# 89 Series

## Metal-Mite® Aluminum Housed Axial Term. 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.

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

## SPECIFICATIONS

**Material**

**Housing:** Metal, anodized aluminum.

**Internal Coating:** Silicone.

**Core:** Ceramic.

**Terminals:** Solder-coated axial.

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

### Electrical

**Tolerance:** ±1% and ±5% (other tolerances available).

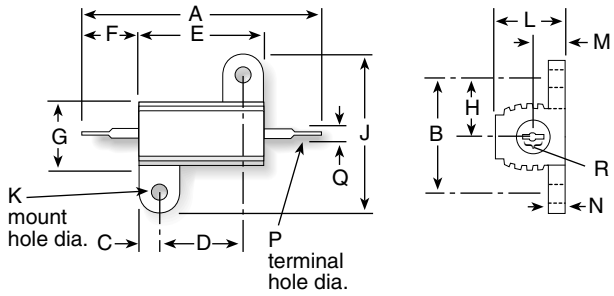
**Power rating:** Rating is based on chassis mounting area and temperature stability. Proper heat sink as follows: 5W and 10W units, 4" x 6" x 2" x .040" Aluminum chassis; 25W units, 5" x 7" x 2" x .040" Aluminum chassis; 50W units, 12" x 12" x .059" Aluminum panel.

**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.




| 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

| | 5 watt | 10 watt | 25 watt | 50 watt |
|---|---|---|---|---|
| **Series (Industrial)** | **805** | **810** | **825** | **850** |
| | | **Dimensions** | | |
| Dim. A (in. ±0.062 / mm ±1.57) | 1.125 / 28.59 | 1.375 / 34.93 | 1.938 / 49.23 | 2.781 / 70.64 |
| Dim. B (in. ±0.010 / mm ±0.25) | 0.490 / 12.45 | 0.625 / 15.88 | 0.781 / 19.84 | 0.844 / 21.44 |
| Dim. C (in. ±0.031 / mm ±0.79) | 0.078 / 1.98 | 0.094 / 2.39 | 0.172 / 4.37 | 0.188 / 4.78 |
| Dim. D (in. ±0.010 / mm ±0.25) | 0.444 / 11.28 | 0.562 / 14.28 | 0.719 / 18.26 | 1.562 / 39.68 |
| Dim. E (in. ±0.062 / mm ±1.57) | 0.600 / 15.24 | 0.750 / 19.05 | 1.062 / 26.98 | 1.938 / 49.23 |
| Dim. F (in. ±0.062 / mm ±1.57) | 0.266 / 6.76 | 0.312 / 7.93 | 0.438 / 11.13 | 0.438 / 11.13 |
| Dim. G (in. ±0.062 / mm ±1.57) | 0.334 / 8.48 | 0.438 / 11.13 | 0.531 / 13.49 | 0.594 / 15.09 |
| Dim. H (in. ±0.031 / mm ±0.79) | 0.245 / 6.22 | 0.312 / 7.93 | 0.391 / 9.93 | 0.422 / 10.72 |
| Dim. J (in. ±0.031 / mm ±0.79) | 0.646 / 16.41 | 0.812 / 20.63 | 1.094 / 27.79 | 1.156 / 29.36 |
| Dim. K (in. ±0.005 / mm ±0.13) | 0.093 / 2.36 | 0.094 / 2.39 | 0.125 / 3.18 | 0.125 / 3.18 |
| Dim. L (in. ±0.031 / mm ±0.79) | 0.320 / 8.13 | 0.406 / 10.31 | 0.562 / 14.28 | 0.625 / 15.88 |
| Dim. M (in. ±0.062 / mm ±1.57) | 0.133 / 3.38 | 0.203 / 5.16 | 0.281 / 7.14 | 0.312 / 7.92 |
| Dim. N (in. ±0.031 / mm ±0.79) | 0.065 / 1.65 | 0.094 / 2.39 | 0.094 / 2.39 | 0.094 / 2.39 |
| Dim. P (in. ±0.005 / mm ±0.13) | 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 |

## ORDERING INFORMATION

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

**805NF5R0E**

**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

**RoHS Compliant**

## STANDARD PART NUMBERS

| 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 | | | | ✤ |

✔ = 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.

Check product availability at **www.ohmite.com**

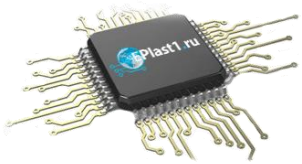
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- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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