89 Series

Metal-Mite® Aluminum Housed Axial Terminal Wirewound, 1% Tolerance

The 89 Series is a high-performance axial type resistor. These molded-construction metal-housed resistors are available in higher power ratings than standard axial 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

SERIES SPECIFICATIONS

Series	Wattage	Ohms	Voltage
805	5	0.10-25K	210
810	10	0.10-50K	320
825	25	0.010-75K	520
850	50	0.005-100K	1170

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

CHARACTERISTICS

Housing	Metal, anodized aluminum
Internal Coating	Silicone
Core	Ceramic
Terminals	Solder-coated axial
Derating	Linearly from 100% @ +25°C to 0% @ +275°C.
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.

(continued)

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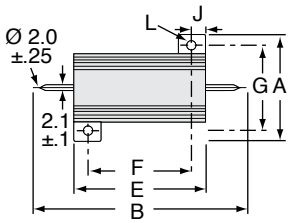
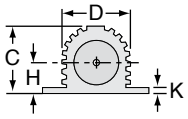
Axial Terminal Wirewound, 1% Tolerance

DIMENSIONS

(in./mm)





Dimensions have changed as of August 2015

	A max.	B max.	C ±0.25mm	D max.	E ±0.1mm	F ±.3mm	G ±.3mm	H max.	J max.	K max.	L ±.25mm
805	0.65" / 16.5	1.18" / 30.0	0.32" / 8.25	0.33" / 8.5	0.62" / 15.80	0.44" / 11.3	0.49" / 12.4	0.18" / 4.5	0.09" / 2.4	0.07" / 1.8	0.09" / 2.4
810	0.83" / 21.0	1.44" / 36.5	0.42" / 10.72	0.44" / 11.2	0.78" / 19.80	0.56" / 14.3	0.63" / 15.9	0.22" / 5.5	0.11" / 2.8	0.07" / 1.8	0.09" / 2.4
825	1.10" / 28.0	2.01" / 51.0	0.56" / 14.35	0.56" / 14.2	1.07" / 27.20	0.72" / 18.3	0.78" / 19.8	0.30" / 7.7	0.20" / 5.2	0.10" / 2.6	0.13" / 3.2
850	1.10" / 28.0	2.85" / 72.5	0.56" / 14.35	0.56" / 14.2	1.93" / 49.00	1.56" / 39.7	0.84" / 21.4	0.33" / 8.4	0.20" / 5.2	0.10" / 2.6	0.13" / 3.2

ORDERING INFORMATION

Ohmic value	Part No. Prefix ► Suffix ▼	Wattage 5 (805F)	10 (810F)	25 (825F)	50 (850F)
0.005	---R005			✓	✓
0.010	---R010			✓	✓
0.025	---R025			✓	✓
0.1	---R10			✓	✓
0.3	---R30			✓	◆
0.5	---R50			✓	◆
0.7	---R70			◆	◆
1.0	---1R0	✓	✓	✓	✓
1.5	---1R5	◆	✓		
2.0	---2R0	◆	✓	✓	✓
3.0	---3R0	✓	✓	✓	✓
4.0	---4R0	◆	✓		
5.0	---5R0	✓	✓	✓	✓
10.0	---10R	✓	✓	✓	✓
15.0	---15R	✓	✓	✓	✓
20	---20R	✓	✓		
25	---25R	✓	✓	✓	✓
30	---30R	◆	◆		
40	---40R	◆	✓		
50	---50R	✓	✓	✓	✓
75	---75R	✓	◆	✓	✓
100	---100	✓	✓	✓	✓
150	---150	✓	✓	✓	✓
200	---200	◆	◆	✓	✓
250	---250	✓	✓	✓	✓
300	---300	✓	◆		
400	---400	◆	◆		
500	---500	✓	◆	✓	✓
750	---750	◆	◆	✓	✓
1,000	---1K0	◆	✓	✓	✓
1,500	---1K5	✓	◆	◆	✓
2,000	---2K0	✓	✓	◆	◆
2,500	---2K5	✓	✓		
3,000	---3K0	◆	✓	✓	◆
3,500	---3K5	◆	◆		
4,000	---4K0	✓	✓		
4,500	---4K5	◆	◆		
5,000	---5K0	✓	✓	✓	✓
6,000	---6K0	◆	◆		
10,000	---10K	✓	◆	✓	✓
15,000	---15K	✓	✓	◆	◆
20,000	---20K	◆	◆		
25,000	---25K	✓	◆	◆	◆
50,000	---50K		◆		
75,000	---75K			◆	
100,000	---100K				◆

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

RoHS Compliant

805 N F 5R0 E

Series
805 = 5 Watt
810 = 10 watt
825 = 25 watt
850 = 50 watt

Tolerance
F = 1%
J = 5%

Ohms
R005= 0.005Ω
R10 = 0.1Ω
1R0 = 1.0Ω
250 = 250Ω
1K0 = 1,000Ω
1K5 = 1,500Ω
25K = 25,000Ω

✓ = 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.

As of September 2006, the 89 Series is no longer offered as Mil. Spec.