

# A Series



## PulsEater® Ceramic Composition Available in E12 Ohmic values

The “A” Series non-inductive, ceramic composite resistors are designed for a variety of applications where high energy handling capabilities are crucial. These resistors are ideal for any application which is subject to surges, high peak power, or impulse energy.

Their unique design allows uniform distribution of energy throughout their structure which results in low thermal stress. The high-temperature, solvent-resistant epoxy coating carries a UL94V0 flammability rating which is suitable for almost any environment.



\*AZ style is provided with dual terminal wires

### FEATURES

- High Surge Energy
- Non-Inductive
- Small Size

### APPLICATIONS

- Motor Drives
- Power Supplies, UPS
- Power Conversion
- In-Rush Current Limiting

## SERIES SPECIFICATIONS

| Series | Resistance <sup>1</sup><br>(ohms) | P<br>avg. <sup>2</sup><br>(watts) | Impulse<br>Voltage <sup>3</sup><br>(volts) | Energy <sup>4</sup><br>(joule) |
|--------|-----------------------------------|-----------------------------------|--|--------------------------------|
| AV     | 3.3 to 10K                        | 2.0                               | 1000                                       | 250                            |
| AW     | 4.7 to 15K                        | 2.5                               | 1500                                       | 400                            |
| AX     | 1.0 to 3.3K                       | 3.5                               | 1000                                       | 700                            |
| AY     | 2.2 to 6.8K                       | 4.5                               | 2000                                       | 1400                           |
| AZ     | 1.5 to 4.7K                       | 5.5                               | 2500                                       | 2800                           |

<sup>1</sup>E12 Standard Values ±10%; <sup>2</sup>Free Air 40°C Ambient; <sup>3</sup>In Air; <sup>4</sup>Single Impulse

## CHARACTERISTICS

|                              |  |
|------------------------------|--|
| <b>Resistance Element</b>    | Bulk Ceramic   |
| <b>Terminals</b>             | Radial; 100% Sn solder coated radial (60/40 solder available upon request) |
| <b>Coating</b>               | UL94V0, solvent resistant epoxy  |
| <b>Tolerance</b>             | ±10% Standard  |
| <b>Operating Temp. Range</b> | -55°C to 150°C   |
| <b>Derating</b>              | Derates linearly from 100% @ 50°C to 0% @ 150°C                            |
| <b>Temperature Rise</b>      | 100°C @ 100% rated power, 50°C ambient                                     |

### Derating



### Mounting clip



Dim. (mm)

| Part No. | D  | H  | L  | for Series | Color |
|----------|----|----|----|------------|-------|
| 5911E    | 20 | 23 | 13 | AX and AY  | White |
| 5910E    | 25 | 26 | 15 | AZ         | Black |

This saddle clip conforms to the configuration of Ohmite's A Series resistor to provide secure mounting. Made of a durable thermoplastic polyester, the saddle clip is designed to secure the A Series in place while safely withstanding its operating temperatures. Use (2) saddle clips per resistor for extra stability.

### Surface Temperature Rise vs. Applied Power



(continued)

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## DIMENSIONS



| Series | P<br>avg. 2<br>(watts) | L<br>max.<br>(mm) | D<br>max.<br>(mm) | H<br>max.<br>(mm) | S<br>norm.<br>(mm) | Term. wire<br>gauge<br>(AWG) | Weight<br>(g) |
|--------|------------------------|-------------------|-------------------|-------------------|--------------------|------------------------------|---------------|
| AV     | 2.0                    | 15                | 13                | 22                | 12.5               | 20                           | 3.9           |
| AW     | 2.5                    | 20                | 13                | 22                | 17.5               | 20                           | 5.4           |
| AX     | 3.5                    | 15                | 21                | 28                | 12.5               | 18                           | 10            |
| AY     | 4.5                    | 25                | 21                | 28                | 22.5               | 18                           | 19            |
| AZ     | 5.5                    | 30                | 26                |                   | 27                 | 18                           | 33            |

## ORDERING INFORMATION



### Standard Values

| Ohmic value | Part No.<br>Prefix ▶<br>Suffix ▼ | Series | Ohmic value | Part No.<br>Prefix ▶<br>Suffix ▼ | Series | Ohmic value | Part No.<br>Prefix ▶<br>Suffix ▼ | Series | Ohmic value | Part No.<br>Prefix ▶<br>Suffix ▼ | Series |
|-------------|----------------------------------|--------|-------------|----------------------------------|--------|-------------|----------------------------------|--------|-------------|----------------------------------|--------|
| 1.0 — 10GK  | AV                               | ✓      | 5.6 — 56GK  | AV                               |        | 33 — 330K   | AV                               | ✓      | 220 — 221K  | AV                               | ✓      |
| 1.2 — 12GK  | AW                               |        | 6.8 — 68GK  | AW                               | ✓      | 39 — 390K   | AW                               | ✓      | 270 — 271K  | AW                               |        |
| 1.5 — 15GK  | AX                               |        | 8.2 — 82GK  | AX                               |        | 47 — 470K   | AX                               | ✓      | 330 — 331K  | AX                               | ✓      |
| 1.8 — 18GK  | AY                               | ✓      | 10 — 100K   | AY                               | ✓      | 56 — 560K   | AY                               | ✓      | 470 — 471K  | AY                               | ✓      |
| 2.2 — 22GK  | AZ                               | ✓      | 12 — 120K   | AZ                               | ✓      | 68 — 680K   | AZ                               | ✓      | 560 — 561K  | AZ                               | ✓      |
| 2.7 — 27GK  |                                  |        | 15 — 150K   |                                  | ✓      | 82 — 820K   |                                  | ✓      | 680 — 681K  |                                  | ✓      |
| 3.3 — 33GK  |                                  | ✓      | 18 — 180K   |                                  | ✓      | 100 — 101K  |                                  | ✓      | 820 — 821K  |                                  | ✓      |
| 3.9 — 39GK  |                                  | ✓      | 22 — 220K   |                                  | ✓      | 120 — 121K  |                                  | ✓      | 1000 — 102K |                                  | ✓      |
| 4.7 — 47GK  |                                  | ✓      | 27 — 270K   |                                  | ✓      | 150 — 151K  |                                  | ✓      |             |                                  |        |
|             |                                  |        |             |                                  |        | 180 — 181K  |                                  |        |             |                                  |        |

Check product availability at [www.ohmite.com](http://www.ohmite.com)

✓ = Standard values    Non-standard values subject to a minimum handling charge per item.