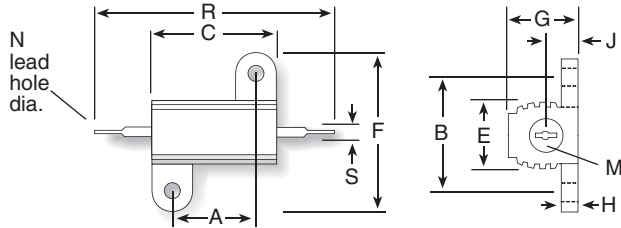


89 Series

Metal-Mite® MIL-R-18546 Approved Aluminum Housed Axial Lead Wirewound Resistors 1% Tolerance



The 89 Series are high-performance axial-lead type resistors. These molded-construction metal-housed resistors are available in higher power ratings than standard axial-lead resistors and are better suited to withstanding vibration, shock and harsh environmental conditions.

The 89 Series Metal-Mite® resistors are aluminum housed to maintain high stability during operation and to permit secure mounting to chassis surfaces.

The metal housing also provides heat-sinking capabilities, allowing the units to exceed the power ratings set by MIL specifications. Use the 89 Series resistors with the confidence that they meet or exceed MIL-R-18546 specifications.

FEATURES

- High Stability: $\pm 0.5\%$ ΔR .
- High power to size ratio.
- Metal housing allows chassis mounting and provides heat sink capability.
- RoHS compliant product available Jan. 2006 Add "E" suffix to part number to specify.

SPECIFICATIONS

Material

Housing: Metal, anodized aluminum.

Internal Coating: Silicone.

Core: Ceramic.

Terminals: Solder-coated axial lead.

Derating: Linearly from 100% @ +25°C to 0% @ +275°C.

Electrical

Tolerance: $\pm 1\%$ and $\pm 5\%$ (other tolerances available).

Power rating: Rating is based on chassis mounting area and temperature stability. Proper heat sink as follows: 5W and 10W units, 4" x 6" x 2" x .040" Aluminum chassis; 25W units, 5" x 7" x 2" x .040" Aluminum chassis; 50W units, 12" x 12" x .059" Aluminum panel.

Maximum ohmic values:

See chart.

Overload: 5 times rated wattage for 5 seconds.

Temperature coefficient:

Under 1Ω: ± 90 ppm/°C
1 to 9.99Ω: ± 50 ppm/°C
10Ω and over: ± 20 ppm/°C.

Dielectric withstanding voltage:

5W and 10W rating, 1000 VAC;
25 and 50W ratings, 2250 VAC.

Series	Wattage	Ohms	Dimensions (in. / mm)		Width	Voltage
			Length	Height		
805 (RE60G)	5	0.10-25K	1.125 / 28.58	0.320 / 8.13	0.646 / 16.41	210
810 (RE65G)	10	0.10-50K	1.375 / 34.93	0.390 / 9.91	0.800 / 20.32	320
825 (RE70G)	25	0.005-75K	1.938 / 49.23	0.546 / 13.87	1.080 / 27.43	520
850 (RE75G)	50	0.005-100K	2.781 / 70.64	0.610 / 15.49	1.140 / 28.96	1170

Non-Inductive versions available. Insert "N" before tolerance code. Example: 850NF560

Dim. (in. $\pm .010$ /mm $\pm .254$)	5 watt	10 watt	25 watt	50 watt
Dim. A	0.444/11.28	0.562/14.27	0.719/18.26	1.563/39.70
Dim. B	0.490/12.45	0.625/15.88	0.781/19.84	0.844/21.44
Dim. C	0.600/15.24	0.750/19.05	1.062/26.97	1.968/49.99
Dim. E	0.334/ 8.48	0.420/10.67	0.550/13.97	0.630/16.00
Dim. F	0.646/16.41	0.800/20.32	1.080/27.43	1.140/28.96
Dim. G	0.320/ 8.13	0.390/ 9.91	0.546/13.87	0.610/15.49
Dim. H	0.060/ 1.52	0.075/ 1.90	0.088/ 2.24	0.088/ 2.24
Dim. J	0.156/ 3.90	0.183/ 4.65	0.231/ 2.54	0.260/ 2.54
Dim. M	0.085/ 2.16	0.140/ 3.56	0.140/ 3.56	0.140/ 3.56
Dim. N	0.050/ 1.27	0.086/ 2.18	0.086/ 2.18	0.086/ 2.18
Dim. R	1.125/28.58	1.375/34.93	1.938/49.23	2.781/70.64
S min AWG	16	12	12	12
Diam. S (mm)	1.29	2.05	2.05	2.05

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

Wattage						Wattage						Wattage					
Ohmic value	Part No.	5	10	25	50	Ohmic value	Part No.	5	10	25	50	Ohmic value	Part No.	5	10	25	50
	Prefix						Prefix						Prefix				
	Suffix						Suffix						Suffix				
0.005	—R005		✓	✓		20	—20R	✓	+			1,500	—1K5	✓	✱	✱	+
0.010	—R010		✓	✓		25	—25R	✓	✓	✓	+	2,000	—2K0	✓	✓	✱	✱
0.025	—R025		✓	✓	✓	30	—30R	✱	✱			2,500	—2K5	✓	✓	✓	
0.1	—R10		+	+		40	—40R	✱	✓			3,000	—3K0	✱	+	✓	✱
0.3	—R30		✓	✱		50	—50R	✓	✓	✓	+	3,500	—3K5	✱	✱		
0.5	—R50		✓	✱		75	—75R	✓	✓	✓	+	4,000	—4K0	✓	✓		
0.7	—R70		✱	✱		100	—100	✓	✓	✓	+	4,500	—4K5	✱	✱		
1.0	—1R0		+	+	+	150	—150	✓	✓	+	+	5,000	—5K0	✓	✓	✓	✓
1.5	—1R5		✱			200	—200	✱	✱	✓	✓	6,000	—6K0	✱	✱		
2.0	—2R0		✱	✓	+	250	—250	✓	✓	+	✓	10,000	—10K	✓	✱	+	✓
3.0	—3R0		✓	✓	+	300	—300	+	✱			15,000	—15K	+	✓	✱	✱
4.0	—4R0		✱	✓		400	—400	✱	✱			20,000	—20K	✱	✱		
5.0	—5R0		✓	+	✓	500	—500	✓	✓	✓	+	25,000	—25K	+	✱	✱	✱
10.0	—10R		✓	+	+	750	—750	✱	✱	+	✓	50,000	—50K		✱		
15.0	—15R		+	✓	+	1,000	—1K0	✱	✓	+	✓	75,000	—75K		✱		
												100,000	—100K		✱		

✱ = Most popular stock values

✓ = Stock values

✱ = Non-stock values subject to minimum handling charge per item

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.

✦ = Most popular stock values

✓ = Stock values

✦ = Non-stock values subject to minimum handling charge per item

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.