

# 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:  $\pm 0.5\%$   $\Delta R$
- 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

|                                        |                                                                                                                                                                                                                                                          |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Housing</b>                         | Metal, anodized aluminum                                                                                                                                                                                                                                 |
| <b>Internal Coating</b>                | Silicone                                                                                                                                                                                                                                                 |
| <b>Core</b>                            | Ceramic                                                                                                                                                                                                                                                  |
| <b>Terminals</b>                       | Solder-coated axial                                                                                                                                                                                                                                      |
| <b>Derating</b>                        | Linearly from 100% @ +25°C to 0% @ +275°C.                                                                                                                                                                                                               |
| <b>Tolerance</b>                       | $\pm 1\%$ and $\pm 5\%$ (other tolerances available).                                                                                                                                                                                                    |
| <b>Power rating</b>                    | 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. |
| <b>Maximum ohmic values</b>            | See chart.                                                                                                                                                                                                                                               |
| <b>Overload</b>                        | 5 times rated wattage for 5 seconds.                                                                                                                                                                                                                     |
| <b>Temperature coefficient</b>         | Under 1Ω: $\pm 90$ ppm/°C; 1 to 9.99Ω: $\pm 50$ ppm/°C; 10Ω and over: $\pm 20$ ppm/°C.                                                                                                                                                                   |
| <b>Dielectric withstanding voltage</b> | 5W and 10W rating, 1000 VAC; 25 and 50W ratings, 2250 VAC.                                                                                                                                                                                               |

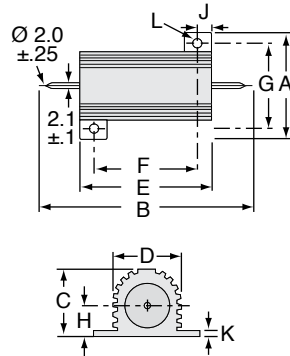
(continued)

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### DIMENSIONS

(in./mm)



Dimensions have changed  
as of August 2015

|     | A<br>max.    | B<br>max.    | C<br>max.    | D<br>max.    | E<br>max.    | F<br>±.3mm   | G<br>±.3mm   | H<br>max.   | J<br>max.   | K<br>max.   | L<br>±.25mm |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|
| 805 | 0.65" / 16.5 | 1.18" / 30.0 | 0.35" / 8.8  | 0.33" / 8.5  | 0.63" / 15.9 | 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 | 0.43" / 11.0 | 0.44" / 11.2 | 0.78" / 19.9 | 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 | 0.58" / 14.8 | 0.56" / 14.2 | 1.07" / 27.3 | 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 | 0.58" / 14.8 | 0.56" / 14.2 | 1.93" / 49.1 | 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 | Wattage                          |      |      |      |      | Ohmic value | Wattage                          |      |      |      |      | Ohmic value | Wattage                          |      |      |      |      |
|-------------|----------------------------------|------|------|------|------|-------------|----------------------------------|------|------|------|------|-------------|----------------------------------|------|------|------|------|
|             | Part No.<br>Prefix ▼<br>Suffix ▼ | 5    | 10   | 25   | 50   |             | Part No.<br>Prefix ▼<br>Suffix ▼ | 5    | 10   | 25   | 50   |             | Part No.<br>Prefix ▼<br>Suffix ▼ | 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                            |      |      |      |      |

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

805 N F 5 R 0 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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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