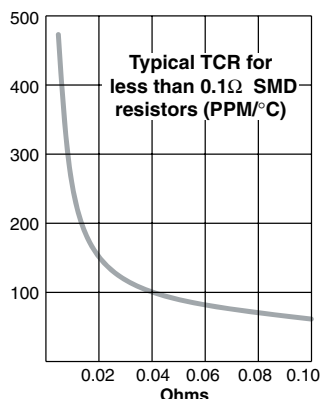
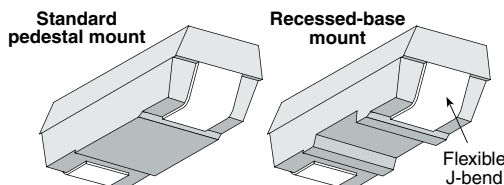


SURFACE MOUNT POWER RESISTORS

FEATURES

- Tolerance 1%-5% standard
- Twelve wattage ratings
- Seven package sizes
- Two mounting designs to accommodate your soldering process
- Four power resistor technologies to optimize your operating performance:
 1. Carbon and Ceramic composition for surge and low inductance
 2. Metal film for high ohmic value and low T.C.
 3. Wire element for inrush current combined with low ohmic values. Resistance values as low as 0.005Ω
 4. Power film for high ohmic value and high wattage
- Flexible J-bend terminations

RSC Series: carbon composition (1/4 & 1/2 watt)
RSC Series: ceramic composition (above 1/2 watt)
RSF Series: metal film
RSW Series: wirewound
RSP Series: power film

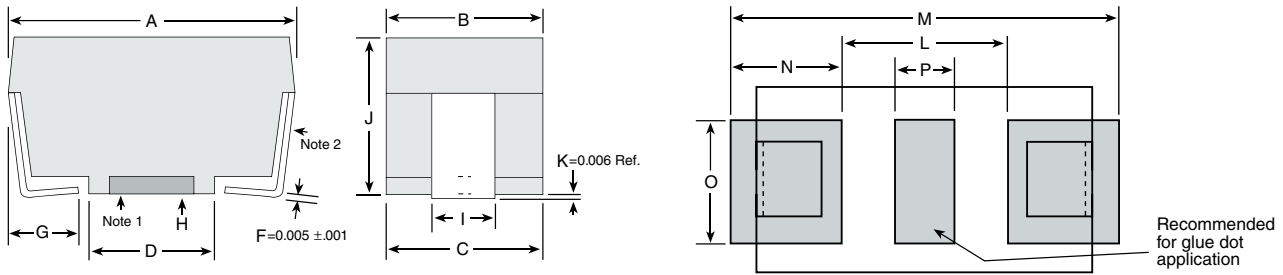


Series*	Wattage	Ohms	Length	Dimensions (in. / mm)		Voltage
				Height	Width	
RSC0S2CA	0.25	2.2–5.6M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	250
RSC0R5DB	0.50	2.2–20M	0.625 / 15.88	0.226 / 5.74	0.273 / 6.93	350
RSW0S6BB	0.6	0.005–1K	0.202 / 5.14	0.135 / 3.42	0.1 / 2.54	50
RSF0S8BA	0.80	1.0–10M	0.246 / 6.25	0.136 / 3.45	0.136 / 3.45	200
RSW1S0BA	1.00	0.005–1K	0.246 / 6.25	0.136 / 3.45	0.136 / 3.45	50
RSF1S0CA	1.00	1.0–10M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	350
RSC1R0EA	1.00	3.3–100K	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	500
RSP1S3CA	1.25	1.0–1M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	350
RSW1S5CA	1.50	0.005–1.5K	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	75
RSP1S5CB	1.50	1.0–1M	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	350
RSP1R5CB	1.50	1.0–1M	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	350
RSW2S0CB	2.00	0.005–5K	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	100
RSW2R0CB	2.00	0.005–5K	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	100
RSP2S0DA	2.00	1.0–1M	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	500
RSP2R0DA	2.00	1.0–1M	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	500
RSW2S0DA	2.00	0.005–5K	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	100
RSW2R0DA	2.00	0.005–5K	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	100
RSP2R5DB	2.50	1.0–1M	0.655 / 16.64	0.226 / 5.74	0.273 / 6.93	500
RSW3R0DB	3.00	0.005–13K	0.625 / 15.88	0.226 / 5.74	0.273 / 6.93	200
RSP3R0EA	3.00	1.0–1M	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	750
RSW3R5EA	3.50	0.005–25K	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	350

PERFORMANCE SPECIFICATIONS

Part Number	Power (watts)*	Maximum voltage	Resistance range		Temp. Coefficient			Dielectric Withstanding	Tape Size 13" reels	Quantity per reel
			1% tol.	5% tol.	0.1Ω–1Ω	1Ω–10Ω	10Ω+			
RSC0S2CA	0.25	250	—	2.2Ω–5.6M	—	±400	±400	1000V	16mm	1500
RSC0R5DB	0.50	350	—	2.2Ω–20M	—	±400	±400	1000V	24mm	1000
RSW0S6BB	0.6	50	0.005Ω–1K	0.005Ω–1K	±90	±50	±20	1000V	12mm	2500
RSF0S8BA	0.8	200	1Ω–5M	—	—	±100	±100	1000V	12mm	2000
RSW1S0BA	1.0	50	0.005Ω–1K	0.005Ω–1K	±90	±50	±20	1000V	12mm	2000
RSF1S0CA	1.0	350	10Ω–1M	1Ω–10M	—	±200	±100	1000V	16mm	1500
RSC1R0EA	1.0	500	—	3.3–100K(10% tol only)	—	—	-1300	1000V	32mm	750
RSP1S3CA	1.25	350	—	1Ω–1M	—	±250	±250	1000V	16mm	1500
RSP1S5CA	1.5	75	0.005Ω–1.5K	0.005Ω–1.5K	±90	±250	±250	1000V	16mm	1500
RSP1S5CB	1.5	350	—	1Ω–1M	—	±250	±250	1000V	16mm	1000
RSP1R5CB	1.5	350	—	1Ω–1M	—	±250	±250	1000V	16mm	1000
RSW2S0CB	2.0	100	0.005Ω–5K	0.005Ω–5K	±90	±50	±20	1000V	16mm	1000
RSW2R0CB	2.0	100	0.005Ω–5K	0.005Ω–5K	±90	±50	±20	1000V	16mm	1000
RSP2S0DA	2.0	500	—	1Ω–1M	—	±250	±250	1000V	24mm	1000
RSP2R0DA	2.0	500	—	1Ω–1M	—	±250	±250	1000V	24mm	1000
RSW2S0DA	2.0	100	0.005Ω–5K	0.005Ω–5K	±90	±50	±20	1000V	24mm	1000
RSW2R0DA	2.0	100	0.005Ω–5K	0.005Ω–5K	±90	±50	±20	1000V	24mm	1000
RSP2R5DB	2.5	500	—	1Ω–1M	—	±250	±250	1000V	24mm	1000
RSW3R0DB	3.0	200	0.005Ω–13K	0.005Ω–13K	±90	±50	±20	1000V	24mm	1000
RSP3R0EA	3.0	750	—	1Ω–1M	—	±250	±250	1000V	32mm	750
RSW3R5EA	3.5	350	0.005Ω–25K	0.005Ω–25K	±90	±50	±20	1000V	32mm	750
RSM0R7EA	0.75	2500	1KΩ–1000M	1KΩ–1000M	—	—	±50	1000V	32mm	750

*25°C ambient

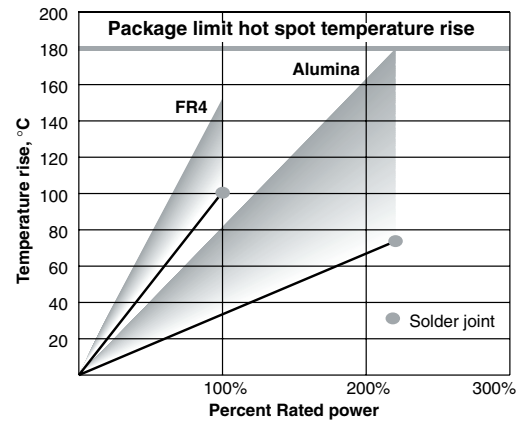


Packages	Package Outline Dimensions					PC Board Land Pattern						
	A	B	C	D	G	I	J	L	M	N	O	P
BA (in.)	.246±.020	.136±.005	.133 REF	.110±.010	.047 Nom.	.054±.012	.136±.005	.150	.346	.098	.126	.050
(mm)	6.248±.508	3.454±.127	3.378 REF	2.794±.254	1.194 Nom.	1.372±.305	3.454±.127	3.81	8.79	2.49	3.20	1.27
CA (in.)	.394±.020	.159±.005	.156 REF	.220±.010	.062 Nom.	.078±.012	.159±.005	.256	.524	.134	.126	.060
(mm)	10.008±.508	4.039±.127	3.962 REF	5.588±.254	1.575 Nom.	1.981±.305	4.038±.127	6.50	13.31	3.40	3.20	1.52
CB (in.)	.407±.020	.226±.005	.222 REF	.260±.010	.062 Nom.	.084±.012	.222±.005	.276	.537	.131	.126	.093
(mm)	10.338±.508	5.74±.127	5.639 REF	6.604±.254	1.575 Nom.	2.134±.305	5.639±.127	7.01	13.64	3.33	3.20	2.36
DA (in.)	.455±.020	.240±.005	.236 REF	.260±.010	.062 Nom.	.143±.012	.226±.005	.317	.585	.134	.155	.093
(mm)	11.557±.508	6.096±.127	5.994 REF	6.604±.254	1.575 Nom.	3.632±.305	5.740±.127	8.05	14.86	3.40	3.94	2.36
DB (in.)	.625±.020	.273±.005	.268 REF	.417±.010	.062 Nom.	.143±.012	.226±.005	.474	.742	.134	.155	.093
(mm)	15.875±.508	6.934±.127	6.807 REF	10.592±.254	1.575 Nom.	3.632±.305	5.740±.127	12.040	18.85	3.40	3.94	2.36
EA (in.)	.811±.020	.273±.005	.268 REF	.572±.010	.093 Nom.	.143±.012	.273±.005	.611	1.000	.195	.155	.093
(mm)	20.599±.508	6.934±.127	6.807 REF	14.529±.254	2.362 Nom.	3.632±.305	6.934±.127	15.52	25.4	4.95	3.94	2.36
BB (in.)	.202±.010	.10±.010	.095 REF	.079±.010	.050 Nom.	.065±.012	.135±.005	0.078	0.328	0.125	0.126	0.026
(mm)	5.140±.508	2.54±.127	2.41 REF	2.00±.254	1.280 Nom.	1.640±.305	3.420±.127	1.98	8.33	3.18	3.20	0.66

Note 1: Packages BA and CA are only available with a pedestal base. Packages CB and DA are available in either pedestal or recessed base. Packages DB and EA are only available in a recessed base.

Note 2: Test point is .020 above PCB.

Note 3: Tape and reel dimensions per EIA 481 A except "EA" size which is 12 mm component pitch versus 16mm pitch.



The temperature rise graph data was obtained by a selection of test substrate size and trace width for each resistor size to limit operating temperatures to safe values.

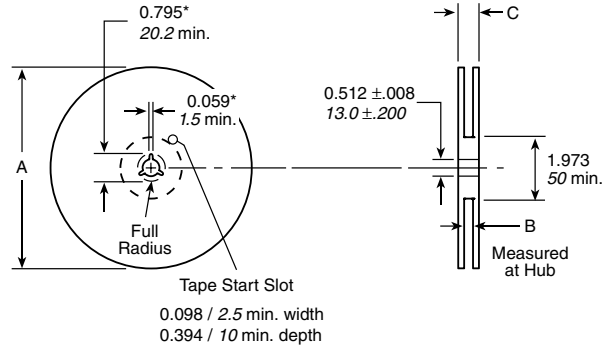
The operating temperature safe rises are either 100°C substrate temperature rise or 180°C package hot spot temperature rise at 25°C ambient.

FR4: 0.062 in. thick; 0.062 in. traces

Alumina: 0.040 in. thick; 0.010 in. traces

Molding material rated at 205°C continuous.

REEL DIMENSIONS



Size	A nom.	B	C max.	Quantity
12mm	13"	0.488 +0.078, -0.00 / 12.4 +2.0, -0.0	0.724 / 18.4	2000 pcs. BA or 2500 pcs. BB
16mm	13"	0.646 +0.078, -0.00 / 16.4 +2.0, -0.0	0.882 / 22.4	1500 pcs. CA or 1000 pcs. CB
24mm	13"	0.961 +0.078, -0.00 / 24.4 +2.0, -0.0	1.196 / 30.4	1000 pcs. DA or DB
32mm	13"	1.276 +0.078, -0.00 / 32.4 +2.0, -0.0	1.52 / 38.4	750 pcs. EA

All reels are compatible with major pick-and-place machines and made in accordance with EIA 481 A (except EA size, which is 12mm component pitch versus 16mm pitch).

ENVIRONMENTAL

Construction	Temp. cycle (-55°C to 125°C, 1000 cycles)	Load Life (1000 hours at 25°C)	Immersion (260°C for 10 sec.)	Momentary Overload
RSC Carbon/Ceramic Composition	±4.0%+.05Ω	±10.0%+.05Ω	±3.0%+.05Ω	6.3x rated power for 5 sec.
RSF Metal Film	±0.5%+.05Ω	±0.5%+.05Ω	±0.1%+.05Ω	2x rated power for 0.1 sec.
RSW Wirewound	±0.5%+.05Ω	±3.0%+.05Ω	±0.1%+.05Ω	5x rated power for 5 sec.
RSP Power Film	±3.0%+.05Ω	±5.0%+.05Ω	±0.5%+.05Ω	2x rated power for 0.1 sec.
RSN Wirewound, Non-inductive	±0.5%+.05Ω	±3.0%+.05Ω	±0.1%+.05Ω	5x rated power for 5 sec.

ALL models: **Leaching** (260°C Solder immersion, 60 sec.)..... No visible leaching
Thermal Shock (Units at -55°C, then rated power applied).. No mechanical damage
Flammability UL Material rating, UL94V0