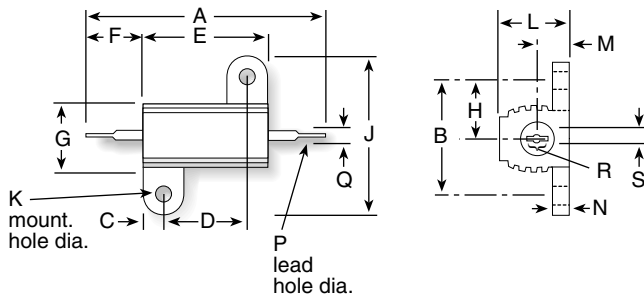


89 Series

Metal-Mite® Aluminum Housed Axial Lead Wirewound Resistors 1% Tolerance



Series	Wattage	Ohms	Voltage
805	5	0.10-25K	210
810	10	0.10-50K	320
825	25	0.005-75K	520
850	50	0.005-100K	1170

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

Series (Industrial)	5 watt 805	10 watt 810	25 watt 825	50 watt 850
Dimensions				
Dim. A (in. ±.062/mm ±.157)	1.125/28.58	1.375/34.93	1.938/49.23	2.781/70.64
Dim. B (in. ±.010/mm ±.25)	0.490/12.45	0.625/15.88	0.781/19.84	0.844/21.44
Dim. C (in. ±.031/mm ±.79)	0.078/ 1.98	0.094/ 2.39	0.172/ 4.37	0.188/ 4.78
Dim. D (in. ±.010/mm ±.25)	0.444/11.28	0.562/14.27	0.719/18.26	1.562/39.67
Dim. E (in. ±.062/mm ±.157)	0.600/15.24	0.750/19.05	1.062/26.97	1.938/49.23
Dim. F (in. ±.062/mm ±.157)	0.266/ 6.76	0.312/ 7.92	0.438/11.13	0.438/11.13
Dim. G (in. ±.062/mm ±.157)	0.334/ 8.48	0.438/11.13	0.531/13.49	0.594/15.09
Dim. H (in. ±.031/mm ±.79)	0.245/ 6.22	0.312/ 7.92	0.391/ 9.93	0.422/10.72
Dim. J (in. ±.031/mm ±.79)	0.646/16.41	0.812/20.62	1.094/27.79	1.156/29.36
Dim. K (in. ±.005/mm ±.13)	0.093/ 2.36	0.094/ 2.39	0.125/ 3.18	0.125/ 3.18
Dim. L (in. ±.031/mm ±.79)	0.320/ 8.13	0.406/10.31	0.562/14.27	0.625/15.88
Dim. M (in. ±.062/mm ±.157)	0.133/ 3.38	0.203/ 5.16	0.281/ 7.14	0.312/ 7.92
Dim. N (in. ±.031/mm ±.79)	0.065/ 1.65	0.094/ 2.39	0.094/ 2.39	0.094/ 2.39
Dim. P (in. ±.005/mm ±.13)	0.050/ 1.27	0.085/ 2.16	0.085/ 2.16	0.085/ 2.16
Q min AWG	16	12	12	12
Dim. R (in., min/mm, min)	0.085/ 2.16	0.140/ 3.56	0.140/ 3.56	0.140/ 3.56

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.

FEATURES

- High Stability: ±0.5% ΔR.
- High power to size ratio.
- Metal housing allows chassis mounting and provides heat sink capability.

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: ±1% and ±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.

ORDERING INFORMATION

Non-Inductive Winding
Optional (blank = std. winding)

805NF5R0E

Series	Tolerance	Ohms	RoHS Compliant
805 = 5 Watt	F = 1%	R005 = 0.005Ω	
810 = 10 watt	J = 5%	R10 = 0.1Ω	
825 = 25 watt		1R0 = 1.0Ω	
850 = 50 watt		250 = 250Ω	
		1K0 = 1,000Ω	
		1K5 = 1,500Ω	
		25K = 25,000Ω	

STANDARD 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			
		805F	810F	825F	850F			805F	810F	825F	850F			805F	810F	825F	850F			
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 standard values

✓ = Standard values

✧ = Non-standard 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.