.59	0.47	1.582
328	TSA(C)160d040kR29.7	A & C	160	40	180	29.7	105.59	0.56	1.886
329	TSA(C)160d040kR23.5	A & C	160	40	210	23.5	133.45	0.71	2.383
330	TSA(C)160d080kR264	A & C	160	80	30	264	11.88	0.08	0.212
331	TSA(C)160d080kR133	A & C	160	80	60	133	23.58	0.16	0.421
332	TSA(C)160d080kR83.8	A & C	160	80	90	83.8	37.42	0.25	0.668
333	TSA(C)160d080kR56.1	A & C	160	80	120	56.1	55.9	0.37	0.998
334	TSA(C)160d080kR44.6	A & C	160	80	150	44.6	70.31	0.47	1.256
335	TSA(C)160d080kR35.4	A & C	160	80	180	35.4	88.59	0.59	1.582
336	TSA(C)160d080kR29.7	A & C	160	80	210	29.7	105.59	0.7	1.886
337	TSA(C)200d000kR141	A & C	200	0	30	141	22.24	0.07	0.397
338	TSA(C)200d000kR70.5	A & C	200	0	60	70.5	44.48	0.14	0.794
339	TSA(C)200d000kR44.6	A & C	200	0	90	44.6	70.31	0.22	1.256
340	TSA(C)200d000kR29.7	A & C	200	0	120	29.7	105.59	0.34	1.886
341	TSA(C)200d000kR23.5	A & C	200	0	150	23.5	133.45	0.42	2.383
342	TSA(C)200d000kR18.7	A & C	200	0	180	18.7	167.7	0.53	2.995
343	TSA(C)200d000kR15.8	A & C	200	0	210	15.8	198.48	0.63	3.544
344	TSA(C)200d006kR141	A & C	200	6	30	141	22.24	0.07	0.397
345	TSA(C)200d006kR70.5	A & C	200	6	60	70.5	44.48	0.14	0.794
346	TSA(C)200d006kR44.6	A & C	200	6	90	44.6	70.31	0.22	1.256
347	TSA(C)200d006kR29.7	A & C	200	6	120	29.7	105.59	0.34	1.886
348	TSA(C)200d006kR23.5	A & C	200	6	150	23.5	133.45	0.43	2.383
349	TSA(C)200d006kR18.7	A & C	200	6	180	18.7	167.7	0.53	2.995
350	TSA(C)200d006kR15.8	A & C	200	6	210	15.8	198.48	0.63	3.544
351	TSA(C)200d013kR141	A & C	200	13	30	141	22.24	0.07	0.397
352	TSA(C)200d013kR70.5	A & C	200	13	60	70.5	44.48	0.14	0.794
353	TSA(C)200d013kR44.6	A & C	200	13	90	44.6	70.31	0.22	1.256
354	TSA(C)200d013kR29.7	A & C	200	13	120	29.7	105.59	0.34	1.886
355	TSA(C)200d013kR23.5	A & C	200	13	150	23.5	133.45	0.43	2.383
356	TSA(C)200d013kR18.7	A & C	200	13	180	18.7	167.7	0.54	2.995
357	TSA(C)200d013kR15.8	A & C	200	13	210	15.8	198.48	0.63	3.544
358	TSA(C)200d025kR141	A & C	200	25	30	141	22.24	0.07	0.397
359	TSA(C)200d025kR70.5	A & C	200	25	60	70.5	44.48	0.14	0.794
360	TSA(C)200d025kR44.6	A & C	200	25	90	44.6	70.31	0.23	1.256
361	TSA(C)200d025kR29.7	A & C	200	25	120	29.7	105.59	0.34	1.886
362	TSA(C)200d025kR23.5	A & C	200	25	150	23.5	133.45	0.43	2.383
363	TSA(C)200d025kR18.7	A & C	200	25	180	18.7	167.7	0.54	2.995
364	TSA(C)200d025kR15.8	A & C	200	25	210	15.8	198.48	0.64	3.544
365	TSA(C)200d050kR149	A & C	200	50	30	149	21.05	0.07	0.376

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)200d050kR74.7	A & C	200	50	60	74.7	41.98	0.14	0.75
367	TSA(C)200d050kR47.2	A & C	200	50	90	47.2	66.44	0.23	1.186
368	TSA(C)200d050kR31.5	A & C	200	50	120	31.5	99.56	0.34	1.778
369	TSA(C)200d050kR24.9	A & C	200	50	150	24.9	125.94	0.43	2.249
370	TSA(C)200d050kR19.8	A & C	200	50	180	19.8	158.38	0.54	2.828
371	TSA(C)200d050kR16.7	A & C	200	50	210	16.7	187.78	0.64	3.353
372	TSA(C)250d000kR187	A & C	250	100	30	187	16.77	0.07	0.299
373	TSA(C)200d100kR94.1	A & C	200	100	60	94.1	33.33	0.14	0.595
374	TSA(C)200d100kR59.4	A & C	200	100	90	59.4	52.79	0.22	0.943
375	TSA(C)200d100kR39.7	A & C	200	100	120	39.7	78.99	0.34	1.411
376	TSA(C)200d100kR31.5	A & C	200	100	150	31.5	99.56	0.42	1.778
377	TSA(C)200d100kR24.9	A & C	200	100	180	24.9	125.94	0.53	2.249
378	TSA(C)200d100kR21	A & C	200	100	210	21	149.33	0.63	2.667
379	TSA(C)250d000kR100	A & C	250	0	30	100	31.36	0.06	0.56
380	TSA(C)250d000kR50	A & C	250	0	60	50	62.72	0.13	1.12
381	TSA(C)250d000kR29.7	A & C	250	0	90	29.7	105.59	0.22	1.886
382	TSA(C)250d000kR21	A & C	250	0	120	21	149.33	0.3	2.667
383	TSA(C)250d000kR15.8	A & C	250	0	150	15.8	198.48	0.4	3.544
384	TSA(C)250d000kR13.3	A & C	250	0	180	13.3	235.79	0.48	4.211
385	TSA(C)250d000kR10.6	A & C	250	0	210	10.6	295.85	0.6	5.283
386	TSA(C)250d008kR100	A & C	250	8	30	100	31.36	0.06	0.56
387	TSA(C)250d008kR50	A & C	250	8	60	50	62.72	0.13	1.12
388	TSA(C)250d008kR29.7	A & C	250	8	90	29.7	105.59	0.22	1.886
389	TSA(C)250d008kR21	A & C	250	8	120	21	149.33	0.3	2.667
390	TSA(C)250d008kR15.8	A & C	250	8	150	15.8	198.48	0.4	3.544
391	TSA(C)250d008kR13.3	A & C	250	8	180	13.3	235.79	0.48	4.211
392	TSA(C)250d008kR10.6	A & C	250	8	210	10.6	295.85	0.6	5.283
393	TSA(C)250d016kR100	A & C	250	16	30	100	31.36	0.06	0.56
394	TSA(C)250d016kR50	A & C	250	16	60	50	62.72	0.13	1.12
395	TSA(C)250d016kR31.5	A & C	250	16	90	31.5	99.56	0.2	1.778
396	TSA(C)250d016kR21	A & C	250	16	120	21	149.33	0.31	2.667
397	TSA(C)250d016kR15.8	A & C	250	16	150	15.8	198.48	0.41	3.544
398	TSA(C)250d016kR13.3	A & C	250	16	180	13.3	235.79	0.48	4.211
399	TSA(C)250d016kR11.2	A & C	250	16	210	11.2	280	0.57	5
400	TSA(C)250d032kR100	A & C	250	32	30	100	31.36	0.06	0.56
401	TSA(C)250d032kR50	A & C	250	32	60	50	62.72	0.13	1.12
402	TSA(C)250d032kR31.5	A & C	250	32	90	31.5	99.56	0.21	1.778
403	TSA(C)250d032kR21	A & C	250	32	120	21	149.33	0.31	2.667
404	TSA(C)250d032kR16.7	A & C	250	32	150	16.7	187.78	0.39	3.353
405	TSA(C)250d032kR13.3	A & C	250	32	180	13.3	235.79	0.49	4.211
406	TSA(C)250d032kR11.2	A & C	250	32	210	11.2	280	0.58	5
407	TSA(C)250d063kR106	A & C	250	63	30	106	29.58	0.06	0.528
408	TSA(C)250d063kR53	A & C	250	63	60	53	59.17	0.13	1.057
409	TSA(C)250d063kR33.4	A & C	250	63	90	33.4	93.89	0.2	1.677</



# STANDARD | Round 56V

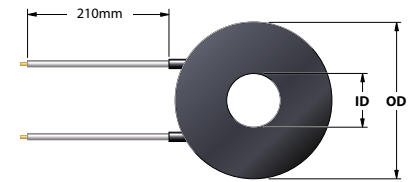


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)300d010kR11.9	A & C	300	10	150	11.9	263.53	0.37	4.706
440	TSA(C)300d010kR9.41	A & C	300	10	180	9.41	333.26	0.47	5.951
441	TSA(C)300d010kR7.91	A & C	300	10	210	7.91	396.46	0.56	7.08
442	TSA(C)300d020kR70.5	A & C	300	20	30	70.5	44.48	0.06	0.794
443	TSA(C)300d020kR35.4	A & C	300	20	60	35.4	88.59	0.13	1.582
444	TSA(C)300d020kR22.2	A & C	300	20	90	22.2	141.26	0.2	2.523
445	TSA(C)300d020kR14.9	A & C	300	20	120	14.9	210.47	0.3	3.758
446	TSA(C)300d020kR11.9	A & C	300	20	150	11.9	263.53	0.37	4.706
447	TSA(C)300d020kR9.41	A & C	300	20	180	9.41	333.26	0.47	5.951
448	TSA(C)300d020kR7.91	A & C	300	20	210	7.91	396.46	0.56	7.08
449	TSA(C)300d040kR70.5	A & C	300	40	30	70.5	44.48	0.06	0.794
450	TSA(C)300d040kR35.4	A & C	300	40	60	35.4	88.59	0.13	1.582
451	TSA(C)300d040kR22.2	A & C	300	40	90	22.2	141.26	0.2	2.523
452	TSA(C)300d040kR14.9	A & C	300	40	120	14.9	210.47	0.3	3.758
453	TSA(C)300d040kR11.9	A & C	300	40	150	11.9	263.53	0.37	4.706
454	TSA(C)300d040kR9.41	A & C	300	40	180	9.41	333.26	0.47	5.951

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
455	TSA(C)300d040kR7.91	A & C	300	40	210	7.91	396.46	0.57	7.08
456	TSA(C)300d080kR74.7	A & C	300	80	30	74.7	41.98	0.06	0.75
457	TSA(C)300d080kR37.5	A & C	300	80	60	37.5	83.63	0.13	1.493
458	TSA(C)300d080kR23.5	A & C	300	80	90	23.5	133.45	0.2	2.383
459	TSA(C)300d080kR15.8	A & C	300	80	120	15.8	198.48	0.3	3.544
460	TSA(C)300d080kR12.6	A & C	300	80	150	12.6	248.89	0.38	4.444
461	TSA(C)300d080kR10	A & C	300	80	180	10	313.6	0.48	5.6
462	TSA(C)300d080kR8.38	A & C	300	80	210	8.38	374.22	0.57	6.683
463	TSA(C)300d160kR100	A & C	300	160	30	100	31.36	0.06	0.56
464	TSA(C)300d160kR50	A & C	300	160	60	50	62.72	0.12	1.12
465	TSA(C)300d160kR31.5	A & C	300	160	90	31.5	99.56	0.2	1.778
466	TSA(C)300d160kR21	A & C	300	160	120	21	149.33	0.3	2.667
467	TSA(C)300d160kR16.7	A & C	300	160	150	16.7	187.78	0.37	3.353
468	TSA(C)300d160kR13.3	A & C	300	160	180	13.3	235.79	0.47	4.211
469	TSA(C)300d160kR11.2	A & C	300	160	210	11.2	280	0.55	5

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



# STANDARD | Round 72V

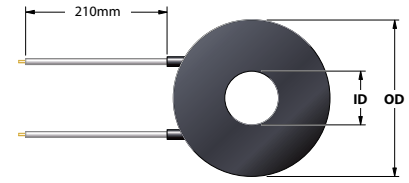
No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000IR24900	C	10	0	30	24900	0.21	0.27	0.003
2	TSC010d000IR11900	C	10	0	60	11900	0.44	0.56	0.006
3	TSC010d000IR7910	C	10	0	90	7910	0.66	0.84	0.009
4	TSC010d000IR5610	C	10	0	120	5610	0.92	1.17	0.013
5	TSC010d000IR4210	C	10	0	150	4210	1.23	1.57	0.017
6	TSC010d000IR3340	C	10	0	180	3340	1.55	1.97	0.022
7	TSC010d000IR2800	C	10	0	210	2800	1.85	2.36	0.026
8	TSC010d005IR33400	C	10	5	30	33400	0.16	0.27	0.002
9	TSC010d005IR16700	C	10	5	60	16700	0.31	0.53	0.004
10	TSC010d005IR10000	C	10	5	90	10000	0.52	0.88	0.007
11	TSC010d005IR7470	C	10	5	120	7470	0.69	1.17	0.01
12	TSC010d005IR5610	C	10	5	150	5610	0.92	1.56	0.013
13	TSC010d005IR4460	C	10	5	180	4460	1.16	1.97	0.016
14	TSC010d005IR3540	C	10	5	210	3540	1.46	2.48	0.02
15	TSC013d000IR17700	C	13	0	30	17700	0.29	0.22	0.004
16	TSC013d000IR8380	C	13	0	60	8380	0.62	0.47	0.009
17	TSC013d000IR5300	C	13	0	90	5300	0.98	0.74	0.014
18	TSC013d000IR3750	C	13	0	120	3750	1.38	1.04	0.019
19	TSC013d000IR2800	C	13	0	150	2800	1.85	1.39	0.026
20	TSC013d000IR2220	C	13	0	180	2220	2.34	1.76	0.033
21	TSC013d000IR1870	C	13	0	210	1870	2.77	2.09	0.038
22	TSC013d006IR22200	C	13	6	30	22200	0.23	0.22	0.003
23	TSC013d006IR10600	C	13	6	60	10600	0.49	0.47	0.007
24	TSC013d006IR6660	C	13	6	90	6660	0.78	0.75	0.011
25	TSC013d006IR4720	C	13	6	120	4720	1.1	1.05	0.015
26	TSC013d006IR3540	C	13	6	150	3540	1.46	1.4	0.02
27	TSC013d006IR2800	C	13	6	180	2800	1.85	1.77	0.026
28	TSC013d006IR2350	C	13	6	210	2350	2.21	2.12	0.031
29	TSC016d000IR13300	C	16	0	30	13300	0.39	0.19	0.005
30	TSC016d000IR6290	C	16	0	60	6290	0.82	0.41	0.011
31	TSC016d000IR3970	C	16	0	90	3970	1.31	0.65	0.018
32	TSC016d000IR2800	C	16	0	120	2800	1.85	0.92	0.026
33	TSC016d000IR2220	C	16	0	150	2220	2.34	1.16	0.033
34	TSC016d000IR1770	C	16	0	180	1770	2.93	1.46	0.041
35	TSC016d000IR1490	C	16	0	210	1490	3.48	1.73	0.048
36	TSC016d008IR17700	C	16	8	30	17700	0.29	0.19	0.004
37	TSC016d008IR8380	C	16	8	60	8380	0.62	0.41	0.009
38	TSC016d008IR5300	C	16	8	90	5300	0.98	0.65	0.014
39	TSC016d008IR3750	C	16	8	120	3750	1.38	0.92	0.019
40	TSC016d008IR2970	C	16	8	150	2970	1.75	1.16	0.024
41	TSC016d008IR2350	C	16	8	180	2350	2.21	1.47	0.031
42	TSC016d008IR1980	C	16	8	210	1980	2.62	1.74	0.036

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
43	TSC020d000IR11200	C	20	0	30	11200	0.46	0.15	0.006
44	TSC020d000IR5300	C	20	0	60	5300	0.98	0.31	0.014
45	TSC020d000IR3340	C	20	0	90	3340	1.55	0.49	0.022
46	TSC020d000IR2350	C	20	0	120	2350	2.21	0.7	0.031
47	TSC020d000IR1770	C	20	0	150	1770	2.93	0.93	0.041
48	TSC020d000IR1490	C	20	0	180	1490	3.48	1.11	0.048
49	TSC020d000IR1260	C	20	0	210	1260	4.11	1.31	0.057
50	TSC020d005IR11900	C	20	5	30	11900	0.44	0.15	0.006
51	TSC020d005IR5610	C	20	5	60	5610	0.92	0.31	0.013
52	TSC020d005IR3540	C	20	5	90	3540	1.46	0.5	0.02
53	TSC020d005IR2490	C	20	5	120	2490	2.08	0.71	0.029
54	TSC020d005IR1980	C	20	5	150	1980	2.62	0.89	0.036
55	TSC020d005IR1580	C	20	5	180	1580	3.28	1.11	0.046
56	TSC020d005IR1330	C	20	5	210	1330	3.9	1.32	0.054
57	TSC020d010IR14900	C	20	10	30	14900	0.35	0.15	0.005
58	TSC020d010IR7050	C	20	10	60	7050	0.74	0.31	0.01
59	TSC020d010IR4460	C	20	10	90	4460	1.16	0.49	0.016
60	TSC020d010IR3150	C	20	10	120	3150	1.65	0.7	0.023
61	TSC020d010IR2350	C	20	10	150	2350	2.21	0.94	0.031
62	TSC020d010IR1980	C	20	10	180	1980	2.62	1.11	0.036
63	TSC020d010IR1670	C	20	10	210	1670	3.1	1.32	0.043
64	TSC020d010IR7470	C	25	0	30	7470	0.69	0.14	0.01
65	TSC025d000IR3540	C	25	0	60	3540	1.46	0.3	0.02
66	TSC025d000IR2220	C	25	0	90	2220	2.34	0.48	0.033
67	TSC025d000IR1580	C	25	0	120	1580	3.28	0.67	0.046
68	TSC025d000IR1190	C	25	0	150	1190	4.36	0.89	0.061
69	TSC025d000IR1000	C	25	0	180	1000	5.18	1.06	0.072
70	TSC025d000IR838	C	25	0	210	838	6.19	1.26	0.086
71	TSC025d006IR7910	C	25	6	30	7910	0.66	0.14	0.009
72	TSC025d006IR3750	C	25	6	60	3750	1.38	0.3	0.019
73	TSC025d006IR2350	C	25	6	90	2350	2.21	0.48	0.031
74	TSC025d006IR1670	C	25	6	120	1670	3.1	0.67	0.043
75	TSC025d006IR1260	C	25	6	150	1260	4.11	0.89	0.057
76	TSC025d006IR1060	C	25	6	180	1060	4.89	1.06	0.068
77	TSC025d006IR888	C	25	6	210	888	5.84	1.26	0.081
78	TSC025d013IR10000	C	25	13	30	10000	0.52	0.15	0.007
79	TSC025d013IR4720	C	25	13	60	4720	1.1	0.31	0.015
80	TSC025d013IR2970	C	25	13	90	2970	1.75	0.49	0.024
81	TSC025d013IR2100	C	25	13	120	2100	2.47	0.69	0.034
82	TSC025d013IR1670	C	25	13	150	1670	3.1	0.87	0.043
83	TSC025d013IR1330	C	25	13	180	1330	3.9	1.09	0.054
84	TSC025d013IR1120	C	25	13	210	1120	4.63	1.29	0.064

Dimensions and specifications are subject to change without notice.



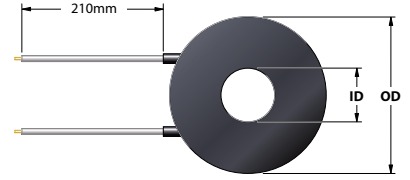
# STANDARD | Round 72V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref (°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
85	TSC032d000IR4720	C	32	0	30	4720	1.1	0.14	0.015
86	TSC032d000IR2220	C	32	0	60	2220	2.34	0.29	0.033
87	TSC032d000IR1410	C	32	0	90	1410	3.68	0.46	0.051
88	TSC032d000IR1000	C	32	0	120	1000	5.18	0.64	0.072
89	TSC032d000IR791	C	32	0	150	791	6.55	0.81	0.091
90	TSC032d000IR629	C	32	0	180	629	8.24	1.02	0.114
91	TSC032d000IR530	C	32	0	210	530	9.78	1.22	0.136
92	TSC032d008IR5300	C	32	8	30	5300	0.98	0.13	0.014
93	TSC032d008IR2490	C	32	8	60	2490	2.08	0.28	0.029
94	TSC032d008IR1490	C	32	8	90	1490	3.48	0.46	0.048
95	TSC032d008IR1060	C	32	8	120	1060	4.89	0.65	0.068
96	TSC032d008IR838	C	32	8	150	838	6.19	0.82	0.086
97	TSC032d008IR705	C	32	8	180	705	7.35	0.97	0.102
98	TSC032d008IR594	C	32	8	210	594	8.73	1.16	0.121
99	TSC032d016IR6290	C	32	16	30	6290	0.82	0.14	0.011
100	TSC032d016IR2970	C	32	16	60	2970	1.75	0.29	0.024
101	TSC032d016IR1870	C	32	16	90	1870	2.77	0.46	0.038
102	TSC032d016IR1330	C	32	16	120	1330	3.9	0.65	0.054
103	TSC032d016IR1060	C	32	16	150	1060	4.89	0.81	0.068
104	TSC032d016IR838	C	32	16	180	838	6.19	1.03	0.086
105	TSC032d016IR705	C	32	16	210	705	7.35	1.22	0.102
106	TSC040d000IR3150	C	40	0	30	3150	1.65	0.13	0.023
107	TSC040d000IR1490	C	40	0	60	1490	3.48	0.28	0.048
108	TSC040d000IR941	C	40	0	90	941	5.51	0.44	0.077
109	TSA(C)040d000IR666	A & C	40	0	120	666	7.78	0.62	0.108
110	TSA(C)040d000IR530	A & C	40	0	150	530	9.78	0.78	0.136
111	TSA(C)040d000IR446	A & C	40	0	180	446	11.62	0.92	0.161
112	TSA(C)040d000IR375	A & C	40	0	210	375	13.82	1.1	0.192
113	TSC040d005IR3340	C	40	5	30	3340	1.55	0.13	0.022
114	TSC040d005IR1580	C	40	5	60	1580	3.28	0.27	0.046
115	TSC040d005IR941	C	40	5	90	941	5.51	0.45	0.077
116	TSA(C)040d005IR705	A & C	40	5	120	705	7.35	0.59	0.102
117	TSA(C)040d005IR530	A & C	40	5	150	530	9.78	0.79	0.136
118	TSA(C)040d005IR446	A & C	40	5	180	446	11.62	0.94	0.161
119	TSA(C)040d005IR375	A & C	40	5	210	375	13.82	1.12	0.192
120	TSC040d010IR3340	C	40	10	30	3340	1.55	0.13	0.022
121	TSC040d010IR1580	C	40	10	60	1580	3.28	0.28	0.046
122	TSC040d010IR1000	C	40	10	90	1000	5.18	0.44	0.072
123	TSC040d010IR705	C	40	10	120	705	7.35	0.62	0.102
124	TSA(C)040d010IR561	A & C	40	10	150	561	9.24	0.78	0.128
125	TSA(C)040d010IR472	A & C	40	10	180	472	10.98	0.93	0.153
126	TSA(C)040d010IR397	A & C	40	10	210	397	13.06	1.11	0.181
127	TSC040d020IR4210	C	40	20	30	4210	1.23	0.13	0.017
128	TSC040d020IR1980	C	40	20	60	1980	2.62	0.28	0.036
129	TSC040d020IR1260	C	40	20	90	1260	4.11	0.44	0.057
130	TSC040d020IR888	C	40	20	120	888	5.84	0.62	0.081
131	TSC040d020IR705	C	40	20	150	705	7.35	0.78	0.102
132	TSC040d020IR594	C	40	20	180	594	8.73	0.93	0.121
133	TSA(C)040d020IR500	A & C	40	20	210	500	10.37	1.1	0.144
134	TSC050d000IR2100	C	50	0	30	2100	2.47	0.13	0.034
135	TSA(C)050d000IR1000	A & C	50	0	60	1000	5.18	0.26	0.072
136	TSA(C)050d000IR666	A & C	50	0	90	666	7.78	0.4	0.108
137	TSA(C)050d000IR472	A & C	50	0	120	472	10.98	0.56	0.153
138	TSA(C)050d000IR354	A & C	50	0	150	354	14.64	0.75	0.203
139	TSA(C)050d000IR297	A & C	50	0	180	297	17.45	0.89	0.242
140	TSA(C)050d000IR249	A & C	50	0	210	249	20.82	1.06	0.289
141	TSC050d006IR2100	C	50	6	30	2100	2.47	0.13	0.034
142	TSA(C)050d006IR1060	A & C	50	6	60	1060	4.89	0.25	0.068
143	TSA(C)050d006IR666	A & C	50	6	90	666	7.78	0.4	0.108
144	TSA(C)050d006IR472	A & C	50	6	120	472	10.98	0.57	0.153
145	TSA(C)050d006IR375	A & C	50	6	150	375	13.82	0.71	0.192
146	TSA(C)050d006IR297	A & C	50	6	180	297	17.45	0.9	0.242
147	TSA(C)050d006IR249	A & C	50	6	210	249	20.82	1.08	0.289
148	TSC050d013IR2220	C	50	13	30	2220	2.34	0.13	0.033
149	TSC050d013IR1120	C	50	13	60	1120	4.63	0.25	0.064
150	TSA(C)050d013IR705	A & C	50	13	90	705	7.35	0.4	0.102
151	TSA(C)050d013IR500	A & C	50	13	120	500	10.37	0.57	0.144
152	TSA(C)050d013IR397	A & C	50	13	150	397	13.06	0.71	0.181
153	TSA(C)050d013IR315	A & C	50	13	180	315	16.46	0.9	0.229
154	TSA(C)050d013IR264	A & C	50	13	210	264	19.64	1.07	0.273
155	TSC050d025IR2800	C	50	25	30	2800	1.85	0.13	0.026
156	TSC050d025IR1330	C	50	25	60	1330	3.9	0.26	0.054
157	TSC050d025IR888	C	50	25	90	888	5.84	0.4	0.081

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref (°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
158	TSA(C)050d025IR629	A & C	50	25	120	629	8.24	0.56	0.114
159	TSA(C)050d025IR472	A & C	50	25	150	472	10.98	0.75	0.153
160	TSA(C)050d025IR397	A & C	50	25	180	397	13.06	0.89	0.181
161	TSA(C)050d025IR334	A & C	50	25	210	334	15.52	1.05	0.216
162	TSA(C)063d000IR1410	A & C	63	0	30	1410	3.68	0.12	0.051
163	TSA(C)063d000IR705	A & C	63	0	60	705	7.35	0.24	0.102
164	TSA(C)063d000IR446	A & C	63	0	90	446	11.62	0.37	0.161
165	TSA(C)063d000IR315	A & C	63	0	120	315	16.46	0.53	0.229
166	TSA(C)063d000IR235	A & C	63	0	150	235	22.06	0.71	0.306
167	TSA(C)063d000IR198	A & C	63	0	180	198	26.18	0.84	0.364
168	TSA(C)063d000IR167	A & C	63	0	210	167	31.04	1	0.431
169	TSA(C)063d008IR1490	A & C	63	8	30	1490	3.48	0.11	0.048
170	TSA(C)063d008IR705	A & C	63	8	60	705	7.35	0.24	0.102
171	TSA(C)063d008IR446	A & C	63	8	90	446	11.62	0.38	0.161
172	TSA(C)063d008IR315	A & C	63	8	120	315	16.46	0.54	0.229
173	TSA(C)063d008IR249	A & C	63	8	150	249	20.82	0.68	0.289
174	TSA(C)063d008IR198	A & C	63	8	180	198	26.18	0.85	0.364
175	TSA(C)063d008IR167	A & C	63	8	210	167	31.04	1.01	0.431
176	TSA(C)063d016IR1490	A & C	63	16	30	1490	3.48	0.12	0.048
177	TSA(C)063d016IR747	A & C	63	16	60	747	6.94	0.24	0.096
178	TSA(C)063d016IR472	A & C	63	16	90	472	10.98	0.38	0.153
179	TSA(C)063d016IR334	A & C	63	16	120	334	15.52	0.53	0.216
180	TSA(C)063d016IR264	A & C	63	16	150	264	19.64	0.67	0.273
181	TSA(C)063d016IR210	A & C	63	16	180	210	24.69	0.85	0.343
182	TSA(C)063d016IR177	A & C	63	16	210	177	29.29	1	0.407
183	TSC063d032IR1870	C	63	32	30	1870	2.77	0.12	0.038
184	TSA(C)063d032IR941	A & C	63	32	60	941	5.51	0.24	0.077
185	TSA(C)063d032IR594	A & C	63	32	90	594	8.73	0.38	0.121
186	TSA(C)063d032IR421	A & C	63	32	120	421	12.31	0.53	0.171
187	TSA(C)063d032IR334	A & C	63	32	150	334	15.52	0.67	0.216
188	TSA(C)063d032IR264	A & C	63	32	180	264	19.64	0.85	0.273
189	TSA(C)063d032IR222	A & C	63	32	210	222	23.35	1.01	0.324
190	TSA(C)080d000IR1000	A & C	80	0	30	1000	5.18	0.1	0.072
191	TSA(C)080d000IR472	A & C	80	0	60	472	10.98	0.22	0.153
192	TSA(C)080d000IR297	A & C	80	0	90	297	17.45	0.35	0.242
193	TSA(C)080d000IR210	A & C	80	0	120	210	24.69	0.49	0.343
194	TSA(C)080d000IR167	A & C	80	0	150	167	31.04	0.62	0.431
195	TSA(C)080d000IR133	A & C	80	0	180	133	38.98	0.78	0.541
196	TSA(C)080d000IR112	A & C	80	0	210	112	46.29	0.92	0.643
197	TSA(C)080d005IR1000	A & C	80	5	30	1000	5.18	0.1	0.072
198	TSA(C)080d005IR472	A & C	80	5	60	472	10.98	0.22	0.153
199	TSA(C)080d005IR297	A & C	80	5	90	297	17.45	0.35	0.242
200	TSA(C)080d005IR210	A & C	80	5	120	210	24.69	0.49	0.343
201	TSA(C)080d005IR167	A & C	80	5	150	167	31.04	0.62	0.431
202	TSA(C)080d005IR133	A & C	80	5	180	133	38.98	0.78	0.541
203	TSA(C)080d005IR112	A & C	80	5	210	112	46.29	0.92	0.643
204	TSA(C)080d010IR1000	A & C	80	10	30	1000	5.18	0.1	0.072
205	TSA(C)080d010IR500	A & C	80	10	60	500	10.37	0.21	0.144
206	TSA(C)080d010IR315	A & C	80	10	90	315	16.46	0.33	0.229
207	TSA(C)080d010IR210	A & C	80	10	120	210	24.69	0.5	0.343
208	TSA(C)080d010IR167	A & C	80	10	150	167	31.04	0.63	0.431

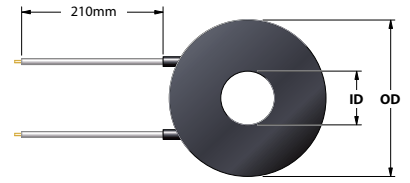
# STANDARD | Round 72V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
231	TSA(C)100d000IR79.1	A & C	100	0	210	79.1	65.54	0.83	0.91
232	TSA(C)100d006IR705	A & C	100	6	30	705	7.35	0.09	0.102
233	TSA(C)100d006IR354	A & C	100	6	60	354	14.64	0.19	0.203
234	TSA(C)100d006IR222	A & C	100	6	90	222	23.35	0.3	0.324
235	TSA(C)100d006IR149	A & C	100	6	120	149	34.79	0.44	0.483
236	TSA(C)100d006IR119	A & C	100	6	150	119	43.56	0.56	0.605
237	TSA(C)100d006IR94.1	A & C	100	6	180	94.1	55.09	0.7	0.765
238	TSA(C)100d006IR79.1	A & C	100	6	210	79.1	65.54	0.84	0.91
239	TSA(C)100d013IR705	A & C	100	13	30	705	7.35	0.1	0.102
240	TSA(C)100d013IR354	A & C	100	13	60	354	14.64	0.19	0.203
241	TSA(C)100d013IR222	A & C	100	13	90	222	23.35	0.3	0.324
242	TSA(C)100d013IR149	A & C	100	13	120	149	34.79	0.45	0.483
243	TSA(C)100d013IR119	A & C	100	13	150	119	43.56	0.56	0.605
244	TSA(C)100d013IR94.1	A & C	100	13	180	94.1	55.09	0.71	0.765
245	TSA(C)100d013IR79.1	A & C	100	13	210	79.1	65.54	0.85	0.91
246	TSA(C)100d025IR747	A & C	100	25	30	747	6.94	0.09	0.096
247	TSA(C)100d025IR375	A & C	100	25	60	375	13.82	0.19	0.192
248	TSA(C)100d025IR235	A & C	100	25	90	235	22.06	0.3	0.306
249	TSA(C)100d025IR158	A & C	100	25	120	158	32.81	0.45	0.456
250	TSA(C)100d025IR126	A & C	100	25	150	126	41.14	0.56	0.571
251	TSA(C)100d025IR100	A & C	100	25	180	100	51.84	0.7	0.72
252	TSA(C)100d025IR83.8	A & C	100	25	210	83.8	61.86	0.84	0.859
253	TSA(C)100d050IR941	A & C	100	50	30	941	5.51	0.09	0.077
254	TSA(C)100d050IR472	A & C	100	50	60	472	10.98	0.19	0.153
255	TSA(C)100d050IR297	A & C	100	50	90	297	17.45	0.3	0.242
256	TSA(C)100d050IR198	A & C	100	50	120	198	26.18	0.44	0.364
257	TSA(C)100d050IR158	A & C	100	50	150	158	32.81	0.56	0.456
258	TSA(C)100d050IR126	A & C	100	50	180	126	41.14	0.7	0.571
259	TSA(C)100d050IR106	A & C	100	50	210	106	48.91	0.83	0.679
260	TSA(C)125d000IR500	A & C	125	0	30	500	10.37	0.08	0.144
261	TSA(C)125d000IR249	A & C	125	0	60	249	20.82	0.17	0.289
262	TSA(C)125d000IR149	A & C	125	0	90	149	34.79	0.28	0.483
263	TSA(C)125d000IR106	A & C	125	0	120	106	48.91	0.4	0.679
264	TSA(C)125d000IR79.1	A & C	125	0	150	79.1	65.54	0.53	0.91
265	TSA(C)125d000IR66.6	A & C	125	0	180	66.6	77.84	0.63	1.081
266	TSA(C)125d000IR53	A & C	125	0	210	53	97.81	0.8	1.358
267	TSA(C)125d008IR500	A & C	125	8	30	500	10.37	0.08	0.144
268	TSA(C)125d008IR249	A & C	125	8	60	249	20.82	0.17	0.289
269	TSA(C)125d008IR158	A & C	125	8	90	158	32.81	0.27	0.456
270	TSA(C)125d008IR106	A & C	125	8	120	106	48.91	0.4	0.679
271	TSA(C)125d008IR79.1	A & C	125	8	150	79.1	65.54	0.54	0.91
272	TSA(C)125d008IR66.6	A & C	125	8	180	66.6	77.84	0.64	1.081
273	TSA(C)125d008IR56.1	A & C	125	8	210	56.1	92.41	0.76	1.283
274	TSA(C)125d016IR500	A & C	125	16	30	500	10.37	0.09	0.144
275	TSA(C)125d016IR249	A & C	125	16	60	249	20.82	0.17	0.289
276	TSA(C)125d016IR158	A & C	125	16	90	158	32.81	0.27	0.456
277	TSA(C)125d016IR106	A & C	125	16	120	106	48.91	0.41	0.679
278	TSA(C)125d016IR83.8	A & C	125	16	150	83.8	61.86	0.51	0.859
279	TSA(C)125d016IR66.6	A & C	125	16	180	66.6	77.84	0.64	1.081
280	TSA(C)125d016IR56.1	A & C	125	16	210	56.1	92.41	0.77	1.283
281	TSA(C)125d032IR530	A & C	125	32	30	530	9.78	0.09	0.136
282	TSA(C)125d032IR264	A & C	125	32	60	264	19.64	0.17	0.273
283	TSA(C)125d032IR167	A & C	125	32	90	167	31.04	0.27	0.431
284	TSA(C)125d032IR112	A & C	125	32	120	112	46.29	0.4	0.643
285	TSA(C)125d032IR88.8	A & C	125	32	150	88.8	58.38	0.51	0.811
286	TSA(C)125d032IR70.5	A & C	125	32	180	70.5	73.53	0.64	1.021
287	TSA(C)125d032IR59.4	A & C	125	32	210	59.4	87.27	0.76	1.212
288	TSA(C)125d063IR666	A & C	125	63	30	666	7.78	0.08	0.108
289	TSA(C)125d063IR334	A & C	125	63	60	334	15.52	0.17	0.216
290	TSA(C)125d063IR210	A & C	125	63	90	210	24.69	0.27	0.343
291	TSA(C)125d063IR141	A & C	125	63	120	141	36.77	0.4	0.511
292	TSA(C)125d063IR106	A & C	125	63	150	106	48.91	0.53	0.679
293	TSA(C)125d063IR88.8	A & C	125	63	180	88.8	58.38	0.64	0.811
294	TSA(C)125d063IR74.7	A & C	125	63	210	74.7	69.4	0.76	0.964
295	TSA(C)160d000IR334	A & C	160	0	30	334	15.52	0.08	0.216
296	TSA(C)160d000IR167	A & C	160	0	60	167	31.04	0.15	0.431
297	TSA(C)160d000IR106	A & C	160	0	90	106	48.91	0.24	0.679
298	TSA(C)160d000IR70.5	A & C	160	0	120	70.5	73.53	0.37	1.021
299	TSA(C)160d000IR56.1	A & C	160	0	150	56.1	92.41	0.46	1.283
300	TSA(C)160d000IR44.6	A & C	160	0	180	44.6	116.23	0.58	1.614
301	TSA(C)160d000IR37.5	A & C	160	0	210	37.5	138.24	0.69	1.92
302	TSA(C)160d005IR334	A & C	160	5	30	334	15.52	0.08	0.216
303	TSA(C)160d005IR167	A & C	160	5	60	167	31.04	0.15	0.431

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
304	TSA(C)160d005IR106	A & C	160	5	90	106	48.91	0.24	0.679
305	TSA(C)160d005IR70.5	A & C	160	5	120	70.5	73.53	0.37	1.021
306	TSA(C)160d005IR56.1	A & C	160	5	150	56.1	92.41	0.46	1.283
307	TSA(C)160d005IR44.6	A & C	160	5	180	44.6	116.23	0.58	1.614
308	TSA(C)160d005IR37.5	A & C	160	5	210	37.5	138.24	0.69	1.92
309	TSA(C)160d010IR334	A & C	160	10	30	334	15.52	0.08	0.216
310	TSA(C)160d010IR167	A & C	160	10	60	167	31.04	0.15	0.431
311	TSA(C)160d010IR106	A & C	160	10	90	106	48.91	0.24	0.679
312	TSA(C)160d010IR70.5	A & C	160	10	120	70.5	73.53	0.37	1.021
313	TSA(C)160d010IR56.1	A & C	160	10	150	56.1	92.41	0.46	1.283
314	TSA(C)160d010IR44.6	A & C	160	10	180	44.6	116.23	0.58	1.614
315	TSA(C)160d010IR37.5	A & C	160	10	210	37.5	138.24	0.69	1.92
316	TSA(C)160d020IR334	A & C	160	20	30	334	15.52	0.08	0.216
317	TSA(C)160d020IR167	A & C	160	20	60	167	31.04	0.16	0.431
318	TSA(C)160d020IR106	A & C	160	20	90	106	48.91	0.25	0.679
319	TSA(C)160d020IR70.5	A & C	160	20	120	70.5	73.53	0.37	1.021
320	TSA(C)160d020IR56.1	A & C	160	20	150	56.1	92.41	0.47	1.283
321	TSA(C)160d020IR44.6	A & C	160	20	180	44.6	116.23	0.59	1.614
322	TSA(C)160d020IR37.5	A & C	160	20	210	37.5	138.24	0.7	1.92
323	TSA(C)160d040IR354	A & C	160	40	30	354	14.64	0.08	0.203
324	TSA(C)160d040IR177	A & C	160	40	60	177	29.29	0.16	0.407
325	TSA(C)160d040IR112	A & C	160	40	90	112	46.29	0.25	0.643
326	TSA(C)160d040IR74.7	A & C	160	40	120	74.7	69.4	0.37	0.964
327	TSA(C)160d040IR59.4	A & C	160	40	150	59.4	87.27	0.46	1.212
328	TSA(C)160d040IR47.2	A & C	160	40	180	47.2	109.83	0.58	1.525
329	TSA(C)160d040IR39.7	A & C	160	40	210	39.7	130.58	0.69	1.814
330	TSA(C)160d080IR446	A & C	160	80	30	446	11.62	0.08	0.161
331	TSA(C)160d080IR222	A & C	160	80	60	222	23.35	0.15	0.324
332	TSA(C)160d080IR141	A & C	160	80	90	141	36.77	0.24	0.511
333	TSA(C)160d080IR94.1	A & C	160	80	120	94.1	55.09	0.37	0.765
334	TSA(C)160d080IR74.7	A & C	160	80	150	74.7	69.4	0.46	0.964
335	TSA(C)160d080IR59.4	A & C	160	80	180	59.4	87.27	0.58	1.212
336	TSA(C)160d080IR50	A & C	160	80	210	50	103.68	0.69	1.44
337	TSA(C)200d000IR235	A & C	200	0	30	235	22.06	0.07	0.306
338	TSA(C)200d000IR119	A & C	200	0	60	119	43.56	0.14	0.605
339	TSA(C)200d000IR74.7	A & C	200	0	90	74.7	69.4	0.22	0.964
340	TSA(C)200d000IR50	A & C	200	0	120	50	103.68	0.33	1.44
341	TSA(C)200d000IR37.5	A & C	200	0	150	37.5	138.24	0.44	1.92
342	TSA(C)200d000IR31.5	A & C	200	0	180	31.5	164.57	0.52	2.286
343	TSA(C)200d000IR26.4	A & C	200	0	210	26.4	196.36	0.63	2.727
344	TSA(C)200d006IR235	A & C	200	6	30	235	22.06	0.07	0.306
345	TSA(C)200d006IR119	A & C	200	6	60	119	43.56	0.14	0.605
346	TSA(C)200d006IR74.7	A & C	200	6	90	74.7	69.4	0.22	0.964
347	TSA(C)200d006IR50	A & C	200	6	120	50	103.68	0.33	1.44
348	TSA(C)200d006IR37.5	A & C	200	6	150	37.5	138.24	0.44	1.92
349	TSA(C)200d006IR31.5	A & C	200	6					

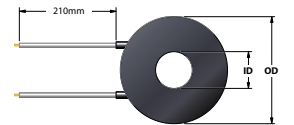
# STANDARD | Round 72V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
377	TSA(C)200d100IR42.1	A & C	200	100	180	42.1	123.14	0.52	1.71
378	TSA(C)200d100IR33.4	A & C	200	100	210	33.4	155.21	0.66	2.156
379	TSA(C)250d000IR158	A & C	250	0	30	158	32.81	0.07	0.456
380	TSA(C)250d000IR79.1	A & C	250	0	60	79.1	65.54	0.13	0.91
381	TSA(C)250d000IR50	A & C	250	0	90	50	103.68	0.21	1.44
382	TSA(C)250d000IR33.4	A & C	250	0	120	33.4	155.21	0.32	2.156
383	TSA(C)250d000IR26.4	A & C	250	0	150	26.4	196.36	0.4	2.727
384	TSA(C)250d000IR22.2	A & C	250	0	180	22.2	233.51	0.48	3.243
385	TSA(C)250d000IR17.7	A & C	250	0	210	17.7	292.88	0.6	4.068
386	TSA(C)250d008IR158	A & C	250	8	30	158	32.81	0.07	0.456
387	TSA(C)250d008IR79.1	A & C	250	8	60	79.1	65.54	0.13	0.91
388	TSA(C)250d008IR50	A & C	250	8	90	50	103.68	0.21	1.44
389	TSA(C)250d008IR33.4	A & C	250	8	120	33.4	155.21	0.32	2.156
390	TSA(C)250d008IR26.4	A & C	250	8	150	26.4	196.36	0.4	2.727
391	TSA(C)250d008IR22.2	A & C	250	8	180	22.2	233.51	0.48	3.243
392	TSA(C)250d008IR17.7	A & C	250	8	210	17.7	292.88	0.6	4.068
393	TSA(C)250d016IR158	A & C	250	16	30	158	32.81	0.07	0.456
394	TSA(C)250d016IR79.1	A & C	250	16	60	79.1	65.54	0.13	0.91
395	TSA(C)250d016IR50	A & C	250	16	90	50	103.68	0.21	1.44
396	TSA(C)250d016IR35.4	A & C	250	16	120	35.4	146.44	0.3	2.034
397	TSA(C)250d016IR26.4	A & C	250	16	150	26.4	196.36	0.4	2.727
398	TSA(C)250d016IR22.2	A & C	250	16	180	22.2	233.51	0.48	3.243
399	TSA(C)250d016IR17.7	A & C	250	16	210	17.7	292.88	0.6	4.068
400	TSA(C)250d032IR167	A & C	250	32	30	167	31.04	0.06	0.431
401	TSA(C)250d032IR83.8	A & C	250	32	60	83.8	61.86	0.13	0.859
402	TSA(C)250d032IR50	A & C	250	32	90	50	103.68	0.21	1.44
403	TSA(C)250d032IR35.4	A & C	250	32	120	35.4	146.44	0.3	2.034
404	TSA(C)250d032IR26.4	A & C	250	32	150	26.4	196.36	0.4	2.727
405	TSA(C)250d032IR22.2	A & C	250	32	180	22.2	233.51	0.48	3.243
406	TSA(C)250d032IR18.7	A & C	250	32	210	18.7	277.22	0.57	3.85
407	TSA(C)250d063IR177	A & C	250	63	30	177	29.29	0.06	0.407
408	TSA(C)250d063IR83.8	A & C	250	63	60	83.8	61.86	0.13	0.859
409	TSA(C)250d063IR53	A & C	250	63	90	53	97.81	0.21	1.358
410	TSA(C)250d063IR37.5	A & C	250	63	120	37.5	138.24	0.3	1.92
411	TSA(C)250d063IR28	A & C	250	63	150	28	185.14	0.4	2.571
412	TSA(C)250d063IR23.5	A & C	250	63	180	23.5	220.6	0.48	3.064
413	TSA(C)250d063IR18.7	A & C	250	63	210	18.7	277.22	0.6	3.85
414	TSA(C)250d125IR210	A & C	250	125	30	210	24.69	0.07	0.343
415	TSA(C)250d125IR106	A & C	250	125	60	106	48.91	0.13	0.679
416	TSA(C)250d125IR66.6	A & C	250	125	90	66.6	77.84	0.21	1.081
417	TSA(C)250d125IR44.6	A & C	250	125	120	44.6	116.23	0.32	1.614
418	TSA(C)250d125IR35.4	A & C	250	125	150	35.4	146.44	0.4	2.034
419	TSA(C)250d125IR29.7	A & C	250	125	180	29.7	174.55	0.47	2.424
420	TSA(C)250d125IR23.5	A & C	250	125	210	23.5	220.6	0.6	3.064
421	TSA(C)300d000IR119	A & C	300	0	30	119	43.56	0.06	0.605
422	TSA(C)300d000IR59.4	A & C	300	0	60	59.4	87.27	0.12	1.212
423	TSA(C)300d000IR37.5	A & C	300	0	90	37.5	138.24	0.2	1.92

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
424	TSA(C)300d000IR24.9	A & C	300	0	120	24.9	208.19	0.29	2.892
425	TSA(C)300d000IR19.8	A & C	300	0	150	19.8	261.82	0.37	3.636
426	TSA(C)300d000IR15.8	A & C	300	0	180	15.8	328.1	0.46	4.557
427	TSA(C)300d000IR13.3	A & C	300	0	210	13.3	389.77	0.55	5.413
428	TSA(C)300d005IR119	A & C	300	5	30	119	43.56	0.06	0.605
429	TSA(C)300d005IR59.4	A & C	300	5	60	59.4	87.27	0.12	1.212
430	TSA(C)300d005IR37.5	A & C	300	5	90	37.5	138.24	0.2	1.92
431	TSA(C)300d005IR24.9	A & C	300	5	120	24.9	208.19	0.29	2.892
432	TSA(C)300d005IR19.8	A & C	300	5	150	19.8	261.82	0.37	3.636
433	TSA(C)300d005IR15.8	A & C	300	5	180	15.8	328.1	0.46	4.557
434	TSA(C)300d005IR13.3	A & C	300	5	210	13.3	389.77	0.55	5.413
435	TSA(C)300d010IR119	A & C	300	10	30	119	43.56	0.06	0.605
436	TSA(C)300d010IR59.4	A & C	300	10	60	59.4	87.27	0.12	1.212
437	TSA(C)300d010IR37.5	A & C	300	10	90	37.5	138.24	0.2	1.92
438	TSA(C)300d010IR24.9	A & C	300	10	120	24.9	208.19	0.29	2.892
439	TSA(C)300d010IR19.8	A & C	300	10	150	19.8	261.82	0.37	3.636
440	TSA(C)300d010IR15.8	A & C	300	10	180	15.8	328.1	0.46	4.557
441	TSA(C)300d010IR13.3	A & C	300	10	210	13.3	389.77	0.55	5.413
442	TSA(C)300d020IR119	A & C	300	20	30	119	43.56	0.06	0.605
443	TSA(C)300d020IR59.4	A & C	300	20	60	59.4	87.27	0.12	1.212
444	TSA(C)300d020IR37.5	A & C	300	20	90	37.5	138.24	0.2	1.92
445	TSA(C)300d020IR24.9	A & C	300	20	120	24.9	208.19	0.3	2.892
446	TSA(C)300d020IR19.8	A & C	300	20	150	19.8	261.82	0.37	3.636
447	TSA(C)300d020IR15.8	A & C	300	20	180	15.8	328.1	0.47	4.557
448	TSA(C)300d020IR13.3	A & C	300	20	210	13.3	389.77	0.55	5.413
449	TSA(C)300d040IR119	A & C	300	40	30	119	43.56	0.06	0.605
450	TSA(C)300d040IR59.4	A & C	300	40	60	59.4	87.27	0.13	1.212
451	TSA(C)300d040IR37.5	A & C	300	40	90	37.5	138.24	0.2	1.92
452	TSA(C)300d040IR24.9	A & C	300	40	120	24.9	208.19	0.3	2.892
453	TSA(C)300d040IR19.8	A & C	300	40	150	19.8	261.82	0.38	3.636
454	TSA(C)300d040IR15.8	A & C	300	40	180	15.8	328.1	0.47	4.557
455	TSA(C)300d040IR13.3	A & C	300	40	210	13.3	389.77	0.56	5.413
456	TSA(C)300d080IR126	A & C	300	80	30	126	41.14	0.06	0.571
457	TSA(C)300d080IR62.9	A & C	300	80	60	62.9	82.42	0.13	1.145
458	TSA(C)300d080IR39.7	A & C	300	80	90	39.7	130.58	0.2	1.814
459	TSA(C)300d080IR26.4	A & C	300	80	120	26.4	196.36	0.3	2.727
460	TSA(C)300d080IR21	A & C	300	80	150	21	246.86	0.38	3.429
461	TSA(C)300d080IR16.7	A & C	300	80	180	16.7	310.42	0.47	4.311
462	TSA(C)300d080IR14.1	A & C	300	80	210	14.1	367.66	0.56	5.106
463	TSA(C)300d160IR167	A & C	300	160	30	167	31.04	0.06	0.431
464	TSA(C)300d160IR83.8	A & C	300	160	60	83.8	61.86	0.12	0.859
465	TSA(C)300d160IR50	A & C	300	160	90	50	103.68	0.2	1.44
466	TSA(C)300d160IR35.4	A & C	300	160	120	35.4	146.44	0.29	2.034
467	TSA(C)300d160IR26.4	A & C	300	160	150	26.4	196.36	0.39	2.727
468	TSA(C)300d160IR22.2	A & C	300	160	180	22.2	233.51	0.46	3.243
469	TSA(C)300d160IR17.7	A & C	300	160	210	17.7	292.88	0.58	4.068

# STANDARD | Round 100V

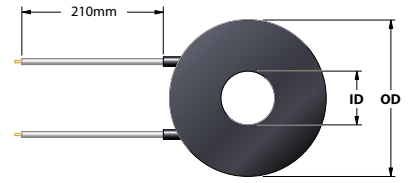


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000AR50000	C	10	0	30	50000	0.2	0.25	0.002
2	TSC010d000AR23500	C	10	0	60	23500	0.43	0.55	0.004
3	TSC010d000AR14900	C	10	0	90	14900	0.67	0.85	0.007
4	TSC010d000AR10600	C	10	0	120	10600	0.94	1.2	0.009
5	TSC010d000AR7910	C	10	0	150	7910	1.26	1.6	0.013
6	TSC010d000AR6290	C	10	0	180	6290	1.59	2.02	0.016
7	TSC010d000AR5300	C	10	0	210	5300	1.89	2.41	0.019
8	TSC010d005AR66600	C	10	5	30	66600	0.15	0.25	0.002
9	TSC010d005AR31500	C	10	5	60	31500	0.32	0.54	0.003
10	TSC010d005AR19800	C	10	5	90	19800	0.51	0.87	0.005
11	TSC010d005AR14100	C	10	5	120	14100	0.71	1.21	0.007
12	TSC010d005AR10600	C	10	5	150	10600	0.94	1.6	0.009
13	TSC010d005AR8380	C	10	5	180	8380	1.19	2.02	0.012
14	TSC010d005AR7050	C	10	5	210	7050	1.42	2.41	0.014
15	TSC013d000AR33400	C	13	0	30	33400	0.3	0.23	0.003
16	TSC013d000AR15800	C	13	0	60	15800	0.63	0.47	0.006
17	TSC013d000AR10000	C	13	0	90	10000	1	0.75	0.01
18	TSC013d000AR7050	C	13	0	120	7050	1.42	1.07	0.014

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
19	TSC013d000AR5300	C	13	0	150	5300	1.89	1.42	0.019
20	TSC013d000AR4460	C	13	0	180	4460	2.24	1.69	0.022
21	TSC013d000AR3540	C	13	0	210	3540	2.82	2.12	0.028
22	TSC013d006AR42100	C	13	6	30	42100	0.24	0.23	0.002
23	TSC013d								



# STANDARD | Round 100V

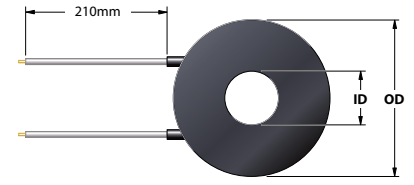


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
37	TSC016d008AR16700	C	16	8	60	16700	0.6	0.4	0.006
38	TSC016d008AR10600	C	16	8	90	10600	0.94	0.62	0.009
39	TSC016d008AR7470	C	16	8	120	7470	1.34	0.89	0.013
40	TSC016d008AR5610	C	16	8	150	5610	1.78	1.18	0.018
41	TSC016d008AR4460	C	16	8	180	4460	2.24	1.49	0.022
42	TSC016d008AR3750	C	16	8	210	3750	2.67	1.77	0.027
43	TSC020d000AR21000	C	20	0	30	21000	0.48	0.15	0.005
44	TSC020d000AR10000	C	20	0	60	10000	1	0.32	0.01
45	TSC020d000AR6290	C	20	0	90	6290	1.59	0.51	0.016
46	TSC020d000AR4460	C	20	0	120	4460	2.24	0.71	0.022
47	TSC020d000AR3540	C	20	0	150	3540	2.82	0.9	0.028
48	TSC020d000AR2800	C	20	0	180	2800	3.57	1.14	0.036
49	TSC020d000AR2350	C	20	0	210	2350	4.26	1.36	0.043
50	TSC020d005AR22200	C	20	5	30	22200	0.45	0.15	0.005
51	TSC020d005AR11200	C	20	5	60	11200	0.89	0.3	0.009
52	TSC020d005AR6660	C	20	5	90	6660	1.5	0.51	0.015
53	TSC020d005AR4720	C	20	5	120	4720	2.12	0.72	0.021
54	TSC020d005AR3750	C	20	5	150	3750	2.67	0.91	0.027
55	TSC020d005AR2970	C	20	5	180	2970	3.37	1.14	0.034
56	TSC020d005AR2490	C	20	5	210	2490	4.02	1.36	0.04
57	TSC020d010AR28000	C	20	10	30	28000	0.36	0.15	0.004
58	TSC020d010AR13300	C	20	10	60	13300	0.75	0.32	0.008
59	TSC020d010AR8380	C	20	10	90	8380	1.19	0.51	0.012
60	TSC020d010AR5940	C	20	10	120	5940	1.68	0.71	0.017
61	TSC020d010AR4720	C	20	10	150	4720	2.12	0.9	0.021
62	TSC020d010AR3750	C	20	10	180	3750	2.67	1.13	0.027
63	TSC020d010AR3150	C	20	10	210	3150	3.17	1.35	0.032
64	TSC025d000AR14100	C	25	0	30	14100	0.71	0.14	0.007
65	TSC025d000AR6660	C	25	0	60	6660	1.5	0.31	0.015
66	TSC025d000AR4210	C	25	0	90	4210	2.38	0.48	0.024
67	TSC025d000AR2970	C	25	0	120	2970	3.37	0.69	0.034
68	TSC025d000AR2350	C	25	0	150	2350	4.26	0.87	0.043
69	TSC025d000AR1870	C	25	0	180	1870	5.35	1.09	0.054
70	TSC025d000AR1580	C	25	0	210	1580	6.33	1.29	0.063
71	TSC025d006AR14900	C	25	6	30	14900	0.67	0.14	0.007
72	TSC025d006AR7050	C	25	6	60	7050	1.42	0.31	0.014
73	TSC025d006AR4460	C	25	6	90	4460	2.24	0.48	0.022
74	TSC025d006AR3150	C	25	6	120	3150	3.17	0.69	0.032
75	TSC025d006AR2490	C	25	6	150	2490	4.02	0.87	0.04
76	TSC025d006AR1980	C	25	6	180	1980	5.05	1.09	0.051
77	TSC025d006AR1670	C	25	6	210	1670	5.99	1.29	0.06
78	TSC025d013AR19800	C	25	13	30	19800	0.51	0.14	0.005
79	TSC025d013AR9410	C	25	13	60	9410	1.06	0.3	0.011
80	TSC025d013AR5610	C	25	13	90	5610	1.78	0.5	0.018
81	TSC025d013AR4210	C	25	13	120	4210	2.38	0.66	0.024
82	TSC025d013AR3150	C	25	13	150	3150	3.17	0.89	0.032
83	TSC025d013AR2640	C	25	13	180	2640	3.79	1.06	0.038
84	TSC025d013AR2220	C	25	13	210	2220	4.5	1.26	0.045
85	TSC032d000AR9410	C	32	0	30	9410	1.06	0.13	0.011
86	TSC032d000AR4460	C	32	0	60	4460	2.24	0.28	0.022
87	TSC032d000AR2640	C	32	0	90	2640	3.79	0.47	0.038
88	TSC032d000AR1980	C	32	0	120	1980	5.05	0.63	0.051
89	TSC032d000AR1490	C	32	0	150	1490	6.71	0.83	0.067
90	TSC032d000AR1260	C	32	0	180	1260	7.94	0.99	0.079
91	TSC032d000AR1060	C	32	0	210	1060	9.43	1.17	0.094
92	TSC032d008AR10000	C	32	8	30	10000	1	0.13	0.01
93	TSC032d008AR4720	C	32	8	60	4720	2.12	0.28	0.021
94	TSC032d008AR2970	C	32	8	90	2970	3.37	0.45	0.034
95	TSC032d008AR2100	C	32	8	120	2100	4.76	0.63	0.048
96	TSC032d008AR1670	C	32	8	150	1670	5.99	0.79	0.06
97	TSC032d008AR1330	C	32	8	180	1330	7.52	1	0.075
98	TSC032d008AR1120	C	32	8	210	1120	8.93	1.18	0.089
99	TSC032d016AR12600	C	32	16	30	12600	0.79	0.13	0.008
100	TSC032d016AR5940	C	32	16	60	5940	1.68	0.28	0.017
101	TSC032d016AR3540	C	32	16	90	3540	2.82	0.47	0.028
102	TSC032d016AR2640	C	32	16	120	2640	3.79	0.63	0.038
103	TSC032d016AR2100	C	32	16	150	2100	4.76	0.79	0.048
104	TSC032d016AR1670	C	32	16	180	1670	5.99	0.99	0.06
105	TSC032d016AR1410	C	32	16	210	1410	7.09	1.18	0.071
106	TSC040d000AR6290	C	40	0	30	6290	1.59	0.13	0.016
107	TSC040d000AR2970	C	40	0	60	2970	3.37	0.27	0.034
108	TSC040d000AR1870	C	40	0	90	1870	5.35	0.43	0.054
109	TSC040d000AR1330	C	40	0	120	1330	7.52	0.6	0.075

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
110	TSC040d000AR1000	C	40	0	150	1000	10	0.8	0.1
111	TSC040d000AR838	C	40	0	180	838	11.93	0.95	0.119
112	TSA(C)040d000AR705	A & C	40	0	210	705	14.18	1.13	0.142
113	TSC040d005AR6290	C	40	5	30	6290	1.59	0.13	0.016
114	TSC040d005AR2970	C	40	5	60	2970	3.37	0.27	0.034
115	TSC040d005AR1870	C	40	5	90	1870	5.35	0.43	0.054
116	TSC040d005AR1330	C	40	5	120	1330	7.52	0.61	0.075
117	TSC040d005AR1060	C	40	5	150	1060	9.43	0.76	0.094
118	TSC040d005AR838	C	40	5	180	838	11.93	0.96	0.119
119	TSA(C)040d005AR705	A & C	40	5	210	705	14.18	1.15	0.142
120	TSC040d010AR6660	C	40	10	30	6660	1.5	0.13	0.015
121	TSC040d010AR3150	C	40	10	60	3150	3.17	0.27	0.032
122	TSC040d010AR1980	C	40	10	90	1980	5.05	0.43	0.051
123	TSC040d010AR1410	C	40	10	120	1410	7.09	0.6	0.071
124	TSC040d010AR1120	C	40	10	150	1120	8.93	0.76	0.089
125	TSC040d010AR888	C	40	10	180	888	11.26	0.96	0.113
126	TSC040d010AR747	C	40	10	210	747	13.39	1.14	0.134
127	TSC040d020AR8380	C	40	20	30	8380	1.19	0.13	0.012
128	TSC040d020AR3970	C	40	20	60	3970	2.52	0.27	0.025
129	TSC040d020AR2490	C	40	20	90	2490	4.02	0.43	0.04
130	TSC040d020AR1770	C	40	20	120	1770	5.65	0.6	0.057
131	TSC040d020AR1330	C	40	20	150	1330	7.52	0.8	0.075
132	TSC040d020AR1120	C	40	20	180	1120	8.93	0.95	0.089
133	TSC040d020AR941	C	40	20	210	941	10.63	1.13	0.106
134	TSC050d000AR3970	C	50	0	30	3970	2.52	0.13	0.025
135	TSC050d000AR1980	C	50	0	60	1980	5.05	0.26	0.051
136	TSC050d000AR1260	C	50	0	90	1260	7.94	0.4	0.079
137	TSA(C)050d000AR888	A & C	50	0	120	888	11.26	0.57	0.113
138	TSA(C)050d000AR705	A & C	50	0	150	705	14.18	0.72	0.142
139	TSA(C)050d000AR561	A & C	50	0	180	561	17.83	0.91	0.178
140	TSA(C)050d000AR472	A & C	50	0	210	472	21.19	1.08	0.212
141	TSC050d006AR4210	C	50	6	30	4210	2.38	0.12	0.024
142	TSC050d006AR1980	C	50	6	60	1980	5.05	0.26	0.051
143	TSC050d006AR1260	C	50	6	90	1260	7.94	0.41	0.079
144	TSA(C)050d006AR888	A & C	50	6	120	888	11.26	0.58	0.113
145	TSA(C)050d006AR705	A & C	50	6	150	705	14.18	0.73	0.142
146	TSA(C)050d006AR594	A & C	50	6	180	594	16.84	0.87	0.168
147	TSA(C)050d006AR500	A & C	50	6	210	500	20	1.03	0.2
148	TSC050d013AR4460	C	50	13	30	4460	2.24	0.12	0.022
149	TSC050d013AR2100	C	50	13	60	2100	4.76	0.26	0.048
150	TSC050d013AR1330	C	50	13	90	1330	7.52	0.41	0.075
151	TSA(C)050d013AR941	A & C	50	13	120	941	10.63	0.58	0.106
152	TSA(C)050d013AR747	A & C	50	13	150	747	13.39	0.73	0.134
153	TSA(C)050d013AR629	A & C	50	13	180	629	15.9	0.87	0.159
154	TSA(C)050d013AR500	A & C	50	13	210	500	20	1.09	0.2
155	TSC050d025AR5610	C	50	25	30	5610	1.78	0.12	0.018
156	TSC050d025AR2640	C	50	25	60	2640	3.79	0.26	0.038
157	TSC050d025AR1670	C	50	25	90	1670	5.99	0.41	0.06
158	TSC050d025AR1190	C	50	25	120	1190	8.4	0.57	0.084
159	TSC050d025AR941	C	50	25	150	941	10.63	0.72	0.106
160	TSA(C)050d025AR747	A & C	50	25	180	747	13.39	0.91	0.134
161	TSA(C)050d025AR629	A & C	50	25	210	629	15.9	1.08	0.159
162	TSC063d000AR2800	C	63	0	30	2800	3.57	0.11	0.036
163	TSA(C)063d000AR1330	A & C	63	0	60	1330	7.52	0.24	0.075
164	TSA(C)0								

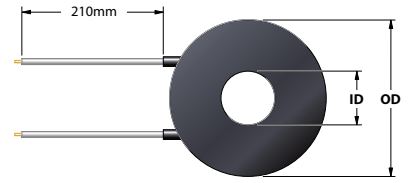


# STANDARD | Round 100V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
183	TSC063d032AR3750	C	63	32	30	3750	2.67	0.12	0.027
184	TSC063d032AR1770	C	63	32	60	1770	5.65	0.24	0.057
185	TSA(C)063d032AR1120	A & C	63	32	90	1120	8.93	0.39	0.089
186	TSA(C)063d032AR791	A & C	63	32	120	791	12.64	0.55	0.126
187	TSA(C)063d032AR629	A & C	63	32	150	629	15.9	0.69	0.159
188	TSA(C)063d032AR500	A & C	63	32	180	500	20	0.86	0.2
189	TSA(C)063d032AR421	A & C	63	32	210	421	23.75	1.03	0.238
190	TSA(C)080d000AR1870	A & C	80	0	30	1870	5.35	0.11	0.054
191	TSA(C)080d000AR941	A & C	80	0	60	941	10.63	0.21	0.106
192	TSA(C)080d000AR594	A & C	80	0	90	594	16.84	0.34	0.168
193	TSA(C)080d000AR397	A & C	80	0	120	397	25.19	0.5	0.252
194	TSA(C)080d000AR315	A & C	80	0	150	315	31.75	0.63	0.318
195	TSA(C)080d000AR264	A & C	80	0	180	264	37.88	0.75	0.379
196	TSA(C)080d000AR210	A & C	80	0	210	210	47.62	0.95	0.476
197	TSA(C)080d005AR1870	A & C	80	5	30	1870	5.35	0.11	0.054
198	TSA(C)080d005AR941	A & C	80	5	60	941	10.63	0.21	0.106
199	TSA(C)080d005AR594	A & C	80	5	90	594	16.84	0.34	0.168
200	TSA(C)080d005AR397	A & C	80	5	120	397	25.19	0.5	0.252
201	TSA(C)080d005AR315	A & C	80	5	150	315	31.75	0.63	0.318
202	TSA(C)080d005AR264	A & C	80	5	180	264	37.88	0.76	0.379
203	TSA(C)080d005AR210	A & C	80	5	210	210	47.62	0.95	0.476
204	TSA(C)080d010AR1870	A & C	80	10	30	1870	5.35	0.11	0.054
205	TSA(C)080d010AR941	A & C	80	10	60	941	10.63	0.21	0.106
206	TSA(C)080d010AR594	A & C	80	10	90	594	16.84	0.34	0.168
207	TSA(C)080d010AR421	A & C	80	10	120	421	23.75	0.48	0.238
208	TSA(C)080d010AR315	A & C	80	10	150	315	31.75	0.64	0.318
209	TSA(C)080d010AR264	A & C	80	10	180	264	37.88	0.77	0.379
210	TSA(C)080d010AR222	A & C	80	10	210	222	45.05	0.91	0.451
211	TSA(C)080d020AR1980	A & C	80	20	30	1980	5.05	0.11	0.051
212	TSA(C)080d020AR1000	A & C	80	20	60	1000	10	0.21	0.1
213	TSA(C)080d020AR629	A & C	80	20	90	629	15.9	0.34	0.159
214	TSA(C)080d020AR421	A & C	80	20	120	421	23.75	0.5	0.238
215	TSA(C)080d020AR334	A & C	80	20	150	334	29.94	0.64	0.299
216	TSA(C)080d020AR280	A & C	80	20	180	280	35.71	0.76	0.357
217	TSA(C)080d020AR222	A & C	80	20	210	222	45.05	0.96	0.451
218	TSC080d040AR2490	C	80	40	30	2490	4.02	0.11	0.04
219	TSA(C)080d040AR1260	A & C	80	40	60	1260	7.94	0.21	0.079
220	TSA(C)080d040AR791	A & C	80	40	90	791	12.64	0.34	0.126
221	TSA(C)080d040AR530	A & C	80	40	120	530	18.87	0.5	0.189
222	TSA(C)080d040AR421	A & C	80	40	150	421	23.75	0.63	0.238
223	TSA(C)080d040AR334	A & C	80	40	180	334	29.94	0.79	0.299
224	TSA(C)080d040AR280	A & C	80	40	210	280	35.71	0.95	0.357
225	TSA(C)100d000AR1330	A & C	100	0	30	1330	7.52	0.1	0.075
226	TSA(C)100d000AR666	A & C	100	0	60	666	15.02	0.19	0.15
227	TSA(C)100d000AR421	A & C	100	0	90	421	23.75	0.3	0.238
228	TSA(C)100d000AR297	A & C	100	0	120	297	33.67	0.43	0.337
229	TSA(C)100d000AR222	A & C	100	0	150	222	45.05	0.57	0.451
230	TSA(C)100d000AR187	A & C	100	0	180	187	53.48	0.68	0.535
231	TSA(C)100d000AR149	A & C	100	0	210	149	67.11	0.85	0.671
232	TSA(C)100d006AR1330	A & C	100	6	30	1330	7.52	0.1	0.075
233	TSA(C)100d006AR666	A & C	100	6	60	666	15.02	0.19	0.15
234	TSA(C)100d006AR421	A & C	100	6	90	421	23.75	0.3	0.238
235	TSA(C)100d006AR297	A & C	100	6	120	297	33.67	0.43	0.337
236	TSA(C)100d006AR222	A & C	100	6	150	222	45.05	0.58	0.451
237	TSA(C)100d006AR187	A & C	100	6	180	187	53.48	0.68	0.535
238	TSA(C)100d006AR149	A & C	100	6	210	149	67.11	0.86	0.671
239	TSA(C)100d013AR1410	A & C	100	13	30	1410	7.09	0.09	0.071
240	TSA(C)100d013AR705	A & C	100	13	60	705	14.18	0.18	0.142
241	TSA(C)100d013AR421	A & C	100	13	90	421	23.75	0.31	0.238
242	TSA(C)100d013AR297	A & C	100	13	120	297	33.67	0.44	0.337
243	TSA(C)100d013AR222	A & C	100	13	150	222	45.05	0.58	0.451
244	TSA(C)100d013AR187	A & C	100	13	180	187	53.48	0.69	0.535
245	TSA(C)100d013AR149	A & C	100	13	210	149	67.11	0.87	0.671
246	TSA(C)100d025AR1490	A & C	100	25	30	1490	6.71	0.09	0.067
247	TSA(C)100d025AR705	A & C	100	25	60	705	14.18	0.19	0.142
248	TSA(C)100d025AR446	A & C	100	25	90	446	22.42	0.3	0.224
249	TSA(C)100d025AR315	A & C	100	25	120	315	31.75	0.43	0.318
250	TSA(C)100d025AR235	A & C	100	25	150	235	42.55	0.58	0.426
251	TSA(C)100d025AR198	A & C	100	25	180	198	50.51	0.69	0.505
252	TSA(C)100d025AR158	A & C	100	25	210	158	63.29	0.86	0.633
253	TSA(C)100d050AR1770	A & C	100	50	30	1770	5.65	0.1	0.057
254	TSA(C)100d050AR888	A & C	100	50	60	888	11.26	0.19	0.113
255	TSA(C)100d050AR561	A & C	100	50	90	561	17.83	0.3	0.178

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
256	TSA(C)100d050AR375	A & C	100	50	120	375	26.67	0.45	0.267
257	TSA(C)100d050AR297	A & C	100	50	150	297	33.67	0.57	0.337
258	TSA(C)100d050AR249	A & C	100	50	180	249	40.16	0.68	0.402
259	TSA(C)100d050AR198	A & C	100	50	210	198	50.51	0.86	0.505
260	TSA(C)125d000AR941	A & C	125	0	30	941	10.63	0.09	0.106
261	TSA(C)125d000AR472	A & C	125	0	60	472	21.19	0.17	0.212
262	TSA(C)125d000AR297	A & C	125	0	90	297	33.67	0.27	0.337
263	TSA(C)125d000AR198	A & C	125	0	120	198	50.51	0.41	0.505
264	TSA(C)125d000AR158	A & C	125	0	150	158	63.29	0.52	0.633
265	TSA(C)125d000AR126	A & C	125	0	180	126	79.37	0.65	0.794
266	TSA(C)125d000AR106	A & C	125	0	210	106	94.34	0.77	0.943
267	TSA(C)125d008AR941	A & C	125	8	30	941	10.63	0.09	0.106
268	TSA(C)125d008AR472	A & C	125	8	60	472	21.19	0.17	0.212
269	TSA(C)125d008AR297	A & C	125	8	90	297	33.67	0.28	0.337
270	TSA(C)125d008AR198	A & C	125	8	120	198	50.51	0.41	0.505
271	TSA(C)125d008AR158	A & C	125	8	150	158	63.29	0.52	0.633
272	TSA(C)125d008AR126	A & C	125	8	180	126	79.37	0.65	0.794
273	TSA(C)125d008AR106	A & C	125	8	210	106	94.34	0.77	0.943
274	TSA(C)125d016AR941	A & C	125	16	30	941	10.63	0.09	0.106
275	TSA(C)125d016AR472	A & C	125	16	60	472	21.19	0.18	0.212
276	TSA(C)125d016AR297	A & C	125	16	90	297	33.67	0.28	0.337
277	TSA(C)125d016AR210	A & C	125	16	120	210	47.62	0.39	0.476
278	TSA(C)125d016AR158	A & C	125	16	150	158	63.29	0.52	0.633
279	TSA(C)125d016AR126	A & C	125	16	180	126	79.37	0.66	0.794
280	TSA(C)125d016AR106	A & C	125	16	210	106	94.34	0.78	0.943
281	TSA(C)125d032AR1000	A & C	125	32	30	1000	10	0.09	0.1
282	TSA(C)125d032AR500	A & C	125	32	60	500	20	0.17	0.2
283	TSA(C)125d032AR315	A & C	125	32	90	315	31.75	0.28	0.318
284	TSA(C)125d032AR210	A & C	125	32	120	210	47.62	0.42	0.476
285	TSA(C)125d032AR167	A & C	125	32	150	167	59.88	0.52	0.599
286	TSA(C)125d032AR133	A & C	125	32	180	133	75.19	0.66	0.752
287	TSA(C)125d032AR112	A & C	125	32	210	112	89.29	0.78	0.893
288	TSA(C)125d063AR1260	A & C	125	63	30	1260	7.94	0.09	0.079
289	TSA(C)125d063AR629	A & C	125	63	60	629	15.9	0.17	0.159
290	TSA(C)125d063AR397	A & C	125	63	90	397	25.19	0.28	0.252
291	TSA(C)125d063AR264	A & C	125	63	120	264	37.88	0.41	0.379
292	TSA(C)125d063AR210	A & C	125	63	150	210	47.62	0.52	0.476
293	TSA(C)125d063AR167	A & C	125	63	180	167	59.88	0.65	0.599
294	TSA(C)125d063AR141	A & C	125	63	210	141	70.92	0.77	0.709
295	TSA(C)160d000AR629	A & C	160	0	30	629	15.9	0.08	0.159
296	TSA(C)160d000AR315	A & C	160	0	60	315	31.75	0.16	0.318
297	TSA(C)160d000AR198	A & C	160	0	90	198	50.51	0.25	0.505
298	TSA(C)160d000AR133	A & C	160	0	120	133	75.19	0.37	0.752
299	TSA(C)160d000AR106	A & C	160	0	150	106	94.34	0.47	0.943
300	TSA(C)160d000AR88.8	A & C	160	0	180	88.8	112.61	0.56	1.126
301	TSA(C)160d000AR70.5	A & C	160	0	210	70.5	141.84	0.71	1.418
302	TSA(C)160d005AR629	A & C	160	5	30	629	15.9	0.08	0.159
303	TSA(C)160d005AR315								

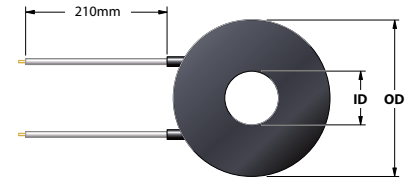


# STANDARD | Round 100V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm²)	Current (A)
329	TSA(C)160d040AR74.7	A & C	160	40	210	74.7	133.87	0.71	1.339
330	TSA(C)160d080AR838	A & C	160	80	30	838	11.93	0.08	0.119
331	TSA(C)160d080AR421	A & C	160	80	60	421	23.75	0.16	0.238
332	TSA(C)160d080AR264	A & C	160	80	90	264	37.88	0.25	0.379
333	TSA(C)160d080AR187	A & C	160	80	120	187	53.48	0.35	0.535
334	TSA(C)160d080AR141	A & C	160	80	150	141	70.92	0.47	0.709
335	TSA(C)160d080AR112	A & C	160	80	180	112	89.29	0.59	0.893
336	TSA(C)160d080AR94.1	A & C	160	80	210	94.1	106.27	0.7	1.063
337	TSA(C)200d000AR446	A & C	200	0	30	446	22.42	0.07	0.224
338	TSA(C)200d000AR222	A & C	200	0	60	222	45.05	0.14	0.451
339	TSA(C)200d000AR141	A & C	200	0	90	141	70.92	0.23	0.709
340	TSA(C)200d000AR94.1	A & C	200	0	120	94.1	106.27	0.34	1.063
341	TSA(C)200d000AR74.7	A & C	200	0	150	74.7	133.87	0.43	1.339
342	TSA(C)200d000AR59.4	A & C	200	0	180	59.4	168.35	0.54	1.684
343	TSA(C)200d000AR50	A & C	200	0	210	50	200	0.64	2
344	TSA(C)200d006AR446	A & C	200	6	30	446	22.42	0.07	0.224
345	TSA(C)200d006AR222	A & C	200	6	60	222	45.05	0.14	0.451
346	TSA(C)200d006AR141	A & C	200	6	90	141	70.92	0.23	0.709
347	TSA(C)200d006AR94.1	A & C	200	6	120	94.1	106.27	0.34	1.063
348	TSA(C)200d006AR74.7	A & C	200	6	150	74.7	133.87	0.43	1.339
349	TSA(C)200d006AR59.4	A & C	200	6	180	59.4	168.35	0.54	1.684
350	TSA(C)200d006AR50	A & C	200	6	210	50	200	0.64	2
351	TSA(C)200d013AR446	A & C	200	13	30	446	22.42	0.07	0.224
352	TSA(C)200d013AR222	A & C	200	13	60	222	45.05	0.14	0.451
353	TSA(C)200d013AR141	A & C	200	13	90	141	70.92	0.23	0.709
354	TSA(C)200d013AR94.1	A & C	200	13	120	94.1	106.27	0.34	1.063
355	TSA(C)200d013AR74.7	A & C	200	13	150	74.7	133.87	0.43	1.339
356	TSA(C)200d013AR59.4	A & C	200	13	180	59.4	168.35	0.54	1.684
357	TSA(C)200d013AR50	A & C	200	13	210	50	200	0.64	2
358	TSA(C)200d025AR446	A & C	200	25	30	446	22.42	0.07	0.224
359	TSA(C)200d025AR222	A & C	200	25	60	222	45.05	0.15	0.451
360	TSA(C)200d025AR141	A & C	200	25	90	141	70.92	0.23	0.709
361	TSA(C)200d025AR94.1	A & C	200	25	120	94.1	106.27	0.34	1.063
362	TSA(C)200d025AR74.7	A & C	200	25	150	74.7	133.87	0.43	1.339
363	TSA(C)200d025AR59.4	A & C	200	25	180	59.4	168.35	0.54	1.684
364	TSA(C)200d025AR50	A & C	200	25	210	50	200	0.65	2
365	TSA(C)200d050AR472	A & C	200	50	30	472	21.19	0.07	0.212
366	TSA(C)200d050AR235	A & C	200	50	60	235	42.55	0.14	0.426
367	TSA(C)200d050AR149	A & C	200	50	90	149	67.11	0.23	0.671
368	TSA(C)200d050AR100	A & C	200	50	120	100	100	0.34	1
369	TSA(C)200d050AR79.1	A & C	200	50	150	79.1	126.42	0.43	1.264
370	TSA(C)200d050AR62.9	A & C	200	50	180	62.9	158.98	0.54	1.59
371	TSA(C)200d050AR53	A & C	200	50	210	53	188.68	0.64	1.887
372	TSA(C)200d100AR594	A & C	200	100	30	594	16.84	0.07	0.168
373	TSA(C)200d100AR297	A & C	200	100	60	297	33.67	0.14	0.337
374	TSA(C)200d100AR187	A & C	200	100	90	187	53.48	0.23	0.535
375	TSA(C)200d100AR126	A & C	200	100	120	126	79.37	0.34	0.794
376	TSA(C)200d100AR100	A & C	200	100	150	100	100	0.42	1
377	TSA(C)200d100AR79.1	A & C	200	100	180	79.1	126.42	0.54	1.264
378	TSA(C)200d100AR66.6	A & C	200	100	210	66.6	150.15	0.64	1.502
379	TSA(C)250d000AR315	A & C	250	0	30	315	31.75	0.06	0.318
380	TSA(C)250d000AR158	A & C	250	0	60	158	63.29	0.13	0.633
381	TSA(C)250d000AR100	A & C	250	0	90	100	100	0.2	1
382	TSA(C)250d000AR66.6	A & C	250	0	120	66.6	150.15	0.31	1.502
383	TSA(C)250d000AR50	A & C	250	0	150	50	200	0.41	2
384	TSA(C)250d000AR42.1	A & C	250	0	180	42.1	237.53	0.48	2.375
385	TSA(C)250d000AR35.4	A & C	250	0	210	35.4	282.49	0.58	2.825
386	TSA(C)250d008AR315	A & C	250	8	30	315	31.75	0.06	0.318
387	TSA(C)250d008AR158	A & C	250	8	60	158	63.29	0.13	0.633
388	TSA(C)250d008AR100	A & C	250	8	90	100	100	0.2	1
389	TSA(C)250d008AR66.6	A & C	250	8	120	66.6	150.15	0.31	1.502
390	TSA(C)250d008AR50	A & C	250	8	150	50	200	0.41	2
391	TSA(C)250d008AR42.1	A & C	250	8	180	42.1	237.53	0.48	2.375
392	TSA(C)250d008AR35.4	A & C	250	8	210	35.4	282.49	0.58	2.825
393	TSA(C)250d016AR315	A & C	250	16	30	315	31.75	0.06	0.318
394	TSA(C)250d016AR158	A & C	250	16	60	158	63.29	0.13	0.633
395	TSA(C)250d016AR100	A & C	250	16	90	100	100	0.2	1
396	TSA(C)250d016AR66.6	A & C	250	16	120	66.6	150.15	0.31	1.502
397	TSA(C)250d016AR53	A & C	250	16	150	53	188.68	0.39	1.887
398	TSA(C)250d016AR42.1	A & C	250	16	180	42.1	237.53	0.49	2.375
399	TSA(C)250d016AR35.4	A & C	250	16	210	35.4	282.49	0.58	2.825

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm²)	Current (A)
400	TSA(C)250d032AR315	A & C	250	32	30	315	31.75	0.07	0.318
401	TSA(C)250d032AR158	A & C	250	32	60	158	63.29	0.13	0.633
402	TSA(C)250d032AR100	A & C	250	32	90	100	100	0.21	1
403	TSA(C)250d032AR66.6	A & C	250	32	120	66.6	150.15	0.31	1.502
404	TSA(C)250d032AR53	A & C	250	32	150	53	188.68	0.39	1.887
405	TSA(C)250d032AR42.1	A & C	250	32	180	42.1	237.53	0.49	2.375
406	TSA(C)250d032AR35.4	A & C	250	32	210	35.4	282.49	0.59	2.825
407	TSA(C)250d063AR334	A & C	250	63	30	334	29.94	0.07	0.299
408	TSA(C)250d063AR167	A & C	250	63	60	167	59.88	0.13	0.599
409	TSA(C)250d063AR106	A & C	250	63	90	106	94.34	0.21	0.943
410	TSA(C)250d063AR70.5	A & C	250	63	120	70.5	141.84	0.31	1.418
411	TSA(C)250d063AR56.1	A & C	250	63	150	56.1	178.25	0.39	1.783
412	TSA(C)250d063AR44.6	A & C	250	63	180	44.6	224.22	0.49	2.242
413	TSA(C)250d063AR37.5	A & C	250	63	210	37.5	266.67	0.58	2.667
414	TSA(C)250d125AR35.4	A & C	250	125	30	421	23.75	0.06	0.238
415	TSA(C)250d125AR210	A & C	250	125	60	210	47.62	0.13	0.476
416	TSA(C)250d125AR133	A & C	250	125	90	133	75.19	0.2	0.752
417	TSA(C)250d125AR88.8	A & C	250	125	120	88.8	112.61	0.31	1.126
418	TSA(C)250d125AR70.5	A & C	250	125	150	70.5	141.84	0.39	1.418
419	TSA(C)250d125AR56.1	A & C	250	125	180	56.1	178.25	0.48	1.783
420	TSA(C)250d125AR47.2	A & C	250	125	210	47.2	211.86	0.58	2.119
421	TSA(C)300d000AR222	A & C	300	0	30	222	45.05	0.06	0.451
422	TSA(C)300d000AR112	A & C	300	0	60	112	89.29	0.13	0.893
423	TSA(C)300d000AR70.5	A & C	300	0	90	70.5	141.84	0.2	1.418
424	TSA(C)300d000AR47.2	A & C	300	0	120	47.2	211.86	0.3	2.119
425	TSA(C)300d000AR37.5	A & C	300	0	150	37.5	266.67	0.38	2.667
426	TSA(C)300d000AR29.7	A & C	300	0	180	29.7	336.7	0.48	3.367
427	TSA(C)300d000AR24.9	A & C	300	0	210	24.9	401.61	0.57	4.016
428	TSA(C)300d005AR222	A & C	300	5	30	222	45.05	0.06	0.451
429	TSA(C)300d005AR112	A & C	300	5	60	112	89.29	0.13	0.893
430	TSA(C)300d005AR70.5	A & C	300	5	90	70.5	141.84	0.2	1.418
431	TSA(C)300d005AR47.2	A & C	300	5	120	47.2	211.86	0.3	2.119
432	TSA(C)300d005AR37.5	A & C	300	5	150	37.5	266.67	0.38	2.667
433	TSA(C)300d005AR29.7	A & C	300	5	180	29.7	336.7	0.48	3.367
434	TSA(C)300d005AR24.9	A & C	300	5	210	24.9	401.61	0.57	4.016
435	TSA(C)300d010AR222	A & C	300	10	30	222	45.05	0.06	0.451
436	TSA(C)300d010AR112	A & C	300	10	60	112	89.29	0.13	0.893
437	TSA(C)300d010AR70.5	A & C	300	10	90	70.5	141.84	0.2	1.418
438	TSA(C)300d010AR47.2	A & C	300	10	120	47.2	211.86	0.3	2.119
439	TSA(C)300d010AR37.5	A & C	300	10	150	37.5	266.67	0.38	2.667
440	TSA(C)300d010AR29.7	A & C	300	10	180	29.7	336.7	0.48	3.367
441	TSA(C)300d010AR24.9	A & C	300	10	210	24.9	401.61	0.57	4.016
442	TSA(C)300d020AR222	A & C	300	20	30	222	45.05	0.06	0.451
443	TSA(C)300d020AR112	A & C	300	20	60	112	89.29	0.13	0.893
444	TSA(C)300d020AR70.5	A & C	300	20	90	70.5	141.84	0.2	1.418
445	TSA(C)300d020AR47.2	A & C	300	20	120	47.2	211.86	0.3	2.119
446	TSA(C)300d020AR37.5	A & C	300	20	150	37.5	266.67	0.38	2.667
447	TSA(C)300d020AR29.7	A & C	300	20	180	29.7	336.7		

# STANDARD | Round 110V

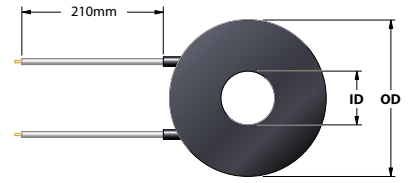


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000BR59400	C	10	0	30	59400	0.2	0.25	0.002
2	TSC010d000BR28000	C	10	0	60	28000	0.43	0.55	0.004
3	TSC010d000BR17700	C	10	0	90	17700	0.68	0.87	0.006
4	TSC010d000BR12600	C	10	0	120	12600	0.96	1.22	0.009
5	TSC010d000BR10000	C	10	0	150	10000	1.21	1.54	0.011
6	TSC010d000BR7470	C	10	0	180	7470	1.62	2.06	0.015
7	TSC010d000BR6290	C	10	0	210	6290	1.92	2.44	0.017
8	TSC010d005BR79100	C	10	5	30	79100	0.15	0.25	0.001
9	TSC010d005BR37500	C	10	5	60	37500	0.32	0.54	0.003
10	TSC010d005BR23500	C	10	5	90	23500	0.51	0.87	0.005
11	TSC010d005BR17700	C	10	5	120	17700	0.68	1.15	0.006
12	TSC010d005BR12600	C	10	5	150	12600	0.96	1.63	0.009
13	TSC010d005BR10600	C	10	5	180	10600	1.14	1.94	0.01
14	TSC010d005BR8380	C	10	5	210	8380	1.44	2.44	0.013
15	TSC013d000BR39700	C	13	0	30	39700	0.3	0.23	0.003
16	TSC013d000BR19800	C	13	0	60	19800	0.61	0.46	0.006
17	TSC013d000BR11900	C	13	0	90	11900	1.02	0.77	0.009
18	TSC013d000BR8880	C	13	0	120	8880	1.36	1.02	0.012
19	TSC013d000BR6660	C	13	0	150	6660	1.82	1.37	0.017
20	TSC013d000BR5300	C	13	0	180	5300	2.28	1.72	0.021
21	TSC013d000BR4460	C	13	0	210	4460	2.71	2.04	0.025
22	TSC013d006BR50000	C	13	6	30	50000	0.24	0.23	0.002
23	TSC013d006BR24900	C	13	6	60	24900	0.49	0.47	0.004
24	TSC013d006BR15800	C	13	6	90	15800	0.77	0.74	0.007
25	TSC013d006BR11200	C	13	6	120	11200	1.08	1.03	0.01
26	TSC013d006BR8380	C	13	6	150	8380	1.44	1.38	0.013
27	TSC013d006BR6660	C	13	6	180	6660	1.82	1.74	0.017
28	TSC013d006BR5610	C	13	6	210	5610	2.16	2.07	0.02
29	TSC016d000BR31500	C	16	0	30	31500	0.38	0.19	0.003
30	TSC016d000BR14900	C	16	0	60	14900	0.81	0.4	0.007
31	TSC016d000BR9410	C	16	0	90	9410	1.29	0.64	0.012
32	TSC016d000BR6660	C	16	0	120	6660	1.82	0.91	0.017
33	TSC016d000BR5000	C	16	0	150	5000	2.42	1.2	0.022
34	TSC016d000BR3970	C	16	0	180	3970	3.05	1.52	0.028
35	TSC016d000BR3340	C	16	0	210	3340	3.62	1.8	0.033
36	TSC016d000BR42100	C	16	8	30	42100	0.29	0.19	0.003
37	TSC016d008BR19800	C	16	8	60	19800	0.61	0.4	0.006
38	TSC016d008BR12600	C	16	8	90	12600	0.96	0.64	0.009
39	TSC016d008BR8880	C	16	8	120	8880	1.36	0.9	0.012
40	TSC016d008BR6660	C	16	8	150	6660	1.82	1.21	0.017
41	TSC016d008BR5300	C	16	8	180	5300	2.28	1.51	0.021
42	TSC016d008BR4460	C	16	8	210	4460	2.71	1.8	0.025
43	TSC020d000BR24900	C	20	0	30	24900	0.49	0.16	0.004
44	TSC020d000BR12600	C	20	0	60	12600	0.96	0.31	0.009
45	TSC020d000BR7470	C	20	0	90	7470	1.62	0.52	0.015
46	TSC020d000BR5300	C	20	0	120	5300	2.28	0.73	0.021
47	TSC020d000BR4210	C	20	0	150	4210	2.87	0.91	0.026
48	TSC020d000BR3340	C	20	0	180	3340	3.62	1.15	0.033
49	TSC020d000BR2800	C	20	0	210	2800	4.32	1.38	0.039
50	TSC020d005BR28000	C	20	5	30	28000	0.43	0.15	0.004
51	TSC020d005BR13300	C	20	5	60	13300	0.91	0.31	0.008
52	TSC020d005BR8380	C	20	5	90	8380	1.44	0.49	0.013
53	TSC020d005BR5940	C	20	5	120	5940	2.04	0.69	0.019
54	TSC020d005BR4460	C	20	5	150	4460	2.71	0.92	0.025
55	TSC020d005BR3750	C	20	5	180	3750	3.23	1.1	0.029
56	TSC020d005BR3150	C	20	5	210	3150	3.84	1.3	0.035
57	TSC020d010BR35400	C	20	10	30	35400	0.34	0.14	0.003
58	TSC020d010BR16700	C	20	10	60	16700	0.72	0.31	0.007
59	TSC020d010BR10000	C	20	10	90	10000	1.21	0.51	0.011
60	TSC020d010BR7050	C	20	10	120	7050	1.72	0.73	0.016
61	TSC020d010BR5610	C	20	10	150	5610	2.16	0.92	0.02
62	TSC020d010BR4460	C	20	10	180	4460	2.71	1.15	0.025
63	TSC020d010BR3750	C	20	10	210	3750	3.23	1.37	0.029
64	TSC025d000BR17700	C	25	0	30	17700	0.68	0.14	0.006
65	TSC025d000BR8380	C	25	0	60	8380	1.44	0.29	0.013
66	TSC025d000BR5000	C	25	0	90	5000	2.42	0.49	0.022
67	TSC025d000BR3540	C	25	0	120	3540	3.42	0.7	0.031
68	TSC025d000BR2800	C	25	0	150	2800	4.32	0.88	0.039
69	TSC025d000BR2350	C	25	0	180	2350	5.15	1.05	0.047
70	TSC025d000BR1980	C	25	0	210	1980	6.11	1.24	0.056
71	TSC025d006BR18700	C	25	6	30	18700	0.65	0.14	0.006
72	TSC025d006BR8880	C	25	6	60	8880	1.36	0.29	0.012
73	TSC025d006BR5300	C	25	6	90	5300	2.28	0.49	0.021

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSC025d006BR3750	C	25	6	120	3750	3.23	0.7	0.029
75	TSC025d006BR2970	C	25	6	150	2970	4.07	0.88	0.037
76	TSC025d006BR2490	C	25	6	180	2490	4.86	1.05	0.044
77	TSC025d006BR2100	C	25	6	210	2100	5.76	1.25	0.052
78	TSC025d013BR23500	C	25	13	30	23500	0.51	0.14	0.005
79	TSC025d013BR11200	C	25	13	60	11200	1.08	0.3	0.01
80	TSC025d013BR7050	C	25	13	90	7050	1.72	0.48	0.016
81	TSC025d013BR5000	C	25	13	120	5000	2.42	0.68	0.022
82	TSC025d013BR3970	C	25	13	150	3970	3.05	0.85	0.028
83	TSC025d013BR3150	C	25	13	180	3150	3.84	1.07	0.035
84	TSC025d013BR2640	C	25	13	210	2640	4.58	1.28	0.042
85	TSC032d000BR11200	C	32	0	30	11200	1.08	0.13	0.01
86	TSC032d000BR5300	C	32	0	60	5300	2.28	0.28	0.021
87	TSC032d000BR3340	C	32	0	90	3340	3.62	0.45	0.033
88	TSC032d000BR2350	C	32	0	120	2350	5.15	0.64	0.047
89	TSC032d000BR1870	C	32	0	150	1870	6.47	0.8	0.059
90	TSC032d000BR1490	C	32	0	180	1490	8.12	1.01	0.074
91	TSC032d000BR1260	C	32	0	210	1260	9.6	1.19	0.087
92	TSC032d000BR11900	C	32	8	30	11900	1.02	0.14	0.009
93	TSC032d008BR5610	C	32	8	60	5610	2.16	0.29	0.02
94	TSC032d008BR3540	C	32	8	90	3540	3.42	0.45	0.031
95	TSC032d008BR2490	C	32	8	120	2490	4.86	0.64	0.044
96	TSC032d008BR1980	C	32	8	150	1980	6.11	0.81	0.056
97	TSC032d008BR1580	C	32	8	180	1580	7.66	1.02	0.07
98	TSC032d008BR1330	C	32	8	210	1330	9.1	1.21	0.083
99	TSC032d016BR14900	C	32	16	30	14900	0.81	0.13	0.007
100	TSC032d016BR7050	C	32	16	60	7050	1.72	0.29	0.016
101	TSC032d016BR4460	C	32	16	90	4460	2.71	0.45	0.025
102	TSC032d016BR3150	C	32	16	120	3150	3.84	0.64	0.035
103	TSC032d016BR2490	C	32	16	150	2490	4.86	0.81	0.044
104	TSC032d016BR1980	C	32	16	180	1980	6.11	1.01	0.056
105	TSC032d016BR1670	C	32	16	210	1670	7.25	1.2	0.066
106	TSC040d000BR7470	C	40	0	30	7470	1.62	0.13	0.015
107	TSC040d000BR3540	C	40	0	60	3540	3.42	0.27	0.031
108	TSC040d000BR2220	C	40	0	90	2220	5.45	0.43	0.05
109	TSC040d000BR1580	C	40	0	120	1580	7.66	0.61	0.07
110	TSC040d000BR1260	C	40	0	150	1260	9.6	0.76	0.087
111	TSC040d000BR1000	C	40	0	180	1000	12.1	0.96	0.11
112	TSC040d000BR838	C	40	0	210	838	14.44	1.15	0.131
113	TSC040d000BR7470	C	40	5	30	7470	1.62	0.13	0.015
114	TSC040d005BR3540	C	40	5	60	3540	3.42	0.28	0.031
115	TSC040d005BR2220	C	40	5	90	2220	5.45	0.44	0.05
116	TSC040d005BR1580	C	40	5	120	1580	7.66	0.62	0.07
117	TSC040d005BR1260	C	40	5	150	1260	9.6	0.78	0.087
118	TSC040d005BR1000	C	40	5	180	1000	12.1	0.98	0.11
119	TSC040d005BR888	C	40	5	210	888	13.63	1.1	0.124
120	TSC040d010BR7910	C	40	10	30	7910	1.53	0.13	0.014
121	TSC040d010BR3750	C	40	10	60	3750	3.23	0.27	0.029
122	TSC040d010BR2350	C	40	10	90	2350	5.15	0.44	0.047
123	TSC040d010BR1670	C	40	10	120	1670	7.25	0.62	0.066
124	TSC040d010BR1330	C	40	10	150	1330	9.1	0.77	0.083
125	TSC040d010BR1060	C	40	10	180	1060	11.42	0.97	0.104
126	TSC040d010BR888	C	40	10	210	888	13.63	1.16	0.124
127	TSC040d020BR10000	C	40	20	30	10000	1.21	0.13	0.011
128	TSC040d020BR4720	C	40	20	60	4720	2.56	0.27	0.023
129	TSC040d020BR2970	C	40						



## STANDARD | Round 110V

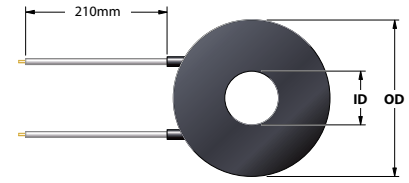


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSA(C)050d006BR594	A & C	50	6	210	594	20.37	1.05	0.185
148	TSC050d013BR5300	C	50	13	30	5300	2.28	0.12	0.021
149	TSC050d013BR2640	C	50	13	60	2640	4.58	0.25	0.042
150	TSC050d013BR1670	C	50	13	90	1670	7.25	0.4	0.066
151	TSC050d013BR1190	C	50	13	120	1190	10.17	0.56	0.092
152	TSA(C)050d013BR888	A & C	50	13	150	888	13.63	0.74	0.124
153	TSA(C)050d013BR747	A & C	50	13	180	747	16.2	0.88	0.147
154	TSA(C)050d013BR629	A & C	50	13	210	629	19.24	1.05	0.175
155	TSC050d025BR6660	C	50	25	30	6660	1.82	0.12	0.017
156	TSC050d025BR3150	C	50	25	60	3150	3.84	0.26	0.035
157	TSC050d025BR1980	C	50	25	90	1980	6.11	0.41	0.056
158	TSC050d025BR1490	C	50	25	120	1490	8.12	0.55	0.074
159	TSC050d025BR1120	C	50	25	150	1120	10.8	0.73	0.098
160	TSC050d025BR941	C	50	25	180	941	12.86	0.87	0.117
161	TSA(C)050d025BR791	A & C	50	25	210	791	15.3	1.04	0.139
162	TSC063d000BR3340	C	63	0	30	3340	3.62	0.12	0.033
163	TSA(C)063d000BR1670	A & C	63	0	60	1670	7.25	0.23	0.066
164	TSA(C)063d000BR1060	A & C	63	0	90	1060	11.42	0.37	0.104
165	TSA(C)063d000BR747	A & C	63	0	120	747	16.2	0.52	0.147
166	TSA(C)063d000BR561	A & C	63	0	150	561	21.57	0.69	0.196
167	TSA(C)063d000BR472	A & C	63	0	180	472	25.64	0.82	0.233
168	TSA(C)063d000BR397	A & C	63	0	210	397	30.48	0.98	0.277
169	TSC063d008BR3340	C	63	8	30	3340	3.62	0.12	0.033
170	TSA(C)063d008BR1670	A & C	63	8	60	1670	7.25	0.24	0.066
171	TSA(C)063d008BR1060	A & C	63	8	90	1060	11.42	0.37	0.104
172	TSA(C)063d008BR747	A & C	63	8	120	747	16.2	0.53	0.147
173	TSA(C)063d008BR561	A & C	63	8	150	561	21.57	0.7	0.196
174	TSA(C)063d008BR472	A & C	63	8	180	472	25.64	0.84	0.233
175	TSA(C)063d008BR397	A & C	63	8	210	397	30.48	0.99	0.277
176	TSC063d016BR3540	C	63	16	30	3540	3.42	0.12	0.031
177	TSC063d016BR1770	C	63	16	60	1770	6.84	0.23	0.062
178	TSA(C)063d016BR1120	A & C	63	16	90	1120	10.8	0.37	0.098
179	TSA(C)063d016BR791	A & C	63	16	120	791	15.3	0.52	0.139
180	TSA(C)063d016BR594	A & C	63	16	150	594	20.37	0.7	0.185
181	TSA(C)063d016BR500	A & C	63	16	180	500	24.2	0.83	0.22
182	TSA(C)063d016BR421	A & C	63	16	210	421	28.74	0.99	0.261
183	TSC063d032BR4460	C	63	32	30	4460	2.71	0.12	0.025
184	TSC063d032BR2220	C	63	32	60	2220	5.45	0.24	0.05
185	TSC063d032BR1410	C	63	32	90	1410	8.58	0.37	0.078
186	TSA(C)063d032BR1000	A & C	63	32	120	1000	12.1	0.52	0.11
187	TSA(C)063d032BR747	A & C	63	32	150	747	16.2	0.7	0.147
188	TSA(C)063d032BR629	A & C	63	32	180	629	19.24	0.83	0.175
189	TSA(C)063d032BR530	A & C	63	32	210	530	22.83	0.99	0.208
190	TSA(C)080d000BR2220	A & C	80	0	30	2220	5.45	0.11	0.05
191	TSA(C)080d000BR1120	A & C	80	0	60	1120	10.8	0.21	0.098
192	TSA(C)080d000BR705	A & C	80	0	90	705	17.16	0.34	0.156
193	TSA(C)080d000BR500	A & C	80	0	120	500	24.2	0.48	0.22
194	TSA(C)080d000BR375	A & C	80	0	150	375	32.27	0.64	0.293
195	TSA(C)080d000BR315	A & C	80	0	180	315	38.41	0.76	0.349
196	TSA(C)080d000BR264	A & C	80	0	210	264	45.83	0.91	0.417
197	TSA(C)080d005BR2220	A & C	80	5	30	2220	5.45	0.11	0.05
198	TSA(C)080d005BR1120	A & C	80	5	60	1120	10.8	0.22	0.098
199	TSA(C)080d005BR705	A & C	80	5	90	705	17.16	0.34	0.156
200	TSA(C)080d005BR500	A & C	80	5	120	500	24.2	0.48	0.22
201	TSA(C)080d005BR375	A & C	80	5	150	375	32.27	0.64	0.293
202	TSA(C)080d005BR315	A & C	80	5	180	315	38.41	0.77	0.349
203	TSA(C)080d005BR264	A & C	80	5	210	264	45.83	0.92	0.417
204	TSA(C)080d010BR2350	A & C	80	10	30	2350	5.15	0.1	0.047
205	TSA(C)080d010BR1120	A & C	80	10	60	1120	10.8	0.22	0.098
206	TSA(C)080d010BR705	A & C	80	10	90	705	17.16	0.35	0.156
207	TSA(C)080d010BR500	A & C	80	10	120	500	24.2	0.49	0.22
208	TSA(C)080d010BR397	A & C	80	10	150	397	30.48	0.62	0.277
209	TSA(C)080d010BR315	A & C	80	10	180	315	38.41	0.78	0.349
210	TSA(C)080d010BR264	A & C	80	10	210	264	45.83	0.93	0.417
211	TSA(C)080d020BR2490	A & C	80	20	30	2490	4.86	0.1	0.044
212	TSA(C)080d020BR1190	A & C	80	20	60	1190	10.17	0.22	0.092
213	TSA(C)080d020BR747	A & C	80	20	90	747	16.2	0.34	0.147
214	TSA(C)080d020BR530	A & C	80	20	120	530	22.83	0.48	0.208
215	TSA(C)080d020BR397	A & C	80	20	150	397	30.48	0.65	0.277
216	TSA(C)080d020BR334	A & C	80	20	180	334	36.23	0.77	0.329
217	TSA(C)080d020BR280	A & C	80	20	210	280	43.21	0.92	0.393
218	TSC080d040BR2970	C	80	40	30	2970	4.07	0.11	0.037
219	TSA(C)080d040BR1490	A & C	80	40	60	1490	8.12	0.22	0.074

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)080d040BR941	A & C	80	40	90	941	12.86	0.34	0.117
221	TSA(C)080d040BR666	A & C	80	40	120	666	18.17	0.48	0.165
222	TSA(C)080d040BR500	A & C	80	40	150	500	24.2	0.64	0.22
223	TSA(C)080d040BR421	A & C	80	40	180	421	28.74	0.76	0.261
224	TSA(C)080d040BR354	A & C	80	40	210	354	34.18	0.91	0.311
225	TSA(C)100d000BR1670	A & C	100	0	30	1670	7.25	0.09	0.066
226	TSA(C)100d000BR838	A & C	100	0	60	838	14.44	0.18	0.131
227	TSA(C)100d000BR500	A & C	100	0	90	500	24.2	0.31	0.22
228	TSA(C)100d000BR354	A & C	100	0	120	354	34.18	0.44	0.311
229	TSA(C)100d000BR264	A & C	100	0	150	264	45.83	0.58	0.417
230	TSA(C)100d000BR222	A & C	100	0	180	222	54.5	0.69	0.495
231	TSA(C)100d000BR187	A & C	100	0	210	187	64.71	0.82	0.588
232	TSA(C)100d006BR1670	A & C	100	6	30	1670	7.25	0.09	0.066
233	TSA(C)100d006BR838	A & C	100	6	60	838	14.44	0.18	0.131
234	TSA(C)100d006BR530	A & C	100	6	90	530	22.83	0.29	0.208
235	TSA(C)100d006BR354	A & C	100	6	120	354	34.18	0.44	0.311
236	TSA(C)100d006BR280	A & C	100	6	150	280	43.21	0.55	0.393
237	TSA(C)100d006BR222	A & C	100	6	180	222	54.5	0.7	0.495
238	TSA(C)100d006BR187	A & C	100	6	210	187	64.71	0.83	0.588
239	TSA(C)100d013BR1670	A & C	100	13	30	1670	7.25	0.09	0.066
240	TSA(C)100d013BR838	A & C	100	13	60	838	14.44	0.19	0.131
241	TSA(C)100d013BR530	A & C	100	13	90	530	22.83	0.3	0.208
242	TSA(C)100d013BR354	A & C	100	13	120	354	34.18	0.44	0.311
243	TSA(C)100d013BR280	A & C	100	13	150	280	43.21	0.56	0.393
244	TSA(C)100d013BR222	A & C	100	13	180	222	54.5	0.71	0.495
245	TSA(C)100d013BR187	A & C	100	13	210	187	64.71	0.84	0.588
246	TSA(C)100d025BR1770	A & C	100	25	30	1770	6.84	0.09	0.062
247	TSA(C)100d025BR888	A & C	100	25	60	888	13.63	0.19	0.124
248	TSA(C)100d025BR561	A & C	100	25	90	561	21.57	0.29	0.196
249	TSA(C)100d025BR375	A & C	100	25	120	375	32.27	0.44	0.293
250	TSA(C)100d025BR297	A & C	100	25	150	297	40.74	0.55	0.37
251	TSA(C)100d025BR235	A & C	100	25	180	235	51.49	0.7	0.468
252	TSA(C)100d025BR198	A & C	100	25	210	198	61.11	0.83	0.556
253	TSA(C)100d050BR2220	A & C	100	50	30	2220	5.45	0.09	0.05
254	TSA(C)100d050BR1120	A & C	100	50	60	1120	10.8	0.18	0.098
255	TSA(C)100d050BR705	A & C	100	50	90	705	17.16	0.29	0.156
256	TSA(C)100d050BR472	A & C	100	50	120	472	25.64	0.44	0.233
257	TSA(C)100d050BR354	A & C	100	50	150	354	34.18	0.58	0.311
258	TSA(C)100d050BR297	A & C	100	50	180	297	40.74	0.68	0.37
259	TSA(C)100d050BR249	A & C	100	50	210	249	48.59	0.82	0.442
260	TSA(C)125d000BR1120	A & C	125	0	30	1120	10.8	0.09	0.098
261	TSA(C)125d000BR561	A & C	125	0	60	561	21.57	0.18	0.196
262	TSA(C)125d000BR354	A & C	125	0	90	354	34.18	0.28	0.311
263	TSA(C)125d000BR249	A & C	125	0	120	249	48.59	0.4	0.442
264	TSA(C)125d000BR187	A & C	125	0	150	187	64.71	0.53	0.588
265	TSA(C)125d000BR158	A & C	125	0	180	158	76.58	0.62	0.696
266	TSA(C)125d000BR126	A & C	125	0	210	126	96.03	0.78	0.873
267	TSA(C)125d008BR1120	A & C	125	8	30	1120	10.8	0.09	0.098
268									



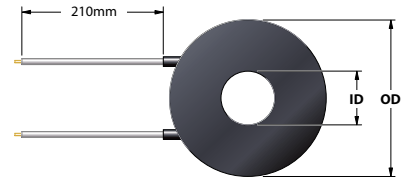
# STANDARD | Round 110V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)125d063BR210	A & C	125	63	180	210	57.62	0.63	0.524
294	TSA(C)125d063BR167	A & C	125	63	210	167	72.46	0.79	0.659
295	TSA(C)160d000BR791	A & C	160	0	30	791	15.3	0.08	0.139
296	TSA(C)160d000BR397	A & C	160	0	60	397	30.48	0.15	0.277
297	TSA(C)160d000BR249	A & C	160	0	90	249	48.59	0.24	0.442
298	TSA(C)160d000BR167	A & C	160	0	120	167	72.46	0.36	0.659
299	TSA(C)160d000BR126	A & C	160	0	150	126	96.03	0.48	0.873
300	TSA(C)160d000BR106	A & C	160	0	180	106	114.15	0.57	1.038
301	TSA(C)160d000BR88.8	A & C	160	0	210	88.8	136.26	0.68	1.239
302	TSA(C)160d005BR791	A & C	160	5	30	791	15.3	0.08	0.139
303	TSA(C)160d005BR397	A & C	160	5	60	397	30.48	0.15	0.277
304	TSA(C)160d005BR249	A & C	160	5	90	249	48.59	0.24	0.442
305	TSA(C)160d005BR167	A & C	160	5	120	167	72.46	0.36	0.659
306	TSA(C)160d005BR126	A & C	160	5	150	126	96.03	0.48	0.873
307	TSA(C)160d005BR106	A & C	160	5	180	106	114.15	0.57	1.038
308	TSA(C)160d005BR88.8	A & C	160	5	210	88.8	136.26	0.68	1.239
309	TSA(C)160d010BR791	A & C	160	10	30	791	15.3	0.08	0.139
310	TSA(C)160d010BR397	A & C	160	10	60	397	30.48	0.15	0.277
311	TSA(C)160d010BR249	A & C	160	10	90	249	48.59	0.24	0.442
312	TSA(C)160d010BR167	A & C	160	10	120	167	72.46	0.36	0.659
313	TSA(C)160d010BR126	A & C	160	10	150	126	96.03	0.48	0.873
314	TSA(C)160d010BR106	A & C	160	10	180	106	114.15	0.57	1.038
315	TSA(C)160d010BR88.8	A & C	160	10	210	88.8	136.26	0.68	1.239
316	TSA(C)160d020BR791	A & C	160	20	30	791	15.3	0.08	0.139
317	TSA(C)160d020BR397	A & C	160	20	60	397	30.48	0.15	0.277
318	TSA(C)160d020BR249	A & C	160	20	90	249	48.59	0.25	0.442
319	TSA(C)160d020BR167	A & C	160	20	120	167	72.46	0.37	0.659
320	TSA(C)160d020BR133	A & C	160	20	150	133	90.98	0.46	0.827
321	TSA(C)160d020BR106	A & C	160	20	180	106	114.15	0.58	1.038
322	TSA(C)160d020BR88.8	A & C	160	20	210	88.8	136.26	0.69	1.239
323	TSA(C)160d040BR838	A & C	160	40	30	838	14.44	0.08	0.131
324	TSA(C)160d040BR421	A & C	160	40	60	421	28.74	0.15	0.261
325	TSA(C)160d040BR264	A & C	160	40	90	264	45.83	0.24	0.417
326	TSA(C)160d040BR177	A & C	160	40	120	177	68.36	0.36	0.621
327	TSA(C)160d040BR133	A & C	160	40	150	133	90.98	0.48	0.827
328	TSA(C)160d040BR112	A & C	160	40	180	112	108.04	0.57	0.982
329	TSA(C)160d040BR94.1	A & C	160	40	210	94.1	128.59	0.68	1.169
330	TSA(C)160d080BR1060	A & C	160	80	30	1060	11.42	0.08	0.104
331	TSA(C)160d080BR530	A & C	160	80	60	530	22.83	0.15	0.208
332	TSA(C)160d080BR334	A & C	160	80	90	334	36.23	0.24	0.329
333	TSA(C)160d080BR222	A & C	160	80	120	222	54.5	0.36	0.495
334	TSA(C)160d080BR167	A & C	160	80	150	167	72.46	0.48	0.659
335	TSA(C)160d080BR141	A & C	160	80	180	141	85.82	0.57	0.78
336	TSA(C)160d080BR112	A & C	160	80	210	112	108.04	0.72	0.982
337	TSA(C)200d000BR530	A & C	200	0	30	530	22.83	0.07	0.208
338	TSA(C)200d000BR264	A & C	200	0	60	264	45.83	0.15	0.417
339	TSA(C)200d000BR167	A & C	200	0	90	167	72.46	0.23	0.659
340	TSA(C)200d000BR112	A & C	200	0	120	112	108.04	0.34	0.982
341	TSA(C)200d000BR88.8	A & C	200	0	150	88.8	136.26	0.43	1.239
342	TSA(C)200d000BR74.7	A & C	200	0	180	74.7	161.98	0.52	1.473
343	TSA(C)200d000BR59.4	A & C	200	0	210	59.4	203.7	0.65	1.852
344	TSA(C)200d006BR530	A & C	200	6	30	530	22.83	0.07	0.208
345	TSA(C)200d006BR264	A & C	200	6	60	264	45.83	0.15	0.417
346	TSA(C)200d006BR167	A & C	200	6	90	167	72.46	0.23	0.659
347	TSA(C)200d006BR112	A & C	200	6	120	112	108.04	0.34	0.982
348	TSA(C)200d006BR88.8	A & C	200	6	150	88.8	136.26	0.43	1.239
349	TSA(C)200d006BR74.7	A & C	200	6	180	74.7	161.98	0.52	1.473
350	TSA(C)200d006BR59.4	A & C	200	6	210	59.4	203.7	0.65	1.852
351	TSA(C)200d013BR530	A & C	200	13	30	530	22.83	0.07	0.208
352	TSA(C)200d013BR264	A & C	200	13	60	264	45.83	0.15	0.417
353	TSA(C)200d013BR167	A & C	200	13	90	167	72.46	0.23	0.659
354	TSA(C)200d013BR112	A & C	200	13	120	112	108.04	0.35	0.982
355	TSA(C)200d013BR88.8	A & C	200	13	150	88.8	136.26	0.44	1.239
356	TSA(C)200d013BR74.7	A & C	200	13	180	74.7	161.98	0.52	1.473
357	TSA(C)200d013BR59.4	A & C	200	13	210	59.4	203.7	0.65	1.852
358	TSA(C)200d025BR561	A & C	200	25	30	561	21.57	0.07	0.196
359	TSA(C)200d025BR280	A & C	200	25	60	280	43.21	0.14	0.393
360	TSA(C)200d025BR177	A & C	200	25	90	177	68.36	0.22	0.621
361	TSA(C)200d025BR119	A & C	200	25	120	119	101.68	0.33	0.924
362	TSA(C)200d025BR88.8	A & C	200	25	150	88.8	136.26	0.44	1.239
363	TSA(C)200d025BR74.7	A & C	200	25	180	74.7	161.98	0.52	1.473
364	TSA(C)200d025BR59.4	A & C	200	25	210	59.4	203.7	0.66	1.852
365	TSA(C)200d050BR594	A & C	200	50	30	594	20.37	0.07	0.185

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)200d050BR297	A & C	200	50	60	297	40.74	0.14	0.37
367	TSA(C)200d050BR177	A & C	200	50	90	177	68.36	0.23	0.621
368	TSA(C)200d050BR126	A & C	200	50	120	126	96.03	0.33	0.873
369	TSA(C)200d050BR94.1	A & C	200	50	150	94.1	128.59	0.44	1.169
370	TSA(C)200d050BR79.1	A & C	200	50	180	79.1	152.97	0.52	1.391
371	TSA(C)200d050BR62.9	A & C	200	50	210	62.9	192.37	0.65	1.749
372	TSA(C)200d100BR705	A & C	200	100	30	705	17.16	0.07	0.156
373	TSA(C)200d100BR354	A & C	200	100	60	354	34.18	0.15	0.311
374	TSA(C)200d100BR222	A & C	200	100	90	222	54.5	0.23	0.495
375	TSA(C)200d100BR149	A & C	200	100	120	149	81.21	0.34	0.738
376	TSA(C)200d100BR119	A & C	200	100	150	119	101.68	0.43	0.924
377	TSA(C)200d100BR94.1	A & C	200	100	180	94.1	128.59	0.55	1.169
378	TSA(C)200d100BR79.1	A & C	200	100	210	79.1	152.97	0.65	1.391
379	TSA(C)250d000BR375	A & C	250	0	30	375	32.27	0.07	0.293
380	TSA(C)250d000BR187	A & C	250	0	60	187	64.71	0.13	0.588
381	TSA(C)250d000BR119	A & C	250	0	90	119	101.68	0.21	0.924
382	TSA(C)250d000BR79.1	A & C	250	0	120	79.1	152.97	0.31	1.391
383	TSA(C)250d000BR62.9	A & C	250	0	150	62.9	192.37	0.39	1.749
384	TSA(C)250d000BR50	A & C	250	0	180	50	242	0.49	2.2
385	TSA(C)250d000BR42.1	A & C	250	0	210	42.1	287.41	0.59	2.613
386	TSA(C)250d008BR375	A & C	250	8	30	375	32.27	0.07	0.293
387	TSA(C)250d008BR187	A & C	250	8	60	187	64.71	0.13	0.588
388	TSA(C)250d008BR119	A & C	250	8	90	119	101.68	0.21	0.924
389	TSA(C)250d008BR79.1	A & C	250	8	120	79.1	152.97	0.31	1.391
390	TSA(C)250d008BR62.9	A & C	250	8	150	62.9	192.37	0.39	1.749
391	TSA(C)250d008BR50	A & C	250	8	180	50	242	0.49	2.2
392	TSA(C)250d008BR42.1	A & C	250	8	210	42.1	287.41	0.59	2.613
393	TSA(C)250d016BR375	A & C	250	16	30	375	32.27	0.07	0.293
394	TSA(C)250d016BR187	A & C	250	16	60	187	64.71	0.13	0.588
395	TSA(C)250d016BR119	A & C	250	16	90	119	101.68	0.21	0.924
396	TSA(C)250d016BR79.1	A & C	250	16	120	79.1	152.97	0.31	1.391
397	TSA(C)250d016BR62.9	A & C	250	16	150	62.9	192.37	0.39	1.749
398	TSA(C)250d016BR50	A & C	250	16	180	50	242	0.5	2.2
399	TSA(C)250d016BR42.1	A & C	250	16	210	42.1	287.41	0.59	2.613
400	TSA(C)250d032BR375	A & C	250	32	30	375	32.27	0.07	0.293
401	TSA(C)250d032BR187	A & C	250	32	60	187	64.71	0.13	0.588
402	TSA(C)250d032BR119	A & C	250	32	90	119	101.68	0.21	0.924
403	TSA(C)250d032BR83.8	A & C	250	32	120	83.8	144.39	0.3	1.313
404	TSA(C)250d032BR62.9	A & C	250	32	150	62.9	192.37	0.4	1.749
405	TSA(C)250d032BR50	A & C	250	32	180	50	242	0.5	2.2
406	TSA(C)250d032BR42.1	A & C	250	32	210	42.1	287.41	0.6	2.613
407	TSA(C)250d063BR397	A & C	250	63	30	397	30.48	0.07	0.277
408	TSA(C)250d063BR198	A & C	250	63	60	198	61.11	0.13	0.556
409	TSA(C)250d063BR126	A & C	250	63	90	126	96.03	0.21	0.873
410	TSA(C)250d063BR83.8	A & C	250	63	120	83.8	144.39	0.31	1.313
411	TSA(C)250d063BR66.6	A & C	250	63	150				

# STANDARD | Round 110V

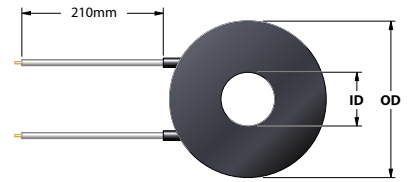


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)300d010BR44.6	A & C	300	10	150	44.6	271.3	0.38	2.466
440	TSA(C)300d010BR37.5	A & C	300	10	180	37.5	322.67	0.46	2.933
441	TSA(C)300d010BR29.7	A & C	300	10	210	29.7	407.41	0.58	3.704
442	TSA(C)300d020BR280	A & C	300	20	30	280	43.21	0.06	0.393
443	TSA(C)300d020BR141	A & C	300	20	60	141	85.82	0.12	0.78
444	TSA(C)300d020BR83.8	A & C	300	20	90	83.8	144.39	0.21	1.313
445	TSA(C)300d020BR59.4	A & C	300	20	120	59.4	203.7	0.29	1.852
446	TSA(C)300d020BR44.6	A & C	300	20	150	44.6	271.3	0.39	2.466
447	TSA(C)300d020BR37.5	A & C	300	20	180	37.5	322.67	0.46	2.933
448	TSA(C)300d020BR29.7	A & C	300	20	210	29.7	407.41	0.58	3.704
449	TSA(C)300d040BR280	A & C	300	40	30	280	43.21	0.06	0.393
450	TSA(C)300d040BR141	A & C	300	40	60	141	85.82	0.12	0.78
451	TSA(C)300d040BR88.8	A & C	300	40	90	88.8	136.26	0.2	1.239
452	TSA(C)300d040BR59.4	A & C	300	40	120	59.4	203.7	0.29	1.852
453	TSA(C)300d040BR47.2	A & C	300	40	150	47.2	256.36	0.37	2.331
454	TSA(C)300d040BR37.5	A & C	300	40	180	37.5	322.67	0.46	2.933

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
455	TSA(C)300d040BR31.5	A & C	300	40	210	31.5	384.13	0.55	3.492
456	TSA(C)300d080BR297	A & C	300	80	30	297	40.74	0.06	0.37
457	TSA(C)300d080BR149	A & C	300	80	60	149	81.21	0.12	0.738
458	TSA(C)300d080BR94.1	A & C	300	80	90	94.1	128.59	0.2	1.169
459	TSA(C)300d080BR62.9	A & C	300	80	120	62.9	192.37	0.29	1.749
460	TSA(C)300d080BR47.2	A & C	300	80	150	47.2	256.36	0.39	2.331
461	TSA(C)300d080BR39.7	A & C	300	80	180	39.7	304.79	0.46	2.771
462	TSA(C)300d080BR33.4	A & C	300	80	210	33.4	362.28	0.55	3.293
463	TSA(C)300d160BR375	A & C	300	160	30	375	32.27	0.06	0.293
464	TSA(C)300d160BR187	A & C	300	160	60	187	64.71	0.13	0.588
465	TSA(C)300d160BR119	A & C	300	160	90	119	101.68	0.2	0.924
466	TSA(C)300d160BR79.1	A & C	300	160	120	79.1	152.97	0.3	1.391
467	TSA(C)300d160BR62.9	A & C	300	160	150	62.9	192.37	0.38	1.749
468	TSA(C)300d160BR50	A & C	300	160	180	50	242	0.48	2.2
469	TSA(C)300d160BR42.1	A & C	300	160	210	42.1	287.41	0.57	2.613

### OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0.5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



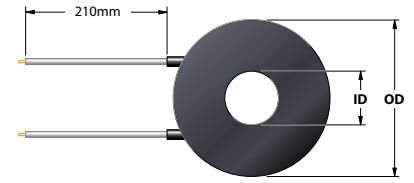
# STANDARD | Round 120V

■ Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000CR70500	C	10	0	30	70500	0.2	0.25	0.002
2	TSC010d000CR33400	C	10	0	60	33400	0.43	0.55	0.004
3	TSC010d000CR21000	C	10	0	90	21000	0.69	0.88	0.006
4	TSC010d000CR15800	C	10	0	120	15800	0.91	1.16	0.008
5	TSC010d000CR11900	C	10	0	150	11900	1.21	1.54	0.01
6	TSC010d000CR9410	C	10	0	180	9410	1.53	1.95	0.013
7	TSC010d000CR7470	C	10	0	210	7470	1.93	2.46	0.016
8	TSC010d005CR44600	C	10	5	60	44600	0.32	0.54	0.003
9	TSC010d005CR28000	C	10	5	90	28000	0.51	0.87	0.004
10	TSC010d005CR21000	C	10	5	120	21000	0.69	1.17	0.006
11	TSC010d005CR15800	C	10	5	150	15800	0.91	1.54	0.008
12	TSC010d005CR12600	C	10	5	180	12600	1.14	1.94	0.01
13	TSC010d005CR10000	C	10	5	210	10000	1.44	2.44	0.012
14	TSC013d000CR47200	C	13	0	30	47200	0.31	0.23	0.003
15	TSC013d000CR23500	C	13	0	60	23500	0.61	0.46	0.005
16	TSC013d000CR14100	C	13	0	90	14100	1.02	0.77	0.009
17	TSC013d000CR10600	C	13	0	120	10600	1.36	1.02	0.011
18	TSC013d000CR7910	C	13	0	150	7910	1.82	1.37	0.015
19	TSC013d000CR6290	C	13	0	180	6290	2.29	1.73	0.019
20	TSC013d000CR5300	C	13	0	210	5300	2.72	2.05	0.023
21	TSC013d006CR59400	C	13	6	30	59400	0.24	0.23	0.002
22	TSC013d006CR29700	C	13	6	60	29700	0.48	0.46	0.004
23	TSC013d006CR18700	C	13	6	90	18700	0.77	0.74	0.006
24	TSC013d006CR13300	C	13	6	120	13300	1.08	1.03	0.009
25	TSC013d006CR10000	C	13	6	150	10000	1.44	1.38	0.012
26	TSC013d006CR7910	C	13	6	180	7910	1.82	1.74	0.015
27	TSC013d006CR6660	C	13	6	210	6660	2.16	2.07	0.018
28	TSC016d000CR37500	C	16	0	30	37500	0.38	0.19	0.003
29	TSC016d000CR17700	C	16	0	60	17700	0.81	0.4	0.007
30	TSC016d000CR11200	C	16	0	90	11200	1.29	0.64	0.011
31	TSC016d000CR7910	C	16	0	120	7910	1.82	0.91	0.015
32	TSC016d000CR5940	C	16	0	150	5940	2.42	1.2	0.02
33	TSC016d000CR5000	C	16	0	180	5000	2.88	1.43	0.024
34	TSC016d000CR3970	C	16	0	210	3970	3.63	1.81	0.03
35	TSC016d008CR50000	C	16	8	30	50000	0.29	0.19	0.002
36	TSC016d008CR23500	C	16	8	60	23500	0.61	0.4	0.005
37	TSC016d008CR14900	C	16	8	90	14900	0.97	0.64	0.008
38	TSC016d008CR10600	C	16	8	120	10600	1.36	0.9	0.011
39	TSC016d008CR7910	C	16	8	150	7910	1.82	1.21	0.015
40	TSC016d008CR6660	C	16	8	180	6660	2.16	1.43	0.018
41	TSC016d008CR5300	C	16	8	210	5300	2.72	1.8	0.023
42	TSC020d000CR29700	C	20	0	30	29700	0.48	0.15	0.004
43	TSC020d000CR14900	C	20	0	60	14900	0.97	0.31	0.008
44	TSC020d000CR9410	C	20	0	90	9410	1.53	0.49	0.013

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
45	TSC020d000CR6660	C	20	0	120	6660	2.16	0.69	0.018
46	TSC020d000CR5000	C	20	0	150	5000	2.88	0.92	0.024
47	TSC020d000CR3970	C	20	0	180	3970	3.63	1.16	0.03
48	TSC020d000CR3340	C	20	0	210	3340	4.31	1.37	0.036
49	TSC020d005CR33400	C	20	5	30	33400	0.43	0.15	0.004
50	TSC020d005CR15800	C	20	5	60	15800	0.91	0.31	0.008
51	TSC020d005CR10000	C	20	5	90	10000	1.44	0.49	0.012
52	TSC020d005CR7050	C	20	5	120	7050	2.04	0.69	0.017
53	TSC020d005CR5300	C	20	5	150	5300	2.72	0.92	0.023
54	TSC020d005CR4460	C	20	5	180	4460	3.23	1.1	0.027
55	TSC020d005CR3750	C	20	5	210	3750	3.84	1.3	0.032
56	TSC020d010CR42100	C	20	10	30	42100	0.34	0.14	0.003
57	TSC020d010CR19800	C	20	10	60	19800	0.73	0.31	0.006
58	TSC020d010CR11900	C	20	10	90	11900	1.21	0.51	0.01
59	TSC020d010CR8880	C	20	10	120	8880	1.62	0.69	0.014
60	TSC020d010CR6660	C	20	10	150	6660	2.16	0.92	0.018
61	TSC020d010CR5300	C	20	10	180	5300	2.72	1.15	0.023
62	TSC020d010CR4460	C	20	10	210	4460	3.23	1.37	0.027
63	TSC025d000CR21000	C	25	0	30	21000	0.69	0.14	0.006
64	TSC025d000CR10000	C	25	0	60	10000	1.44	0.29	0.012
65	TSC025d000CR5940	C	25	0	90	5940	2.42	0.49	0.02
66	TSC025d000CR4210	C	25	0	120	4210	3.42	0.7	0.029
67	TSC025d000CR3340	C	25	0	150	3340	4.31	0.88	0.036
68	TSC025d000CR2800	C	25	0	180	2800	5.14	1.05	0.043
69	TSC025d000CR2350	C	25	0	210	2350	6.13	1.25	0.051
70	TSC025d006CR22200	C	25	6	30	22200	0.65	0.14	0.005
71	TSC025d006CR10600	C	25	6	60	10600	1.36	0.29	0.011
72	TSC025d006CR6290	C	25	6	90	6290	2.29	0.5	0.019
73	TSC025d006CR4720	C	25	6	120	4720	3.05	0.66	0.025
74	TSC025d006CR3540	C	25	6	150	3540	4.07	0.88	0.034
75	TSC025d006CR2970	C	25	6	180	2970	4.85	1.05	0.04
76	TSC025d006CR2490	C	25	6	210	2490	5.78	1.25	0.048
77	TSC025d013CR28000	C	25	13	30	28000	0.51	0.14	0.004
78	TSC025d013CR13300	C	25	13	60	13300	1.08	0.3	0.009
79	TSC025d013CR8380	C	25	13	90	8380	1.72	0.48	0.014
80	TSC025d013CR5940	C	25	13	120	5940	2.42	0.68	0.02
81	TSC025d013CR4720	C	25	13	150	4720	3.05	0.85	0.025
82	TSC025d013CR3750	C	25	13	180	3750	3.84	1.07	0.032
83	TSC025d013CR3150	C	25	13	210	3150	4.57	1.28	0.038
84	TSC032d000CR13300	C	32	0	30	13300	1.08	0.13	0.009
85	TSC032d00								

# STANDARD | Round 120V

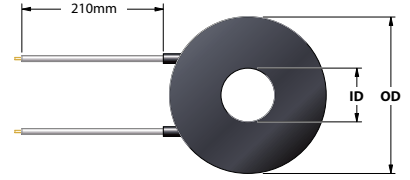


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
89	TSC032d000CR1770	C	32	0	180	1770	8.14	1.01	0.068
90	TSC032d000CR1490	C	32	0	210	1490	9.66	1.2	0.081
91	TSC032d008CR14100	C	32	8	30	14100	1.02	0.14	0.009
92	TSC032d008CR6660	C	32	8	60	6660	2.16	0.29	0.018
93	TSC032d008CR4210	C	32	8	90	4210	3.42	0.45	0.029
94	TSC032d008CR2970	C	32	8	120	2970	4.85	0.64	0.04
95	TSC032d008CR2350	C	32	8	150	2350	6.13	0.81	0.051
96	TSC032d008CR1870	C	32	8	180	1870	7.7	1.02	0.064
97	TSC032d008CR1580	C	32	8	210	1580	9.11	1.21	0.076
98	TSC032d016CR17700	C	32	16	30	17700	0.81	0.13	0.007
99	TSC032d016CR8380	C	32	16	60	8380	1.72	0.29	0.014
100	TSC032d016CR5300	C	32	16	90	5300	2.72	0.45	0.023
101	TSC032d016CR3750	C	32	16	120	3750	3.84	0.64	0.032
102	TSC032d016CR2970	C	32	16	150	2970	4.85	0.8	0.04
103	TSC032d016CR2350	C	32	16	180	2350	6.13	1.02	0.051
104	TSC032d016CR1980	C	32	16	210	1980	7.27	1.21	0.061
105	TSC040d000CR8880	C	40	0	30	8880	1.62	0.13	0.014
106	TSC040d000CR4210	C	40	0	60	4210	3.42	0.27	0.029
107	TSC040d000CR2640	C	40	0	90	2640	5.45	0.43	0.045
108	TSC040d000CR1870	C	40	0	120	1870	7.7	0.61	0.064
109	TSC040d000CR1490	C	40	0	150	1490	9.66	0.77	0.081
110	TSC040d000CR1190	C	40	0	180	1190	12.1	0.96	0.101
111	TSC040d000CR1000	C	40	0	210	1000	14.4	1.15	0.12
112	TSC040d005CR8880	C	40	5	30	8880	1.62	0.13	0.014
113	TSC040d005CR4210	C	40	5	60	4210	3.42	0.28	0.029
114	TSC040d005CR2640	C	40	5	90	2640	5.45	0.44	0.045
115	TSC040d005CR1870	C	40	5	120	1870	7.7	0.62	0.064
116	TSC040d005CR1490	C	40	5	150	1490	9.66	0.78	0.081
117	TSC040d005CR1260	C	40	5	180	1260	11.43	0.92	0.095
118	TSC040d005CR1000	C	40	5	210	1000	14.4	1.16	0.12
119	TSC040d010CR9410	C	40	10	30	9410	1.53	0.13	0.013
120	TSC040d010CR4460	C	40	10	60	4460	3.23	0.27	0.027
121	TSC040d010CR2800	C	40	10	90	2800	5.14	0.44	0.043
122	TSC040d010CR1980	C	40	10	120	1980	7.27	0.62	0.061
123	TSC040d010CR1580	C	40	10	150	1580	9.11	0.77	0.076
124	TSC040d010CR1260	C	40	10	180	1260	11.43	0.97	0.095
125	TSC040d010CR1060	C	40	10	210	1060	13.58	1.15	0.113
126	TSC040d020CR11900	C	40	20	30	11900	1.21	0.13	0.01
127	TSC040d020CR5610	C	40	20	60	5610	2.57	0.27	0.021
128	TSC040d020CR3540	C	40	20	90	3540	4.07	0.43	0.031
129	TSC040d020CR2490	C	40	20	120	2490	5.78	0.61	0.048
130	TSC040d020CR1980	C	40	20	150	1980	7.27	0.77	0.061
131	TSC040d020CR1580	C	40	20	180	1580	9.11	0.97	0.076
132	TSC040d020CR1330	C	40	20	210	1330	10.83	1.15	0.09
133	TSC050d000CR5940	C	50	0	30	5940	2.42	0.12	0.02
134	TSC050d000CR2800	C	50	0	60	2800	5.14	0.26	0.043
135	TSC050d000CR1870	C	50	0	90	1870	7.7	0.39	0.064
136	TSC050d000CR1330	C	50	0	120	1330	10.83	0.55	0.09
137	TSA(C)050d000CR1000	A & C	50	0	150	1000	14.4	0.73	0.12
138	TSA(C)050d000CR838	A & C	50	0	180	838	17.18	0.87	0.143
139	TSA(C)050d000CR705	A & C	50	0	210	705	20.43	1.04	0.17
140	TSC050d006CR5940	C	50	6	30	5940	2.42	0.13	0.02
141	TSC050d006CR2970	C	50	6	60	2970	4.85	0.25	0.04
142	TSC050d006CR1870	C	50	6	90	1870	7.7	0.4	0.064
143	TSC050d006CR1330	C	50	6	120	1330	10.83	0.56	0.09
144	TSA(C)050d006CR1000	A & C	50	6	150	1000	14.4	0.74	0.12
145	TSA(C)050d006CR838	A & C	50	6	180	838	17.18	0.89	0.143
146	TSA(C)050d006CR705	A & C	50	6	210	705	20.43	1.06	0.17
147	TSC050d013CR6290	C	50	13	30	6290	2.29	0.13	0.019
148	TSC050d013CR2970	C	50	13	60	2970	4.85	0.26	0.04
149	TSC050d013CR1980	C	50	13	90	1980	7.27	0.4	0.061
150	TSC050d013CR1410	C	50	13	120	1410	10.21	0.56	0.085
151	TSC050d013CR1060	C	50	13	150	1060	13.58	0.74	0.113
152	TSA(C)050d013CR888	A & C	50	13	180	888	16.22	0.89	0.135
153	TSA(C)050d013CR747	A & C	50	13	210	747	19.28	1.05	0.161
154	TSC050d025CR7910	C	50	25	30	7910	1.82	0.12	0.015
155	TSC050d025CR3750	C	50	25	60	3750	3.84	0.26	0.032
156	TSC050d025CR2490	C	50	25	90	2490	5.78	0.39	0.048
157	TSC050d025CR1770	C	50	25	120	1770	8.14	0.55	0.068
158	TSC050d025CR1330	C	50	25	150	1330	10.83	0.74	0.09
159	TSC050d025CR1120	C	50	25	180	1120	12.86	0.87	0.107
160	TSC050d025CR941	C	50	25	210	941	15.3	1.04	0.128
161	TSC063d000CR3970	C	63	0	30	3970	3.63	0.12	0.03

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
162	TSC063d000CR1980	C	63	0	60	1980	7.27	0.23	0.061
163	TSA(C)063d000CR1260	A & C	63	0	90	1260	11.43	0.37	0.095
164	TSA(C)063d000CR888	A & C	63	0	120	888	16.22	0.52	0.135
165	TSA(C)063d000CR666	A & C	63	0	150	666	21.62	0.69	0.18
166	TSA(C)063d000CR561	A & C	63	0	180	561	25.67	0.82	0.214
167	TSA(C)063d000CR472	A & C	63	0	210	472	30.51	0.98	0.254
168	TSC063d008CR3970	C	63	8	30	3970	3.63	0.12	0.03
169	TSC063d008CR1980	C	63	8	60	1980	7.27	0.24	0.061
170	TSA(C)063d008CR1260	A & C	63	8	90	1260	11.43	0.37	0.095
171	TSA(C)063d008CR888	A & C	63	8	120	888	16.22	0.53	0.135
172	TSA(C)063d008CR666	A & C	63	8	150	666	21.62	0.7	0.18
173	TSA(C)063d008CR561	A & C	63	8	180	561	25.67	0.84	0.214
174	TSA(C)063d008CR472	A & C	63	8	210	472	30.51	0.99	0.254
175	TSC063d016CR4210	C	63	16	30	4210	3.42	0.12	0.029
176	TSC063d016CR2100	C	63	16	60	2100	6.86	0.24	0.057
177	TSA(C)063d016CR1330	A & C	63	16	90	1330	10.83	0.37	0.09
178	TSA(C)063d016CR941	A & C	63	16	120	941	15.3	0.52	0.128
179	TSA(C)063d016CR705	A & C	63	16	150	705	20.43	0.7	0.17
180	TSA(C)063d016CR594	A & C	63	16	180	594	24.24	0.83	0.202
181	TSA(C)063d016CR500	A & C	63	16	210	500	28.8	0.99	0.24
182	TSC063d032CR5300	C	63	32	30	5300	2.72	0.12	0.023
183	TSC063d032CR2640	C	63	32	60	2640	5.45	0.24	0.045
184	TSC063d032CR1670	C	63	32	90	1670	8.62	0.37	0.072
185	TSA(C)063d032CR1190	A & C	63	32	120	1190	12.1	0.52	0.101
186	TSA(C)063d032CR888	A & C	63	32	150	888	16.22	0.7	0.135
187	TSA(C)063d032CR747	A & C	63	32	180	747	19.28	0.83	0.161
188	TSA(C)063d032CR629	A & C	63	32	210	629	22.89	0.99	0.191
189	TSA(C)080d000CR2640	A & C	80	0	30	2640	5.45	0.11	0.045
190	TSA(C)080d000CR1330	A & C	80	0	60	1330	10.83	0.22	0.09
191	TSA(C)080d000CR838	A & C	80	0	90	838	17.18	0.34	0.143
192	TSA(C)080d000CR594	A & C	80	0	120	594	24.24	0.48	0.202
193	TSA(C)080d000CR446	A & C	80	0	150	446	32.29	0.64	0.269
194	TSA(C)080d000CR375	A & C	80	0	180	375	38.4	0.76	0.32
195	TSA(C)080d000CR315	A & C	80	0	210	315	45.71	0.91	0.381
196	TSA(C)080d005CR2640	A & C	80	5	30	2640	5.45	0.11	0.045
197	TSA(C)080d005CR1330	A & C	80	5	60	1330	10.83	0.22	0.09
198	TSA(C)080d005CR838	A & C	80	5	90	838	17.18	0.34	0.143
199	TSA(C)080d005CR594	A & C	80	5	120	594	24.24	0.48	0.202
200	TSA(C)080d005CR446	A & C	80	5	150	446	32.29	0.64	0.269
201	TSA(C)080d005CR375	A & C	80	5	180	375	38.4	0.77	0.32
202	TSA(C)080d005CR315	A & C	80	5	210	315	45.71	0.91	0.381
203	TSA(C)080d010CR2800	A & C	80	10	30	2800	5.14	0.1	0.043
204	TSA(C)080d010CR1330	A & C	80	10	60	1330	10.83	0.22	0.09
205	TSA(C)080d010CR838	A & C	80	10	90	838	17.18	0.35	0.143
206	TSA(C)080d010CR594	A & C	80	10	120	594	24.24	0.49	0.202
207	TSA(C)080d010CR472	A & C	80	10	150	472	30.51	0.62	0.254
208	TSA(C)080d010CR375	A & C	80	10	180	375	38.4	0.78	0.32
209	TSA(C)080d010CR315	A & C	80	10	210	315	45.71	0.92	0.381
210	TSC080d020CR2800	C	80	20	30	2800	5.14	0.11	0.043
211	TSA(C)080d020CR1410	A & C	80	20	60	1410	10.21	0.22	0.085
212	TSA(C)080d020CR888	A & C	80	20	90	888	16.22	0.34	0.135
213	TSA(C)080d020CR629	A & C	80	20	120	629	22.89	0.49	



# STANDARD | Round 120V

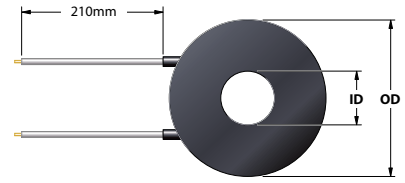


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
235	TSA(C)100d006CR315	A & C	100	6	150	315	45.71	0.58	0.381
236	TSA(C)100d006CR264	A & C	100	6	180	264	54.55	0.7	0.455
237	TSA(C)100d006CR222	A & C	100	6	210	222	64.86	0.83	0.541
238	TSA(C)100d013CR1980	A & C	100	13	30	1980	7.27	0.09	0.061
239	TSA(C)100d013CR1000	A & C	100	13	60	1000	14.4	0.19	0.12
240	TSA(C)100d013CR629	A & C	100	13	90	629	22.89	0.3	0.191
241	TSA(C)100d013CR421	A & C	100	13	120	421	34.2	0.44	0.285
242	TSA(C)100d013CR334	A & C	100	13	150	334	43.11	0.56	0.359
243	TSA(C)100d013CR264	A & C	100	13	180	264	54.55	0.71	0.455
244	TSA(C)100d013CR222	A & C	100	13	210	222	64.86	0.84	0.541
245	TSA(C)100d025CR2100	A & C	100	25	30	2100	6.86	0.09	0.057
246	TSA(C)100d025CR1060	A & C	100	25	60	1060	13.58	0.18	0.113
247	TSA(C)100d025CR666	A & C	100	25	90	666	21.62	0.29	0.18
248	TSA(C)100d025CR446	A & C	100	25	120	446	32.29	0.44	0.269
249	TSA(C)100d025CR354	A & C	100	25	150	354	40.68	0.55	0.339
250	TSA(C)100d025CR280	A & C	100	25	180	280	51.43	0.7	0.429
251	TSA(C)100d025CR235	A & C	100	25	210	235	61.28	0.83	0.511
252	TSA(C)100d050CR2640	A & C	100	50	30	2640	5.45	0.09	0.045
253	TSA(C)100d050CR1330	A & C	100	50	60	1330	10.83	0.18	0.09
254	TSA(C)100d050CR838	A & C	100	50	90	838	17.18	0.29	0.143
255	TSA(C)100d050CR561	A & C	100	50	120	561	25.67	0.44	0.214
256	TSA(C)100d050CR421	A & C	100	50	150	421	34.2	0.58	0.285
257	TSA(C)100d050CR354	A & C	100	50	180	354	40.68	0.69	0.339
258	TSA(C)100d050CR297	A & C	100	50	210	297	48.48	0.82	0.404
259	TSA(C)125d000CR1330	A & C	125	0	30	1330	10.83	0.09	0.09
260	TSA(C)125d000CR666	A & C	125	0	60	666	21.62	0.18	0.18
261	TSA(C)125d000CR421	A & C	125	0	90	421	34.2	0.28	0.285
262	TSA(C)125d000CR297	A & C	125	0	120	297	48.48	0.4	0.404
263	TSA(C)125d000CR222	A & C	125	0	150	222	64.86	0.53	0.541
264	TSA(C)125d000CR187	A & C	125	0	180	187	77.01	0.63	0.642
265	TSA(C)125d000CR149	A & C	125	0	210	149	96.64	0.79	0.805
266	TSA(C)125d008CR1330	A & C	125	8	30	1330	10.83	0.09	0.09
267	TSA(C)125d008CR666	A & C	125	8	60	666	21.62	0.18	0.18
268	TSA(C)125d008CR421	A & C	125	8	90	421	34.2	0.28	0.285
269	TSA(C)125d008CR297	A & C	125	8	120	297	48.48	0.4	0.404
270	TSA(C)125d008CR222	A & C	125	8	150	222	64.86	0.53	0.541
271	TSA(C)125d008CR187	A & C	125	8	180	187	77.01	0.63	0.642
272	TSA(C)125d008CR149	A & C	125	8	210	149	96.64	0.79	0.805
273	TSA(C)125d016CR1410	A & C	125	16	30	1410	10.21	0.08	0.085
274	TSA(C)125d016CR705	A & C	125	16	60	705	20.43	0.17	0.17
275	TSA(C)125d016CR421	A & C	125	16	90	421	34.2	0.28	0.285
276	TSA(C)125d016CR297	A & C	125	16	120	297	48.48	0.4	0.404
277	TSA(C)125d016CR235	A & C	125	16	150	235	61.28	0.51	0.511
278	TSA(C)125d016CR187	A & C	125	16	180	187	77.01	0.64	0.642
279	TSA(C)125d016CR158	A & C	125	16	210	158	91.14	0.76	0.76
280	TSA(C)125d032CR1490	A & C	125	32	30	1490	9.66	0.08	0.081
281	TSA(C)125d032CR747	A & C	125	32	60	747	19.28	0.17	0.161
282	TSA(C)125d032CR446	A & C	125	32	90	446	32.29	0.28	0.269
283	TSA(C)125d032CR315	A & C	125	32	120	315	45.71	0.4	0.381
284	TSA(C)125d032CR235	A & C	125	32	150	235	61.28	0.53	0.511
285	TSA(C)125d032CR198	A & C	125	32	180	198	72.73	0.63	0.606
286	TSA(C)125d032CR158	A & C	125	32	210	158	91.14	0.79	0.76
287	TSA(C)125d063CR1870	A & C	125	63	30	1870	7.7	0.08	0.064
288	TSA(C)125d063CR888	A & C	125	63	60	888	16.22	0.18	0.135
289	TSA(C)125d063CR561	A & C	125	63	90	561	25.67	0.28	0.214
290	TSA(C)125d063CR397	A & C	125	63	120	397	36.27	0.4	0.302
291	TSA(C)125d063CR297	A & C	125	63	150	297	48.48	0.53	0.404
292	TSA(C)125d063CR249	A & C	125	63	180	249	57.83	0.63	0.482
293	TSA(C)125d063CR198	A & C	125	63	210	198	72.73	0.79	0.606
294	TSA(C)160d000CR941	A & C	160	0	30	941	15.3	0.08	0.128
295	TSA(C)160d000CR472	A & C	160	0	60	472	30.51	0.15	0.254
296	TSA(C)160d000CR297	A & C	160	0	90	297	48.48	0.24	0.404
297	TSA(C)160d000CR198	A & C	160	0	120	198	72.73	0.36	0.606
298	TSA(C)160d000CR149	A & C	160	0	150	149	96.64	0.48	0.805
299	TSA(C)160d000CR126	A & C	160	0	180	126	114.29	0.57	0.952
300	TSA(C)160d000CR100	A & C	160	0	210	100	144	0.72	1.2
301	TSA(C)160d005CR941	A & C	160	5	30	941	15.3	0.08	0.128
302	TSA(C)160d005CR472	A & C	160	5	60	472	30.51	0.15	0.254
303	TSA(C)160d005CR297	A & C	160	5	90	297	48.48	0.24	0.404
304	TSA(C)160d005CR198	A & C	160	5	120	198	72.73	0.36	0.606
305	TSA(C)160d005CR149	A & C	160	5	150	149	96.64	0.48	0.805
306	TSA(C)160d005CR126	A & C	160	5	180	126	114.29	0.57	0.952
307	TSA(C)160d005CR100	A & C	160	5	210	100	144	0.72	1.2

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
308	TSA(C)160d010CR941	A & C	160	10	30	941	15.3	0.08	0.128
309	TSA(C)160d010CR472	A & C	160	10	60	472	30.51	0.15	0.254
310	TSA(C)160d010CR297	A & C	160	10	90	297	48.48	0.24	0.404
311	TSA(C)160d010CR198	A & C	160	10	120	198	72.73	0.36	0.606
312	TSA(C)160d010CR149	A & C	160	10	150	149	96.64	0.48	0.805
313	TSA(C)160d010CR126	A & C	160	10	180	126	114.29	0.57	0.952
314	TSA(C)160d010CR106	A & C	160	10	210	106	135.85	0.68	1.132
315	TSA(C)160d020CR941	A & C	160	20	30	941	15.3	0.08	0.128
316	TSA(C)160d020CR472	A & C	160	20	60	472	30.51	0.15	0.254
317	TSA(C)160d020CR297	A & C	160	20	90	297	48.48	0.24	0.404
318	TSA(C)160d020CR198	A & C	160	20	120	198	72.73	0.37	0.606
319	TSA(C)160d020CR158	A & C	160	20	150	158	91.14	0.46	0.76
320	TSA(C)160d020CR126	A & C	160	20	180	126	114.29	0.58	0.952
321	TSA(C)160d020CR106	A & C	160	20	210	106	135.85	0.69	1.132
322	TSA(C)160d040CR1000	A & C	160	40	30	1000	14.4	0.08	0.12
323	TSA(C)160d040CR500	A & C	160	40	60	500	28.8	0.15	0.24
324	TSA(C)160d040CR315	A & C	160	40	90	315	45.71	0.24	0.381
325	TSA(C)160d040CR210	A & C	160	40	120	210	68.57	0.36	0.571
326	TSA(C)160d040CR167	A & C	160	40	150	167	86.23	0.46	0.719
327	TSA(C)160d040CR133	A & C	160	40	180	133	108.27	0.57	0.902
328	TSA(C)160d040CR112	A & C	160	40	210	112	128.57	0.68	1.071
329	TSA(C)160d080CR1260	A & C	160	80	30	1260	11.43	0.08	0.095
330	TSA(C)160d080CR629	A & C	160	80	60	629	22.89	0.15	0.191
331	TSA(C)160d080CR397	A & C	160	80	90	397	36.27	0.24	0.302
332	TSA(C)160d080CR264	A & C	160	80	120	264	54.55	0.36	0.455
333	TSA(C)160d080CR198	A & C	160	80	150	198	72.73	0.48	0.606
334	TSA(C)160d080CR167	A & C	160	80	180	167	86.23	0.57	0.719
335	TSA(C)160d080CR141	A & C	160	80	210	141	102.13	0.68	0.851
336	TSA(C)200d000CR629	A & C	200	0	30	629	22.89	0.07	0.191
337	TSA(C)200d000CR315	A & C	200	0	60	315	45.71	0.15	0.381
338	TSA(C)200d000CR198	A & C	200	0	90	198	72.73	0.23	0.606
339	TSA(C)200d000CR133	A & C	200	0	120	133	108.27	0.34	0.902
340	TSA(C)200d000CR106	A & C	200	0	150	106	135.85	0.43	1.132
341	TSA(C)200d000CR88.8	A & C	200	0	180	88.8	162.16	0.52	1.351
342	TSA(C)200d000CR70.5	A & C	200	0	210	70.5	204.26	0.65	1.702
343	TSA(C)200d006CR629	A & C	200	6	30	629	22.89	0.07	0.191
344	TSA(C)200d006CR315	A & C	200	6	60	315	45.71	0.15	0.381
345	TSA(C)200d006CR198	A & C	200	6	90	198	72.73	0.23	0.606
346	TSA(C)200d006CR141	A & C	200	6	120	141	102.13	0.33	0.851
347	TSA(C)200d006CR106	A & C	200	6	150	106	135.85	0.43	1.132
348	TSA(C)200d006CR88.8	A & C	200	6	180	88.8	162.16	0.52	1.351
349	TSA(C)200d006CR70.5	A & C	200	6	210	70.5	204.26	0.65	1.702
350	TSA(C)200d013CR666	A & C	200	13	30	666	21.62	0.07	0.18
351	TSA(C)200d013CR315	A & C	200	13	60	315	45.71	0.15	0.381
352	TSA(C)200d013CR198	A & C	200	13	90	198	72.73	0.23	0.606
353	TSA(C)200d013CR141	A & C	200	13	120	141	102.13	0.33	



# STANDARD | Round 120V

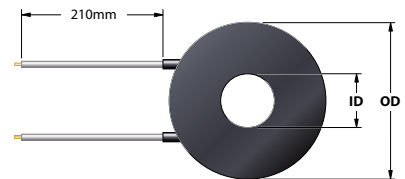


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
381	TSA(C)250d000CR94.1	A & C	250	0	120	94.1	153.03	0.31	1.275
382	TSA(C)250d000CR74.7	A & C	250	0	150	74.7	192.77	0.39	1.606
383	TSA(C)250d000CR59.4	A & C	250	0	180	59.4	242.42	0.49	2.02
384	TSA(C)250d000CR50	A & C	250	0	210	50	288	0.59	2.4
385	TSA(C)250d008CR446	A & C	250	8	30	446	32.29	0.07	0.269
386	TSA(C)250d008CR222	A & C	250	8	60	222	64.86	0.13	0.541
387	TSA(C)250d008CR141	A & C	250	8	90	141	102.13	0.21	0.851
388	TSA(C)250d008CR94.1	A & C	250	8	120	94.1	153.03	0.31	1.275
389	TSA(C)250d008CR74.7	A & C	250	8	150	74.7	192.77	0.39	1.606
390	TSA(C)250d008CR59.4	A & C	250	8	180	59.4	242.42	0.49	2.02
391	TSA(C)250d008CR50	A & C	250	8	210	50	288	0.59	2.4
392	TSA(C)250d016CR446	A & C	250	16	30	446	32.29	0.07	0.269
393	TSA(C)250d016CR222	A & C	250	16	60	222	64.86	0.13	0.541
394	TSA(C)250d016CR141	A & C	250	16	90	141	102.13	0.21	0.851
395	TSA(C)250d016CR94.1	A & C	250	16	120	94.1	153.03	0.31	1.275
396	TSA(C)250d016CR74.7	A & C	250	16	150	74.7	192.77	0.39	1.606
397	TSA(C)250d016CR59.4	A & C	250	16	180	59.4	242.42	0.5	2.02
398	TSA(C)250d016CR50	A & C	250	16	210	50	288	0.59	2.4
399	TSA(C)250d032CR446	A & C	250	32	30	446	32.29	0.07	0.269
400	TSA(C)250d032CR222	A & C	250	32	60	222	64.86	0.13	0.541
401	TSA(C)250d032CR141	A & C	250	32	90	141	102.13	0.21	0.851
402	TSA(C)250d032CR94.1	A & C	250	32	120	94.1	153.03	0.32	1.275
403	TSA(C)250d032CR74.7	A & C	250	32	150	74.7	192.77	0.4	1.606
404	TSA(C)250d032CR62.9	A & C	250	32	180	62.9	228.93	0.47	1.908
405	TSA(C)250d032CR50	A & C	250	32	210	50	288	0.6	2.4
406	TSA(C)250d063CR472	A & C	250	63	30	472	30.51	0.07	0.254
407	TSA(C)250d063CR235	A & C	250	63	60	235	61.28	0.13	0.511
408	TSA(C)250d063CR149	A & C	250	63	90	149	96.64	0.21	0.805
409	TSA(C)250d063CR100	A & C	250	63	120	100	144	0.31	1.2
410	TSA(C)250d063CR79.1	A & C	250	63	150	79.1	182.05	0.4	1.517
411	TSA(C)250d063CR62.9	A & C	250	63	180	62.9	228.93	0.5	1.908
412	TSA(C)250d063CR53	A & C	250	63	210	53	271.7	0.59	2.264
413	TSA(C)250d125CR594	A & C	250	125	30	594	24.24	0.07	0.202
414	TSA(C)250d125CR297	A & C	250	125	60	297	48.48	0.13	0.404
415	TSA(C)250d125CR187	A & C	250	125	90	187	77.01	0.21	0.642
416	TSA(C)250d125CR126	A & C	250	125	120	126	114.29	0.31	0.952
417	TSA(C)250d125CR100	A & C	250	125	150	100	144	0.39	1.2
418	TSA(C)250d125CR79.1	A & C	250	125	180	79.1	182.05	0.49	1.517
419	TSA(C)250d125CR66.6	A & C	250	125	210	66.6	216.22	0.59	1.802
420	TSA(C)300d000CR334	A & C	300	0	30	334	43.11	0.06	0.359
421	TSA(C)300d000CR167	A & C	300	0	60	167	86.23	0.12	0.719
422	TSA(C)300d000CR100	A & C	300	0	90	100	144	0.2	1.2
423	TSA(C)300d000CR70.5	A & C	300	0	120	70.5	204.26	0.29	1.702
424	TSA(C)300d000CR53	A & C	300	0	150	53	271.7	0.38	2.264

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
425	TSA(C)300d000CR44.6	A & C	300	0	180	44.6	322.87	0.46	2.691
426	TSA(C)300d000CR35.4	A & C	300	0	210	35.4	406.78	0.58	3.39
427	TSA(C)300d005CR334	A & C	300	5	30	334	43.11	0.06	0.359
428	TSA(C)300d005CR167	A & C	300	5	60	167	86.23	0.12	0.719
429	TSA(C)300d005CR100	A & C	300	5	90	100	144	0.2	1.2
430	TSA(C)300d005CR70.5	A & C	300	5	120	70.5	204.26	0.29	1.702
431	TSA(C)300d005CR53	A & C	300	5	150	53	271.7	0.38	2.264
432	TSA(C)300d005CR44.6	A & C	300	5	180	44.6	322.87	0.46	2.691
433	TSA(C)300d005CR35.4	A & C	300	5	210	35.4	406.78	0.58	3.39
434	TSA(C)300d010CR334	A & C	300	10	30	334	43.11	0.06	0.359
435	TSA(C)300d010CR167	A & C	300	10	60	167	86.23	0.12	0.719
436	TSA(C)300d010CR100	A & C	300	10	90	100	144	0.2	1.2
437	TSA(C)300d010CR70.5	A & C	300	10	120	70.5	204.26	0.29	1.702
438	TSA(C)300d010CR53	A & C	300	10	150	53	271.7	0.38	2.264
439	TSA(C)300d010CR44.6	A & C	300	10	180	44.6	322.87	0.46	2.691
440	TSA(C)300d010CR35.4	A & C	300	10	210	35.4	406.78	0.58	3.39
441	TSA(C)300d020CR334	A & C	300	20	30	334	43.11	0.06	0.359
442	TSA(C)300d020CR167	A & C	300	20	60	167	86.23	0.12	0.719
443	TSA(C)300d020CR100	A & C	300	20	90	100	144	0.2	1.2
444	TSA(C)300d020CR70.5	A & C	300	20	120	70.5	204.26	0.29	1.702
445	TSA(C)300d020CR53	A & C	300	20	150	53	271.7	0.39	2.264
446	TSA(C)300d020CR44.6	A & C	300	20	180	44.6	322.87	0.46	2.691
447	TSA(C)300d020CR35.4	A & C	300	20	210	35.4	406.78	0.58	3.39
448	TSA(C)300d040CR334	A & C	300	40	30	334	43.11	0.06	0.359
449	TSA(C)300d040CR167	A & C	300	40	60	167	86.23	0.12	0.719
450	TSA(C)300d040CR106	A & C	300	40	90	106	135.85	0.2	1.132
451	TSA(C)300d040CR70.5	A & C	300	40	120	70.5	204.26	0.29	1.702
452	TSA(C)300d040CR56.1	A & C	300	40	150	56.1	256.68	0.37	2.139
453	TSA(C)300d040CR44.6	A & C	300	40	180	44.6	322.87	0.47	2.691
454	TSA(C)300d040CR37.5	A & C	300	40	210	37.5	384	0.55	3.2
455	TSA(C)300d080CR354	A & C	300	80	30	354	40.68	0.06	0.339
456	TSA(C)300d080CR177	A & C	300	80	60	177	81.36	0.12	0.678
457	TSA(C)300d080CR112	A & C	300	80	90	112	128.57	0.2	1.071
458	TSA(C)300d080CR74.7	A & C	300	80	120	74.7	192.77	0.29	1.606
459	TSA(C)300d080CR59.4	A & C	300	80	150	59.4	242.42	0.37	2.02
460	TSA(C)300d080CR47.2	A & C	300	80	180	47.2	305.08	0.46	2.542
461	TSA(C)300d080CR39.7	A & C	300	80	210	39.7	362.72	0.55	3.023
462	TSA(C)300d160CR446	A & C	300	160	30	446	32.29	0.06	0.269
463	TSA(C)300d160CR222	A & C	300	160	60	222	64.86	0.13	0.541
464	TSA(C)300d160CR141	A & C	300	160	90	141	102.13	0.2	0.851
465	TSA(C)300d160CR94.1	A & C	300	160	120	94.1	153.03	0.3	1.275
466	TSA(C)300d160CR74.7	A & C	300	160	150	74.7	192.77	0.38	1.606
467	TSA(C)300d160CR59.4	A & C	300	160	180	59.4	242.42	0.48	2.02
468	TSA(C)300d160CR50	A & C	300	160	210	50	288	0.57	2.4

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5, 9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

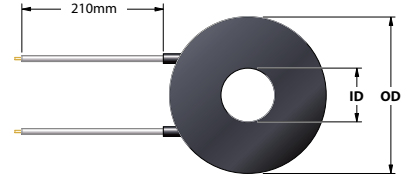


# STANDARD | Round 200V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000DR94100	C	10	0	60	94100	0.43	0.55	0.002
2	TSC010d000DR59400	C	10	0	90	59400	0.67	0.85	0.003
3	TSC010d000DR42100	C	10	0	120	42100	0.95	1.21	0.005
4	TSC010d000DR31500	C	10	0	150	31500	1.27	1.62	0.006
5	TSC010d000DR24900	C	10	0	180	24900	1.61	2.05	0.008
6	TSC010d000DR21000	C	10	0	210	21000	1.9	2.42	0.01
7	TSC010d005DR79100	C	10	5	90	79100	0.51	0.87	0.003
8	TSC010d005DR56100	C	10	5	120	56100	0.71	1.21	0.004
9	TSC010d005DR42100	C	10	5	150	42100	0.95	1.61	0.005
10	TSC010d005DR33400	C	10	5	180	33400	1.2	2.04	0.006
11	TSC010d005DR28000	C	10	5	210	28000	1.43	2.43	0.007
12	TSC013d000DR133000	C	13	0	30	133000	0.3	0.23	0.002
13	TSC013d000DR62900	C	13	0	60	62900	0.64	0.48	0.003
14	TSC013d000DR39700	C	13	0	90	39700	1.01	0.76	0.005
15	TSC013d000DR28000	C	13	0	120	28000	1.43	1.08	0.007

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
16	TSC013d000DR22200	C	13	0	150	22200	1.8	1.36	0.009
17	TSC013d000DR17700	C	13	0	180	17700	2.26	1.7	0.011
18	TSC013d000DR14100	C	13	0	210	14100	2.84	2.14	0.014
19	TSC013d006DR79100	C	13	6	60	79100	0.51	0.49	0.003
20	TSC013d006DR50000	C	13	6	90	50000	0.8	0.77	0.004
21	TSC013d006DR37500	C	13	6	120	37500	1.07	1.02	0.005
22	TSC013d006DR28000	C	13	6	150	28000	1.43	1.37	0.007
23	TSC013d006DR22200	C	13	6	180	22200	1.8	1.72	0.009
24	TSC013d006DR18700	C	13	6	210	18700	2.14	2.05	0.011
25	TSC016d000DR100								

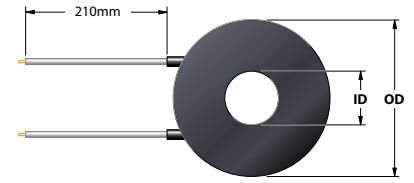
# STANDARD | Round 200V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
31	TSC016d000DR11200	C	16	0	210	11200	3.57	1.78	0.018
32	TSC016d000DR141000	C	16	8	30	141000	0.28	0.19	0.001
33	TSC016d000DR66600	C	16	8	60	66600	0.6	0.4	0.003
34	TSC016d000DR42100	C	16	8	90	42100	0.95	0.63	0.005
35	TSC016d000DR29700	C	16	8	120	29700	1.35	0.9	0.007
36	TSC016d000DR22200	C	16	8	150	22200	1.8	1.19	0.009
37	TSC016d000DR17700	C	16	8	180	17700	2.26	1.5	0.011
38	TSC016d000DR14900	C	16	8	210	14900	2.68	1.78	0.013
39	TSC020d000DR83800	C	20	0	30	83800	0.48	0.15	0.002
40	TSC020d000DR42100	C	20	0	60	42100	0.95	0.3	0.005
41	TSC020d000DR24900	C	20	0	90	24900	1.61	0.51	0.008
42	TSC020d000DR17700	C	20	0	120	17700	2.26	0.72	0.011
43	TSC020d000DR14100	C	20	0	150	14100	2.84	0.9	0.014
44	TSC020d000DR11200	C	20	0	180	11200	3.57	1.14	0.018
45	TSC020d000DR9410	C	20	0	210	9410	4.25	1.35	0.021
46	TSC020d005DR88800	C	20	5	30	88800	0.45	0.15	0.002
47	TSC020d005DR44600	C	20	5	60	44600	0.9	0.31	0.005
48	TSC020d005DR26400	C	20	5	90	26400	1.52	0.52	0.008
49	TSC020d005DR19800	C	20	5	120	19800	2.02	0.69	0.01
50	TSC020d005DR14900	C	20	5	150	14900	2.68	0.91	0.013
51	TSC020d005DR11900	C	20	5	180	11900	3.36	1.14	0.017
52	TSC020d005DR10000	C	20	5	210	10000	4	1.36	0.02
53	TSC020d010DR112000	C	20	10	30	112000	0.36	0.15	0.002
54	TSC020d010DR56100	C	20	10	60	56100	0.71	0.3	0.004
55	TSC020d010DR33400	C	20	10	90	33400	1.2	0.51	0.006
56	TSC020d010DR23500	C	20	10	120	23500	1.7	0.72	0.009
57	TSC020d010DR18700	C	20	10	150	18700	2.14	0.91	0.011
58	TSC020d010DR14900	C	20	10	180	14900	2.68	1.14	0.013
59	TSC020d010DR12600	C	20	10	210	12600	3.17	1.35	0.016
60	TSC025d000DR56100	C	25	0	30	56100	0.71	0.14	0.004
61	TSC025d000DR26400	C	25	0	60	26400	1.52	0.31	0.008
62	TSC025d000DR16700	C	25	0	90	16700	2.4	0.49	0.012
63	TSC025d000DR11900	C	25	0	120	11900	3.36	0.68	0.017
64	TSC025d000DR9410	C	25	0	150	9410	4.25	0.87	0.021
65	TSC025d000DR7470	C	25	0	180	7470	5.35	1.09	0.027
66	TSC025d000DR6290	C	25	0	210	6290	6.36	1.3	0.032
67	TSC025d006DR59400	C	25	6	30	59400	0.67	0.14	0.003
68	TSC025d006DR28000	C	25	6	60	28000	1.43	0.31	0.007
69	TSC025d006DR17700	C	25	6	90	17700	2.26	0.49	0.011
70	TSC025d006DR12600	C	25	6	120	12600	3.17	0.69	0.016
71	TSC025d006DR10000	C	25	6	150	10000	4	0.86	0.02
72	TSC025d006DR7910	C	25	6	180	7910	5.06	1.09	0.025
73	TSC025d006DR6660	C	25	6	210	6660	6.01	1.3	0.03
74	TSC025d013DR79100	C	25	13	30	79100	0.51	0.14	0.003
75	TSC025d013DR37500	C	25	13	60	37500	1.07	0.3	0.005
76	TSC025d013DR23500	C	25	13	90	23500	1.7	0.47	0.009
77	TSC025d013DR16700	C	25	13	120	16700	2.4	0.67	0.012
78	TSC025d013DR12600	C	25	13	150	12600	3.17	0.89	0.016
79	TSC025d013DR10600	C	25	13	180	10600	3.77	1.05	0.019
80	TSC025d013DR8880	C	25	13	210	8880	4.5	1.26	0.023
81	TSC032d000DR37500	C	32	0	30	37500	1.07	0.13	0.005
82	TSC032d000DR17700	C	32	0	60	17700	2.26	0.28	0.011
83	TSC032d000DR10600	C	32	0	90	10600	3.77	0.47	0.019
84	TSC032d000DR7910	C	32	0	120	7910	5.06	0.63	0.025
85	TSC032d000DR6290	C	32	0	150	6290	6.36	0.79	0.032
86	TSC032d000DR5000	C	32	0	180	5000	8	0.99	0.04
87	TSC032d000DR4210	C	32	0	210	4210	9.5	1.18	0.048
88	TSC032d008DR39700	C	32	8	30	39700	1.01	0.13	0.005
89	TSC032d008DR18700	C	32	8	60	18700	2.14	0.28	0.011
90	TSC032d008DR11900	C	32	8	90	11900	3.36	0.45	0.017
91	TSC032d008DR8380	C	32	8	120	8380	4.77	0.63	0.024
92	TSC032d008DR6660	C	32	8	150	6660	6.01	0.8	0.03
93	TSC032d008DR5300	C	32	8	180	5300	7.55	1	0.038
94	TSC032d008DR4460	C	32	8	210	4460	8.97	1.19	0.045
95	TSC032d016DR50000	C	32	16	30	50000	0.8	0.13	0.004
96	TSC032d016DR23500	C	32	16	60	23500	1.7	0.28	0.009
97	TSC032d016DR14100	C	32	16	90	14100	2.84	0.47	0.014
98	TSC032d016DR10600	C	32	16	120	10600	3.77	0.63	0.019
99	TSC032d016DR8380	C	32	16	150	8380	4.77	0.79	0.024
100	TSC032d016DR6660	C	32	16	180	6660	6.01	1	0.03
101	TSC032d016DR5610	C	32	16	210	5610	7.13	1.18	0.036
102	TSC040d000DR24900	C	40	0	30	24900	1.61	0.13	0.008
103	TSC040d000DR11900	C	40	0	60	11900	3.36	0.27	0.017

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
104	TSC040d000DR7470	C	40	0	90	7470	5.35	0.43	0.027
105	TSC040d000DR5300	C	40	0	120	5300	7.55	0.6	0.038
106	TSC040d000DR4210	C	40	0	150	4210	9.5	0.76	0.048
107	TSC040d000DR3340	C	40	0	180	3340	11.98	0.95	0.06
108	TSC040d000DR2800	C	40	0	210	2800	14.29	1.14	0.071
109	TSC040d005DR24900	C	40	5	30	24900	1.61	0.13	0.008
110	TSC040d005DR11900	C	40	5	60	11900	3.36	0.27	0.017
111	TSC040d005DR7470	C	40	5	90	7470	5.35	0.43	0.027
112	TSC040d005DR5300	C	40	5	120	5300	7.55	0.61	0.038
113	TSC040d005DR4210	C	40	5	150	4210	9.5	0.77	0.048
114	TSC040d005DR3340	C	40	5	180	3340	11.98	0.97	0.06
115	TSC040d005DR2800	C	40	5	210	2800	14.29	1.16	0.071
116	TSC040d010DR26400	C	40	10	30	26400	1.52	0.13	0.008
117	TSC040d010DR12600	C	40	10	60	12600	3.17	0.27	0.016
118	TSC040d010DR7910	C	40	10	90	7910	5.06	0.43	0.025
119	TSC040d010DR5610	C	40	10	120	5610	7.13	0.61	0.036
120	TSC040d010DR4460	C	40	10	150	4460	8.97	0.76	0.045
121	TSC040d010DR3540	C	40	10	180	3540	11.3	0.96	0.057
122	TSC040d010DR2970	C	40	10	210	2970	13.47	1.14	0.067
123	TSC040d020DR33400	C	40	20	30	33400	1.2	0.13	0.006
124	TSC040d020DR15800	C	40	20	60	15800	2.53	0.27	0.013
125	TSC040d020DR10000	C	40	20	90	10000	4	0.42	0.02
126	TSC040d020DR7050	C	40	20	120	7050	5.67	0.6	0.028
127	TSC040d020DR5610	C	40	20	150	5610	7.13	0.76	0.036
128	TSC040d020DR4460	C	40	20	180	4460	8.97	0.95	0.045
129	TSC040d020DR3750	C	40	20	210	3750	10.67	1.13	0.053
130	TSC050d000DR16700	C	50	0	30	16700	2.4	0.12	0.012
131	TSC050d000DR7910	C	50	0	60	7910	5.06	0.26	0.025
132	TSC050d000DR5000	C	50	0	90	5000	8	0.41	0.04
133	TSC050d000DR3540	C	50	0	120	3540	11.3	0.58	0.057
134	TSC050d000DR2800	C	50	0	150	2800	14.29	0.73	0.071
135	TSC050d000DR2350	C	50	0	180	2350	17.02	0.87	0.085
136	TSC050d000DR1870	C	50	0	210	1870	21.39	1.09	0.107
137	TSC050d006DR16700	C	50	6	30	16700	2.4	0.12	0.012
138	TSC050d006DR7910	C	50	6	60	7910	5.06	0.26	0.025
139	TSC050d006DR5000	C	50	6	90	5000	8	0.41	0.04
140	TSC050d006DR3750	C	50	6	120	3750	10.67	0.55	0.053
141	TSC050d006DR2800	C	50	6	150	2800	14.29	0.74	0.071
142	TSC050d006DR2350	C	50	6	180	2350	17.02	0.88	0.085
143	TSC050d006DR1980	C	50	6	210	1980	20.2	1.04	0.101
144	TSC050d013DR17700	C	50	13	30	17700	2.26	0.12	0.011
145	TSC050d013DR8380	C	50	13	60	8380	4.77	0.26	0.024
146	TSC050d013DR5300	C	50	13	90	5300	7.55	0.41	0.038
147	TSC050d013DR3750	C	50	13	120	3750	10.67	0.58	0.053
148	TSC050d013DR2970	C	50	13	150	2970	13.47	0.74	0.067
149	TSC050d013DR2490	C	50	13	180	2490	16.06	0.88	0.08
150	TSC050d013DR2100	C	50	13	210	2100	19.05	1.04	0.095
151	TSC050d025DR22200	C	50	25	30	22200	1.8	0.12	0.009
152	TSC050d025DR10600	C	50	25	60	10600	3.77	0.26	0.019
153	TSC050d025DR6660	C	50	25	90	6660	6.01	0.41	0.03
154	TSC050d025DR4720	C	50	25	120	4720	8.47	0.58	0.042
155	TSC050d025DR3750	C	50	25	150	3750	10.67	0.72	0.053
156	TSC050d025DR2970	C	50	25	180	2970	13.47	0.91	0.067
157	TSC050d025DR2490	C	50	25	210				

# STANDARD | Round 200V

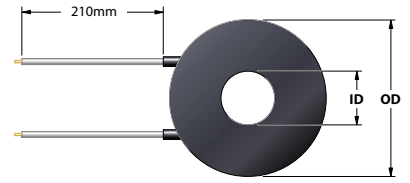


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
177	TSA(C)063d016DR1670	A & C	63	16	180	1670	23.95	0.82	0.12
178	TSA(C)063d016DR1330	A & C	63	16	210	1330	30.08	1.03	0.15
179	TSC063d032DR14900	C	63	32	30	14900	2.68	0.12	0.013
180	TSC063d032DR7050	C	63	32	60	7050	5.67	0.25	0.028
181	TSC063d032DR4720	C	63	32	90	4720	8.47	0.37	0.042
182	TSC063d032DR3150	C	63	32	120	3150	12.7	0.55	0.064
183	TSC063d032DR2490	C	63	32	150	2490	16.06	0.69	0.08
184	TSC063d032DR2100	C	63	32	180	2100	19.05	0.82	0.095
185	TSC063d032DR1670	C	63	32	210	1670	23.95	1.04	0.12
186	TSC080d000DR7470	C	80	0	30	7470	5.35	0.11	0.027
187	TSC080d000DR3750	C	80	0	60	3750	10.67	0.21	0.053
188	TSA(C)080d000DR2350	A & C	80	0	90	2350	17.02	0.34	0.085
189	TSA(C)080d000DR1580	A & C	80	0	120	1580	25.32	0.5	0.127
190	TSA(C)080d000DR1260	A & C	80	0	150	1260	31.75	0.63	0.159
191	TSA(C)080d000DR1000	A & C	80	0	180	1000	40	0.8	0.2
192	TSA(C)080d000DR838	A & C	80	0	210	838	47.73	0.95	0.239
193	TSC080d005DR7470	C	80	5	30	7470	5.35	0.11	0.027
194	TSC080d005DR3750	C	80	5	60	3750	10.67	0.21	0.053
195	TSA(C)080d005DR2350	A & C	80	5	90	2350	17.02	0.34	0.085
196	TSA(C)080d005DR1670	A & C	80	5	120	1670	23.95	0.48	0.12
197	TSA(C)080d005DR1260	A & C	80	5	150	1260	31.75	0.63	0.159
198	TSA(C)080d005DR1060	A & C	80	5	180	1060	37.74	0.75	0.189
199	TSA(C)080d005DR838	A & C	80	5	210	838	47.73	0.95	0.239
200	TSC080d010DR7470	C	80	10	30	7470	5.35	0.11	0.027
201	TSC080d010DR3750	C	80	10	60	3750	10.67	0.22	0.053
202	TSA(C)080d010DR2350	A & C	80	10	90	2350	17.02	0.34	0.085
203	TSA(C)080d010DR1670	A & C	80	10	120	1670	23.95	0.48	0.12
204	TSA(C)080d010DR1260	A & C	80	10	150	1260	31.75	0.64	0.159
205	TSA(C)080d010DR1060	A & C	80	10	180	1060	37.74	0.76	0.189
206	TSA(C)080d010DR888	A & C	80	10	210	888	45.05	0.91	0.225
207	TSC080d020DR7910	C	80	20	30	7910	5.06	0.11	0.025
208	TSC080d020DR3970	C	80	20	60	3970	10.08	0.21	0.05
209	TSA(C)080d020DR2490	A & C	80	20	90	2490	16.06	0.34	0.08
210	TSA(C)080d020DR1770	A & C	80	20	120	1770	22.6	0.48	0.113
211	TSA(C)080d020DR1330	A & C	80	20	150	1330	30.08	0.64	0.15
212	TSA(C)080d020DR1120	A & C	80	20	180	1120	35.71	0.76	0.179
213	TSA(C)080d020DR888	A & C	80	20	210	888	45.05	0.96	0.225
214	TSC080d040DR10000	C	80	40	30	10000	4	0.11	0.02
215	TSC080d040DR5000	C	80	40	60	5000	8	0.21	0.04
216	TSC080d040DR3150	C	80	40	90	3150	12.7	0.34	0.064
217	TSA(C)080d040DR2220	A & C	80	40	120	2220	18.02	0.48	0.09
218	TSA(C)080d040DR1670	A & C	80	40	150	1670	23.95	0.64	0.12
219	TSA(C)080d040DR1330	A & C	80	40	180	1330	30.08	0.8	0.15
220	TSA(C)080d040DR1120	A & C	80	40	210	1120	35.71	0.95	0.179
221	TSC100d000DR5300	C	100	0	30	5300	7.55	0.1	0.038
222	TSA(C)100d000DR2640	A & C	100	0	60	2640	15.15	0.19	0.076
223	TSA(C)100d000DR1670	A & C	100	0	90	1670	23.95	0.3	0.12
224	TSA(C)100d000DR1120	A & C	100	0	120	1120	35.71	0.45	0.179
225	TSA(C)100d000DR888	A & C	100	0	150	888	45.05	0.57	0.225
226	TSA(C)100d000DR747	A & C	100	0	180	747	53.55	0.68	0.268
227	TSA(C)100d000DR594	A & C	100	0	210	594	67.34	0.86	0.337
228	TSC100d006DR5610	C	100	6	30	5610	7.13	0.09	0.036
229	TSA(C)100d006DR2800	A & C	100	6	60	2800	14.29	0.18	0.071
230	TSA(C)100d006DR1670	A & C	100	6	90	1670	23.95	0.31	0.12
231	TSA(C)100d006DR1190	A & C	100	6	120	1190	33.61	0.43	0.168
232	TSA(C)100d006DR888	A & C	100	6	150	888	45.05	0.58	0.225
233	TSA(C)100d006DR747	A & C	100	6	180	747	53.55	0.68	0.268
234	TSA(C)100d006DR594	A & C	100	6	210	594	67.34	0.86	0.337
235	TSC100d013DR5610	C	100	13	30	5610	7.13	0.09	0.036
236	TSA(C)100d013DR2800	A & C	100	13	60	2800	14.29	0.19	0.071
237	TSA(C)100d013DR1770	A & C	100	13	90	1770	22.6	0.29	0.113
238	TSA(C)100d013DR1190	A & C	100	13	120	1190	33.61	0.44	0.168
239	TSA(C)100d013DR888	A & C	100	13	150	888	45.05	0.58	0.225
240	TSA(C)100d013DR747	A & C	100	13	180	747	53.55	0.68	0.268
241	TSA(C)100d013DR629	A & C	100	13	210	629	63.59	0.82	0.318
242	TSC100d025DR5940	C	100	25	30	5940	6.73	0.09	0.034
243	TSA(C)100d025DR2970	A & C	100	25	60	2970	13.47	0.18	0.067
244	TSA(C)100d025DR1770	A & C	100	25	90	1770	22.6	0.31	0.113
245	TSA(C)100d025DR1260	A & C	100	25	120	1260	31.75	0.43	0.159
246	TSA(C)100d025DR941	A & C	100	25	150	941	42.51	0.58	0.213
247	TSA(C)100d025DR791	A & C	100	25	180	791	50.57	0.69	0.253
248	TSA(C)100d025DR629	A & C	100	25	210	629	63.59	0.86	0.318
249	TSC100d050DR7050	C	100	50	30	7050	5.67	0.1	0.028

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
250	TSC100d050DR3540	C	100	50	60	3540	11.3	0.19	0.057
251	TSA(C)100d050DR2220	A & C	100	50	90	2220	18.02	0.31	0.09
252	TSA(C)100d050DR1580	A & C	100	50	120	1580	25.32	0.43	0.127
253	TSA(C)100d050DR1190	A & C	100	50	150	1190	33.61	0.57	0.168
254	TSA(C)100d050DR1000	A & C	100	50	180	1000	40	0.68	0.2
255	TSA(C)100d050DR791	A & C	100	50	210	791	50.57	0.86	0.253
256	TSA(C)125d000DR3750	A & C	125	0	30	3750	10.67	0.09	0.053
257	TSA(C)125d000DR1870	A & C	125	0	60	1870	21.39	0.17	0.107
258	TSA(C)125d000DR1190	A & C	125	0	90	1190	33.61	0.27	0.168
259	TSA(C)125d000DR791	A & C	125	0	120	791	50.57	0.41	0.253
260	TSA(C)125d000DR629	A & C	125	0	150	629	63.59	0.52	0.318
261	TSA(C)125d000DR500	A & C	125	0	180	500	80	0.65	0.4
262	TSA(C)125d000DR421	A & C	125	0	210	421	95.01	0.77	0.475
263	TSA(C)125d008DR3750	A & C	125	8	30	3750	10.67	0.09	0.053
264	TSA(C)125d008DR1870	A & C	125	8	60	1870	21.39	0.18	0.107
265	TSA(C)125d008DR1190	A & C	125	8	90	1190	33.61	0.28	0.168
266	TSA(C)125d008DR791	A & C	125	8	120	791	50.57	0.41	0.253
267	TSA(C)125d008DR629	A & C	125	8	150	629	63.59	0.52	0.318
268	TSA(C)125d008DR500	A & C	125	8	180	500	80	0.65	0.4
269	TSA(C)125d008DR421	A & C	125	8	210	421	95.01	0.78	0.475
270	TSA(C)125d016DR3750	A & C	125	16	30	3750	10.67	0.09	0.053
271	TSA(C)125d016DR1870	A & C	125	16	60	1870	21.39	0.18	0.107
272	TSA(C)125d016DR1190	A & C	125	16	90	1190	33.61	0.28	0.168
273	TSA(C)125d016DR838	A & C	125	16	120	838	47.73	0.4	0.239
274	TSA(C)125d016DR629	A & C	125	16	150	629	63.59	0.53	0.318
275	TSA(C)125d016DR530	A & C	125	16	180	530	75.47	0.63	0.377
276	TSA(C)125d016DR421	A & C	125	16	210	421	95.01	0.79	0.475
277	TSA(C)125d032DR3970	A & C	125	32	30	3970	10.08	0.09	0.05
278	TSA(C)125d032DR1980	A & C	125	32	60	1980	20.2	0.18	0.101
279	TSA(C)125d032DR1260	A & C	125	32	90	1260	31.75	0.28	0.159
280	TSA(C)125d032DR838	A & C	125	32	120	838	47.73	0.42	0.239
281	TSA(C)125d032DR666	A & C	125	32	150	666	60.06	0.52	0.3
282	TSA(C)125d032DR530	A & C	125	32	180	530	75.47	0.66	0.377
283	TSA(C)125d032DR446	A & C	125	32	210	446	89.69	0.78	0.448
284	TSA(C)125d063DR5000	A & C	125	63	30	5000	8	0.09	0.04
285	TSA(C)125d063DR2490	A & C	125	63	60	2490	16.06	0.18	0.08
286	TSA(C)125d063DR1580	A & C	125	63	90	1580	25.32	0.28	0.127
287	TSA(C)125d063DR1060	A & C	125	63	120	1060	37.74	0.41	0.189
288	TSA(C)125d063DR838	A & C	125	63	150	838	47.73	0.52	0.239
289	TSA(C)125d063DR666	A & C	125	63	180	666	60.06	0.66	0.3
290	TSA(C)125d063DR561	A & C	125	63	210	561	71.3	0.78	0.357
291	TSA(C)160d000DR2640	A & C	160	0	30	2640	15.15	0.08	0.076
292	TSA(C)160d000DR1260	A & C	160	0	60	1260	31.75	0.16	0.159
293	TSA(C)160d000DR791	A & C	160	0	90	791	50.57	0.25	0.253
294	TSA(C)160d000DR561	A & C	160	0	120	561	71.3	0.35	0.357
295	TSA(C)160d000DR421	A & C	160	0	150	421	95.01	0.47	0.475
296	TSA(C)160d000DR354	A & C	160	0	180	354	112.99	0.56	0.565
297	TSA(C)160d000DR280	A & C	160	0	210</				



# STANDARD | Round 200V

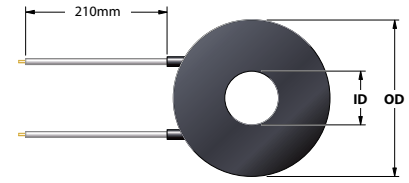


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
323	TSA(C)160d040DR446	A & C	160	40	150	446	89.69	0.48	0.448
324	TSA(C)160d040DR375	A & C	160	40	180	375	106.67	0.57	0.533
325	TSA(C)160d040DR297	A & C	160	40	210	297	134.68	0.71	0.673
326	TSA(C)160d080DR3340	A & C	160	80	30	3340	11.98	0.08	0.06
327	TSA(C)160d080DR1670	A & C	160	80	60	1670	23.95	0.16	0.12
328	TSA(C)160d080DR1060	A & C	160	80	90	1060	37.74	0.25	0.189
329	TSA(C)160d080DR747	A & C	160	80	120	747	53.55	0.36	0.268
330	TSA(C)160d080DR561	A & C	160	80	150	561	71.3	0.47	0.357
331	TSA(C)160d080DR472	A & C	160	80	180	472	84.75	0.56	0.424
332	TSA(C)160d080DR375	A & C	160	80	210	375	106.67	0.71	0.533
333	TSA(C)200d000DR1770	A & C	200	0	30	1770	22.6	0.07	0.113
334	TSA(C)200d000DR888	A & C	200	0	60	888	45.05	0.14	0.225
335	TSA(C)200d000DR561	A & C	200	0	90	561	71.3	0.23	0.357
336	TSA(C)200d000DR375	A & C	200	0	120	375	106.67	0.34	0.533
337	TSA(C)200d000DR297	A & C	200	0	150	297	134.68	0.43	0.673
338	TSA(C)200d000DR235	A & C	200	0	180	235	170.21	0.54	0.851
339	TSA(C)200d000DR198	A & C	200	0	210	198	202.02	0.64	1.01
340	TSA(C)200d006DR1770	A & C	200	6	30	1770	22.6	0.07	0.113
341	TSA(C)200d006DR888	A & C	200	6	60	888	45.05	0.14	0.225
342	TSA(C)200d006DR561	A & C	200	6	90	561	71.3	0.23	0.357
343	TSA(C)200d006DR375	A & C	200	6	120	375	106.67	0.34	0.533
344	TSA(C)200d006DR297	A & C	200	6	150	297	134.68	0.43	0.673
345	TSA(C)200d006DR235	A & C	200	6	180	235	170.21	0.54	0.851
346	TSA(C)200d006DR198	A & C	200	6	210	198	202.02	0.64	1.01
347	TSA(C)200d013DR1770	A & C	200	13	30	1770	22.6	0.07	0.113
348	TSA(C)200d013DR888	A & C	200	13	60	888	45.05	0.14	0.225
349	TSA(C)200d013DR561	A & C	200	13	90	561	71.3	0.23	0.357
350	TSA(C)200d013DR375	A & C	200	13	120	375	106.67	0.34	0.533
351	TSA(C)200d013DR297	A & C	200	13	150	297	134.68	0.43	0.673
352	TSA(C)200d013DR235	A & C	200	13	180	235	170.21	0.54	0.851
353	TSA(C)200d013DR198	A & C	200	13	210	198	202.02	0.65	1.01
354	TSA(C)200d025DR1870	A & C	200	25	30	1870	21.39	0.07	0.107
355	TSA(C)200d025DR888	A & C	200	25	60	888	45.05	0.15	0.225
356	TSA(C)200d025DR561	A & C	200	25	90	561	71.3	0.23	0.357
357	TSA(C)200d025DR397	A & C	200	25	120	397	100.76	0.33	0.504
358	TSA(C)200d025DR297	A & C	200	25	150	297	134.68	0.44	0.673
359	TSA(C)200d025DR249	A & C	200	25	180	249	160.64	0.52	0.803
360	TSA(C)200d025DR198	A & C	200	25	210	198	202.02	0.65	1.01
361	TSA(C)200d050DR1870	A & C	200	50	30	1870	21.39	0.07	0.107
362	TSA(C)200d050DR941	A & C	200	50	60	941	42.51	0.14	0.213
363	TSA(C)200d050DR594	A & C	200	50	90	594	67.34	0.23	0.337
364	TSA(C)200d050DR397	A & C	200	50	120	397	100.76	0.34	0.504
365	TSA(C)200d050DR315	A & C	200	50	150	315	126.98	0.43	0.635
366	TSA(C)200d050DR264	A & C	200	50	180	264	151.52	0.51	0.758
367	TSA(C)200d050DR210	A & C	200	50	210	210	190.48	0.65	0.952
368	TSA(C)200d100DR2350	A & C	200	100	30	2350	17.02	0.07	0.085
369	TSA(C)200d100DR1190	A & C	200	100	60	1190	33.61	0.14	0.168
370	TSA(C)200d100DR747	A & C	200	100	90	747	53.55	0.23	0.268
371	TSA(C)200d100DR500	A & C	200	100	120	500	80	0.34	0.4
372	TSA(C)200d100DR397	A & C	200	100	150	397	100.76	0.43	0.504
373	TSA(C)200d100DR315	A & C	200	100	180	315	126.98	0.54	0.635
374	TSA(C)200d100DR264	A & C	200	100	210	264	151.52	0.64	0.758
375	TSA(C)250d000DR1260	A & C	250	0	30	1260	31.75	0.06	0.159
376	TSA(C)250d000DR629	A & C	250	0	60	629	63.59	0.13	0.318
377	TSA(C)250d000DR397	A & C	250	0	90	397	100.76	0.21	0.504
378	TSA(C)250d000DR264	A & C	250	0	120	264	151.52	0.31	0.758
379	TSA(C)250d000DR210	A & C	250	0	150	210	190.48	0.39	0.952
380	TSA(C)250d000DR167	A & C	250	0	180	167	239.52	0.49	1.198
381	TSA(C)250d000DR141	A & C	250	0	210	141	283.69	0.58	1.418
382	TSA(C)250d008DR1260	A & C	250	8	30	1260	31.75	0.06	0.159
383	TSA(C)250d008DR629	A & C	250	8	60	629	63.59	0.13	0.318
384	TSA(C)250d008DR397	A & C	250	8	90	397	100.76	0.21	0.504
385	TSA(C)250d008DR264	A & C	250	8	120	264	151.52	0.31	0.758
386	TSA(C)250d008DR210	A & C	250	8	150	210	190.48	0.39	0.952
387	TSA(C)250d008DR167	A & C	250	8	180	167	239.52	0.49	1.198
388	TSA(C)250d008DR141	A & C	250	8	210	141	283.69	0.58	1.418
389	TSA(C)250d016DR1260	A & C	250	16	30	1260	31.75	0.06	0.159
390	TSA(C)250d016DR629	A & C	250	16	60	629	63.59	0.13	0.318
391	TSA(C)250d016DR397	A & C	250	16	90	397	100.76	0.21	0.504
392	TSA(C)250d016DR264	A & C	250	16	120	264	151.52	0.31	0.758
393	TSA(C)250d016DR210	A & C	250	16	150	210	190.48	0.39	0.952
394	TSA(C)250d016DR167	A & C	250	16	180	167	239.52	0.49	1.198

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
395	TSA(C)250d016DR141	A & C	250	16	210	141	283.69	0.58	1.418
396	TSA(C)250d032DR1260	A & C	250	32	30	1260	31.75	0.07	0.159
397	TSA(C)250d032DR629	A & C	250	32	60	629	63.59	0.13	0.318
398	TSA(C)250d032DR397	A & C	250	32	90	397	100.76	0.21	0.504
399	TSA(C)250d032DR264	A & C	250	32	120	264	151.52	0.31	0.758
400	TSA(C)250d032DR210	A & C	250	32	150	210	190.48	0.39	0.952
401	TSA(C)250d032DR167	A & C	250	32	180	167	239.52	0.5	1.198
402	TSA(C)250d032DR141	A & C	250	32	210	141	283.69	0.59	1.418
403	TSA(C)250d063DR1330	A & C	250	63	30	1330	30.08	0.07	0.15
404	TSA(C)250d063DR666	A & C	250	63	60	666	60.06	0.13	0.3
405	TSA(C)250d063DR421	A & C	250	63	90	421	95.01	0.21	0.475
406	TSA(C)250d063DR280	A & C	250	63	120	280	142.86	0.31	0.714
407	TSA(C)250d063DR222	A & C	250	63	150	222	180.18	0.39	0.901
408	TSA(C)250d063DR177	A & C	250	63	180	177	225.99	0.49	1.13
409	TSA(C)250d063DR149	A & C	250	63	210	149	268.46	0.58	1.342
410	TSA(C)250d125DR1670	A & C	250	125	30	1670	23.95	0.07	0.12
411	TSA(C)250d125DR838	A & C	250	125	60	838	47.73	0.13	0.239
412	TSA(C)250d125DR530	A & C	250	125	90	530	75.47	0.2	0.377
413	TSA(C)250d125DR354	A & C	250	125	120	354	112.99	0.31	0.565
414	TSA(C)250d125DR280	A & C	250	125	150	280	142.86	0.39	0.714
415	TSA(C)250d125DR222	A & C	250	125	180	222	180.18	0.49	0.901
416	TSA(C)250d125DR187	A & C	250	125	210	187	213.9	0.58	1.07
417	TSA(C)300d000DR888	A & C	300	0	30	888	45.05	0.06	0.225
418	TSA(C)300d000DR446	A & C	300	0	60	446	89.69	0.13	0.448
419	TSA(C)300d000DR280	A & C	300	0	90	280	142.86	0.2	0.714
420	TSA(C)300d000DR187	A & C	300	0	120	187	213.9	0.3	1.07
421	TSA(C)300d000DR149	A & C	300	0	150	149	268.46	0.38	1.342
422	TSA(C)300d000DR119	A & C	300	0	180	119	336.13	0.48	1.681
423	TSA(C)300d000DR100	A & C	300	0	210	100	400	0.57	2
424	TSA(C)300d005DR888	A & C	300	5	30	888	45.05	0.06	0.225
425	TSA(C)300d005DR446	A & C	300	5	60	446	89.69	0.13	0.448
426	TSA(C)300d005DR280	A & C	300	5	90	280	142.86	0.2	0.714
427	TSA(C)300d005DR187	A & C	300	5	120	187	213.9	0.3	1.07
428	TSA(C)300d005DR149	A & C	300	5	150	149	268.46	0.38	1.342
429	TSA(C)300d005DR119	A & C	300	5	180	119	336.13	0.48	1.681
430	TSA(C)300d005DR100	A & C	300	5	210	100	400	0.57	2
431	TSA(C)300d010DR888	A & C	300	10	30	888	45.05	0.06	0.225
432	TSA(C)300d010DR446	A & C	300	10	60	446	89.69	0.13	0.448
433	TSA(C)300d010DR280	A & C	300	10	90	280	142.86	0.2	0.714
434	TSA(C)300d010DR187	A & C	300	10	120	187	213.9	0.3	1.07
435	TSA(C)300d010DR149	A & C	300	10	150	149	268.46	0.38	1.342
436	TSA(C)300d010DR119	A & C	300	10	180	119	336.13	0.48	1.681
437	TSA(C)300d010DR100	A & C	300	10	210	100	400	0.57	2
438	TSA(C)300d020DR888	A & C	300	20	30	888	45.05	0.06	0.225
439	TSA(C)300d020DR446	A & C	300	20	60	446	89.69	0.13	0.448
440	TSA(C)300d020DR280	A & C	300	20	90	280	142.86	0.2	0.714
441	TSA(C)300d020DR198	A &							



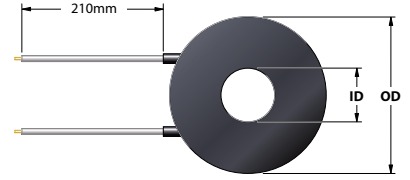
# STANDARD | Round 220V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000ER70500	C	10	0	90	70500	0.69	0.88	0.003
2	TSC010d000ER53000	C	10	0	120	53000	0.91	1.16	0.004
3	TSC010d000ER39700	C	10	0	150	39700	1.22	1.55	0.006
4	TSC010d000ER31500	C	10	0	180	31500	1.54	1.96	0.007
5	TSC010d000ER24900	C	10	0	210	24900	1.94	2.47	0.009
6	TSC010d005ER70500	C	10	5	120	70500	0.69	1.17	0.003
7	TSC010d005ER53000	C	10	5	150	53000	0.91	1.54	0.004
8	TSC010d005ER42100	C	10	5	180	42100	1.15	1.95	0.005
9	TSC010d005ER33400	C	10	5	210	33400	1.45	2.46	0.007
10	TSC013d000ER158000	C	13	0	30	158000	0.31	0.23	0.001
11	TSC013d000ER79100	C	13	0	60	79100	0.61	0.46	0.003
12	TSC013d000ER47200	C	13	0	90	47200	1.03	0.78	0.005
13	TSC013d000ER35400	C	13	0	120	35400	1.37	1.03	0.006
14	TSC013d000ER26400	C	13	0	150	26400	1.83	1.38	0.008
15	TSC013d000ER21000	C	13	0	180	21000	2.3	1.73	0.01
16	TSC013d000ER17700	C	13	0	210	17700	2.73	2.06	0.012
17	TSC013d006ER100000	C	13	6	60	100000	0.48	0.46	0.002
18	TSC013d006ER62900	C	13	6	90	62900	0.77	0.74	0.004
19	TSC013d006ER44600	C	13	6	120	44600	1.09	1.04	0.005
20	TSC013d006ER33400	C	13	6	150	33400	1.45	1.39	0.007
21	TSC013d006ER26400	C	13	6	180	26400	1.83	1.75	0.008
22	TSC013d006ER22200	C	13	6	210	22200	2.18	2.09	0.01
23	TSC016d000ER126000	C	16	0	30	126000	0.38	0.19	0.002
24	TSC016d000ER59400	C	16	0	60	59400	0.81	0.4	0.004
25	TSC016d000ER37500	C	16	0	90	37500	1.29	0.64	0.006
26	TSC016d000ER26400	C	16	0	120	26400	1.83	0.91	0.008
27	TSC016d000ER19800	C	16	0	150	19800	2.44	1.21	0.011
28	TSC016d000ER16700	C	16	0	180	16700	2.9	1.44	0.013
29	TSC016d000ER13300	C	16	0	210	13300	3.64	1.81	0.017
30	TSC016d008ER167000	C	16	8	30	167000	0.29	0.19	0.001
31	TSC016d008ER79100	C	16	8	60	79100	0.61	0.4	0.003
32	TSC016d008ER50000	C	16	8	90	50000	0.97	0.64	0.004
33	TSC016d008ER35400	C	16	8	120	35400	1.37	0.91	0.006
34	TSC016d008ER26400	C	16	8	150	26400	1.83	1.21	0.008
35	TSC016d008ER22200	C	16	8	180	22200	2.18	1.45	0.01
36	TSC016d008ER17700	C	16	8	210	17700	2.73	1.81	0.012
37	TSC020d000ER100000	C	20	0	30	100000	0.48	0.15	0.002
38	TSC020d000ER50000	C	20	0	60	50000	0.97	0.31	0.004
39	TSC020d000ER31500	C	20	0	90	31500	1.54	0.49	0.007
40	TSC020d000ER22200	C	20	0	120	22200	2.18	0.69	0.01
41	TSC020d000ER16700	C	20	0	150	16700	2.9	0.92	0.013
42	TSC020d000ER14100	C	20	0	180	14100	3.43	1.09	0.016
43	TSC020d000ER11200	C	20	0	210	11200	4.32	1.38	0.02
44	TSC020d005ER112000	C	20	5	30	112000	0.43	0.15	0.002
45	TSC020d005ER53000	C	20	5	60	53000	0.91	0.31	0.004
46	TSC020d005ER33400	C	20	5	90	33400	1.45	0.49	0.007
47	TSC020d005ER23500	C	20	5	120	23500	2.06	0.7	0.009
48	TSC020d005ER17700	C	20	5	150	17700	2.73	0.93	0.012
49	TSC020d005ER14900	C	20	5	180	14900	3.25	1.1	0.015
50	TSC020d005ER12600	C	20	5	210	12600	3.84	1.3	0.017
51	TSC020d010ER141000	C	20	10	30	141000	0.34	0.14	0.002
52	TSC020d010ER66600	C	20	10	60	66600	0.73	0.31	0.003
53	TSC020d010ER39700	C	20	10	90	39700	1.22	0.52	0.006
54	TSC020d010ER29700	C	20	10	120	29700	1.63	0.69	0.007
55	TSC020d010ER22200	C	20	10	150	22200	2.18	0.93	0.01
56	TSC020d010ER18700	C	20	10	180	18700	2.59	1.1	0.012
57	TSC020d010ER14900	C	20	10	210	14900	3.25	1.38	0.015
58	TSC025d000ER70500	C	25	0	30	70500	0.69	0.14	0.003
59	TSC025d000ER33400	C	25	0	60	33400	1.45	0.3	0.007
60	TSC025d000ER19800	C	25	0	90	19800	2.44	0.5	0.011
61	TSC025d000ER14900	C	25	0	120	14900	3.25	0.66	0.015
62	TSC025d000ER11200	C	25	0	150	11200	4.32	0.88	0.02
63	TSC025d000ER9410	C	25	0	180	9410	5.14	1.05	0.023
64	TSC025d000ER7910	C	25	0	210	7910	6.12	1.25	0.028
65	TSC025d006ER74700	C	25	6	30	74700	0.65	0.14	0.003
66	TSC025d006ER35400	C	25	6	60	35400	1.37	0.3	0.006
67	TSC025d006ER22200	C	25	6	90	22200	2.18	0.47	0.01
68	TSC025d006ER15800	C	25	6	120	15800	3.06	0.66	0.014
69	TSC025d006ER11900	C	25	6	150	11900	4.07	0.88	0.019
70	TSC025d006ER10000	C	25	6	180	10000	4.84	1.05	0.022
71	TSC025d006ER8380	C	25	6	210	8380	5.78	1.25	0.026
72	TSC025d013ER94100	C	25	13	30	94100	0.51	0.14	0.002
73	TSC025d013ER44600	C	25	13	60	44600	1.09	0.3	0.005

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
74	TSC025d013ER28000	C	25	13	90	28000	1.73	0.48	0.008
75	TSC025d013ER19800	C	25	13	120	19800	2.44	0.68	0.011
76	TSC025d013ER15800	C	25	13	150	15800	3.06	0.85	0.014
77	TSC025d013ER12600	C	25	13	180	12600	3.84	1.07	0.017
78	TSC025d013ER10600	C	25	13	210	10600	4.57	1.28	0.021
79	TSC032d000ER44600	C	32	0	30	44600	1.09	0.14	0.005
80	TSC032d000ER21000	C	32	0	60	21000	2.3	0.29	0.01
81	TSC032d000ER13300	C	32	0	90	13300	3.64	0.45	0.017
82	TSC032d000ER9410	C	32	0	120	9410	5.14	0.64	0.023
83	TSC032d000ER7470	C	32	0	150	7470	6.48	0.81	0.029
84	TSC032d000ER5940	C	32	0	180	5940	8.15	1.01	0.037
85	TSC032d000ER5000	C	32	0	210	5000	9.68	1.2	0.044
86	TSC032d008ER47200	C	32	8	30	47200	1.03	0.14	0.005
87	TSC032d008ER22200	C	32	8	60	22200	2.18	0.29	0.01
88	TSC032d008ER14100	C	32	8	90	14100	3.43	0.45	0.016
89	TSC032d008ER10000	C	32	8	120	10000	4.84	0.64	0.022
90	TSC032d008ER7910	C	32	8	150	7910	6.12	0.81	0.028
91	TSC032d008ER6290	C	32	8	180	6290	7.69	1.02	0.035
92	TSC032d008ER5300	C	32	8	210	5300	9.13	1.21	0.042
93	TSC032d016ER59400	C	32	16	30	59400	0.81	0.13	0.004
94	TSC032d016ER28000	C	32	16	60	28000	1.73	0.29	0.008
95	TSC032d016ER17700	C	32	16	90	17700	2.73	0.45	0.012
96	TSC032d016ER12600	C	32	16	120	12600	3.84	0.64	0.017
97	TSC032d016ER10000	C	32	16	150	10000	4.84	0.8	0.022
98	TSC032d016ER7910	C	32	16	180	7910	6.12	1.01	0.028
99	TSC032d016ER6660	C	32	16	210	6660	7.27	1.21	0.033
100	TSC040d000ER29700	C	40	0	30	29700	1.63	0.13	0.007
101	TSC040d000ER14100	C	40	0	60	14100	3.43	0.27	0.016
102	TSC040d000ER8880	C	40	0	90	8880	5.45	0.43	0.025
103	TSC040d000ER6290	C	40	0	120	6290	7.69	0.61	0.035
104	TSC040d000ER5000	C	40	0	150	5000	9.68	0.77	0.044
105	TSC040d000ER3970	C	40	0	180	3970	12.19	0.97	0.055
106	TSC040d000ER3340	C	40	0	210	3340	14.49	1.15	0.066
107	TSC040d005ER29700	C	40	5	30	29700	1.63	0.13	0.007
108	TSC040d005ER14100	C	40	5	60	14100	3.43	0.28	0.016
109	TSC040d005ER8880	C	40	5	90	8880	5.45	0.44	0.025
110	TSC040d005ER6290	C	40	5	120	6290	7.69	0.62	0.035
111	TSC040d005ER5000	C	40	5	150	5000	9.68	0.78	0.044
112	TSC040d005ER4210	C	40	5	180	4210	11.5	0.93	0.052
113	TSC040d005ER3540	C	40	5	210	3540	13.67	1.11	0.062
114	TSC040d010ER31500	C	40	10	30	31500	1.54	0.13	0.007
115	TSC040d010ER14900	C	40	10	60	14900	3.25	0.28	0.015
116	TSC040d010ER9410	C	40	10	90	9410	5.14	0.44	0.023
117	TSC040d010ER6660	C	40	10	120	6660	7.27	0.62	0.033
118	TSC040d010ER5300	C	40	10	150	5300	9.13	0.77	0.042
119	TSC040d010ER4210	C	40	10	180	4210	11.5	0.98	0.052
120	TSC040d010ER3540	C	40	10	210	3540	13.67	1.16	0.062
121	TSC040d020ER39700	C	40	20	30	39700	1.22	0.13	0.006
122	TSC040d020ER18700	C	40	20	60	18700	2.59	0.27	0.012
123	TSC040d020ER11900	C	40	20	90	11900	4.07	0.43	0.019
124	TSC040d020ER8380	C	40	20	120	8380	5.78	0.61	0.026
125	TSC040d020ER6660	C	40	20	150	6660	7.27	0.77	0.033
126	TSC040d020ER5300	C	40	20	180	5300	9.13	0.97	0.042
127	TSC040d020ER4460	C	40	20	210	4460	10.8		

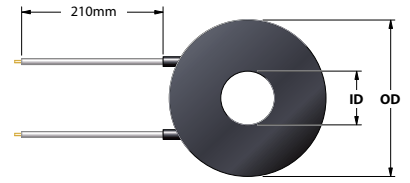
# STANDARD | Round 220V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
147	TSC050d013ER2970	C	50	13	180	2970	16.3	0.89	0.074
148	TSC050d013ER2490	C	50	13	210	2490	19.44	1.06	0.088
149	TSC050d025ER26400	C	50	25	30	26400	1.83	0.12	0.008
150	TSC050d025ER12600	C	50	25	60	12600	3.84	0.26	0.017
151	TSC050d025ER8380	C	50	25	90	8380	5.78	0.39	0.026
152	TSC050d025ER5940	C	50	25	120	5940	8.15	0.55	0.037
153	TSC050d025ER4460	C	50	25	150	4460	10.85	0.74	0.049
154	TSC050d025ER3750	C	50	25	180	3750	12.91	0.88	0.059
155	TSC050d025ER3150	C	50	25	210	3150	15.37	1.04	0.07
156	TSC063d000ER13300	C	63	0	30	13300	3.64	0.12	0.017
157	TSC063d000ER6660	C	63	0	60	6660	7.27	0.23	0.033
158	TSC063d000ER4210	C	63	0	90	4210	11.5	0.37	0.052
159	TSC063d000ER2970	C	63	0	120	2970	16.3	0.52	0.074
160	TSC063d000ER2220	C	63	0	150	2220	21.8	0.7	0.099
161	TSC063d000ER1870	C	63	0	180	1870	25.88	0.83	0.118
162	TSA(C)063d000ER1580	A & C	63	0	210	1580	30.63	0.98	0.139
163	TSC063d008ER13300	C	63	8	30	13300	3.64	0.12	0.017
164	TSC063d008ER6660	C	63	8	60	6660	7.27	0.24	0.033
165	TSC063d008ER4210	C	63	8	90	4210	11.5	0.37	0.052
166	TSC063d008ER2970	C	63	8	120	2970	16.3	0.53	0.074
167	TSC063d008ER2350	C	63	8	150	2350	20.6	0.67	0.094
168	TSC063d008ER1870	C	63	8	180	1870	25.88	0.84	0.118
169	TSA(C)063d008ER1580	A & C	63	8	210	1580	30.63	1	0.139
170	TSC063d016ER14100	C	63	16	30	14100	3.43	0.12	0.016
171	TSC063d016ER7050	C	63	16	60	7050	6.87	0.24	0.031
172	TSC063d016ER4460	C	63	16	90	4460	10.85	0.37	0.049
173	TSC063d016ER3150	C	63	16	120	3150	15.37	0.53	0.07
174	TSC063d016ER2350	C	63	16	150	2350	20.6	0.71	0.094
175	TSC063d016ER1980	C	63	16	180	1980	24.44	0.84	0.111
176	TSA(C)063d016ER1670	A & C	63	16	210	1670	28.98	0.99	0.132
177	TSC063d032ER17700	C	63	32	30	17700	2.73	0.12	0.012
178	TSC063d032ER8880	C	63	32	60	8880	5.45	0.24	0.025
179	TSC063d032ER5610	C	63	32	90	5610	8.63	0.37	0.039
180	TSC063d032ER3970	C	63	32	120	3970	12.19	0.53	0.055
181	TSC063d032ER2970	C	63	32	150	2970	16.3	0.7	0.074
182	TSC063d032ER2490	C	63	32	180	2490	19.44	0.84	0.088
183	TSC063d032ER2100	C	63	32	210	2100	23.05	1	0.105
184	TSC080d000ER8880	C	80	0	30	8880	5.45	0.11	0.025
185	TSC080d000ER4460	C	80	0	60	4460	10.85	0.22	0.049
186	TSA(C)080d000ER2800	A & C	80	0	90	2800	17.29	0.34	0.079
187	TSA(C)080d000ER1980	A & C	80	0	120	1980	24.44	0.49	0.111
188	TSA(C)080d000ER1490	A & C	80	0	150	1490	32.48	0.65	0.148
189	TSA(C)080d000ER1260	A & C	80	0	180	1260	38.41	0.76	0.175
190	TSA(C)080d000ER1060	A & C	80	0	210	1060	45.66	0.91	0.208
191	TSC080d005ER8880	C	80	5	30	8880	5.45	0.11	0.025
192	TSC080d005ER4460	C	80	5	60	4460	10.85	0.22	0.049
193	TSA(C)080d005ER2800	A & C	80	5	90	2800	17.29	0.35	0.079
194	TSA(C)080d005ER1980	A & C	80	5	120	1980	24.44	0.49	0.111
195	TSA(C)080d005ER1490	A & C	80	5	150	1490	32.48	0.65	0.148
196	TSA(C)080d005ER1260	A & C	80	5	180	1260	38.41	0.77	0.175
197	TSA(C)080d005ER1060	A & C	80	5	210	1060	45.66	0.91	0.208
198	TSC080d010ER9410	C	80	10	30	9410	5.14	0.1	0.023
199	TSC080d010ER4460	C	80	10	60	4460	10.85	0.22	0.049
200	TSA(C)080d010ER2800	A & C	80	10	90	2800	17.29	0.35	0.079
201	TSA(C)080d010ER1980	A & C	80	10	120	1980	24.44	0.49	0.111
202	TSA(C)080d010ER1580	A & C	80	10	150	1580	30.63	0.62	0.139
203	TSA(C)080d010ER1260	A & C	80	10	180	1260	38.41	0.78	0.175
204	TSA(C)080d010ER1060	A & C	80	10	210	1060	45.66	0.92	0.208
205	TSC080d020ER9410	C	80	20	30	9410	5.14	0.11	0.023
206	TSC080d020ER4720	C	80	20	60	4720	10.25	0.22	0.047
207	TSC080d020ER2970	C	80	20	90	2970	16.3	0.35	0.074
208	TSA(C)080d020ER2100	A & C	80	20	120	2100	23.05	0.49	0.105
209	TSA(C)080d020ER1580	A & C	80	20	150	1580	30.63	0.65	0.139
210	TSA(C)080d020ER1330	A & C	80	20	180	1330	36.39	0.77	0.165
211	TSA(C)080d020ER1120	A & C	80	20	210	1120	43.21	0.92	0.196
212	TSC080d040ER11900	C	80	40	30	11900	4.07	0.11	0.019
213	TSC080d040ER5940	C	80	40	60	5940	8.15	0.22	0.037
214	TSC080d040ER3750	C	80	40	90	3750	12.91	0.34	0.059
215	TSC080d040ER2640	C	80	40	120	2640	18.33	0.49	0.083
216	TSA(C)080d040ER1980	A & C	80	40	150	1980	24.44	0.65	0.111
217	TSA(C)080d040ER1670	A & C	80	40	180	1670	28.98	0.77	0.132
218	TSA(C)080d040ER1410	A & C	80	40	210	1410	34.33	0.91	0.156
219	TSC100d000ER6660	C	100	0	30	6660	7.27	0.09	0.033

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
220	TSA(C)100d000ER3340	A & C	100	0	60	3340	14.49	0.18	0.066
221	TSA(C)100d000ER2100	A & C	100	0	90	2100	23.05	0.29	0.105
222	TSA(C)100d000ER1410	A & C	100	0	120	1410	34.33	0.44	0.156
223	TSA(C)100d000ER1060	A & C	100	0	150	1060	45.66	0.58	0.208
224	TSA(C)100d000ER888	A & C	100	0	180	888	54.5	0.69	0.248
225	TSA(C)100d000ER747	A & C	100	0	210	747	64.79	0.82	0.295
226	TSC100d006ER6660	C	100	6	30	6660	7.27	0.09	0.033
227	TSA(C)100d006ER3340	A & C	100	6	60	3340	14.49	0.19	0.066
228	TSA(C)100d006ER2100	A & C	100	6	90	2100	23.05	0.29	0.105
229	TSA(C)100d006ER1410	A & C	100	6	120	1410	34.33	0.44	0.156
230	TSA(C)100d006ER1120	A & C	100	6	150	1120	43.21	0.55	0.196
231	TSA(C)100d006ER888	A & C	100	6	180	888	54.5	0.7	0.248
232	TSA(C)100d006ER747	A & C	100	6	210	747	64.79	0.83	0.295
233	TSC100d013ER6660	C	100	13	30	6660	7.27	0.09	0.033
234	TSA(C)100d013ER3340	A & C	100	13	60	3340	14.49	0.19	0.066
235	TSA(C)100d013ER2100	A & C	100	13	90	2100	23.05	0.3	0.105
236	TSA(C)100d013ER1410	A & C	100	13	120	1410	34.33	0.44	0.156
237	TSA(C)100d013ER1120	A & C	100	13	150	1120	43.21	0.56	0.196
238	TSA(C)100d013ER888	A & C	100	13	180	888	54.5	0.71	0.248
239	TSA(C)100d013ER747	A & C	100	13	210	747	64.79	0.84	0.295
240	TSC100d025ER7050	C	100	25	30	7050	6.87	0.09	0.031
241	TSA(C)100d025ER3540	A & C	100	25	60	3540	13.67	0.19	0.062
242	TSA(C)100d025ER2220	A & C	100	25	90	2220	21.8	0.3	0.099
243	TSA(C)100d025ER1490	A & C	100	25	120	1490	32.48	0.44	0.148
244	TSA(C)100d025ER1190	A & C	100	25	150	1190	40.67	0.55	0.185
245	TSA(C)100d025ER941	A & C	100	25	180	941	51.43	0.7	0.234
246	TSA(C)100d025ER791	A & C	100	25	210	791	61.19	0.83	0.278
247	TSC100d050ER8880	C	100	50	30	8880	5.45	0.09	0.025
248	TSC100d050ER4460	C	100	50	60	4460	10.85	0.18	0.049
249	TSA(C)100d050ER2800	A & C	100	50	90	2800	17.29	0.29	0.079
250	TSA(C)100d050ER1870	A & C	100	50	120	1870	25.88	0.44	0.118
251	TSA(C)100d050ER1410	A & C	100	50	150	1410	34.33	0.58	0.156
252	TSA(C)100d050ER1190	A & C	100	50	180	1190	40.67	0.69	0.185
253	TSA(C)100d050ER1000	A & C	100	50	210	1000	48.4	0.82	0.22
254	TSA(C)125d000ER4460	A & C	125	0	30	4460	10.85	0.09	0.049
255	TSA(C)125d000ER2350	A & C	125	0	60	2350	20.6	0.17	0.094
256	TSA(C)125d000ER1410	A & C	125	0	90	1410	34.33	0.28	0.156
257	TSA(C)125d000ER1000	A & C	125	0	120	1000	48.4	0.39	0.22
258	TSA(C)125d000ER747	A & C	125	0	150	747	64.79	0.53	0.295
259	TSA(C)125d000ER629	A & C	125	0	180	629	76.95	0.63	0.35
260	TSA(C)125d000ER500	A & C	125	0	210	500	96.8	0.79	0.44
261	TSA(C)125d008ER4720	A & C	125	8	30	4720	10.25	0.08	0.047
262	TSA(C)125d008ER2350	A & C	125	8	60	2350	20.6	0.17	0.094
263	TSA(C)125d008ER1410	A & C	125	8	90	1410	34.33	0.28	0.156
264	TSA(C)125d008ER1000	A & C	125	8	120	1000	48.4	0.4	0.22
265	TSA(C)125d008ER747	A & C	125	8	150	747	64.79	0.53	0.295
266	TSA(C)125d008ER629	A & C	125	8	180	629	76.95	0.63	0.35
267	TSA(C)125d008ER500	A & C	125	8	210	500	96.8	0.79	0.44
268	TSA(C)125d016ER4								

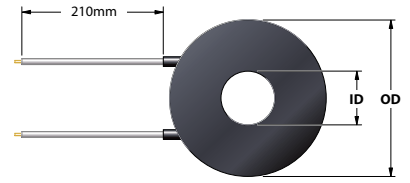
# STANDARD | Round 220V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
293	TSA(C)160d000ER500	A & C	160	0	150	500	96.8	0.48	0.44
294	TSA(C)160d000ER421	A & C	160	0	180	421	114.96	0.57	0.523
295	TSA(C)160d000ER354	A & C	160	0	210	354	136.72	0.68	0.621
296	TSA(C)160d005ER3150	A & C	160	5	30	3150	15.37	0.08	0.07
297	TSA(C)160d005ER1580	A & C	160	5	60	1580	30.63	0.15	0.139
298	TSA(C)160d005ER1000	A & C	160	5	90	1000	48.4	0.24	0.22
299	TSA(C)160d005ER666	A & C	160	5	120	666	72.67	0.36	0.33
300	TSA(C)160d005ER500	A & C	160	5	150	500	96.8	0.48	0.44
301	TSA(C)160d005ER421	A & C	160	5	180	421	114.96	0.57	0.523
302	TSA(C)160d005ER354	A & C	160	5	210	354	136.72	0.68	0.621
303	TSA(C)160d010ER3150	A & C	160	10	30	3150	15.37	0.08	0.07
304	TSA(C)160d010ER1580	A & C	160	10	60	1580	30.63	0.15	0.139
305	TSA(C)160d010ER1000	A & C	160	10	90	1000	48.4	0.24	0.22
306	TSA(C)160d010ER666	A & C	160	10	120	666	72.67	0.36	0.33
307	TSA(C)160d010ER530	A & C	160	10	150	530	91.32	0.46	0.415
308	TSA(C)160d010ER421	A & C	160	10	180	421	114.96	0.57	0.523
309	TSA(C)160d010ER354	A & C	160	10	210	354	136.72	0.68	0.621
310	TSA(C)160d020ER3150	A & C	160	20	30	3150	15.37	0.08	0.07
311	TSA(C)160d020ER1580	A & C	160	20	60	1580	30.63	0.15	0.139
312	TSA(C)160d020ER1000	A & C	160	20	90	1000	48.4	0.24	0.22
313	TSA(C)160d020ER666	A & C	160	20	120	666	72.67	0.37	0.33
314	TSA(C)160d020ER530	A & C	160	20	150	530	91.32	0.46	0.415
315	TSA(C)160d020ER421	A & C	160	20	180	421	114.96	0.58	0.523
316	TSA(C)160d020ER354	A & C	160	20	210	354	136.72	0.69	0.621
317	TSA(C)160d040ER3340	A & C	160	40	30	3340	14.49	0.08	0.066
318	TSA(C)160d040ER1670	A & C	160	40	60	1670	28.98	0.15	0.132
319	TSA(C)160d040ER1060	A & C	160	40	90	1060	45.66	0.24	0.208
320	TSA(C)160d040ER705	A & C	160	40	120	705	68.65	0.36	0.312
321	TSA(C)160d040ER561	A & C	160	40	150	561	86.27	0.46	0.392
322	TSA(C)160d040ER446	A & C	160	40	180	446	108.52	0.58	0.493
323	TSA(C)160d040ER375	A & C	160	40	210	375	129.07	0.68	0.587
324	TSA(C)160d080ER4210	A & C	160	80	30	4210	11.5	0.08	0.052
325	TSA(C)160d080ER2100	A & C	160	80	60	2100	23.05	0.15	0.105
326	TSA(C)160d080ER1330	A & C	160	80	90	1330	36.39	0.24	0.165
327	TSA(C)160d080ER888	A & C	160	80	120	888	54.5	0.36	0.248
328	TSA(C)160d080ER666	A & C	160	80	150	666	72.67	0.48	0.33
329	TSA(C)160d080ER561	A & C	160	80	180	561	86.27	0.57	0.392
330	TSA(C)160d080ER472	A & C	160	80	210	472	102.54	0.68	0.466
331	TSA(C)200d000ER2220	A & C	200	0	30	2220	21.8	0.07	0.099
332	TSA(C)200d000ER1060	A & C	200	0	60	1060	45.66	0.15	0.208
333	TSA(C)200d000ER666	A & C	200	0	90	666	72.67	0.23	0.33
334	TSA(C)200d000ER472	A & C	200	0	120	472	102.54	0.33	0.466
335	TSA(C)200d000ER354	A & C	200	0	150	354	136.72	0.44	0.621
336	TSA(C)200d000ER297	A & C	200	0	180	297	162.96	0.52	0.741
337	TSA(C)200d000ER235	A & C	200	0	210	235	205.96	0.66	0.936
338	TSA(C)200d006ER2220	A & C	200	6	30	2220	21.8	0.07	0.099
339	TSA(C)200d006ER1060	A & C	200	6	60	1060	45.66	0.15	0.208
340	TSA(C)200d006ER666	A & C	200	6	90	666	72.67	0.23	0.33
341	TSA(C)200d006ER472	A & C	200	6	120	472	102.54	0.33	0.466
342	TSA(C)200d006ER354	A & C	200	6	150	354	136.72	0.44	0.621
343	TSA(C)200d006ER297	A & C	200	6	180	297	162.96	0.52	0.741
344	TSA(C)200d006ER235	A & C	200	6	210	235	205.96	0.66	0.936
345	TSA(C)200d013ER2220	A & C	200	13	30	2220	21.8	0.07	0.099
346	TSA(C)200d013ER1060	A & C	200	13	60	1060	45.66	0.15	0.208
347	TSA(C)200d013ER666	A & C	200	13	90	666	72.67	0.23	0.33
348	TSA(C)200d013ER472	A & C	200	13	120	472	102.54	0.33	0.466
349	TSA(C)200d013ER354	A & C	200	13	150	354	136.72	0.44	0.621
350	TSA(C)200d013ER297	A & C	200	13	180	297	162.96	0.52	0.741
351	TSA(C)200d013ER235	A & C	200	13	210	235	205.96	0.66	0.936
352	TSA(C)200d025ER2220	A & C	200	25	30	2220	21.8	0.07	0.099
353	TSA(C)200d025ER1120	A & C	200	25	60	1120	43.21	0.14	0.196
354	TSA(C)200d025ER705	A & C	200	25	90	705	68.65	0.22	0.312
355	TSA(C)200d025ER472	A & C	200	25	120	472	102.54	0.33	0.466
356	TSA(C)200d025ER354	A & C	200	25	150	354	136.72	0.44	0.621
357	TSA(C)200d025ER297	A & C	200	25	180	297	162.96	0.53	0.741
358	TSA(C)200d025ER249	A & C	200	25	210	249	194.38	0.63	0.884
359	TSA(C)200d050ER2350	A & C	200	50	30	2350	20.6	0.07	0.094
360	TSA(C)200d050ER1120	A & C	200	50	60	1120	43.21	0.15	0.196
361	TSA(C)200d050ER705	A & C	200	50	90	705	68.65	0.23	0.312
362	TSA(C)200d050ER500	A & C	200	50	120	500	96.8	0.33	0.44
363	TSA(C)200d050ER375	A & C	200	50	150	375	129.07	0.44	0.587
364	TSA(C)200d050ER315	A & C	200	50	180	315	153.65	0.52	0.698
365	TSA(C)200d050ER249	A & C	200	50	210	249	194.38	0.66	0.884

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
366	TSA(C)200d100ER2970	A & C	200	100	30	2970	16.3	0.07	0.074
367	TSA(C)200d100ER1410	A & C	200	100	60	1410	34.33	0.15	0.156
368	TSA(C)200d100ER888	A & C	200	100	90	888	54.5	0.23	0.248
369	TSA(C)200d100ER629	A & C	200	100	120	629	76.95	0.33	0.35
370	TSA(C)200d100ER472	A & C	200	100	150	472	102.54	0.44	0.466
371	TSA(C)200d100ER397	A & C	200	100	180	397	121.91	0.52	0.554
372	TSA(C)200d000ER315	A & C	200	100	210	315	153.65	0.65	0.698
373	TSA(C)250d000ER1490	A & C	250	0	30	1490	32.48	0.07	0.148
374	TSA(C)250d000ER747	A & C	250	0	60	747	64.79	0.13	0.295
375	TSA(C)250d000ER472	A & C	250	0	90	472	102.54	0.21	0.466
376	TSA(C)250d000ER315	A & C	250	0	120	315	153.65	0.31	0.698
377	TSA(C)250d000ER249	A & C	250	0	150	249	194.38	0.4	0.884
378	TSA(C)250d000ER198	A & C	250	0	180	198	244.44	0.5	1.111
379	TSA(C)250d000ER167	A & C	250	0	210	167	289.82	0.59	1.317
380	TSA(C)250d008ER1490	A & C	250	8	30	1490	32.48	0.07	0.148
381	TSA(C)250d008ER747	A & C	250	8	60	747	64.79	0.13	0.295
382	TSA(C)250d008ER472	A & C	250	8	90	472	102.54	0.21	0.466
383	TSA(C)250d008ER315	A & C	250	8	120	315	153.65	0.31	0.698
384	TSA(C)250d008ER249	A & C	250	8	150	249	194.38	0.4	0.884
385	TSA(C)250d008ER198	A & C	250	8	180	198	244.44	0.5	1.111
386	TSA(C)250d008ER167	A & C	250	8	210	167	289.82	0.59	1.317
387	TSA(C)250d016ER1490	A & C	250	16	30	1490	32.48	0.07	0.148
388	TSA(C)250d016ER747	A & C	250	16	60	747	64.79	0.13	0.295
389	TSA(C)250d016ER472	A & C	250	16	90	472	102.54	0.21	0.466
390	TSA(C)250d016ER315	A & C	250	16	120	315	153.65	0.31	0.698
391	TSA(C)250d016ER249	A & C	250	16	150	249	194.38	0.4	0.884
392	TSA(C)250d016ER198	A & C	250	16	180	198	244.44	0.5	1.111
393	TSA(C)250d016ER167	A & C	250	16	210	167	289.82	0.59	1.317
394	TSA(C)250d032ER1490	A & C	250	32	30	1490	32.48	0.07	0.148
395	TSA(C)250d032ER747	A & C	250	32	60	747	64.79	0.13	0.295
396	TSA(C)250d032ER472	A & C	250	32	90	472	102.54	0.21	0.466
397	TSA(C)250d032ER334	A & C	250	32	120	334	144.91	0.3	0.659
398	TSA(C)250d032ER249	A & C	250	32	150	249	194.38	0.4	0.884
399	TSA(C)250d032ER210	A & C	250	32	180	210	230.48	0.48	1.048
400	TSA(C)250d032ER167	A & C	250	32	210	167	289.82	0.6	1.317
401	TSA(C)250d063ER1580	A & C	250	63	30	1580	30.63	0.07	0.139
402	TSA(C)250d063ER791	A & C	250	63	60	791	61.19	0.13	0.278
403	TSA(C)250d063ER500	A & C	250	63	90	500	96.8	0.21	0.44
404	TSA(C)250d063ER334	A & C	250	63	120	334	144.91	0.32	0.659
405	TSA(C)250d063ER264	A & C	250	63	150	264	183.33	0.4	0.833
406	TSA(C)250d063ER222	A & C	250	63	180	222	218.02	0.47	0.991
407	TSA(C)250d063ER177	A & C	250	63	210	177	273.45	0.59	1.243
408	TSA(C)250d125ER1980	A & C	250	125	30	1980	24.44	0.07	0.111
409	TSA(C)250d125ER1000	A & C	250	125	60	1000	48.4	0.13	0.22
410	TSA(C)250d125ER629	A & C	250	125	90	629	76.95	0.21	0.35
411	TSA(C)250d125ER421	A & C	250	125					

# STANDARD | Round 220V

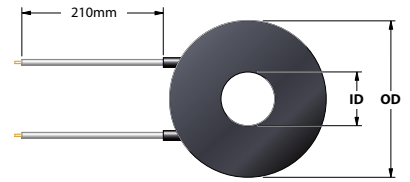


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
439	TSA(C)300d020ER235	A & C	300	20	120	235	205.96	0.29	0.936
440	TSA(C)300d020ER177	A & C	300	20	150	177	273.45	0.39	1.243
441	TSA(C)300d020ER149	A & C	300	20	180	149	324.83	0.46	1.477
442	TSA(C)300d020ER119	A & C	300	20	210	119	406.72	0.58	1.849
443	TSA(C)300d040ER1120	A & C	300	40	30	1120	43.21	0.06	0.196
444	TSA(C)300d040ER561	A & C	300	40	60	561	86.27	0.12	0.392
445	TSA(C)300d040ER354	A & C	300	40	90	354	136.72	0.2	0.621
446	TSA(C)300d040ER235	A & C	300	40	120	235	205.96	0.3	0.936
447	TSA(C)300d040ER187	A & C	300	40	150	187	258.82	0.37	1.176
448	TSA(C)300d040ER149	A & C	300	40	180	149	324.83	0.47	1.477
449	TSA(C)300d040ER126	A & C	300	40	210	126	384.13	0.55	1.746
450	TSA(C)300d080ER1190	A & C	300	80	30	1190	40.67	0.06	0.185
451	TSA(C)300d080ER594	A & C	300	80	60	594	81.48	0.12	0.37

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
452	TSA(C)300d080ER375	A & C	300	80	90	375	129.07	0.2	0.587
453	TSA(C)300d080ER249	A & C	300	80	120	249	194.38	0.3	0.884
454	TSA(C)300d080ER198	A & C	300	80	150	198	244.44	0.37	1.111
455	TSA(C)300d080ER158	A & C	300	80	180	158	306.33	0.47	1.392
456	TSA(C)300d080ER133	A & C	300	80	210	133	363.91	0.55	1.654
457	TSA(C)300d160ER1490	A & C	300	160	30	1490	32.48	0.06	0.148
458	TSA(C)300d160ER747	A & C	300	160	60	747	64.79	0.13	0.295
459	TSA(C)300d160ER472	A & C	300	160	90	472	102.54	0.2	0.466
460	TSA(C)300d160ER334	A & C	300	160	120	334	144.91	0.29	0.659
461	TSA(C)300d160ER249	A & C	300	160	150	249	194.38	0.38	0.884
462	TSA(C)300d160ER210	A & C	300	160	180	210	230.48	0.46	1.048
463	TSA(C)300d160ER167	A & C	300	160	210	167	289.82	0.57	1.317

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5.9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC



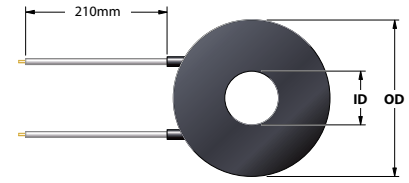
# STANDARD | Round 230V

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000FR79100	C	10	0	90	79100	0.67	0.85	0.003
2	TSC010d000FR56100	C	10	0	120	56100	0.94	1.2	0.004
3	TSC010d000FR42100	C	10	0	150	42100	1.26	1.6	0.005
4	TSC010d000FR33400	C	10	0	180	33400	1.58	2.01	0.007
5	TSC010d000FR28000	C	10	0	210	28000	1.89	2.41	0.008
6	TSC010d005FR74700	C	10	5	120	74700	0.71	1.21	0.003
7	TSC010d005FR56100	C	10	5	150	56100	0.94	1.6	0.004
8	TSC010d005FR44600	C	10	5	180	44600	1.19	2.02	0.005
9	TSC010d005FR37500	C	10	5	210	37500	1.41	2.39	0.006
10	TSC013d000FR177000	C	13	0	30	177000	0.3	0.23	0.001
11	TSC013d000FR83800	C	13	0	60	83800	0.63	0.47	0.003
12	TSC013d000FR53000	C	13	0	90	53000	1	0.75	0.004
13	TSC013d000FR37500	C	13	0	120	37500	1.41	1.06	0.006
14	TSC013d000FR28000	C	13	0	150	28000	1.89	1.42	0.008
15	TSC013d000FR23500	C	13	0	180	23500	2.25	1.7	0.01
16	TSC013d000FR18700	C	13	0	210	18700	2.83	2.13	0.012
17	TSC013d006FR106000	C	13	6	60	106000	0.5	0.48	0.002
18	TSC013d006FR66600	C	13	6	90	66600	0.79	0.76	0.003
19	TSC013d006FR47200	C	13	6	120	47200	1.12	1.07	0.005
20	TSC013d006FR37500	C	13	6	150	37500	1.41	1.35	0.006
21	TSC013d006FR29700	C	13	6	180	29700	1.78	1.7	0.008
22	TSC013d006FR23500	C	13	6	210	23500	2.25	2.15	0.01
23	TSC016d000FR133000	C	16	0	30	133000	0.4	0.2	0.002
24	TSC016d000FR66600	C	16	0	60	66600	0.79	0.39	0.003
25	TSC016d000FR39700	C	16	0	90	39700	1.33	0.66	0.006
26	TSC016d000FR29700	C	16	0	120	29700	1.78	0.89	0.008
27	TSC016d000FR22200	C	16	0	150	22200	2.38	1.18	0.01
28	TSC016d000FR17700	C	16	0	180	17700	2.99	1.49	0.013
29	TSC016d000FR14900	C	16	0	210	14900	3.55	1.77	0.015
30	TSC016d008FR187000	C	16	8	30	187000	0.28	0.19	0.001
31	TSC016d008FR88800	C	16	8	60	88800	0.6	0.4	0.003
32	TSC016d008FR56100	C	16	8	90	56100	0.94	0.62	0.004
33	TSC016d008FR39700	C	16	8	120	39700	1.33	0.88	0.006
34	TSC016d008FR29700	C	16	8	150	29700	1.78	1.18	0.008
35	TSC016d008FR23500	C	16	8	180	23500	2.25	1.49	0.01
36	TSC016d008FR19800	C	16	8	210	19800	2.67	1.77	0.012
37	TSC020d000FR112000	C	20	0	30	112000	0.47	0.15	0.002
38	TSC020d000FR53000	C	20	0	60	53000	1	0.32	0.004
39	TSC020d000FR33400	C	20	0	90	33400	1.58	0.5	0.007
40	TSC020d000FR23500	C	20	0	120	23500	2.25	0.72	0.01
41	TSC020d000FR18700	C	20	0	150	18700	2.83	0.9	0.012
42	TSC020d000FR14900	C	20	0	180	14900	3.55	1.13	0.015
43	TSC020d000FR12600	C	20	0	210	12600	4.2	1.34	0.018
44	TSC020d005FR119000	C	20	5	30	119000	0.44	0.15	0.002
45	TSC020d005FR59400	C	20	5	60	59400	0.89	0.3	0.004
46	TSC020d005FR35400	C	20	5	90	35400	1.49	0.51	0.006

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
47	TSC020d005FR24900	C	20	5	120	24900	2.12	0.72	0.009
48	TSC020d005FR19800	C	20	5	150	19800	2.67	0.91	0.012
49	TSC020d005FR15800	C	20	5	180	15800	3.35	1.14	0.015
50	TSC020d005FR13300	C	20	5	210	13300	3.98	1.35	0.017
51	TSC020d010FR149000	C	20	10	30	149000	0.36	0.15	0.002
52	TSC020d010FR70500	C	20	10	60	70500	0.75	0.32	0.003
53	TSC020d010FR44600	C	20	10	90	44600	1.19	0.51	0.005
54	TSC020d010FR31500	C	20	10	120	31500	1.68	0.71	0.007
55	TSC020d010FR24900	C	20	10	150	24900	2.12	0.9	0.009
56	TSC020d010FR19800	C	20	10	180	19800	2.67	1.13	0.012
57	TSC020d010FR16700	C	20	10	210	16700	3.17	1.35	0.014
58	TSC025d000FR74700	C	25	0	30	74700	0.71	0.14	0.003
59	TSC025d000FR35400	C	25	0	60	35400	1.49	0.3	0.006
60	TSC025d000FR22200	C	25	0	90	22200	2.38	0.48	0.01
61	TSC025d000FR15800	C	25	0	120	15800	3.35	0.68	0.015
62	TSC025d000FR12600	C	25	0	150	12600	4.2	0.86	0.018
63	TSC025d000FR10000	C	25	0	180	10000	5.29	1.08	0.023
64	TSC025d000FR8380	C	25	0	210	8380	6.31	1.29	0.027
65	TSC025d006FR79100	C	25	6	30	79100	0.67	0.14	0.003
66	TSC025d006FR37500	C	25	6	60	37500	1.41	0.3	0.006
67	TSC025d006FR23500	C	25	6	90	23500	2.25	0.49	0.01
68	TSC025d006FR16700	C	25	6	120	16700	3.17	0.69	0.014
69	TSC025d006FR13300	C	25	6	150	13300	3.98	0.86	0.017
70	TSC025d006FR10600	C	25	6	180	10600	4.99	1.08	0.022
71	TSC025d006FR8880	C	25	6	210	8880	5.96	1.29	0.026
72	TSC025d013FR100000	C	25	13	30	100000	0.53	0.15	0.002
73	TSC025d013FR50000	C	25	13	60	50000	1.06	0.3	0.005
74	TSC025d013FR29700	C	25	13	90	29700	1.78	0.5	0.008
75	TSC025d013FR22200	C	25	13	120	22200	2.38	0.66	0.01
76	TSC025d013FR16700	C	25	13	150	16700	3.17	0.89	0.014
77	TSC025d013FR14100	C	25	13	180	14100	3.75	1.05	0.016
78	TSC025d013FR11900	C	25	13	210	11900	4.45	1.24	0.019
79	TSC032d000FR50000	C	32	0	30	50000	1.06	0.13	0.005
80	TSC032d000FR23500	C	32	0	60	23500	2.25	0.28	0.01
81	TSC032d000FR14100	C	32	0	90	14100	3.75	0.47	0.016
82	TSC032d000FR10600	C	32	0	120	10600	4.99	0.62	0.022
83	TSC032d000FR7910	C	32	0	150	7910	6.69	0.83	0.029
84	TSC032d000FR6660	C	32	0	180	6660	7.94	0.99	0.035
85	TSC032d000FR5610	C	32	0	210	5610	9.43	1.17	0.041
86	TSC032d008FR53000	C	32	8	30	53000	1	0.13	0.004
87	TSC032d008FR24900	C	32	8	60	24900	2.12	0.28	0.009
88	TSC032d008FR14900	C	32	8	90	14900	3.55	0.47	0.015
89	TSC032d008FR11200	C	32	8	120	11200	4.72	0.63	0.021
90	TSC032d008FR8880	C	32	8	150	8880	5.96	0.79	0.026
91	TSC032d008FR7050	C	32	8	180	7050	7.5		



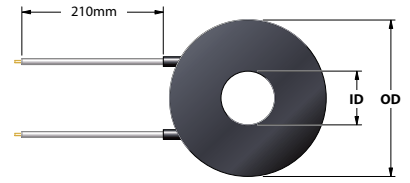
# STANDARD | Round 230V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
93	TSC032d016FR66600	C	32	16	30	66600	0.79	0.13	0.003
94	TSC032d016FR31500	C	32	16	60	31500	1.68	0.28	0.007
95	TSC032d016FR18700	C	32	16	90	18700	2.83	0.47	0.012
96	TSC032d016FR14100	C	32	16	120	14100	3.75	0.62	0.016
97	TSC032d016FR10600	C	32	16	150	10600	4.99	0.83	0.022
98	TSC032d016FR8880	C	32	16	180	8880	5.96	0.99	0.026
99	TSC032d016FR7470	C	32	16	210	7470	7.08	1.17	0.031
100	TSC040d000FR33400	C	40	0	30	33400	1.58	0.13	0.007
101	TSC040d000FR15800	C	40	0	60	15800	3.35	0.27	0.015
102	TSC040d000FR9410	C	40	0	90	9410	5.62	0.45	0.024
103	TSC040d000FR7050	C	40	0	120	7050	7.5	0.6	0.033
104	TSC040d000FR5300	C	40	0	150	5300	9.98	0.79	0.043
105	TSC040d000FR4460	C	40	0	180	4460	11.86	0.94	0.052
106	TSC040d000FR3750	C	40	0	210	3750	14.11	1.12	0.061
107	TSC040d005FR33400	C	40	5	30	33400	1.58	0.13	0.007
108	TSC040d005FR15800	C	40	5	60	15800	3.35	0.27	0.015
109	TSC040d005FR10000	C	40	5	90	10000	5.29	0.43	0.023
110	TSC040d005FR7050	C	40	5	120	7050	7.5	0.61	0.033
111	TSC040d005FR5610	C	40	5	150	5610	9.43	0.76	0.041
112	TSC040d005FR4460	C	40	5	180	4460	11.86	0.96	0.052
113	TSC040d005FR3750	C	40	5	210	3750	14.11	1.14	0.061
114	TSC040d010FR35400	C	40	10	30	35400	1.49	0.13	0.006
115	TSC040d010FR16700	C	40	10	60	16700	3.17	0.27	0.014
116	TSC040d010FR10600	C	40	10	90	10600	4.99	0.42	0.022
117	TSC040d010FR7470	C	40	10	120	7470	7.08	0.6	0.031
118	TSC040d010FR5940	C	40	10	150	5940	8.91	0.76	0.039
119	TSC040d010FR4720	C	40	10	180	4720	11.21	0.95	0.049
120	TSC040d010FR3970	C	40	10	210	3970	13.32	1.13	0.058
121	TSC040d020FR44600	C	40	20	30	44600	1.19	0.13	0.005
122	TSC040d020FR21000	C	40	20	60	21000	2.52	0.27	0.011
123	TSC040d020FR13300	C	40	20	90	13300	3.98	0.42	0.017
124	TSC040d020FR9410	C	40	20	120	9410	5.62	0.6	0.024
125	TSC040d020FR7050	C	40	20	150	7050	7.5	0.8	0.033
126	TSC040d020FR5940	C	40	20	180	5940	8.91	0.95	0.039
127	TSC040d020FR5000	C	40	20	210	5000	10.58	1.12	0.046
128	TSC050d000FR22200	C	50	0	30	22200	2.38	0.12	0.01
129	TSC050d000FR10600	C	50	0	60	10600	4.99	0.25	0.022
130	TSC050d000FR6660	C	50	0	90	6660	7.94	0.4	0.035
131	TSC050d000FR4720	C	50	0	120	4720	11.21	0.57	0.049
132	TSC050d000FR3750	C	50	0	150	3750	14.11	0.72	0.061
133	TSC050d000FR2970	C	50	0	180	2970	17.81	0.91	0.077
134	TSC050d000FR2490	C	50	0	210	2490	21.24	1.08	0.092
135	TSC050d006FR22200	C	50	6	30	22200	2.38	0.12	0.01
136	TSC050d006FR10600	C	50	6	60	10600	4.99	0.26	0.022
137	TSC050d006FR6660	C	50	6	90	6660	7.94	0.41	0.035
138	TSC050d006FR4720	C	50	6	120	4720	11.21	0.58	0.049
139	TSC050d006FR3750	C	50	6	150	3750	14.11	0.73	0.061
140	TSC050d006FR3150	C	50	6	180	3150	16.79	0.87	0.073
141	TSC050d006FR2640	C	50	6	210	2640	20.04	1.04	0.087
142	TSC050d013FR23500	C	50	13	30	23500	2.25	0.12	0.01
143	TSC050d013FR11200	C	50	13	60	11200	4.72	0.26	0.021
144	TSC050d013FR7050	C	50	13	90	7050	7.5	0.41	0.033
145	TSC050d013FR5000	C	50	13	120	5000	10.58	0.58	0.046
146	TSC050d013FR3970	C	50	13	150	3970	13.32	0.73	0.058
147	TSC050d013FR3150	C	50	13	180	3150	16.79	0.92	0.073
148	TSC050d013FR2640	C	50	13	210	2640	20.04	1.09	0.087
149	TSC050d025FR29700	C	50	25	30	29700	1.78	0.12	0.008
150	TSC050d025FR14100	C	50	25	60	14100	3.75	0.25	0.016
151	TSC050d025FR8880	C	50	25	90	8880	5.96	0.4	0.026
152	TSC050d025FR6290	C	50	25	120	6290	8.41	0.57	0.037
153	TSC050d025FR5000	C	50	25	150	5000	10.58	0.72	0.046
154	TSC050d025FR3970	C	50	25	180	3970	13.32	0.9	0.058
155	TSC050d025FR3340	C	50	25	210	3340	15.84	1.08	0.069
156	TSC063d000FR14900	C	63	0	30	14900	3.55	0.11	0.015
157	TSC063d000FR7050	C	63	0	60	7050	7.5	0.24	0.033
158	TSC063d000FR4460	C	63	0	90	4460	11.86	0.38	0.052
159	TSC063d000FR3150	C	63	0	120	3150	16.79	0.54	0.073
160	TSC063d000FR2490	C	63	0	150	2490	21.24	0.68	0.092
161	TSC063d000FR1980	C	63	0	180	1980	26.72	0.86	0.116
162	TSA(C)063d000FR1670	A & C	63	0	210	1670	31.68	1.02	0.138
163	TSC063d008FR14900	C	63	8	30	14900	3.55	0.12	0.015
164	TSC063d008FR7050	C	63	8	60	7050	7.5	0.24	0.033
165	TSC063d008FR4460	C	63	8	90	4460	11.86	0.39	0.052

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
166	TSC063d008FR3150	C	63	8	120	3150	16.79	0.55	0.073
167	TSC063d008FR2490	C	63	8	150	2490	21.24	0.69	0.092
168	TSC063d008FR2100	C	63	8	180	2100	25.19	0.82	0.11
169	TSA(C)063d008FR1670	A & C	63	8	210	1670	31.68	1.03	0.138
170	TSC063d016FR15800	C	63	16	30	15800	3.35	0.11	0.015
171	TSC063d016FR7470	C	63	16	60	7470	7.08	0.24	0.031
172	TSC063d016FR4720	C	63	16	90	4720	11.21	0.38	0.049
173	TSC063d016FR3340	C	63	16	120	3340	15.84	0.54	0.069
174	TSC063d016FR2640	C	63	16	150	2640	20.04	0.69	0.087
175	TSC063d016FR2100	C	63	16	180	2100	25.19	0.86	0.11
176	TSC063d016FR1770	C	63	16	210	1770	29.89	1.02	0.13
177	TSC063d032FR19800	C	63	32	30	19800	2.67	0.12	0.012
178	TSC063d032FR9410	C	63	32	60	9410	5.62	0.24	0.024
179	TSC063d032FR5940	C	63	32	90	5940	8.91	0.39	0.039
180	TSC063d032FR4210	C	63	32	120	4210	12.57	0.54	0.055
181	TSC063d032FR3340	C	63	32	150	3340	15.84	0.68	0.069
182	TSC063d032FR2640	C	63	32	180	2640	20.04	0.87	0.087
183	TSC063d032FR2220	C	63	32	210	2220	23.83	1.03	0.104
184	TSC080d000FR10000	C	80	0	30	10000	5.29	0.11	0.023
185	TSC080d000FR5000	C	80	0	60	5000	10.58	0.21	0.046
186	TSC080d000FR3150	C	80	0	90	3150	16.79	0.33	0.073
187	TSA(C)080d000FR2100	A & C	80	0	120	2100	25.19	0.5	0.11
188	TSA(C)080d000FR1670	A & C	80	0	150	1670	31.68	0.63	0.138
189	TSA(C)080d000FR1330	A & C	80	0	180	1330	39.77	0.79	0.173
190	TSA(C)080d000FR1120	A & C	80	0	210	1120	47.23	0.94	0.205
191	TSC080d005FR10000	C	80	5	30	10000	5.29	0.11	0.023
192	TSC080d005FR5000	C	80	5	60	5000	10.58	0.21	0.046
193	TSC080d005FR3150	C	80	5	90	3150	16.79	0.34	0.073
194	TSA(C)080d005FR2100	A & C	80	5	120	2100	25.19	0.5	0.11
195	TSA(C)080d005FR1670	A & C	80	5	150	1670	31.68	0.63	0.138
196	TSA(C)080d005FR1330	A & C	80	5	180	1330	39.77	0.79	0.173
197	TSA(C)080d005FR1120	A & C	80	5	210	1120	47.23	0.94	0.205
198	TSC080d010FR10000	C	80	10	30	10000	5.29	0.11	0.023
199	TSC080d010FR5000	C	80	10	60	5000	10.58	0.21	0.046
200	TSC080d010FR3150	C	80	10	90	3150	16.79	0.34	0.073
201	TSA(C)080d010FR2220	A & C	80	10	120	2220	23.83	0.48	0.104
202	TSA(C)080d010FR1670	A & C	80	10	150	1670	31.68	0.64	0.138
203	TSA(C)080d010FR1410	A & C	80	10	180	1410	37.52	0.76	0.163
204	TSA(C)080d010FR1120	A & C	80	10	210	1120	47.23	0.95	0.205
205	TSC080d020FR10600	C	80	20	30	10600	4.99	0.11	0.022
206	TSC080d020FR5300	C	80	20	60	5300	9.98	0.21	0.043
207	TSC080d020FR3340	C	80	20	90	3340	15.84	0.34	0.069
208	TSA(C)080d020FR2350	A & C	80	20	120	2350	22.51	0.48	0.098
209	TSA(C)080d020FR1770	A & C	80	20	150	1770	29.89	0.63	0.13
210	TSA(C)080d020FR1490	A & C	80	20	180	1490	35.5	0.75	0.154
211	TSA(C)080d020FR1190	A & C	80	20	210	1190	44.45	0.94	0.193
212	TSC080d040FR13300	C	80	40	30	13300	3.98	0.11	0.017
213	TSC080d040FR6660	C	80	40	60	6660	7.94	0.21	0.035
214	TSC080d040FR4210	C	80	40	90	4210	12.57	0.33	0.055
215	TSC080d040FR2800	C	80	40	120	2800	18.89	0.5	0.082
216	TSC080d040FR2220	C	80	40	150	2220	23.83	0.63	0.104
217	TSA(C)080d040FR1770	A & C	80	40	180	1770	29.89	0.79	0.13

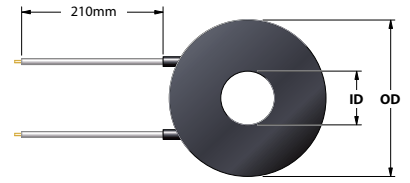
# STANDARD | Round 230V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
239	TSA(C)100d013FR791	A & C	100	13	210	791	66.88	0.87	0.291
240	TSC100d025FR7470	C	100	25	30	7470	7.08	0.1	0.031
241	TSA(C)100d025FR3750	A & C	100	25	60	3750	14.11	0.19	0.061
242	TSA(C)100d025FR2350	A & C	100	25	90	2350	22.51	0.31	0.098
243	TSA(C)100d025FR1670	A & C	100	25	120	1670	31.68	0.43	0.138
244	TSA(C)100d025FR1260	A & C	100	25	150	1260	41.98	0.57	0.183
245	TSA(C)100d025FR1060	A & C	100	25	180	1060	49.91	0.68	0.217
246	TSA(C)100d025FR838	A & C	100	25	210	838	63.13	0.86	0.274
247	TSC100d050FR9410	C	100	50	30	9410	5.62	0.1	0.024
248	TSC100d050FR4720	C	100	50	60	4720	11.21	0.19	0.049
249	TSA(C)100d050FR2970	A & C	100	50	90	2970	17.81	0.3	0.077
250	TSA(C)100d050FR1980	A & C	100	50	120	1980	26.72	0.45	0.116
251	TSA(C)100d050FR1580	A & C	100	50	150	1580	33.48	0.57	0.146
252	TSA(C)100d050FR1260	A & C	100	50	180	1260	41.98	0.71	0.183
253	TSA(C)100d050FR1060	A & C	100	50	210	1060	49.91	0.85	0.217
254	TSA(C)125d000FR5000	A & C	125	0	30	5000	10.58	0.09	0.046
255	TSA(C)125d000FR2490	A & C	125	0	60	2490	21.24	0.17	0.092
256	TSA(C)125d000FR1580	A & C	125	0	90	1580	33.48	0.27	0.146
257	TSA(C)125d000FR1060	A & C	125	0	120	1060	49.91	0.41	0.217
258	TSA(C)125d000FR838	A & C	125	0	150	838	63.13	0.51	0.274
259	TSA(C)125d000FR666	A & C	125	0	180	666	79.43	0.65	0.345
260	TSA(C)125d000FR561	A & C	125	0	210	561	94.3	0.77	0.41
261	TSA(C)125d008FR5000	A & C	125	8	30	5000	10.58	0.09	0.046
262	TSA(C)125d008FR2490	A & C	125	8	60	2490	21.24	0.17	0.092
263	TSA(C)125d008FR1580	A & C	125	8	90	1580	33.48	0.27	0.146
264	TSA(C)125d008FR1060	A & C	125	8	120	1060	49.91	0.41	0.217
265	TSA(C)125d008FR838	A & C	125	8	150	838	63.13	0.52	0.274
266	TSA(C)125d008FR666	A & C	125	8	180	666	79.43	0.65	0.345
267	TSA(C)125d008FR561	A & C	125	8	210	561	94.3	0.77	0.41
268	TSA(C)125d016FR5000	A & C	125	16	30	5000	10.58	0.09	0.046
269	TSA(C)125d016FR2490	A & C	125	16	60	2490	21.24	0.18	0.092
270	TSA(C)125d016FR1580	A & C	125	16	90	1580	33.48	0.28	0.146
271	TSA(C)125d016FR1060	A & C	125	16	120	1060	49.91	0.41	0.217
272	TSA(C)125d016FR838	A & C	125	16	150	838	63.13	0.52	0.274
273	TSA(C)125d016FR666	A & C	125	16	180	666	79.43	0.66	0.345
274	TSA(C)125d016FR561	A & C	125	16	210	561	94.3	0.78	0.41
275	TSA(C)125d032FR5300	A & C	125	32	30	5300	9.98	0.09	0.043
276	TSA(C)125d032FR2640	A & C	125	32	60	2640	20.04	0.17	0.087
277	TSA(C)125d032FR1670	A & C	125	32	90	1670	31.68	0.28	0.138
278	TSA(C)125d032FR1120	A & C	125	32	120	1120	47.23	0.41	0.205
279	TSA(C)125d032FR888	A & C	125	32	150	888	59.57	0.52	0.259
280	TSA(C)125d032FR705	A & C	125	32	180	705	75.04	0.65	0.326
281	TSA(C)125d032FR594	A & C	125	32	210	594	89.06	0.78	0.387
282	TSC125d063FR6660	C	125	63	30	6660	7.94	0.09	0.035
283	TSA(C)125d063FR3340	A & C	125	63	60	3340	15.84	0.17	0.069
284	TSA(C)125d063FR2100	A & C	125	63	90	2100	25.19	0.28	0.11
285	TSA(C)125d063FR1410	A & C	125	63	120	1410	37.52	0.41	0.163
286	TSA(C)125d063FR1120	A & C	125	63	150	1120	47.23	0.52	0.205
287	TSA(C)125d063FR888	A & C	125	63	180	888	59.57	0.65	0.259
288	TSA(C)125d063FR747	A & C	125	63	210	747	70.82	0.77	0.308
289	TSA(C)160d000FR3340	A & C	160	0	30	3340	15.84	0.08	0.069
290	TSA(C)160d000FR1670	A & C	160	0	60	1670	31.68	0.16	0.138
291	TSA(C)160d000FR1060	A & C	160	0	90	1060	49.91	0.25	0.217
292	TSA(C)160d000FR705	A & C	160	0	120	705	75.04	0.37	0.326
293	TSA(C)160d000FR561	A & C	160	0	150	561	94.3	0.47	0.41
294	TSA(C)160d000FR446	A & C	160	0	180	446	118.61	0.59	0.516
295	TSA(C)160d000FR375	A & C	160	0	210	375	141.07	0.7	0.613
296	TSA(C)160d005FR3340	A & C	160	5	30	3340	15.84	0.08	0.069
297	TSA(C)160d005FR1670	A & C	160	5	60	1670	31.68	0.16	0.138
298	TSA(C)160d005FR1060	A & C	160	5	90	1060	49.91	0.25	0.217
299	TSA(C)160d005FR705	A & C	160	5	120	705	75.04	0.37	0.326
300	TSA(C)160d005FR561	A & C	160	5	150	561	94.3	0.47	0.41
301	TSA(C)160d005FR446	A & C	160	5	180	446	118.61	0.59	0.516
302	TSA(C)160d005FR375	A & C	160	5	210	375	141.07	0.7	0.613
303	TSA(C)160d010FR3340	A & C	160	10	30	3340	15.84	0.08	0.069
304	TSA(C)160d010FR1670	A & C	160	10	60	1670	31.68	0.16	0.138
305	TSA(C)160d010FR1060	A & C	160	10	90	1060	49.91	0.25	0.217
306	TSA(C)160d010FR705	A & C	160	10	120	705	75.04	0.37	0.326
307	TSA(C)160d010FR561	A & C	160	10	150	561	94.3	0.47	0.41
308	TSA(C)160d010FR472	A & C	160	10	180	472	112.08	0.56	0.487
309	TSA(C)160d010FR375	A & C	160	10	210	375	141.07	0.7	0.613
310	TSA(C)160d020FR3540	A & C	160	20	30	3540	14.94	0.08	0.065
311	TSA(C)160d020FR1770	A & C	160	20	60	1770	29.89	0.15	0.13

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
312	TSA(C)160d020FR1060	A & C	160	20	90	1060	49.91	0.25	0.217
313	TSA(C)160d020FR747	A & C	160	20	120	747	70.82	0.36	0.308
314	TSA(C)160d020FR561	A & C	160	20	150	561	94.3	0.48	0.41
315	TSA(C)160d020FR472	A & C	160	20	180	472	112.08	0.57	0.487
316	TSA(C)160d020FR375	A & C	160	20	210	375	141.07	0.71	0.613
317	TSA(C)160d040FR3540	A & C	160	40	30	3540	14.94	0.08	0.065
318	TSA(C)160d040FR1770	A & C	160	40	60	1770	29.89	0.16	0.13
319	TSA(C)160d040FR1120	A & C	160	40	90	1120	47.23	0.25	0.205
320	TSA(C)160d040FR791	A & C	160	40	120	791	66.88	0.35	0.291
321	TSA(C)160d040FR594	A & C	160	40	150	594	89.06	0.47	0.387
322	TSA(C)160d040FR500	A & C	160	40	180	500	105.8	0.56	0.46
323	TSA(C)160d040FR397	A & C	160	40	210	397	133.25	0.71	0.579
324	TSA(C)160d080FR4460	A & C	160	80	30	4460	11.86	0.08	0.052
325	TSA(C)160d080FR2220	A & C	160	80	60	2220	23.83	0.16	0.104
326	TSA(C)160d080FR1410	A & C	160	80	90	1410	37.52	0.25	0.163
327	TSA(C)160d080FR941	A & C	160	80	120	941	56.22	0.37	0.244
328	TSA(C)160d080FR747	A & C	160	80	150	747	70.82	0.47	0.308
329	TSA(C)160d080FR594	A & C	160	80	180	594	89.06	0.59	0.387
330	TSA(C)160d080FR500	A & C	160	80	210	500	105.8	0.7	0.46
331	TSA(C)200d000FR2350	A & C	200	0	30	2350	22.51	0.07	0.098
332	TSA(C)200d000FR1190	A & C	200	0	60	1190	44.45	0.14	0.193
333	TSA(C)200d000FR747	A & C	200	0	90	747	70.82	0.23	0.308
334	TSA(C)200d000FR500	A & C	200	0	120	500	105.8	0.34	0.46
335	TSA(C)200d000FR397	A & C	200	0	150	397	133.25	0.42	0.579
336	TSA(C)200d000FR315	A & C	200	0	180	315	167.94	0.53	0.73
337	TSA(C)200d000FR264	A & C	200	0	210	264	200.38	0.64	0.871
338	TSA(C)200d006FR2350	A & C	200	6	30	2350	22.51	0.07	0.098
339	TSA(C)200d006FR1190	A & C	200	6	60	1190	44.45	0.14	0.193
340	TSA(C)200d006FR747	A & C	200	6	90	747	70.82	0.23	0.308
341	TSA(C)200d006FR500	A & C	200	6	120	500	105.8	0.34	0.46
342	TSA(C)200d006FR397	A & C	200	6	150	397	133.25	0.42	0.579
343	TSA(C)200d006FR315	A & C	200	6	180	315	167.94	0.54	0.73
344	TSA(C)200d006FR264	A & C	200	6	210	264	200.38	0.64	0.871
345	TSA(C)200d013FR2350	A & C	200	13	30	2350	22.51	0.07	0.098
346	TSA(C)200d013FR1190	A & C	200	13	60	1190	44.45	0.14	0.193
347	TSA(C)200d013FR747	A & C	200	13	90	747	70.82	0.23	0.308
348	TSA(C)200d013FR500	A & C	200	13	120	500	105.8	0.34	0.46
349	TSA(C)200d013FR397	A & C	200	13	150	397	133.25	0.43	0.579
350	TSA(C)200d013FR315	A & C	200	13	180	315	167.94	0.54	0.73
351	TSA(C)200d013FR264	A & C	200	13	210	264	200.38	0.64	0.871
352	TSA(C)200d025FR2350	A & C	200	25	30	2350	22.51	0.07	0.098
353	TSA(C)200d025FR1190	A & C	200	25	60	1190	44.45	0.14	0.193
354	TSA(C)200d025FR747	A & C	200	25	90	747	70.82	0.23	0.308
355	TSA(C)200d025FR500	A & C	200	25	120	500	105.8	0.34	0.46
356	TSA(C)200d025FR397	A & C	200	25	150	397	133.25	0.43	0.579
357									

# STANDARD | Round 230V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
385	TSA(C)250d008FR222	A & C	250	8	180	222	238.29	0.49	1.036
386	TSA(C)250d008FR187	A & C	250	8	210	187	282.89	0.58	1.23
387	TSA(C)250d016FR1670	A & C	250	16	30	1670	31.68	0.06	0.138
388	TSA(C)250d016FR838	A & C	250	16	60	838	63.13	0.13	0.274
389	TSA(C)250d016FR530	A & C	250	16	90	530	99.81	0.2	0.434
390	TSA(C)250d016FR354	A & C	250	16	120	354	149.44	0.31	0.65
391	TSA(C)250d016FR280	A & C	250	16	150	280	188.93	0.39	0.821
392	TSA(C)250d016FR222	A & C	250	16	180	222	238.29	0.49	1.036
393	TSA(C)250d016FR187	A & C	250	16	210	187	282.89	0.58	1.23
394	TSA(C)250d032FR1670	A & C	250	32	30	1670	31.68	0.07	0.138
395	TSA(C)250d032FR838	A & C	250	32	60	838	63.13	0.13	0.274
396	TSA(C)250d032FR530	A & C	250	32	90	530	99.81	0.21	0.434
397	TSA(C)250d032FR354	A & C	250	32	120	354	149.44	0.31	0.65
398	TSA(C)250d032FR280	A & C	250	32	150	280	188.93	0.39	0.821
399	TSA(C)250d032FR222	A & C	250	32	180	222	238.29	0.49	1.036
400	TSA(C)250d032FR187	A & C	250	32	210	187	282.89	0.59	1.23
401	TSA(C)250d063FR1770	A & C	250	63	30	1770	29.89	0.07	0.13
402	TSA(C)250d063FR888	A & C	250	63	60	888	59.57	0.13	0.259
403	TSA(C)250d063FR561	A & C	250	63	90	561	94.3	0.21	0.41
404	TSA(C)250d063FR375	A & C	250	63	120	375	141.07	0.31	0.613
405	TSA(C)250d063FR297	A & C	250	63	150	297	178.11	0.39	0.774
406	TSA(C)250d063FR235	A & C	250	63	180	235	225.11	0.49	0.979
407	TSA(C)250d063FR198	A & C	250	63	210	198	267.17	0.58	1.162
408	TSA(C)250d125FR2220	A & C	250	125	30	2220	23.83	0.06	0.124
409	TSA(C)250d125FR1120	A & C	250	125	60	1120	47.23	0.13	0.205
410	TSA(C)250d125FR705	A & C	250	125	90	705	75.04	0.2	0.326
411	TSA(C)250d125FR472	A & C	250	125	120	472	112.08	0.3	0.487
412	TSA(C)250d125FR354	A & C	250	125	150	354	149.44	0.41	0.65
413	TSA(C)250d125FR297	A & C	250	125	180	297	178.11	0.48	0.774
414	TSA(C)250d125FR249	A & C	250	125	210	249	212.45	0.58	0.924
415	TSA(C)300d000FR1190	A & C	300	0	30	1190	44.45	0.06	0.193
416	TSA(C)300d000FR594	A & C	300	0	60	594	89.06	0.13	0.387
417	TSA(C)300d000FR375	A & C	300	0	90	375	141.07	0.2	0.613
418	TSA(C)300d000FR249	A & C	300	0	120	249	212.45	0.3	0.924
419	TSA(C)300d000FR198	A & C	300	0	150	198	267.17	0.38	1.162
420	TSA(C)300d000FR158	A & C	300	0	180	158	334.81	0.47	1.456
421	TSA(C)300d000FR133	A & C	300	0	210	133	397.74	0.56	1.729
422	TSA(C)300d005FR1190	A & C	300	5	30	1190	44.45	0.06	0.193
423	TSA(C)300d005FR594	A & C	300	5	60	594	89.06	0.13	0.387
424	TSA(C)300d005FR375	A & C	300	5	90	375	141.07	0.2	0.613

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
425	TSA(C)300d005FR249	A & C	300	5	120	249	212.45	0.3	0.924
426	TSA(C)300d005FR198	A & C	300	5	150	198	267.17	0.38	1.162
427	TSA(C)300d005FR158	A & C	300	5	180	158	334.81	0.47	1.456
428	TSA(C)300d005FR133	A & C	300	5	210	133	397.74	0.56	1.729
429	TSA(C)300d010FR1190	A & C	300	10	30	1190	44.45	0.06	0.193
430	TSA(C)300d010FR594	A & C	300	10	60	594	89.06	0.13	0.387
431	TSA(C)300d010FR375	A & C	300	10	90	375	141.07	0.2	0.613
432	TSA(C)300d010FR249	A & C	300	10	120	249	212.45	0.3	0.924
433	TSA(C)300d010FR198	A & C	300	10	150	198	267.17	0.38	1.162
434	TSA(C)300d010FR158	A & C	300	10	180	158	334.81	0.47	1.456
435	TSA(C)300d010FR133	A & C	300	10	210	133	397.74	0.56	1.729
436	TSA(C)300d020FR1190	A & C	300	20	30	1190	44.45	0.06	0.193
437	TSA(C)300d020FR594	A & C	300	20	60	594	89.06	0.13	0.387
438	TSA(C)300d020FR375	A & C	300	20	90	375	141.07	0.2	0.613
439	TSA(C)300d020FR249	A & C	300	20	120	249	212.45	0.3	0.924
440	TSA(C)300d020FR198	A & C	300	20	150	198	267.17	0.38	1.162
441	TSA(C)300d020FR158	A & C	300	20	180	158	334.81	0.48	1.456
442	TSA(C)300d020FR133	A & C	300	20	210	133	397.74	0.57	1.729
443	TSA(C)300d040FR1190	A & C	300	40	30	1190	44.45	0.06	0.193
444	TSA(C)300d040FR594	A & C	300	40	60	594	89.06	0.13	0.387
445	TSA(C)300d040FR375	A & C	300	40	90	375	141.07	0.2	0.613
446	TSA(C)300d040FR264	A & C	300	40	120	264	200.38	0.29	0.871
447	TSA(C)300d040FR198	A & C	300	40	150	198	267.17	0.38	1.162
448	TSA(C)300d040FR167	A & C	300	40	180	167	316.77	0.46	1.377
449	TSA(C)300d040FR133	A & C	300	40	210	133	397.74	0.57	1.729
450	TSA(C)300d080FR1260	A & C	300	80	30	1260	41.98	0.06	0.183
451	TSA(C)300d080FR629	A & C	300	80	60	629	84.1	0.13	0.366
452	TSA(C)300d080FR397	A & C	300	80	90	397	133.25	0.2	0.579
453	TSA(C)300d080FR280	A & C	300	80	120	280	188.93	0.29	0.821
454	TSA(C)300d080FR210	A & C	300	80	150	210	251.9	0.38	1.095
455	TSA(C)300d080FR177	A & C	300	80	180	177	298.87	0.46	1.299
456	TSA(C)300d080FR141	A & C	300	80	210	141	375.18	0.57	1.631
457	TSA(C)300d160FR1670	A & C	300	160	30	1670	31.68	0.06	0.138
458	TSA(C)300d160FR838	A & C	300	160	60	838	63.13	0.12	0.274
459	TSA(C)300d160FR530	A & C	300	160	90	530	99.81	0.2	0.434
460	TSA(C)300d160FR354	A & C	300	160	120	354	149.44	0.3	0.65
461	TSA(C)300d160FR280	A & C	300	160	150	280	188.93	0.37	0.821
462	TSA(C)300d160FR222	A & C	300	160	180	222	238.29	0.47	1.036
463	TSA(C)300d160FR187	A & C	300	160	210	187	282.89	0.56	1.23

## OTHER STANDARD ROUND FLEXIBLE HEATER SPECIFICATIONS

Shape : **ROUND**  
 Materials/Type : TSA (Etched); TSC (Nano-Carbon)  
 Outer Diameter : 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 300mm  
 Inner Diameter : 0, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160mm  
 Temp. Rise Ref. (°C) : 30, 60, 90, 150, 180, 210°C  
 Voltage(V) : 1.5, 3, 3.7, 4.2, 5.9, 12, 24, 42, 48, 72, 100, 110, 120, 200, 220, 230, 240VAC/DC

# STANDARD | Round 240V

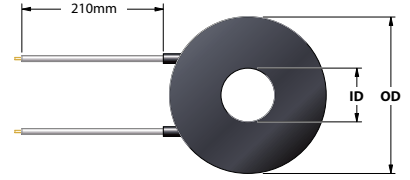
Items that are highlighted in the table are standard models (TSC types). The delivery time for these models is shorter.

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
1	TSC010d000GR83800	C	10	0	90	83800	0.69	0.88	0.003
2	TSC010d000GR62900	C	10	0	120	62900	0.92	1.17	0.004
3	TSC010d000GR47200	C	10	0	150	47200	1.22	1.55	0.005
4	TSC010d000GR37500	C	10	0	180	37500	1.54	1.96	0.006
5	TSC010d000GR29700	C	10	0	210	29700	1.94	2.47	0.008
6	TSC010d005GR62900	C	10	5	150	62900	0.92	1.56	0.004
7	TSC010d005GR50000	C	10	5	180	50000	1.15	1.95	0.005
8	TSC010d005GR39700	C	10	5	210	39700	1.45	2.46	0.006
9	TSC013d000GR94100	C	13	0	60	94100	0.61	0.46	0.003
10	TSC013d000GR56100	C	13	0	90	56100	1.03	0.78	0.004
11	TSC013d000GR42100	C	13	0	120	42100	1.37	1.03	0.006
12	TSC013d000GR31500	C	13	0	150	31500	1.83	1.38	0.008
13	TSC013d000GR24900	C	13	0	180	24900	2.31	1.74	0.01
14	TSC013d000GR21000	C	13	0	210	21000	2.74	2.06	0.011
15	TSC013d006GR119000	C	13	6	60	119000	0.48	0.46	0.002
16	TSC013d006GR74700	C	13	6	90	74700	0.77	0.74	0.003
17	TSC013d006GR53000	C	13	6	120	53000	1.09	1.04	0.005
18	TSC013d006GR39700	C	13	6	150	39700	1.45	1.39	0.006
19	TSC013d006GR31500	C	13	6	180	31500	1.83	1.75	0.008
20	TSC013d006GR26400	C	13	6	210	26400	2.18	2.09	0.009

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
21	TSC016d000GR149000	C	16	0	30	149000	0.39	0.19	0.002
22	TSC016d000GR70500	C	16	0	60	70500	0.82	0.41	0.003
23	TSC016d000GR44600	C	16	0	90	44600	1.29	0.64	0.005
24	TSC016d000GR31500	C	16	0	120	31500	1.83	0.91	0.008
25	TSC016d000GR24900	C	16	0	150	24900	2.31	1.15	0.01
26	TSC016d000GR19800	C	16	0	180	19800	2.91	1.45	0.012
27	TSC016d000GR15800	C	16	0	210	15800	3.65	1.82	0.015
28	TSC016d008GR198000	C	16	8	30	198000	0.29	0.19	0.001
29	TSC016d008GR94100	C	16	8	60	94100	0.61	0.4	0.003
30	TSC016d008GR59400	C	16	8	90	59400	0.97	0.64	0.004
31	TSC016d008GR42100	C	16	8	120	42100	1.37	0.91	0.006
32	TSC016d008GR31500	C	16	8	150	31500	1.83	1.21	0.008
33	TSC016d008GR26400	C	16	8	180	26400	2.18	1.45	0.009
34	TSC016d008GR21000	C	16	8	210				



# STANDARD | Round 240V

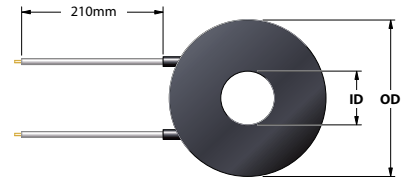


No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
41	TSC020d000GR13300	C	20	0	210	13300	4.33	1.38	0.018
42	TSC020d005GR133000	C	20	5	30	133000	0.43	0.15	0.002
43	TSC020d005GR62900	C	20	5	60	62900	0.92	0.31	0.004
44	TSC020d005GR39700	C	20	5	90	39700	1.45	0.49	0.006
45	TSC020d005GR28000	C	20	5	120	28000	2.06	0.7	0.009
46	TSC020d005GR21000	C	20	5	150	21000	2.74	0.93	0.011
47	TSC020d005GR17700	C	20	5	180	17700	3.25	1.1	0.014
48	TSC020d005GR14900	C	20	5	210	14900	3.87	1.31	0.016
49	TSC020d010GR167000	C	20	10	30	167000	0.34	0.14	0.001
50	TSC020d010GR79100	C	20	10	60	79100	0.73	0.31	0.003
51	TSC020d010GR50000	C	20	10	90	50000	1.15	0.49	0.005
52	TSC020d010GR35400	C	20	10	120	35400	1.63	0.69	0.007
53	TSC020d010GR26400	C	20	10	150	26400	2.18	0.93	0.009
54	TSC020d010GR22200	C	20	10	180	22200	2.59	1.1	0.011
55	TSC020d010GR18700	C	20	10	210	18700	3.08	1.31	0.013
56	TSC025d000GR83800	C	25	0	30	83800	0.69	0.14	0.003
57	TSC025d000GR39700	C	25	0	60	39700	1.45	0.3	0.006
58	TSC025d000GR24900	C	25	0	90	24900	2.31	0.47	0.01
59	TSC025d000GR17700	C	25	0	120	17700	3.25	0.66	0.014
60	TSC025d000GR13300	C	25	0	150	13300	4.33	0.88	0.018
61	TSC025d000GR11200	C	25	0	180	11200	5.14	1.05	0.021
62	TSC025d000GR9410	C	25	0	210	9410	6.12	1.25	0.026
63	TSC025d006GR88800	C	25	6	30	88800	0.65	0.14	0.003
64	TSC025d006GR42100	C	25	6	60	42100	1.37	0.3	0.006
65	TSC025d006GR26400	C	25	6	90	26400	2.18	0.47	0.009
66	TSC025d006GR18700	C	25	6	120	18700	3.08	0.67	0.013
67	TSC025d006GR14100	C	25	6	150	14100	4.09	0.88	0.017
68	TSC025d006GR11900	C	25	6	180	11900	4.84	1.05	0.02
69	TSC025d006GR10000	C	25	6	210	10000	5.76	1.25	0.024
70	TSC025d013GR112000	C	25	13	30	112000	0.51	0.14	0.002
71	TSC025d013GR53000	C	25	13	60	53000	1.09	0.3	0.005
72	TSC025d013GR33400	C	25	13	90	33400	1.72	0.48	0.007
73	TSC025d013GR23500	C	25	13	120	23500	2.45	0.68	0.01
74	TSC025d013GR18700	C	25	13	150	18700	3.08	0.86	0.013
75	TSC025d013GR14900	C	25	13	180	14900	3.87	1.08	0.016
76	TSC025d013GR12600	C	25	13	210	12600	4.57	1.28	0.019
77	TSC032d000GR53000	C	32	0	30	53000	1.09	0.14	0.005
78	TSC032d000GR24900	C	32	0	60	24900	2.31	0.29	0.01
79	TSC032d000GR15800	C	32	0	90	15800	3.65	0.45	0.015
80	TSC032d000GR11200	C	32	0	120	11200	5.14	0.64	0.021
81	TSC032d000GR8880	C	32	0	150	8880	6.49	0.81	0.027
82	TSC032d000GR7050	C	32	0	180	7050	8.17	1.02	0.034
83	TSC032d000GR5940	C	32	0	210	5940	9.7	1.21	0.04
84	TSC032d008GR56100	C	32	8	30	56100	1.03	0.14	0.004
85	TSC032d008GR26400	C	32	8	60	26400	2.18	0.29	0.009
86	TSC032d008GR16700	C	32	8	90	16700	3.45	0.46	0.014
87	TSC032d008GR11900	C	32	8	120	11900	4.84	0.64	0.02
88	TSC032d008GR9410	C	32	8	150	9410	6.12	0.81	0.026
89	TSC032d008GR7470	C	32	8	180	7470	7.71	1.02	0.032
90	TSC032d008GR6290	C	32	8	210	6290	9.16	1.21	0.038
91	TSC032d016GR70500	C	32	16	30	70500	0.82	0.14	0.003
92	TSC032d016GR33400	C	32	16	60	33400	1.72	0.29	0.007
93	TSC032d016GR21000	C	32	16	90	21000	2.74	0.45	0.011
94	TSC032d016GR14900	C	32	16	120	14900	3.87	0.64	0.016
95	TSC032d016GR11900	C	32	16	150	11900	4.84	0.8	0.02
96	TSC032d016GR9410	C	32	16	180	9410	6.12	1.01	0.026
97	TSC032d016GR7910	C	32	16	210	7910	7.28	1.21	0.03
98	TSC040d000GR35400	C	40	0	30	35400	1.63	0.13	0.007
99	TSC040d000GR16700	C	40	0	60	16700	3.45	0.27	0.014
100	TSC040d000GR10600	C	40	0	90	10600	5.43	0.43	0.023
101	TSC040d000GR7470	C	40	0	120	7470	7.71	0.61	0.032
102	TSC040d000GR5940	C	40	0	150	5940	9.7	0.77	0.04
103	TSC040d000GR4720	C	40	0	180	4720	12.2	0.97	0.051
104	TSC040d000GR3970	C	40	0	210	3970	14.51	1.15	0.06
105	TSC040d005GR35400	C	40	5	30	35400	1.63	0.13	0.007
106	TSC040d005GR16700	C	40	5	60	16700	3.45	0.28	0.014
107	TSC040d005GR10600	C	40	5	90	10600	5.43	0.44	0.023
108	TSC040d005GR7470	C	40	5	120	7470	7.71	0.62	0.032
109	TSC040d005GR5940	C	40	5	150	5940	9.7	0.78	0.04
110	TSC040d005GR5000	C	40	5	180	5000	11.52	0.93	0.048
111	TSC040d005GR4210	C	40	5	210	4210	13.68	1.11	0.057
112	TSC040d010GR37500	C	40	10	30	37500	1.54	0.13	0.006
113	TSC040d010GR17700	C	40	10	60	17700	3.25	0.28	0.014

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
114	TSC040d010GR11200	C	40	10	90	11200	5.14	0.44	0.021
115	TSC040d010GR7910	C	40	10	120	7910	7.28	0.62	0.03
116	TSC040d010GR6290	C	40	10	150	6290	9.16	0.78	0.038
117	TSC040d010GR5000	C	40	10	180	5000	11.52	0.98	0.048
118	TSC040d010GR4210	C	40	10	210	4210	13.68	1.16	0.057
119	TSC040d020GR47200	C	40	20	30	47200	1.22	0.13	0.005
120	TSC040d020GR22200	C	40	20	60	22200	2.59	0.27	0.011
121	TSC040d020GR14100	C	40	20	90	14100	4.09	0.43	0.017
122	TSC040d020GR10000	C	40	20	120	10000	5.76	0.61	0.024
123	TSC040d020GR7910	C	40	20	150	7910	7.28	0.77	0.03
124	TSC040d020GR6290	C	40	20	180	6290	9.16	0.97	0.038
125	TSC040d020GR5300	C	40	20	210	5300	10.87	1.15	0.045
126	TSC050d000GR23500	C	50	0	30	23500	2.45	0.12	0.01
127	TSC050d000GR11200	C	50	0	60	11200	5.14	0.26	0.021
128	TSC050d000GR7470	C	50	0	90	7470	7.71	0.39	0.032
129	TSC050d000GR5300	C	50	0	120	5300	10.87	0.55	0.045
130	TSC050d000GR3970	C	50	0	150	3970	14.51	0.74	0.06
131	TSC050d000GR3340	C	50	0	180	3340	17.25	0.88	0.072
132	TSC050d000GR2800	C	50	0	210	2800	20.57	1.05	0.086
133	TSC050d006GR23500	C	50	6	30	23500	2.45	0.13	0.01
134	TSC050d006GR11900	C	50	6	60	11900	4.84	0.25	0.02
135	TSC050d006GR7470	C	50	6	90	7470	7.71	0.4	0.032
136	TSC050d006GR5300	C	50	6	120	5300	10.87	0.56	0.045
137	TSC050d006GR3970	C	50	6	150	3970	14.51	0.75	0.06
138	TSC050d006GR3340	C	50	6	180	3340	17.25	0.89	0.072
139	TSC050d006GR2800	C	50	6	210	2800	20.57	1.06	0.086
140	TSC050d013GR24900	C	50	13	30	24900	2.31	0.13	0.01
141	TSC050d013GR11900	C	50	13	60	11900	4.84	0.26	0.02
142	TSC050d013GR7910	C	50	13	90	7910	7.28	0.4	0.03
143	TSC050d013GR5610	C	50	13	120	5610	10.27	0.56	0.043
144	TSC050d013GR4210	C	50	13	150	4210	13.68	0.75	0.057
145	TSC050d013GR3540	C	50	13	180	3540	16.27	0.89	0.068
146	TSC050d013GR2970	C	50	13	210	2970	19.39	1.06	0.081
147	TSC050d025GR31500	C	50	25	30	31500	1.83	0.12	0.008
148	TSC050d025GR14900	C	50	25	60	14900	3.87	0.26	0.016
149	TSC050d025GR9410	C	50	25	90	9410	6.12	0.42	0.026
150	TSC050d025GR7050	C	50	25	120	7050	8.17	0.55	0.034
151	TSC050d025GR5300	C	50	25	150	5300	10.87	0.74	0.045
152	TSC050d025GR4460	C	50	25	180	4460	12.91	0.88	0.054
153	TSC050d025GR3750	C	50	25	210	3750	15.36	1.04	0.064
154	TSC063d000GR15800	C	63	0	30	15800	3.65	0.12	0.015
155	TSC063d000GR7910	C	63	0	60	7910	7.28	0.23	0.03
156	TSC063d000GR5000	C	63	0	90	5000	11.52	0.37	0.048
157	TSC063d000GR3540	C	63	0	120	3540	16.27	0.52	0.068
158	TSC063d000GR2640	C	63	0	150	2640	21.82	0.7	0.091
159	TSC063d000GR2220	C	63	0	180	2220	25.95	0.83	0.108
160	TSC063d000GR1870	C	63	0	210	1870	30.8	0.99	0.128
161	TSC063d008GR15800	C	63	8	30	15800	3.65	0.12	0.015
162	TSC063d008GR7910	C	63	8	60	7910	7.28	0.24	0.03
163	TSC063d008GR5000	C	63	8	90	5000	11.52	0.38	0.048
164	TSC063d008GR3540	C	63	8	120	3540	16.27	0.53	0.068
165	TSC063d008GR2800	C	63	8	150	2800	20.57	0.67	0.086
166	TSC063d008GR2220	C	63	8	180	2220	25.95	0.85	0.1



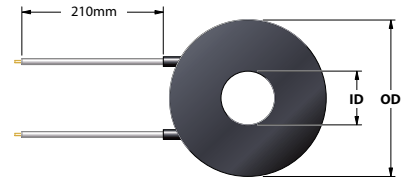
# STANDARD | Round 240V



No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
187	TSA(C)080d000GR1490	A & C	80	0	180	1490	38.66	0.77	0.161
188	TSA(C)080d000GR1260	A & C	80	0	210	1260	45.71	0.91	0.19
189	TSC080d005GR10600	C	80	5	30	10600	5.43	0.11	0.023
190	TSC080d005GR5300	C	80	5	60	5300	10.87	0.22	0.045
191	TSC080d005GR3340	C	80	5	90	3340	17.25	0.34	0.072
192	TSA(C)080d005GR2350	A & C	80	5	120	2350	24.51	0.49	0.102
193	TSA(C)080d005GR1770	A & C	80	5	150	1770	32.54	0.65	0.136
194	TSA(C)080d005GR1490	A & C	80	5	180	1490	38.66	0.77	0.161
195	TSA(C)080d005GR1260	A & C	80	5	210	1260	45.71	0.91	0.19
196	TSC080d010GR11200	C	80	10	30	11200	5.14	0.1	0.021
197	TSC080d010GR5300	C	80	10	60	5300	10.87	0.22	0.045
198	TSC080d010GR3340	C	80	10	90	3340	17.25	0.35	0.072
199	TSA(C)080d010GR2350	A & C	80	10	120	2350	24.51	0.5	0.102
200	TSA(C)080d010GR1870	A & C	80	10	150	1870	30.8	0.62	0.128
201	TSA(C)080d010GR1490	A & C	80	10	180	1490	38.66	0.78	0.161
202	TSA(C)080d010GR1260	A & C	80	10	210	1260	45.71	0.92	0.19
203	TSC080d020GR11200	C	80	20	30	11200	5.14	0.11	0.021
204	TSC080d020GR5610	C	80	20	60	5610	10.27	0.22	0.043
205	TSC080d020GR3540	C	80	20	90	3540	16.27	0.35	0.068
206	TSA(C)080d020GR2490	A & C	80	20	120	2490	23.13	0.49	0.096
207	TSA(C)080d020GR1980	A & C	80	20	150	1980	29.09	0.62	0.121
208	TSA(C)080d020GR1580	A & C	80	20	180	1580	36.46	0.77	0.152
209	TSA(C)080d020GR1330	A & C	80	20	210	1330	43.31	0.92	0.18
210	TSC080d040GR14100	C	80	40	30	14100	4.09	0.11	0.017
211	TSC080d040GR7050	C	80	40	60	7050	8.17	0.22	0.034
212	TSC080d040GR4460	C	80	40	90	4460	12.91	0.34	0.054
213	TSC080d040GR3150	C	80	40	120	3150	18.29	0.49	0.076
214	TSC080d040GR2350	C	80	40	150	2350	24.51	0.65	0.102
215	TSA(C)080d040GR1980	A & C	80	40	180	1980	29.09	0.77	0.121
216	TSA(C)080d040GR1670	A & C	80	40	210	1670	34.49	0.91	0.144
217	TSC100d000GR7910	C	100	0	30	7910	7.28	0.09	0.03
218	TSA(C)100d000GR3970	A & C	100	0	60	3970	14.51	0.18	0.06
219	TSA(C)100d000GR2490	A & C	100	0	90	2490	23.13	0.29	0.096
220	TSA(C)100d000GR1670	A & C	100	0	120	1670	34.49	0.44	0.144
221	TSA(C)100d000GR1260	A & C	100	0	150	1260	45.71	0.58	0.19
222	TSA(C)100d000GR1060	A & C	100	0	180	1060	54.34	0.69	0.226
223	TSA(C)100d000GR888	A & C	100	0	210	888	64.86	0.83	0.27
224	TSC100d006GR7910	C	100	6	30	7910	7.28	0.09	0.03
225	TSA(C)100d006GR3970	A & C	100	6	60	3970	14.51	0.19	0.06
226	TSA(C)100d006GR2490	A & C	100	6	90	2490	23.13	0.3	0.096
227	TSA(C)100d006GR1670	A & C	100	6	120	1670	34.49	0.44	0.144
228	TSA(C)100d006GR1330	A & C	100	6	150	1330	43.31	0.55	0.18
229	TSA(C)100d006GR1060	A & C	100	6	180	1060	54.34	0.69	0.226
230	TSA(C)100d006GR888	A & C	100	6	210	888	64.86	0.83	0.27
231	TSC100d013GR7910	C	100	13	30	7910	7.28	0.09	0.03
232	TSA(C)100d013GR3970	A & C	100	13	60	3970	14.51	0.19	0.06
233	TSA(C)100d013GR2490	A & C	100	13	90	2490	23.13	0.3	0.096
234	TSA(C)100d013GR1670	A & C	100	13	120	1670	34.49	0.45	0.144
235	TSA(C)100d013GR1330	A & C	100	13	150	1330	43.31	0.56	0.18
236	TSA(C)100d013GR1060	A & C	100	13	180	1060	54.34	0.7	0.226
237	TSA(C)100d013GR888	A & C	100	13	210	888	64.86	0.84	0.27
238	TSC100d025GR8380	C	100	25	30	8380	6.87	0.09	0.029
239	TSA(C)100d025GR4210	A & C	100	25	60	4210	13.68	0.19	0.057
240	TSA(C)100d025GR2640	A & C	100	25	90	2640	21.82	0.3	0.091
241	TSA(C)100d025GR1770	A & C	100	25	120	1770	32.54	0.44	0.136
242	TSA(C)100d025GR1410	A & C	100	25	150	1410	40.85	0.55	0.17
243	TSA(C)100d025GR1120	A & C	100	25	180	1120	51.43	0.7	0.214
244	TSA(C)100d025GR941	A & C	100	25	210	941	61.21	0.83	0.255
245	TSC100d050GR10600	C	100	50	30	10600	5.43	0.09	0.023
246	TSC100d050GR5300	C	100	50	60	5300	10.87	0.18	0.045
247	TSA(C)100d050GR3340	A & C	100	50	90	3340	17.25	0.29	0.072
248	TSA(C)100d050GR2220	A & C	100	50	120	2220	25.95	0.44	0.108
249	TSA(C)100d050GR1770	A & C	100	50	150	1770	32.54	0.55	0.136
250	TSA(C)100d050GR1410	A & C	100	50	180	1410	40.85	0.69	0.17
251	TSA(C)100d050GR1190	A & C	100	50	210	1190	48.4	0.82	0.202
252	TSA(C)125d000GR5300	A & C	125	0	30	5300	10.87	0.09	0.045
253	TSA(C)125d000GR2800	A & C	125	0	60	2800	20.57	0.17	0.086
254	TSA(C)125d000GR1670	A & C	125	0	90	1670	34.49	0.28	0.144
255	TSA(C)125d000GR1190	A & C	125	0	120	1190	48.4	0.39	0.202
256	TSA(C)125d000GR888	A & C	125	0	150	888	64.86	0.53	0.27
257	TSA(C)125d000GR747	A & C	125	0	180	747	77.11	0.63	0.321
258	TSA(C)125d000GR594	A & C	125	0	210	594	96.97	0.79	0.404
259	TSA(C)125d008GR5610	A & C	125	8	30	5610	10.27	0.08	0.043

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
260	TSA(C)125d008GR2800	A & C	125	8	60	2800	20.57	0.17	0.086
261	TSA(C)125d008GR1670	A & C	125	8	90	1670	34.49	0.28	0.144
262	TSA(C)125d008GR1190	A & C	125	8	120	1190	48.4	0.4	0.202
263	TSA(C)125d008GR888	A & C	125	8	150	888	64.86	0.53	0.27
264	TSA(C)125d008GR747	A & C	125	8	180	747	77.11	0.63	0.321
265	TSA(C)125d008GR594	A & C	125	8	210	594	96.97	0.79	0.404
266	TSA(C)125d016GR5610	A & C	125	16	30	5610	10.27	0.09	0.043
267	TSA(C)125d016GR2800	A & C	125	16	60	2800	20.57	0.17	0.086
268	TSA(C)125d016GR1770	A & C	125	16	90	1770	32.54	0.27	0.136
269	TSA(C)125d016GR1190	A & C	125	16	120	1190	48.4	0.4	0.202
270	TSA(C)125d016GR941	A & C	125	16	150	941	61.21	0.51	0.255
271	TSA(C)125d016GR747	A & C	125	16	180	747	77.11	0.64	0.321
272	TSA(C)125d016GR629	A & C	125	16	210	629	91.57	0.76	0.382
273	TSA(C)125d032GR5940	A & C	125	32	30	5940	9.7	0.08	0.04
274	TSA(C)125d032GR2970	A & C	125	32	60	2970	19.39	0.17	0.081
275	TSA(C)125d032GR1870	A & C	125	32	90	1870	30.8	0.27	0.128
276	TSA(C)125d032GR1260	A & C	125	32	120	1260	45.71	0.4	0.19
277	TSA(C)125d032GR941	A & C	125	32	150	941	61.21	0.53	0.255
278	TSA(C)125d032GR791	A & C	125	32	180	791	72.82	0.64	0.303
279	TSA(C)125d032GR666	A & C	125	32	210	666	86.49	0.75	0.36
280	TSC125d063GR7470	C	125	63	30	7470	7.71	0.08	0.032
281	TSA(C)125d063GR3750	A & C	125	63	60	3750	15.36	0.17	0.064
282	TSA(C)125d063GR2350	A & C	125	63	90	2350	24.51	0.27	0.102
283	TSA(C)125d063GR1580	A & C	125	63	120	1580	36.46	0.4	0.152
284	TSA(C)125d063GR1190	A & C	125	63	150	1190	48.4	0.53	0.202
285	TSA(C)125d063GR1000	A & C	125	63	180	1000	57.6	0.63	0.24
286	TSA(C)125d063GR791	A & C	125	63	210	791	72.82	0.8	0.303
287	TSA(C)160d000GR3750	A & C	160	0	30	3750	15.36	0.08	0.064
288	TSA(C)160d000GR1870	A & C	160	0	60	1870	30.8	0.15	0.128
289	TSA(C)160d000GR1190	A & C	160	0	90	1190	48.4	0.24	0.202
290	TSA(C)160d000GR629	A & C	160	0	120	629	91.57	0.36	0.303
291	TSA(C)160d000GR629	A & C	160	0	150	629	91.57	0.46	0.382
292	TSA(C)160d000GR500	A & C	160	0	180	500	115.2	0.57	0.48
293	TSA(C)160d000GR421	A & C	160	0	210	421	136.82	0.68	0.57
294	TSA(C)160d005GR3750	A & C	160	5	30	3750	15.36	0.08	0.064
295	TSA(C)160d005GR1870	A & C	160	5	60	1870	30.8	0.15	0.128
296	TSA(C)160d005GR1190	A & C	160	5	90	1190	48.4	0.24	0.202
297	TSA(C)160d005GR791	A & C	160	5	120	791	72.82	0.36	0.303
298	TSA(C)160d005GR629	A & C	160	5	150	629	91.57	0.46	0.382
299	TSA(C)160d005GR500	A & C	160	5	180	500	115.2	0.57	0.48
300	TSA(C)160d005GR421	A & C	160	5	210	421	136.82	0.68	0.57
301	TSA(C)160d010GR3750	A & C	160	10	30	3750	15.36	0.08	0.064
302	TSA(C)160d010GR1870	A & C	160	10	60	1870	30.8	0.15	0.128
303	TSA(C)160d010GR1190	A & C	160	10	90	1190	48.4	0.24	0.202
304	TSA(C)160d010GR791	A & C	160	10	120	791	72.82	0.36	0.303
305	TSA(C)160d010GR629	A & C	160	10	150	629	91.57	0.46	0.382
306	TSA(C)160d010GR500	A & C	160	10	180	500	115.2	0.	

# STANDARD | Round 240V



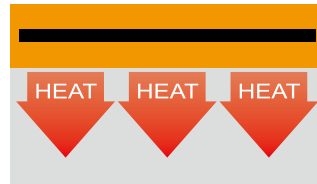
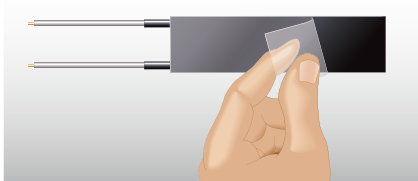
No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
333	TSA(C)200d000GR421	A & C	200	0	150	421	136.82	0.44	0.57
334	TSA(C)200d000GR354	A & C	200	0	180	354	162.71	0.52	0.678
335	TSA(C)200d000GR280	A & C	200	0	210	280	205.71	0.65	0.857
336	TSA(C)200d006GR2640	A & C	200	6	30	2640	21.82	0.07	0.091
337	TSA(C)200d006GR1260	A & C	200	6	60	1260	45.71	0.15	0.19
338	TSA(C)200d006GR791	A & C	200	6	90	791	72.82	0.23	0.303
339	TSA(C)200d006GR561	A & C	200	6	120	561	102.67	0.33	0.428
340	TSA(C)200d006GR421	A & C	200	6	150	421	136.82	0.44	0.57
341	TSA(C)200d006GR354	A & C	200	6	180	354	162.71	0.52	0.678
342	TSA(C)200d006GR280	A & C	200	6	210	280	205.71	0.66	0.857
343	TSA(C)200d013GR2640	A & C	200	13	30	2640	21.82	0.07	0.091
344	TSA(C)200d013GR1330	A & C	200	13	60	1330	43.31	0.14	0.18
345	TSA(C)200d013GR791	A & C	200	13	90	791	72.82	0.23	0.303
346	TSA(C)200d013GR561	A & C	200	13	120	561	102.67	0.33	0.428
347	TSA(C)200d013GR421	A & C	200	13	150	421	136.82	0.44	0.57
348	TSA(C)200d013GR354	A & C	200	13	180	354	162.71	0.52	0.678
349	TSA(C)200d013GR280	A & C	200	13	210	280	205.71	0.66	0.857
350	TSA(C)200d025GR2640	A & C	200	25	30	2640	21.82	0.07	0.091
351	TSA(C)200d025GR1330	A & C	200	25	60	1330	43.31	0.14	0.18
352	TSA(C)200d025GR838	A & C	200	25	90	838	68.74	0.22	0.286
353	TSA(C)200d025GR561	A & C	200	25	120	561	102.67	0.33	0.428
354	TSA(C)200d025GR421	A & C	200	25	150	421	136.82	0.44	0.57
355	TSA(C)200d025GR354	A & C	200	25	180	354	162.71	0.53	0.678
356	TSA(C)200d025GR297	A & C	200	25	210	297	193.94	0.63	0.808
357	TSA(C)200d050GR2800	A & C	200	50	30	2800	20.57	0.07	0.086
358	TSA(C)200d050GR1410	A & C	200	50	60	1410	40.85	0.14	0.17
359	TSA(C)200d050GR838	A & C	200	50	90	838	68.74	0.23	0.286
360	TSA(C)200d050GR594	A & C	200	50	120	594	96.97	0.33	0.404
361	TSA(C)200d050GR446	A & C	200	50	150	446	129.15	0.44	0.538
362	TSA(C)200d050GR375	A & C	200	50	180	375	153.6	0.52	0.64
363	TSA(C)200d050GR297	A & C	200	50	210	297	193.94	0.66	0.808
364	TSA(C)200d100GR3340	A & C	200	100	30	3340	17.25	0.07	0.072
365	TSA(C)200d100GR1670	A & C	200	100	60	1670	34.49	0.15	0.144
366	TSA(C)200d100GR1060	A & C	200	100	90	1060	54.34	0.23	0.226
367	TSA(C)200d100GR747	A & C	200	100	120	747	77.11	0.33	0.321
368	TSA(C)200d100GR561	A & C	200	100	150	561	102.67	0.44	0.428
369	TSA(C)200d100GR472	A & C	200	100	180	472	122.03	0.52	0.508
370	TSA(C)200d100GR375	A & C	200	100	210	375	153.6	0.65	0.64
371	TSA(C)250d000GR1770	A & C	250	0	30	1770	32.54	0.07	0.136
372	TSA(C)250d000GR888	A & C	250	0	60	888	64.86	0.13	0.27
373	TSA(C)250d000GR561	A & C	250	0	90	561	102.67	0.21	0.428
374	TSA(C)250d000GR375	A & C	250	0	120	375	153.6	0.31	0.64
375	TSA(C)250d000GR297	A & C	250	0	150	297	193.94	0.4	0.808
376	TSA(C)250d000GR235	A & C	250	0	180	235	245.11	0.5	1.021
377	TSA(C)250d000GR198	A & C	250	0	210	198	290.91	0.59	1.212
378	TSA(C)250d008GR1770	A & C	250	8	30	1770	32.54	0.07	0.136
379	TSA(C)250d008GR888	A & C	250	8	60	888	64.86	0.13	0.27
380	TSA(C)250d008GR561	A & C	250	8	90	561	102.67	0.21	0.428
381	TSA(C)250d008GR375	A & C	250	8	120	375	153.6	0.31	0.64
382	TSA(C)250d008GR297	A & C	250	8	150	297	193.94	0.4	0.808
383	TSA(C)250d008GR235	A & C	250	8	180	235	245.11	0.5	1.021
384	TSA(C)250d008GR198	A & C	250	8	210	198	290.91	0.59	1.212
385	TSA(C)250d016GR1770	A & C	250	16	30	1770	32.54	0.07	0.136
386	TSA(C)250d016GR888	A & C	250	16	60	888	64.86	0.13	0.27
387	TSA(C)250d016GR561	A & C	250	16	90	561	102.67	0.21	0.428
388	TSA(C)250d016GR375	A & C	250	16	120	375	153.6	0.31	0.64
389	TSA(C)250d016GR297	A & C	250	16	150	297	193.94	0.4	0.808
390	TSA(C)250d016GR249	A & C	250	16	180	249	231.33	0.47	0.964
391	TSA(C)250d016GR198	A & C	250	16	210	198	290.91	0.6	1.212
392	TSA(C)250d032GR1870	A & C	250	32	30	1870	30.8	0.06	0.128
393	TSA(C)250d032GR888	A & C	250	32	60	888	64.86	0.13	0.27
394	TSA(C)250d032GR561	A & C	250	32	90	561	102.67	0.21	0.428
395	TSA(C)250d032GR397	A & C	250	32	120	397	145.09	0.3	0.605
396	TSA(C)250d032GR297	A & C	250	32	150	297	193.94	0.4	0.808
397	TSA(C)250d032GR249	A & C	250	32	180	249	231.33	0.48	0.964

No.	Identification String	Type	OD (mm)	ID (mm)	Temp. Rise Ref(°C)	Ω	W	Watt. Density (W/cm <sup>2</sup> )	Current (A)
398	TSA(C)250d032GR198	A & C	250	32	210	198	290.91	0.6	1.212
399	TSA(C)250d063GR1870	A & C	250	63	30	1870	30.8	0.07	0.128
400	TSA(C)250d063GR941	A & C	250	63	60	941	61.21	0.13	0.255
401	TSA(C)250d063GR594	A & C	250	63	90	594	96.97	0.21	0.404
402	TSA(C)250d063GR397	A & C	250	63	120	397	145.09	0.32	0.605
403	TSA(C)250d063GR315	A & C	250	63	150	315	182.86	0.4	0.762
404	TSA(C)250d063GR264	A & C	250	63	180	264	218.18	0.47	0.909
405	TSA(C)250d063GR210	A & C	250	63	210	210	274.29	0.6	1.143
406	TSA(C)250d125GR2350	A & C	250	125	30	2350	24.51	0.07	0.102
407	TSA(C)250d125GR1190	A & C	250	125	60	1190	48.4	0.13	0.202
408	TSA(C)250d125GR747	A & C	250	125	90	747	77.11	0.21	0.321
409	TSA(C)250d125GR500	A & C	250	125	120	500	115.2	0.31	0.48
410	TSA(C)250d125GR397	A & C	250	125	150	397	145.09	0.39	0.605
411	TSA(C)250d125GR315	A & C	250	125	180	315	182.86	0.5	0.762
412	TSA(C)250d125GR264	A & C	250	125	210	264	218.18	0.59	0.909
413	TSA(C)300d000GR1330	A & C	300	0	30	1330	43.31	0.06	0.18
414	TSA(C)300d000GR666	A & C	300	0	60	666	86.49	0.12	0.36
415	TSA(C)300d000GR397	A & C	300	0	90	397	145.09	0.21	0.605
416	TSA(C)300d000GR280	A & C	300	0	120	280	205.71	0.29	0.857
417	TSA(C)300d000GR210	A & C	300	0	150	210	274.29	0.39	1.143
418	TSA(C)300d000GR177	A & C	300	0	180	177	325.42	0.46	1.356
419	TSA(C)300d000GR141	A & C	300	0	210	141	408.51	0.58	1.702
420	TSA(C)300d005GR1330	A & C	300	5	30	1330	43.31	0.06	0.18
421	TSA(C)300d005GR666	A & C	300	5	60	666	86.49	0.12	0.36
422	TSA(C)300d005GR397	A & C	300	5	90	397	145.09	0.21	0.605
423	TSA(C)300d005GR280	A & C	300	5	120	280	205.71	0.29	0.857
424	TSA(C)300d005GR210	A & C	300	5	150	210	274.29	0.39	1.143
425	TSA(C)300d005GR177	A & C	300	5	180	177	325.42	0.46	1.356
426	TSA(C)300d005GR141	A & C	300	5	210	141	408.51	0.58	1.702
427	TSA(C)300d010GR1330	A & C	300	10	30	1330	43.31	0.06	0.18
428	TSA(C)300d010GR666	A & C	300	10	60	666	86.49	0.12	0.36
429	TSA(C)300d010GR397	A & C	300	10	90	397	145.09	0.21	0.605
430	TSA(C)300d010GR280	A & C	300	10	120	280	205.71	0.29	0.857
431	TSA(C)300d010GR210	A & C	300	10	150	210	274.29	0.39	1.143
432	TSA(C)300d010GR177	A & C	300	10	180	177	325.42	0.46	1.356
433	TSA(C)300d010GR141	A & C	300	10	210	141	408.51	0.58	1.702
434	TSA(C)300d020GR1330	A & C	300	20	30	1330	43.31	0.06	0.18
435	TSA(C)300d020GR666	A & C	300	20	60	666	86.49	0.12	0.36
436	TSA(C)300d020GR397	A & C	300	20	90	397	145.09	0.21	0.605
437	TSA(C)300d020GR280	A & C	300	20	120	280	205.71	0.29	0.857
438	TSA(C)300d020GR210	A & C	300	20	150	210	274.29	0.39	1.143
439	TSA(C)300d020GR177	A & C	300	20	180	177	325.42	0.46	1.356
440	TSA(C)300d020GR149	A & C	300	20	210	149	386.58	0.55	1.611
441	TSA(C)300d040GR1330	A & C	300	40	30	1330	43.31	0.06	0.18
442	TSA(C)300d040GR666	A & C	300	40	60	666	86.49	0.12	0.36
443	TSA(C)300d040GR421	A & C	300	40	90	421	136.82	0.2	0.57
444	TSA(C)300d040GR280	A & C	300	40	120	280	205.71	0.3	0.857
445	TSA(C)300d040GR222	A & C	300	40	150	222	259.46	0.37	1.081
446	TSA(C)300d040GR177	A & C	300	40	180	177	325.42	0.47	1.356
447	TSA(C)300d040GR149	A & C	300	40	210	149	386.58	0.56	1.611
448	TSA(C)300d080GR1410	A & C	300	80	30	1410	40.85	0.06	0.17
449	TSA(C)300d080GR705	A & C	300	80	60	705	81.7	0.12	0.34
450	TSA(C)300d080GR446	A & C	300	80	90	446	129.15	0.2	0.538

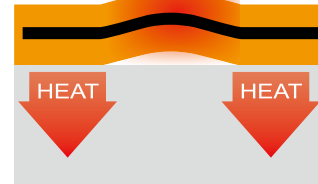
# Installation

To ensure longer heater life, proper attachment to the contact surface is critical. With the exception of heaters with a lower power density ( $<0.4\text{W}/\text{cm}^2$ ), Ultra-Thin Flexible Heaters must make intimate contact over the entire contact surface. The surface must be clean without any fingerprints or oil sludge for successful applications. For heaters with a higher power density ( $>0.8\text{W}/\text{cm}^2$ ) or a surface temperature greater than  $90^\circ\text{C}$ , it is recommended that the flexible heaters be attached by CLAMPING to the object to be heated and that a temperature controller is connected in order to prevent overheating. Alternatively, for lower temperature heaters, either a self-adhesive or clamping method can be used for mounting.

With factory-applied adhesives, simply remove the backing paper and press the heater in place.



Proper installation ensures good heat flow from the heater to the heat sink.



Gaps or bubbles beneath the heater cause localized hot spots that can result in premature heater failure.

## SELF-ADHESIVE INSTALLATION

Ultra-Thin Flexible Heaters are available with self-adhesive. Installation is made easy by simply peeling off the protective liner and rolling the heater in place on a clean surface (free of oil sludge or fingerprints). It is best to apply the heater with a soft rubber roller to ensure that the entire heater is in contact with the contact surface of the object to be heated without any air pockets.

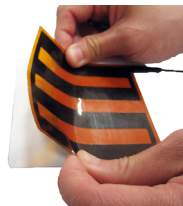
### Larger Heater Bonding Tips:

- CLEAN** Clean the contact surface to ensure that it is free of dust, oil sludge or fingerprints.
- CHECK** Ensure that the contact surface is larger than the Ultra-Thin Flexible Heater to be installed.
- OUTLINE** Before removing the adhesive backing from the heater, place the heater over the contact area and draw an outline.
- REMOVE** Remove partial adhesive backing (approximately 1/4 or 1/3) from the side without terminal wirings.
- ALIGN** Align the side of the heater without adhesive backing to the outline and press down firmly.
- ROLL** Lift up the remaining heater (approximately 90 degrees) and slowly remove the adhesive backing by peeling off the backing with one hand and use a roller to roll over the heater with the other hand.

Remove partial adhesive backing



Align heater to outline



Roll over heater



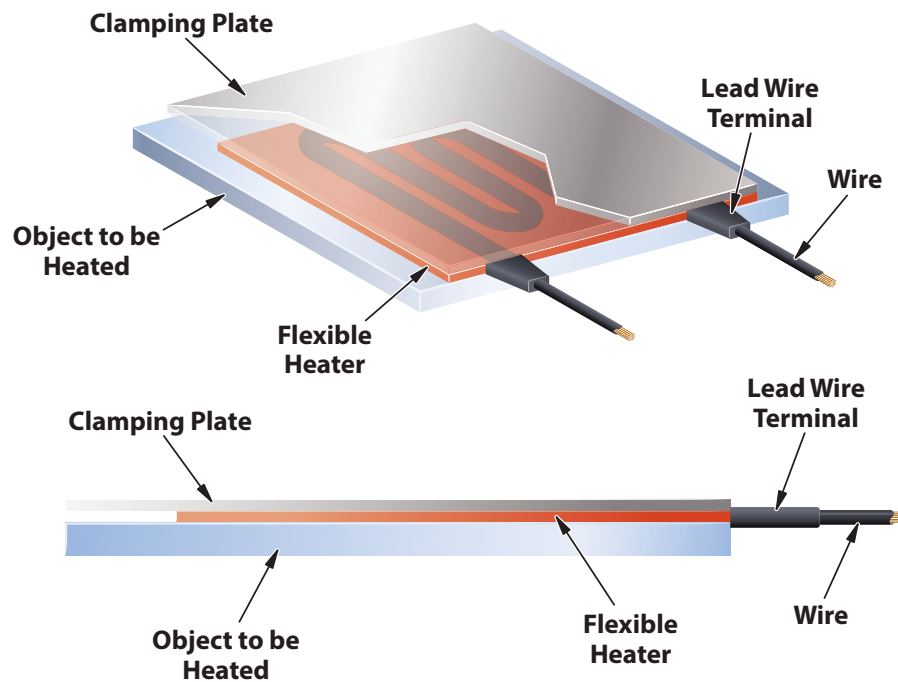
## IMPORTANT NOTES

- The maximum temperature of Ultra-Thin Flexible Heaters when using the self-adhesive method is  $90^\circ\text{C}$ .
- Heaters with self-adhesive will need to be installed within 6 months of purchase.
- Heaters with self-adhesive should be applied at an operating temperature above  $10^\circ\text{C}$ .
- During the bonding process, ensure that no bubbles or air pockets are formed between the heater and the contact surface.
- If the heater needs to be removed and reapplied, do not pull the lead wire or terminal. Once removed, ensure that no silicon residue is left on the object's surface before reapplying the heater.
- If the heater is not fully in contact with the surface of the object to be heated, any free standing parts, holes, cracks, or obstacles between the heater and the contact surface will cause localized hot spots, which can result in premature heater failure.

# Installation

## CLAMPING INSTALLATION

To allow Ultra-Thin Flexible Heaters to be detached and reapplied for other applications, Ultra-Thin Flexible Heaters can be clamped to object surfaces by using a metal plate held in place by fasteners. Because Ultra-Thin Flexible Heaters are very thin, it is a good idea to use a silicone pad or insulation layer between the heater and the pressure metal plate to cushion the heater in order to ensure complete contact to prevent air pockets, as well as directing the heat towards the item to be heated.



### IMPORTANT NOTES

- The contact surface must be clean and free of chemicals or foreign materials that could affect the heater and be free of sharp projections that could pierce the heater.
- Avoid terminals, lead wires, and any other conductive metals in the surrounding area from coming into contact with the metal plate used for clamping.
- When clamping, make sure the metal plate covers the entire heating area without touching the terminal and lead wire. Ensure that the metal plate maintains even pressure across the heater surface and is not tilted or has an air gap, otherwise the heater will not be able to dissipate heat properly and will cause the heater to overheat.
- If the heater is not fully in contact with the surface of the object to be heated, any free standing parts, holes, cracks, obstacles between the heater and the contact surface will cause localized hot spots which can result in premature heater failure.



# Caution Notes

Use a method of temperature control (e.g. thermostat, thermocouple and temperature controller, or variable voltage transformer) to prevent heaters from exceeding the maximum operating temperature ratings. Place the temperature sensor close enough to the heater to sense the heater temperature.

1. DO NOT allow the lead wires to hang loosely. Make sure that the lead wires are mounted in a fixed position in order to prevent pulling of the lead wires since this can cause heater breakage.
2. DO NOT immerse heaters in liquids or expose heaters to steam and corrosive gas.
3. DO NOT operate heaters at a voltage higher than the specified or rated voltage.
4. DO NOT cut, punch holes, disintegrate heaters or attempt to repair damaged heater and avoid contact with sharp objects. Damaged heaters will become unusable.
5. DO NOT leave heaters operating unattended unless adequate controls are installed to ensure safety.
6. DO NOT overlap heaters.
7. DO NOT attempt to repair damaged heaters.
8. AVOID exposing heaters to substances that could ignite or cause damage to the heaters.
9. Heaters can be bent around curved surfaces; however, DO NOT exceed minimum bending radius (R0.5mm).
10. When connecting across two joining surfaces, make sure the joining corner is blunt to prevent heater surface being damaged or pierced.
11. Heaters must be attached to an appropriate heat sink when power density is greater than  $0.4\text{W}/\text{cm}^2$  and should NOT be mounted free-standing in air, especially for heaters with high power density. This would require effective heat conduction or connection to a thermal controller.
12. Exercise care in attaching heaters to flat or curved surfaces. Heaters can be attached by mechanical clamping. Make sure pressure is evenly exerted on the entire heating area with a pressure metal plate so that the entire heater is in contact with the surface with no air pockets trapped underneath. This is especially important for high watt density heaters, i.e. heaters with a watt density of  $10\text{W}/\text{cm}^2$ , to prevent heater failure. Also, make sure terminals and lead wires do not come into contact with the metal plate (when clamping) and surrounding conductive metals.
13. If air pockets are found within heaters before or after installation, contact our sales team immediately. This could be caused by overheating due to the voltage being applied is above the voltage in the heater specification or due to inappropriate installation of heaters.
14. Before removing heaters, please make sure the power has been turned off and all components have cooled down before removal.
15. For heaters with high power density ( $>0.8\text{W}/\text{cm}^2$ ) or applications where the operating temperature will reach  $90^\circ\text{C}$  or higher, make sure adequate measures are taken to control heater temperature and install heaters together with metal plates and recommended silicone pads or silicone adhesives.
16. When installing heater around cylindrical container (e.g. water tank) for heating up liquid, please ensure that the heater is installed at the very bottom part of the container, and while the heater is in operation, ensure that the water level is above the heater height.