

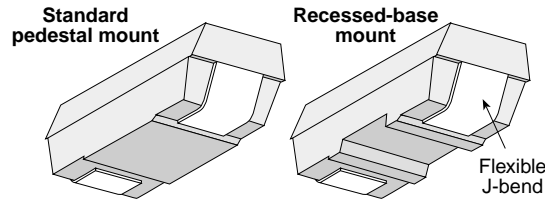
Surface Mount Power Resistors

RC Series: carbon/ceramic composition

RF Series: metal film

RW Series: wirewound

RP Series: power film

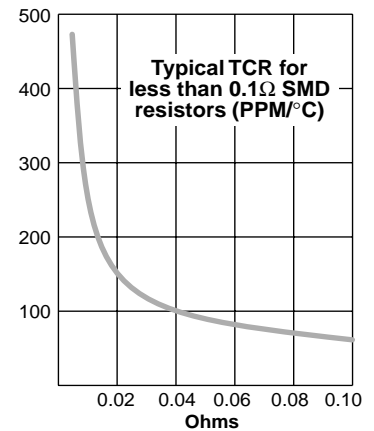


FEATURES

- Tolerance 1%-5% standard
- Eleven 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 high inrush current, low inductance
 2. Metal film for high ohmic value and low T.C.
 3. Wirewound for inrush current combined with low ohmic values, down to 0.005W and close tolerance for low T-C, low ohm values, high inrush or tight tolerance
 4. Power film for high ohmic value and high wattage
- Flexible J-bend terminations

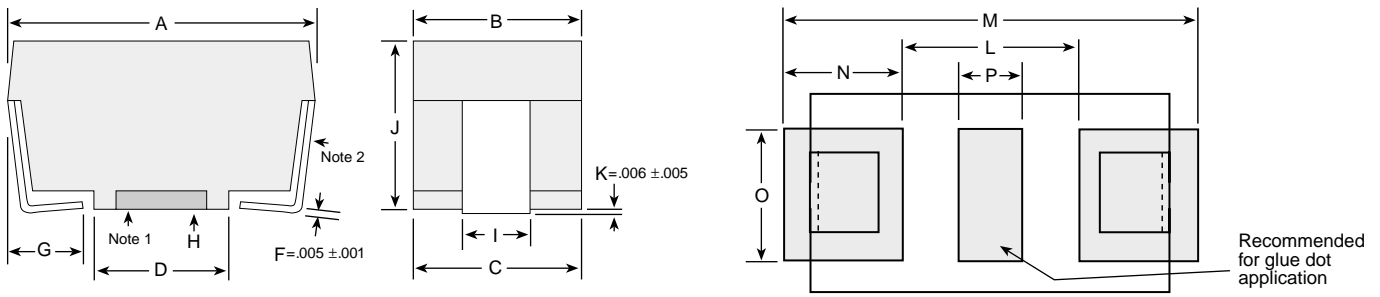
Series	Wattage	Ohms	Dimensions (in. / mm)		Width	Voltage
			Length	Height		
RCOS2CA	0.25	2.2-5.6M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	250
RCOR5DB	0.50	2.2-20M	0.655 / 16.64	0.226 / 5.74	0.273 / 6.93	350
RFOS8BA	0.80	0.30-10M	0.246 / 6.25	0.136 / 3.45	0.136 / 3.45	200
RW1S0BA	1.00	0.005-1K	0.246 / 6.25	0.136 / 3.45	0.136 / 3.45	50
RF1S0CA	1.00	1.0-10M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	350
RC1R0EA	1.00	3.3-100K	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	500
RP1S3CA	1.25	1.0-1M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	350
RW1S5CA	1.50	0.005-1.5K	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	75
RP1S5CB	1.50	1.0-1M	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	350
RP1R5CB	1.50	1.0-1M	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	350
RW2S0CB	2.00	0.005-5K	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	100
RW2R0CB	2.00	0.005-5K	0.407 / 10.34	0.222 / 5.64	0.226 / 5.74	100
RP2S0DA	2.00	1.0-1M	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	500
RP2R0DA	2.00	1.0-1M	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	500
RW2S0DA	2.00	0.005-5K	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	100
RW2R0DA	2.00	0.005-5K	0.455 / 11.56	0.226 / 5.74	0.24 / 6.10	100
RP2R5DB	2.50	1.0-1M	0.655 / 16.64	0.226 / 5.74	0.273 / 6.93	500
RW3R0DB	3.00	0.005-13K	0.655 / 16.64	0.226 / 5.74	0.273 / 6.93	200
RP3R0EA	3.00	1.0-1M	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	750
RW3R5EA	3.50	0.005-25K	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	350

MILITARY GRADE VERSIONS AVAILABLE: CONSULT FACTORY



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+			
RCOS2CA-----	0.25	250	—	2.2Ω-5.6M	—	±400	±400	1000V	16mm	1500
RCOR5DB-----	0.50	350	—	2.2Ω-20M	—	±400	±400	1000V	24mm	1000
RFOS8BA-----	0.8	200	1Ω-5M	0.3Ω-10M	—	±100	±100	1000V	12mm	2000
RW1S0BA-----	1.0	50	0.005Ω-1K	0.005Ω-1K	±90	±50	±20	1000V	12mm	2000
RF1S0CA-----	1.0	350	10Ω-1M	1Ω-10M	—	±200	±100	1000V	16mm	1500
RC1R0EA-----	1.0	500	3.3-100K(10% tol only)			-1300		1000V	32mm	750
RP1S3CA-----	1.25	350	—	1Ω-1M	—	±250	±250	1000V	16mm	1500
RP1S5CA-----	1.5	75	0.005Ω-1.5K	0.005Ω-1.5K	±90	±250	±250	1000V	16mm	1500
RP1S5CB-----	1.5	350	—	1Ω-1M	—	±250	±250	1000V	16mm	1000
RP1R5CB-----	1.5	350	—	1Ω-1M	—	±250	±250	1000V	16mm	1000
RW2S0CB-----	2.0	100	0.005Ω-5K	0.005Ω-5K	±90	±50	±20	1000V	16mm	1000
RW2R0CB-----	2.0	100	0.005Ω-5K	0.005Ω-5K	±90	±50	±20	1000V	16mm	1000
RP2S0DA-----	2.0	500	—	1Ω-1M	—	±250	±250	1000V	24mm	1000
RP2R0DA-----	2.0	500	—	1Ω-1M	—	±250	±250	1000V	24mm	1000
RW2S0DA-----	2.0	100	0.005Ω-5K	0.005Ω-5K	±90	±50	±20	1000V	24mm	1000
RW2R0DA-----	2.0	100	0.005Ω-5K	0.005Ω-5K	±90	±50	±20	1000V	24mm	1000
RP2R5DB-----	2.5	500	—	1Ω-1M	—	±250	±250	1000V	24mm	1000
RW3R0DB-----	3.0	200	0.005Ω-13K	0.005Ω-13K	±90	±50	±20	1000V	24mm	1000
RP3R0EA-----	3.0	750	—	1Ω-1M	—	±250	±250	1000V	32mm	750
RW3R5EA-----	3.5	350	0.005Ω-25K	0.005Ω-25K	±90	±50	±20	1000V	32mm	750

* At 25°C ambient



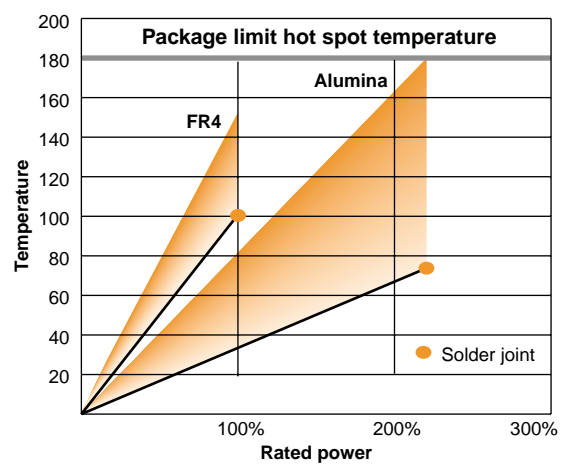
Packages	Package Outline Dimensions						PC Board Land Pattern					
	A	B	C	D	G	I	J	L	M	N	O	P
BA	(in.) .246±.020 (mm) 6.248±.508	.136±.005 3.454±.127	.133 REF 3.378 REF	.110±.010 2.794±.254	.047 Nom. 1.194 Nom.	.054±.010 1.372±.254	.136±.005 3.454±.127	.150 3.81	.346 8.79	.098 2.49	.126 3.20	.050 1.27
CA	(in.) .394±.020 (mm) 10.008±.508	.159±.005 4.039±.127	.156 REF 3.962 REF	.220±.010 5.588±.254	.062 Nom. 1.575 Nom.	.078±.010 1.981±.254	.159±.005 4.038±.127	.256 6.50	.524 13.31	.134 3.40	.126 3.20	.060 1.52
CB	(in.) .407±.020 (mm) 10.338±.508	.226±.005 5.74±.127	.222 REF 5.639 REF	.260±.010 6.604±.254	.062 Nom. 1.575 Nom.	.084±.013 2.134±.330	.222±.005 5.639±.127	.276 7.01	.537 13.64	.131 3.33	.126 3.20	.093 2.36
DA	(in.) .455±.020 (mm) 11.557±.508	.240±.005 6.096±.127	.236 REF 5.994 REF	.260±.010 6.604±.254	.062 Nom. 1.575 Nom.	.143±.012 3.632±.305	.226±.005 5.740±.127	.317 8.05	.585 14.86	.134 3.40	.155 3.94	.093 2.36
DB	(in.) .612±.020 (mm) 15.545±.508	.273±.005 6.934±.127	.268 REF 6.807 REF	.417±.010 10.592±.254	.062 Nom. 1.575 Nom.	.143±.012 3.632±.305	.226±.005 5.740±.127	.474 12.040	.742 18.85	.134 3.40	.155 3.94	.093 2.36
EA	(in.) .811±.020 (mm) 20.599±.508	.273±.005 6.934±.127	.268 REF 6.807 REF	.572±.010 14.529±.254	.093 Nom. 2.362 Nom.	.143±.012 3.632±.305	.273±.005 6.934±.127	.611 15.52	1.000 25.4	.195 4.95	.155 3.94	.093 2.36

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.
 * For units where four (4) terminal Kelvin connections are required.

EXTENSIVE ENVIRONMENTAL TESTS ENSURE OHMITE PERFORMANCE

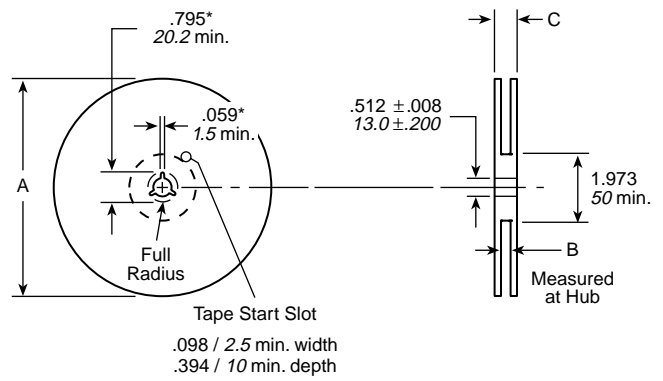
Construction	Temp.cycle (-55°C to 125°C, 1000 cycles)	LoadLife (1000 hours at 25°C)	Immersion (260°C for 10 sec.)	Momentary Overload
Carbon/Ceramic Composition	±4.0%+.05Ω	±10.0%+.05Ω	±3.0%+.05Ω	6.3xrated power for 5 sec.
Metal Film	±0.5%+.05Ω	±.5%+.05Ω	±0.1%+.05Ω	2xrated power for 0.1 sec.
Wirewound	±0.5%+.05Ω	±3.0%+.05Ω	±0.1%+.05Ω	5xrated power for 5 sec.
Power Film	±3.0%+.05Ω	±5.0%+.05Ω	±0.5%+.05Ω	2xrated power for 0.1 sec.

ALLmodels: 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



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
 Engineering data available upon request.

REEL DIMENSIONS



Size	A nom.	B	C max.	Resistor count
12mm	13"	0.488 +0.078, -0.00 / 12.4 +2.0, -0.0	0.724 / 18.4	2000 pcs. BA
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).

		Wirewound							
Package style	>	BA	CA	CB	CB	DA	DA	DB	EA
Base: standard or recessed	>	S	S	S	R	S	R	R	R
Wattage	>	1.0	1.5	2.0	2.0	2.0	2.0	3.0	3.5
Ohmic value	Part No.								
	Prefix	RW1S0BA	RW1S5CA	RW2S0CB	RW2R0CB	RW2S0DA	RW2R0DA	RW3R0DB	RW3R5EA
	Suffix	Tolerance suffix) F = 1% J = 5%							
0.005	—R005—	J	J		F/J				
0.010	—R010—	F/J	J		J	F	J	J	J
0.015	—R015—	F/J	J						
0.020	—R020—	J		J		F	J		J
0.025	—R025—	J							
0.027	—R027—	J							
0.030	—R030—	F	J	J					J
0.033	—R033—	J							
0.036	—R036—	J							
0.050	—R050—	F/J		J		J	F	J	J
0.056	—R056—	J							
0.075	—R075—	J							
0.080	—R080—		J						J
0.100	—R100—	F/J	J		J	F	J	J	J
0.150	—R150—		J		J	J			
0.200	—R200—		J	J					J
0.220	—R220—			J					
0.240	—R240—	J		J					
0.300	—R300—	J			J				
0.330	—R330—				J				
0.400	—R040—		J						
0.400	—R400—				J				
0.470	—R470—	J		J			J		
0.500	—R500—	J	J			J			J
0.750	—R750—	J							

		Wirewound							
Package style	>	BA	CA	CB	CB	DA	DA	DB	EA
Base: standard or recessed	>	S	S	S	R	S	R	R	R
Wattage	>	1.0	1.5	2.0	2.0	2.0	2.0	3.0	3.5
Ohmic value	Part No.								
	Prefix	RW1S0BA	RW1S5CA	RW2S0CB	RW2R0CB	RW2S0DA	RW2R0DA	RW3R0DB	RW3R5EA
	Suffix	Tolerance suffix) F = 1% J = 5%							
1.00	—1R00—	F/J	J	J			J	J	
2.00	—2R00—								
2.20	—2R20—								
3.01	—3R01—								
4.99	—4R99—								
5.60	—5R60—	J							
6.80	—6R80—								
7.50	—7R50—								J
10.00	—10R0—	J		J			J		
11.00	—11R0—								
15.00	—15R0—	J	J						
20.00	—20R0—			J					
24.90	—24R9—								
47.00	—47R0—	J							J
49.90	—49R9—								
50.00	—50R0—								J
51.00	—51R0—	J							
51.10	—51R1—								
68.00	—68R0—								
82.00	—82R0—				J				
100.00	—100R—		J						
120.00	—120R—		J						
158.00	—158R—								
180.00	—180R—	J							
182.00	—182R—								
200.00	—200R—								
300.00	—300R—	J							
392.00	—392R—								
470.00	—470R—					J			
499.00	—499R—								
511.00	—511R—								
1K	—1K00—							J	
1.82K	—1K82—								
2K	—2K00—								
4.7K	—4K70—				J				
4.99K	—4K99—								J
5K	—5K00—								
10K	—10K0—								
49.9K	—49K9—								
100K	—100K—								
360K	—360K—								
499K	—499K—								
1M	—1M00—								
5M	—5M00—								

General Notes

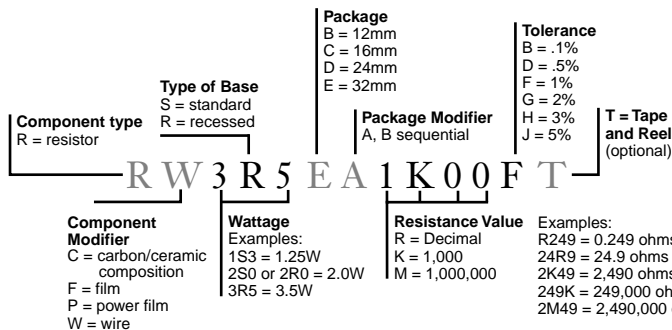
Other ratings under development.

Molding material rated at 205°C continuous.

Ohmite reserves the right to make changes in product specifications and availability without notice or liability.

The information in this brochure is based on data obtained by our own research and is considered accurate. However, no warranty is expressed or implied regarding the accuracy of those data, the results to be obtained from the use thereof, or that any such use will infringe on any patent. This information is furnished upon the condition that the person receiving it shall make their own tests to determine the suitability thereof for their particular purpose.

HOW TO ORDER



(For example, the part number shown is a wirewound resistor, 3.5 watt, recessed base, 32mm tape size, first case size [A], 1000 ohms 1% tolerance.)