

STOCK VALUES AVAILABLE

Wirewound									Metal film							Power film							Wirewound							
Package style →	BA	CA	CB	CB	DA	DA	DB	EA	Package style →	BA	CA	CA	CB	DA	DA	EA	BA	CA	CB	CB	DA	DA	DB	EA						
Base: standard or recessed →	S	S	S	R	S	R	R	R	Base: standard or recessed →	S	S	S	S	R	S	R	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	Wattage →	0.8	1.0	1.3	1.5	2.0	2.0	3.0	1.0	1.5	2.0	2.0	2.0	2.0	3.0	3.5						
Ohmic value	Part No.	Wirewound							Part No.	Metal film							Power film													
Prefix →	RW1S0BA	RW1S6CA	RW2S0CB	RW2R0CB	RW2S0DA	RW2R0DA	RW3R0DB	RW3R5EA	Prefix →	RF0S8BA	RF1S00A	RP1S3CA	RP1S50B	RP2R0DA	RP2S0DA	RP3R0EA	RW1S0BA	RW1S6CA	RW2S0CB	RW2R0CB	RW2S0DA	RW2R0DA	RW3R0DB	RW3R5EA						
Suffix ↓	Tolerance suffix	⊗ F = 1% J = 5%							Suffix ↓	Tolerance suffix	⊗ F = 1% J = 5%																			
0.005	R005-	J	J		F/J				1.00	1R00-	J	F/J		J		J	F/J	J	J				J	J						
0.010	R010-	F/J	J		J	F	J	J	2.00	2R00-	F	F/J	J	J			F/J	J	J				J	J						
0.015	R015-	F/J	J						2.20	2R20-			J	J																
0.020	R020-	J		J		F	J	J	3.01	3R01-		J			J															
0.025	R025-	J							4.99	4R99-	J			J	J															
0.027	R027-	J							5.60	5R60-					J		J													
0.030	R030-	F	J	J					6.80	6R80-					J															
0.033	R033-	J							7.50	7R50-					J									J						
0.036	R036-	J							10.00	10R0-		J	J	J	J	J	J	J	J	J	J	J	J	J						
0.050	R050-	F/J		J		J	F	J	11.00	11R0-			J	J	J	J	J	J	J	J	J	J	J	J						
0.056	R056-	J							15.00	15R0-					J	J	J	J	J	J	J	J	J	J						
0.075	R075-	J							20.00	20R0-	J			J	J	J	J	J	J	J	J	J	J	J						
0.080	R080-	J							24.90	24R9-		J					J	J	J	J	J	J	J	J						
0.100	R100-	F/J	J		J	F	J	J	47.00	47R0-						J	J	J	J	J	J	J	J	J						
0.150	R150-	J		J		J		J	49.90	49R9-		J			J	J	J	J	J	J	J	J	J	J						
0.200	R200-	J		J				J	50.00	50R0-							J	J	J	J	J	J	J	J						
0.220	R220-	J		J					51.00	51R0-				J	J	J	J	J	J	J	J	J	J	J						
0.240	R240-	J		J					51.10	51R1-		J					J	J	J	J	J	J	J	J						
0.300	R300-	J			J				68.00	68R0-		J					J	J	J	J	J	J	J	J						
0.330	R330-			J					82.00	82R0-							J	J	J	J	J	J	J	J						
0.400	R040-	J							100.00	100R-	J		J	J	J	J	J	J	J	J	J	J	J	J						
0.400	R400-				J				120.00	120R-						J	J	J	J	J	J	J	J	J						
0.470	R470-	J	J			J			158.00	158R-	J						J	J	J	J	J	J	J	J						
0.500	R500-	J	J		J				180.00	180R-						J	J	J	J	J	J	J	J	J						
0.750	R750-	J				J			182.00	182R-	J						J	J	J	J	J	J	J	J						
									200.00	200R-		J					J	J	J	J	J	J	J	J						
									300.00	300R-						J	J	J	J	J	J	J	J	J						
									392.00	392R-	F						J	J	J	J	J	J	J	J						
									470.00	470R-							J	J	J	J	J	J	J	J						
									499.00	499R-	J		J	J	J	J	J	J	J	J	J	J	J	J						
									511.00	511R-		F					J	J	J	J	J	J	J	J						
									1K	1K00-	J	J	J	J	J	J	J	J	J	J	J	J	J	J						
									1.82K	1K82-	F						J	J	J	J	J	J	J	J						
									2K	2K00-		J					J	J	J	J	J	J	J	J						
									4.7K	4K70-							J	J	J	J	J	J	J	J						
									4.99K	4K99-	J		J	J	J	J	J	J	J	J	J	J	J	J						
									5K	5K00-							J	J	J	J	J	J	J	J						
									10K	10K0-	J	J	J	J	J	J	J	J	J	J	J	J	J	J						
									49.9K	49K9-	J	J	J	J	J	J	J	J	J	J	J	J	J	J						
									100K	100K-	J	J	J	J	J	J	J	J	J	J	J	J	J	J						
									360K	360K-			J	J	J	J	J	J	J	J	J	J	J	J						
									499K	499K-	J	J	J	J	J	J	J	J	J	J	J	J	J	J						
									1M	1M00-	J	J	J	J	J	J	J	J	J	J	J	J	J	J						
									5M	5M00-		J	J	J	J	J	J	J	J	J	J	J	J	J						

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.

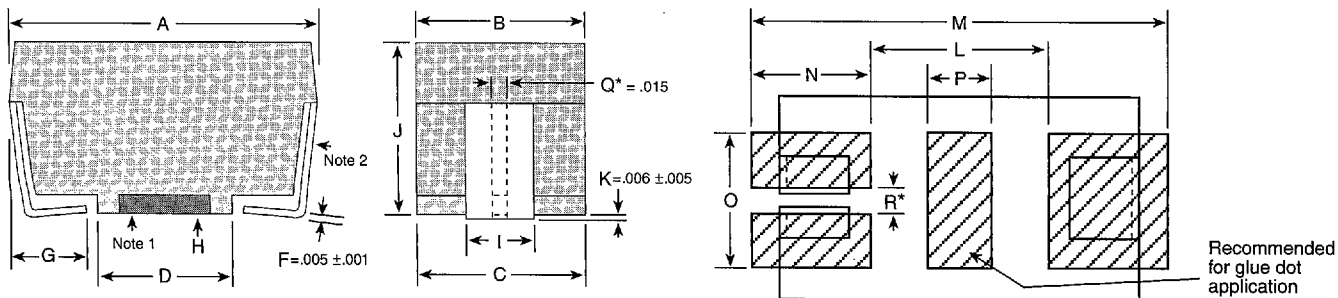
HOW TO ORDER

Type of Base S = standard R = recessed with Kelvin connection (4-wire): K = standard L = recessed	Package B = 12mm C = 16mm D = 24mm E = 32mm	Tolerance B = .1% D = .5% F = 1% G = 2% H = 3% J = 5%	Package Modifier A, B sequential
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RW3R5EA1K00FT

Component type R = resistor C = capacitor	Wattage Examples: 1S3 = 1.25W 2S0 or 2R0 = 2.0W 3R5 = 3.5W	Resistance Value Examples: R = Decimal R249 = 0.249 ohms 24R9 = 24.9 ohms 2K49 = 2,490 ohms 249K = 249,000 ohms 2M49 = 2,490,000 ohms	T = Tape and Reel (optional)
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(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.)



Packages	Package Outline Dimensions						PC Board Land Pattern						
	A	B	C	D	G	I	J	L	M	N	O	P	R*
BA (in.)	.246±.020	.136±.005	.133 REF	.110±.010	.047 Nom.	.054±.010	.136±.005	.150	.346	.098	.126	.050	.020
(mm)	6.248±.508	3.454±.127	3.378 REF	2.794±.254	1.194 Nom.	1.372±.254	3.454±.127	3.81	8.79	2.49	3.20	1.27	.508
BB (in.)	.246±.020	.136±.005	.133 REF	.110±.010	.047 Nom.	.054±.010	.055±.005	.150	.346	.098	.126	.050	.020
(mm)	6.248±.508	3.454±.127	3.378 REF	2.794±.254	1.194 Nom.	1.372±.254	1.397±.127	3.81	8.79	2.49	3.20	1.27	.508
CA (in.)	.394±.020	.159±.005	.156 REF	.220±.010	.062 Nom.	.078±.010	.159±.005	.256	.524	.134	.126	.060	.020
(mm)	10.008±.508	4.039±.127	3.962 REF	5.588±.254	1.575 Nom.	1.981±.254	4.038±.127	6.50	13.31	3.40	3.20	1.52	.508
CB (in.)	.407±.020	.226±.005	.222 REF	.260±.010	.062 Nom.	.084±.013	.222±.005	.276	.537	.131	.126	.093	.020
(mm)	10.338±.508	5.74±.127	5.639 REF	6.604±.254	1.575 Nom.	2.134±.330	5.639±.127	7.01	13.64	3.33	3.20	2.36	.508
DA (in.)	.455±.020	.240±.005	.236 REF	.260±.010	.062 Nom.	.143±.012	.226±.005	.317	.585	.134	.155	.093	.020
(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	.508
DB (in.)	.612±.020	.273±.005	.268 REF	.417±.010	.062 Nom.	.143±.012	.226±.005	.474	.742	.134	.155	.093	.020
(mm)	15.545±.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	.508
EA (in.)	.811±.020	.273±.005	.268 REF	.572±.010	.093 Nom.	.143±.012	.273±.005	.611	1.000	.195	.155	.093	.020
(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	.508

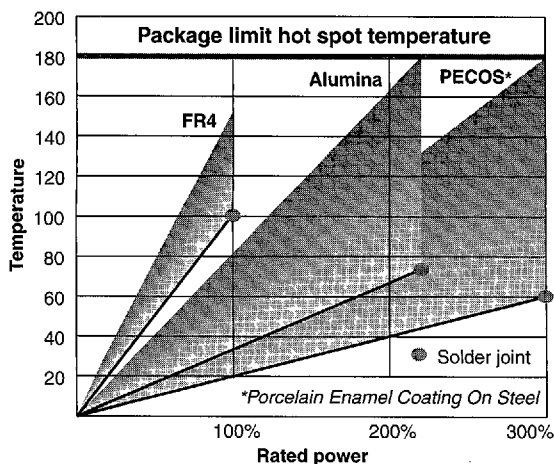
Note 1: Packages BA, CA and BB are only available with a pedestal base. Packages CB and DA are available in either pedestal or recessed base. Packages DB and EA are only available in a recessed base.
 Note 2: Test point is .020 above PCB. Note 3: Tape and reel dimensions per EIA 481 A except "EA" size which is 12mm 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 Composition	±4.0%+.05Ω	±10.0%+.05Ω	±3.0%+.05Ω	6.3x rated power for 5 sec.
RF Metal Film	±0.5%+.05Ω	±.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.

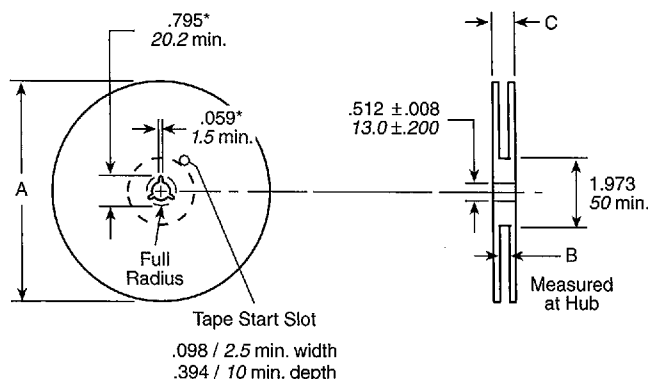
FR4: 0.062 in. thick; 0.062 in. traces

Alumina: 0.040 in. thick; 0.010 in. traces

PECOS: 0.043 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	4000 pcs. BB or 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).

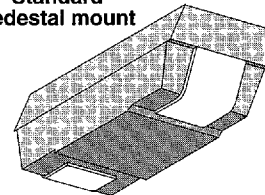
FEATURES

- Tolerance 1%-5% standard
- Eleven wattage ratings
- Seven package sizes
- Two mounting designs to accommodate your soldering process.
- Four power resistor technologies to ensure your operating performance:
 - Carbon composition for high inrush current
 - Metal film for high ohmic value and low T.C.
 - Wirewound for inrush current combined with low ohmic values, down to 0.005Ω and close tolerance
 - Power film for high ohmic value and high wattage
- Four-wire Kelvin connections are now available on all packages sizes.
- Flexible J-bend terminations

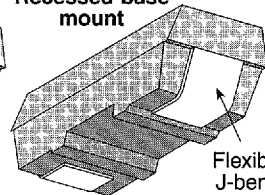
Surface Mount Power Resistors

RC Series: carbon composition
RF Series: metal film
RW Series: wirewound
RP Series: power film

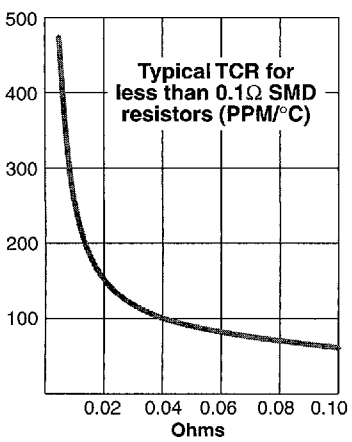
Standard pedestal mount



Recessed-base mount



4-terminal Kelvin available



Series	Wattage	Ohms	Dimensions (in. / mm)		Width	Voltage
			Length	Height		
RC0S2CA	0.25	2.2-5.6M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	250
RC0R5DB	0.50	2.2-20M	0.655 / 16.64	0.226 / 5.74	0.273 / 6.93	350
RF0S8BA	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
RW1S0BB	1.00	0.005-060	0.246 / 6.25	0.060 / 1.52	0.136 / 3.45	50
RF1S0CA	1.00	1.0-10M	0.394 / 10.01	0.159 / 4.04	0.159 / 4.04	350
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

4 Terminal Kelvin: available in all above models (K-standard, L-Recessed).

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+			
RC0S2CA	0.25	250	—	2.2Ω-5.6M	—	±400	±400	1000V	16mm	1500
RC0R5DB	0.50	350	—	2.2Ω-20M	—	±400	±400	1000V	24mm	1000
RF0S8BA	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
RW1S0BB	1.0	50	0.005Ω-0.060Ω	0.005Ω-0.060Ω	see chart	—	—	250V	12mm	5000
RF1S0CA	1.0	350	10Ω-1M	1Ω-10M	—	±200	±100	1000V	16mm	1500
RP1S3CA	1.25	350	—	1Ω-1M	—	±250	±250	1000V	16mm	1500
RP1S5CA	1.5	75	0.005Ω-1.5K	0.005Ω-1.5K	±90	±50	±20	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

* For resistance value, tolerance and 4-wire Kelvin connection option, see ordering data box next page
 ** At 25°C ambient



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