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 higherpower 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	0.010-70K	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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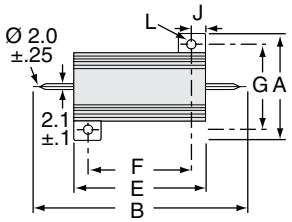
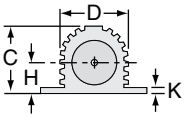
DIMENSIONS

mm/in.





Dimensions have changed as of August 2015

	A max.	B max.	C ±0.25mm	D max.	E ±0.3mm	F ±0.3mm	G ±0.3mm	H max.	J max.	K max.	L ±.25mm
805	16.5 / 0.65"	30.0 / 1.18"	8.25 / 0.32"	8.5 / 0.33"	15.80 / 0.62"	11.3 / 0.44"	12.4 / 0.49"	4.5 / 0.18"	2.4 / 0.09"	1.8 / 0.07"	2.4 / 0.09"
810	21.0 / 0.83"	36.5 / 1.44"	10.72 / 0.42"	11.2 / 0.44"	19.80 / 0.78"	14.3 / 0.56"	15.9 / 0.63"	5.5 / 0.22"	2.8 / 0.11"	1.8 / 0.07"	2.4 / 0.09"
825	28.0 / 1.10"	51.0 / 2.01"	14.35 / 0.56"	14.2 / 0.56"	27.20 / 1.07"	18.3 / 0.72"	19.8 / 0.78"	7.7 / 0.30"	5.2 / 0.20"	2.6 / 0.10"	3.2 / 0.13"
850	28.0 / 1.10"	72.5 / 2.85"	14.35 / 0.56"	14.2 / 0.56"	49.00 / 1.93"	39.7 / 1.56"	21.4 / 0.84"	8.4 / 0.33"	5.2 / 0.20"	2.6 / 0.10"	3.2 / 0.13"

ORDERING INFORMATION

Ohmic value	Part No. Prefix ➤ Suffix ▼	Wattage 805F (5)	810F (10)	825F (25)	850F (50)
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	Tolerance	Ohms
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 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.

September 2006:
The 89 Series is no longer offered as Mil. Spec.

EC #11560