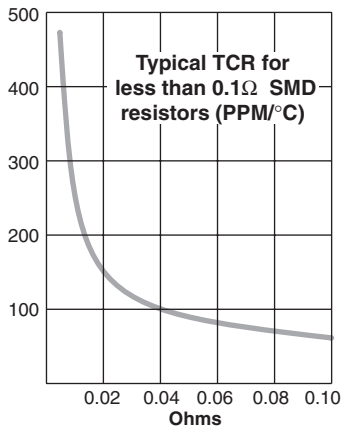


FEATURES

- Tolerance 1%-5% standard
- Eleven wattage ratings
- Six package sizes
- Two mounting designs to accommodate your soldering process
- Five 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 0.005Ω 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
 5. Thick film for high voltage applications
- Flexible J-bend terminations



Surface Mount Power Resistors

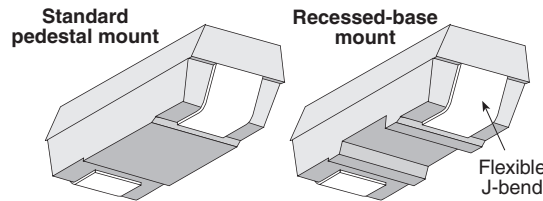
RC Series: carbon/ceramic composition

RF Series: metal film

RW Series: wirewound

RP Series: power film

RM Series: thick film



Series	Wattage	Ohms	Length	Dimensions (in. / mm)		Voltage
				Height	Width	
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	0.625 / 15.88	0.226 / 5.74	0.273 / 6.93	350
RMOR7EA	0.75	1K–900M	0.811 / 20.60	0.273 / 6.93	0.273 / 6.93	2500
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	0.625 / 15.88	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

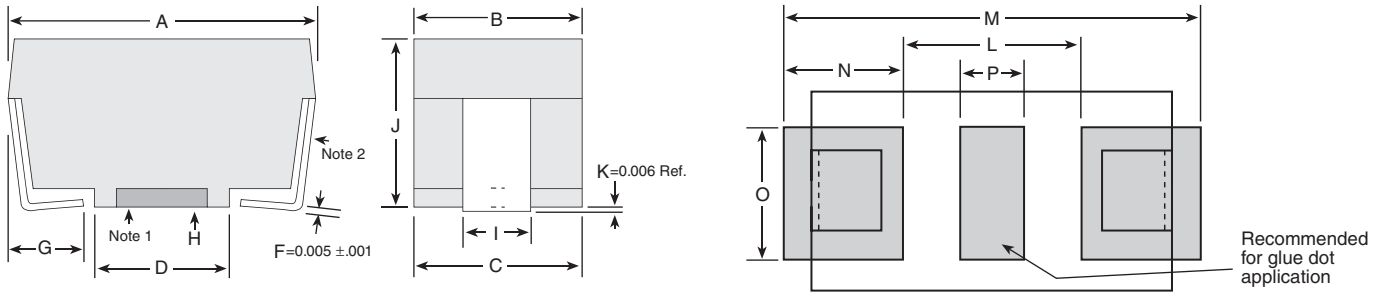
MILITARY GRADE VERSIONS AVAILABLE: CONSULT FACTORY

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
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
RMOR7EA	0.75	2500	1KΩ–1000M	1KΩ–1000M	—	—	±50	1000V	32mm	750

* At 25°C ambient

(continued)



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±.012 1.372±.305	.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±.012 1.981±.305	.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±.012 2.134±.305	.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.) .625±.020 (mm) 15.875±.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.

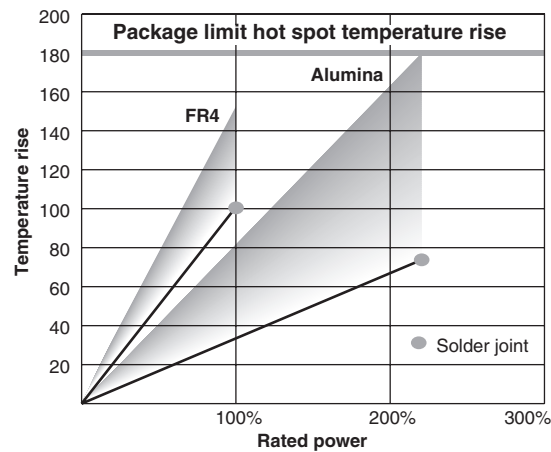
Note 2: Test point is .020 above PCB. Note 3: Tape and reel dimensions per EIA 481 A except "EA" size which is 12 mm component pitch versus 16mm pitch.

* 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)	Load Life (1000 hours at 25°C)	Immersion (260°C for 10 sec.)	Momentary Overload
RC Carbon/Ceramic Composition	±4.0%+.05Ω	±10.0%+.05Ω	±3.0%+.05Ω	6.3x rated power for 5 sec.
RF Metal Film	±0.5%+.05Ω	±0.5%+.05Ω	±0.1%+.05Ω	2x rated power for 0.1 sec.
RW Wirewound	±0.5%+.05Ω	±3.0%+.05Ω	±0.1%+.05Ω	5x rated power for 5 sec.
RP Power Film	±3.0%+.05Ω	±5.0%+.05Ω	±0.5%+.05Ω	2x rated power for 0.1 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

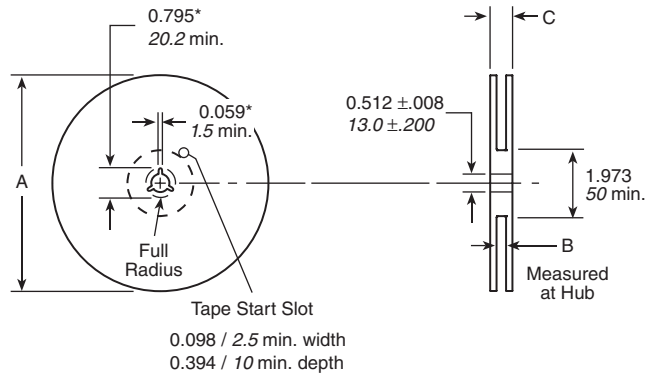


The temperature rise graph data was obtained by a selection of test substrate size and trace width for each resistor size to limit operating temperatures to safe values.

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).

STOCK VALUES AVAILABLE

		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								
5K	5K00								J
10K	10K0								
49.9K	49K9								
100K	100K								
360K	360K								
499K	499K								
1M	1M00								
5M	5M00								

General Notes

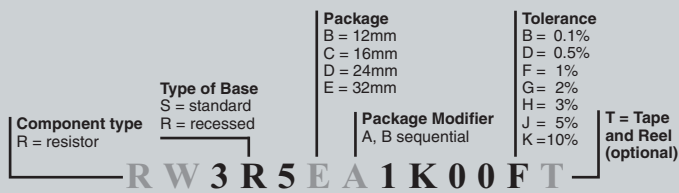
Other ratings under development.

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.

ORDERING INFORMATION



(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.)

Component Modifier C = carbon/ceramic composition F = film P = power film W = wire M = thick film	Wattage Examples: 1S3 = 1.25W 2S0 or 2R0 = 2.0W 3R5 = 3.5W	Resistance Value R = Decimal K = 1,000 M = 1,000,000	Examples: R249 = 0.249 ohms 24R9 = 24.9 ohms 2K49 = 2,490 ohms 249K = 249,000 ohms 2M49 = 2,490,000 ohms
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