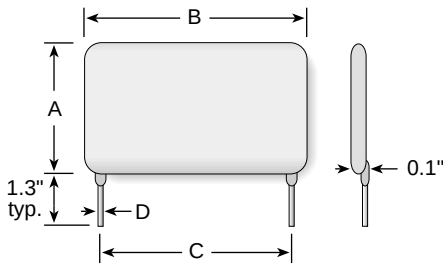


# Slim-Mox Resistors

## Precision Thick Film Planar Resistors



Ohmite's family of thick film resistor products has been expanded with a quality line of High Voltage and Precision products. The Slim-Mox style resistors provide a stable performance for a wide range of resistance values, with voltage ratings up to 25KV. Low temperature coefficients are also available for high stability circuit applications. The planar package saves space over traditional high voltage resistors, with flexible termination schemes for easy handling.

### FEATURES

- High dielectric & low outgassing epoxy coating
- Low resistor noise
- Non inductive

### APPLICATIONS

- HV power supplies
- Medical instrumentation
- Current pulse limiters
- Ionization chambers

### SPECIFICATIONS

#### Material

**Resistor:** Thick film on Alumina

#### Electrical

##### Resistance Range:

100 Ohms to 5,000M

**Power Rating:** 0.25W to 5.5W

**Voltage Rating:** 1.5KV to 25KV

**Tolerance:** 0.5% to 20%

##### Operating Temperature:

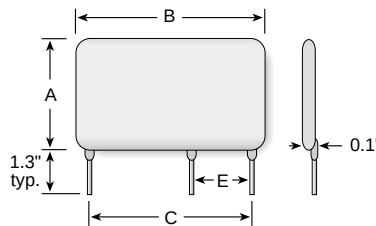
-55°C to +110°C

| Ohmite Series | Resistance Range (Ohms) | Power @25°C | Voltage Rating | A max. (in/mm) | B max. (in/mm) | C ±0.025 (in/mm) | D ±0.002 (in/mm) |
|---------------|-------------------------|-------------|----------------|----------------|----------------|------------------|------------------|
| SLIM-MOX100   | 100Ω to 500M            | 0.25W       | 1.5KV          | 0.30" / 7.62   | 0.30" / 7.62   | 0.10" / 2.54     | 0.025" / 0.635   |
| SLIM-MOX101   | 100Ω to 1,000M          | 0.50W       | 2.0KV          | 0.34" / 8.64   | 0.33" / 8.38   | 0.20" / 5.08     | 0.025" / 0.635   |
| SLIM-MOX102   | 200Ω to 5,000M          | 1.00W       | 5.0KV          | 0.34" / 8.64   | 0.58" / 14.73  | 0.40" / 10.16    | 0.032" / 0.813   |
| SLIM-MOX103   | 250Ω to 5,000M          | 1.25W       | 7.5KV          | 0.34" / 8.64   | 0.83" / 21.08  | 0.60" / 15.24    | 0.032" / 0.813   |
| SLIM-MOX104   | 500Ω to 5,000M          | 1.50W       | 10.0KV         | 0.34" / 8.64   | 1.08" / 27.43  | 0.90" / 22.86    | 0.032" / 0.813   |
| SLIM-MOX106   | 750Ω to 5,000M          | 2.00W       | 15.0KV         | 0.34" / 8.64   | 1.58" / 40.13  | 1.40" / 35.56    | 0.032" / 0.813   |
| SLIM-MOX108   | 1K to 5,000M            | 2.50W       | 20.0KV         | 0.34" / 8.64   | 2.08" / 52.83  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX202   | 500Ω to 5,000M          | 1.50W       | 5.0KV          | 0.59" / 14.99  | 0.58" / 14.73  | 0.40" / 10.16    | 0.032" / 0.813   |
| SLIM-MOX204   | 1K to 5,000M            | 2.00W       | 10.0KV         | 0.59" / 14.99  | 1.08" / 27.43  | 0.90" / 22.86    | 0.032" / 0.813   |
| SLIM-MOX206   | 2K to 5,000M            | 2.50W       | 15.0KV         | 0.59" / 14.99  | 1.58" / 40.13  | 1.40" / 35.56    | 0.032" / 0.813   |
| SLIM-MOX208   | 2K to 5,000M            | 3.00W       | 20.0KV         | 0.59" / 14.99  | 2.08" / 52.83  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX210   | 3K to 5,000M            | 3.50W       | 25.0KV         | 0.59" / 14.99  | 2.58" / 65.53  | 2.40" / 60.96    | 0.032" / 0.813   |
| SLIM-MOX306   | 3K to 5,000M            | 3.50W       | 15.0KV         | 0.84" / 21.34  | 1.58" / 40.13  | 1.40" / 35.56    | 0.032" / 0.813   |
| SLIM-MOX308   | 4K to 5,000M            | 4.00W       | 20.0KV         | 0.84" / 21.34  | 2.08" / 52.83  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX310   | 5K to 5,000M            | 4.50W       | 25.0KV         | 0.84" / 21.34  | 2.58" / 65.53  | 2.40" / 60.96    | 0.032" / 0.813   |
| SLIM-MOX404   | 3K to 5,000M            | 3.00W       | 10.0KV         | 1.09" / 27.69  | 1.08" / 27.43  | 0.90" / 22.86    | 0.032" / 0.813   |
| SLIM-MOX408   | 5K to 5,000M            | 5.00W       | 20.0KV         | 1.09" / 27.69  | 2.08" / 52.83  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX410   | 5K to 5,000M            | 5.50W       | 25.0KV         | 1.09" / 27.69  | 2.58" / 65.53  | 2.40" / 60.96    | 0.032" / 0.813   |

Call factory for custom configurations.

# Slim-Mox Resistor Dividers

## Precision Thick Film Voltage Dividers



Multiple taps are provided on the Slim-Mox RD resistors for use in advanced circuit designs. Tight ratio tolerances make these resistors ideal for precision applications requiring consistent performance.

### FEATURES

- Custom configurations are available. Contact your Tech. Sales Rep with your specifications

### SPECIFICATIONS

#### Material

**Resistor:** Thick film on Alumina

#### Electrical

**Ratio tolerances:** 0.5% to 5%

##### Temp. coefficient tracking:

to 50PPM/°C

A complete description of the SLIM-MOX Divider is required. EXAMPLE:

R<sub>T</sub> = 500MΩ 5%

R<sub>1</sub> = 499.5MΩ 5%

R<sub>2</sub> = 500KΩ 1%

Ratio = R<sub>T</sub> / R<sub>2</sub> = 1,000: 1, 1%

To specify Slim-Mox Dividers, please see our website at:

[www.ohmite.com/dividers](http://www.ohmite.com/dividers)

| Ohmite Series | Resistance Range (Ohms) | Power @25°C | Voltage Rating | Maximum Ratio | C ±.025       | E ±.025       |
|---------------|-------------------------|-------------|----------------|---------------|---------------|---------------|
| SLIM-MOX103RD | 1M to 5,000M            | 0.75W       | 5.0KV          | 5,000 : 1     | 0.60" / 15.24 | 0.20" / 5.08  |
| SLIM-MOX104RD | 1M to 5,000M            | 1.00W       | 10.0KV         | 5,000 : 1     | 0.90" / 22.86 | 0.20" / 5.08  |
| SLIM-MOX106RD | 1M to 5,000M            | 1.50W       | 12.0KV         | 5,000 : 1     | 1.40" / 35.56 | 0.20" / 5.08  |
| SLIM-MOX108RD | 1M to 5,000M            | 2.00W       | 15.0KV         | 5,000 : 1     | 0.90" / 22.86 | 0.60" / 15.24 |
| SLIM-MOX204RD | 1M to 5,000M            | 1.50W       | 10.0KV         | 5,000 : 1     | 0.90" / 22.86 | 0.20" / 5.08  |
| SLIM-MOX206RD | 1M to 5,000M            | 2.00W       | 12.0KV         | 5,000 : 1     | 1.40" / 35.56 | 0.20" / 5.08  |
| SLIM-MOX208RD | 1M to 5,000M            | 2.50W       | 20.0KV         | 5,000 : 1     | 1.90" / 48.26 | 0.40" / 10.16 |
| SLIM-MOX210RD | 1M to 5,000M            | 3.00W       | 25.0KV         | 5,000 : 1     | 2.40" / 60.96 | 0.20" / 5.08  |
| SLIM-MOX306RD | 1M to 5,000M            | 3.00W       | 12.0KV         | 5,000 : 1     | 1.40" / 35.56 | 0.30" / 7.62  |
| SLIM-MOX308RD | 1M to 5,000M            | 3.50W       | 20.0KV         | 5,000 : 1     | 1.90" / 48.26 | 0.30" / 7.62  |
| SLIM-MOX310RD | 1M to 5,000M            | 4.00W       | 25.0KV         | 5,000 : 1     | 2.40" / 60.96 | 0.20" / 5.08  |
| SLIM-MOX408RD | 1M to 5,000M            | 4.50W       | 20.0KV         | 5,000 : 1     | 1.90" / 48.26 | 0.30" / 7.62  |
| SLIM-MOX410RD | 1M to 5,000M            | 5.00W       | 25.0KV         | 5,000 : 1     | 2.40" / 60.96 | 0.20" / 5.08  |

Call factory for custom configurations.

The Slim-Mox HT resistors allow that extra needed power in high ambient environments, when needed to operate near heat generating components, or under slightly heavier loads. Also made with thick film on Alumina technology, the Slim-Mox HT is finished with a rugged silicone coating suitable for most environments.

## FEATURES

- Outstanding voltage coefficient
- High temperature silicone coating
- Low resistor noise
- Noninductive
- Custom configurations are available. Contact your Tech. Sales Rep with your specifications

## APPLICATIONS

- HV power supplies
- Medical instrumentation
- Current pulse limiters
- Ionization chambers

## SPECIFICATIONS

### Material

**Resistor:** Thick film on Alumina

### Electrical

**Resistance Range:**

100Ω to 5,000M

**Power Rating:** 0.25W to 9.0W

**Voltage Rating:** 1.5KV to 25KV

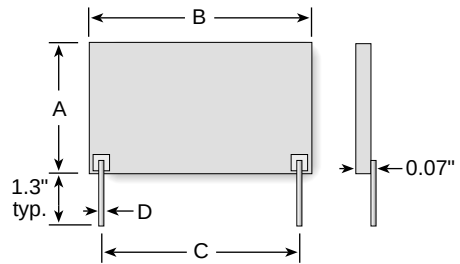
**Tolerance:** 0.5% to 20%

**Operating Temperature:**

-55°C to +180°C

# Slim-Mox HT Resistors

## High Temperature Thick Film Precision Resistor



| Ohmite Series | Resistance Range (Ohms) | Power @25°C | Voltage Rating | A max. (in/mm) | B max. (in/mm) | C ±0.025 (in/mm) | D ±0.002 (in/mm) |
|---------------|-------------------------|-------------|----------------|----------------|----------------|------------------|------------------|
| SLIM-MOX100   | 100Ω to 500M            | 0.40W       | 1.5KV          | 0.20" / 5.08   | 0.20" / 5.08   | 0.10" / 2.54     | 0.025" / 0.635   |
| SLIM-MOX101   | 100Ω to 1,000M          | 0.75W       | 2.0KV          | 0.25" / 6.35   | 0.25" / 6.35   | 0.20" / 5.08     | 0.025" / 0.635   |
| SLIM-MOX102   | 200Ω to 5,000M          | 1.50W       | 5.0KV          | 0.25" / 6.35   | 0.50" / 12.70  | 0.40" / 10.16    | 0.032" / 0.813   |
| SLIM-MOX103   | 250Ω to 5,000M          | 2.00W       | 7.5KV          | 0.25" / 6.35   | 0.75" / 19.05  | 0.60" / 15.24    | 0.032" / 0.813   |
| SLIM-MOX104   | 500Ω to 5,000M          | 2.50W       | 10.0KV         | 0.25" / 6.35   | 1.00" / 25.40  | 0.90" / 22.86    | 0.032" / 0.813   |
| SLIM-MOX106   | 750Ω to 5,000M          | 3.25W       | 15.0KV         | 0.25" / 6.35   | 1.50" / 38.10  | 1.40" / 35.56    | 0.032" / 0.813   |
| SLIM-MOX108   | 1K to 5,000M            | 4.25W       | 20.0KV         | 0.25" / 6.35   | 2.00" / 50.80  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX202   | 500Ω to 5,000M          | 2.50W       | 5.0KV          | 0.50" / 12.70  | 0.50" / 12.70  | 0.40" / 10.16    | 0.032" / 0.813   |
| SLIM-MOX204   | 1K to 5,000M            | 3.25W       | 10.0KV         | 0.50" / 12.70  | 1.00" / 38.10  | 0.90" / 22.86    | 0.032" / 0.813   |
| SLIM-MOX206   | 2K to 5,000M            | 4.25W       | 15.0KV         | 0.50" / 12.70  | 1.50" / 38.10  | 1.40" / 35.56    | 0.032" / 0.813   |
| SLIM-MOX208   | 2K to 5,000M            | 5.00W       | 20.0KV         | 0.50" / 12.70  | 2.00" / 50.80  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX210   | 3K to 5,000M            | 5.75W       | 25.0KV         | 0.50" / 12.70  | 2.50" / 63.50  | 2.40" / 60.96    | 0.032" / 0.813   |
| SLIM-MOX306   | 3K to 5,000M            | 5.50W       | 15.0KV         | 0.75" / 19.05  | 1.50" / 38.10  | 1.40" / 35.56    | 0.032" / 0.813   |
| SLIM-MOX308   | 4K to 5,000M            | 6.75W       | 20.0KV         | 0.75" / 19.05  | 2.00" / 50.80  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX310   | 5K to 5,000M            | 7.50W       | 25.0KV         | 0.75" / 19.05  | 2.50" / 63.50  | 2.40" / 60.96    | 0.032" / 0.813   |
| SLIM-MOX404   | 3K to 5,000M            | 5.00W       | 10.0KV         | 1.00" / 25.40  | 1.00" / 25.40  | 0.90" / 22.86    | 0.032" / 0.813   |
| SLIM-MOX408   | 5K to 5,000M            | 8.25W       | 20.0KV         | 1.00" / 25.40  | 2.00" / 50.80  | 1.90" / 48.26    | 0.032" / 0.813   |
| SLIM-MOX410   | 5K to 5,000M            | 9.00W       | 25.0KV         | 1.00" / 25.40  | 2.50" / 63.50  | 2.40" / 60.96    | 0.032" / 0.813   |

Call factory for custom configurations.

Slim-Mox HT RD resistor dividers complete the Slim-Mox family with the high temperature divider configuration. These resistors are useful wherever multiple voltage drops are needed in a circuit. Designed to customer specifications, the Slim-Mox HT RD resistor utilizes our thick film on alumina technology to offer flexible termination schemes.

## FEATURES

- High Temperature Operation

## SPECIFICATIONS

### Material

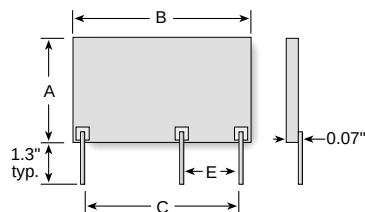
**Resistor:** Thick film on Alumina

### Electrical

• **Ratio tolerances:** 0.5% to 5%

• **Temp. coefficient tracking:** to 50PPM/°C

• Custom ratios and lead configurations are available. Contact your Tech. Sales Rep with your specification.



# Slim-Mox HT Dividers

## High Temperature Thick Film Voltage Divider

A complete description of the SLIM-MOX Divider is required. EXAMPLE:

$R_T = 500M\Omega \ 5\%$

$R_1 = 499.5M\Omega \ 5\%$

$R_2 = 500K\Omega \ 1\%$

Ratio =  $R_T / R_2 = 1,000 : 1, 1\%$

To specify Slim-Mox Dividers, please see our website at: [www.ohmite.com/dividers](http://www.ohmite.com/dividers)

| Ohmite Series | Resistance Range (Ohms) | Power @25°C | Voltage Rating | Maximum Ratio | C ±0.025 (in/mm) | E ±0.025 (in/mm) |
|---------------|-------------------------|-------------|----------------|---------------|------------------|------------------|
| SLIM-MOX103RD | 1M to 5,000M            | 1.25W       | 5.0KV          | 5,000 : 1     | 0.60" / 15.24    | 0.20" / 5.08     |
| SLIM-MOX104RD | 1M to 5,000M            | 1.50W       | 10.0KV         | 5,000 : 1     | 0.90" / 22.86    | 0.20" / 5.08     |
| SLIM-MOX106RD | 1M to 5,000M            | 2.50W       | 12.0KV         | 5,000 : 1     | 1.40" / 35.56    | 0.20" / 5.08     |
| SLIM-MOX108RD | 1M to 5,000M            | 3.25W       | 15.0KV         | 5,000 : 1     | 0.90" / 22.86    | 0.60" / 15.24    |
| SLIM-MOX204RD | 1M to 5,000M            | 2.50W       | 10.0KV         | 5,000 : 1     | 0.90" / 22.86    | 0.20" / 5.08     |
| SLIM-MOX206RD | 1M to 5,000M            | 3.25W       | 12.0KV         | 5,000 : 1     | 1.40" / 35.56    | 0.20" / 5.08     |
| SLIM-MOX208RD | 1M to 5,000M            | 4.25W       | 20.0KV         | 5,000 : 1     | 1.90" / 48.26    | 0.40" / 10.16    |
| SLIM-MOX210RD | 1M to 5,000M            | 5.00W       | 25.0KV         | 5,000 : 1     | 2.40" / 60.96    | 0.20" / 5.08     |
| SLIM-MOX306RD | 1M to 5,000M            | 4.50W       | 12.0KV         | 5,000 : 1     | 1.40" / 35.56    | 0.30" / 7.62     |
| SLIM-MOX308RD | 1M to 5,000M            | 5.00W       | 20.0KV         | 5,000 : 1     | 1.90" / 48.26    | 0.30" / 7.62     |
| SLIM-MOX310RD | 1M to 5,000M            | 5.75W       | 25.0KV         | 5,000 : 1     | 2.40" / 60.96    | 0.20" / 5.08     |
| SLIM-MOX408RD | 1M to 5,000M            | 6.75W       | 20.0KV         | 5,000 : 1     | 1.90" / 48.26    | 0.30" / 7.62     |
| SLIM-MOX410RD | 1M to 5,000M            | 7.50W       | 25.0KV         | 5,000 : 1     | 2.40" / 60.96    | 0.20" / 5.08     |

Call factory for custom configurations.

# Slim-Mox Resistors

## Temperature/Voltage Coefficients of Resistance Performance Characteristics Temperature Derating

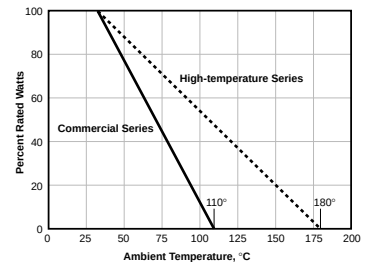
### TEMPERATURE/VOLTAGE COEFFICIENTS OF RESISTANCE

| Resistor Series | Temp. Coeff. of Resistance*<br>50 PPM/°C | Temp. Coeff. of Resistance*<br>100 PPM/°C | Voltage Coeff. of Resistance**<br>< 2PPM/Volt | Voltage Coeff. of Resistance**<br>< 5PPM/Volt |
|-----------------|------------------------------------------|-------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| SLIM-MOX100     | 100Ω to 50M                              | 51M to 500M                               | 100Ω to 140M                                  | 141M to 500M                                  |
| SLIM-MOX101     | 100Ω to 100M                             | 101M to 1,000M                            | 100Ω to 270M                                  | 271M to 1,000M                                |
| SLIM-MOX102     | 200Ω to 250M                             | 251M to 5,000M                            | 200Ω to 640M                                  | 641M to 5,000M                                |
| SLIM-MOX103     | 250Ω to 440M                             | 441M to 5,000M                            | 250Ω to 1,100M                                | 1,101M to 5,000M                              |
| SLIM-MOX104     | 500Ω to 450M                             | 451M to 5,000M                            | 500Ω to 1,100M                                | 1,101M to 5,000M                              |
| SLIM-MOX106     | 750Ω to 675M                             | 676M to 5,000M                            | 750Ω to 1,600M                                | 1,601M to 5,000M                              |
| SLIM-MOX108     | 1K to 375M                               | 376M to 5,000M                            | 1K to 940M                                    | 941M to 5,000M                                |
| SLIM-MOX202     | 500Ω to 200M                             | 201M to 5,000M                            | 500Ω to 520M                                  | 521M to 5,000M                                |
| SLIM-MOX204     | 1K to 375M                               | 376M to 5,000M                            | 1K to 950M                                    | 951M to 5,000M                                |
| SLIM-MOX206     | 2K to 600M                               | 601M to 5,000M                            | 2K to 1,500M                                  | 1,501M to 5,000M                              |
| SLIM-MOX208     | 2K to 1,000M                             | 1,001M to 5,000M                          | 2K to 2,500M                                  | 2,501M to 5,000M                              |
| SLIM-MOX210     | 3K to 1,000M                             | 1,001M to 5,000M                          | 3K to 2,600M                                  | 2,601M to 5,000M                              |
| SLIM-MOX306     | 3K to 1,000M                             | 1,001M to 5,000M                          | 3K to 2,600M                                  | 2,601M to 5,000M                              |
| SLIM-MOX308     | 4K to 1,200M                             | 1,201M to 5,000M                          | 4K to 3,000M                                  | 3,001M to 5,000M                              |
| SLIM-MOX310     | 5K to 1,500M                             | 1,501M to 5,000M                          | 5K to 4,000M                                  | 4,001M to 5,000M                              |
| SLIM-MOX404     | 3K to 1,100M                             | 1,101M to 5,000M                          | 3K to 2,800M                                  | 2,801M to 5,000M                              |
| SLIM-MOX408     | 5K to 1,250M                             | 1,251M to 5,000M                          | 5K to 3,000M                                  | 3,001M to 5,000M                              |
| SLIM-MOX410     | 5K to 1,200M                             | 1,201M to 5,000M                          | 5K to 3,000M                                  | 3,001M to 5,000M                              |
| SLIM-MOX103RD   | 1M to 70M                                | 71M to 5,000M                             | 1M to 185M                                    | 186M to 5,000M                                |
| SLIM-MOX104RD   | 1M to 275M                               | 276M to 5,000M                            | 1M to 720M                                    | 721M to 5,000M                                |
| SLIM-MOX106RD   | 1M to 250M                               | 251M to 5,000M                            | 1M to 640M                                    | 641M to 5,000M                                |
| SLIM-MOX108RD   | 1M to 350M                               | 351M to 5,000M                            | 1M to 875M                                    | 876M to 5,000M                                |
| SLIM-MOX204RD   | 1M to 300M                               | 301M to 5,000M                            | 1M to 750M                                    | 751M to 5,000M                                |
| SLIM-MOX206RD   | 1M to 1,750M                             | 1,751M to 5,000M                          | 1M to 4,500M                                  | 4,501M to 5,000M                              |
| SLIM-MOX208RD   | 1M to 625M                               | 626M to 5,000M                            | 1M to 1,550M                                  | 1,551M to 5,000M                              |
| SLIM-MOX210RD   | 1M to 950M                               | 951M to 5,000M                            | 1M to 2,400M                                  | 2,401M to 5,000M                              |
| SLIM-MOX306RD   | 1M to 800M                               | 801M to 5,000M                            | 1M to 2,000M                                  | 2,001M to 5,000M                              |
| SLIM-MOX308RD   | 1M to 1,200M                             | 1,201M to 5,000M                          | 1M to 2,600M                                  | 2,601M to 5,000M                              |
| SLIM-MOX310RD   | 1M to 1,000M                             | 1,001M to 5,000M                          | 1M to 3,900M                                  | 3,901M to 5,000M                              |
| SLIM-MOX408RD   | 1M to 1,600M                             | 1,601M to 5,000M                          | 1M to 4,000M                                  | 4,001M to 5,000M                              |
| SLIM-MOX410RD   | 1M to 1,200M                             | 1,201M to 5,000M                          | 1M to 3,000M                                  | 3,001M to 5,000M                              |

\*Tighter TC's are available. Call factory with your requirement.

\*\*VC's of <2PPM/Volt are available. Call factory with your requirement.

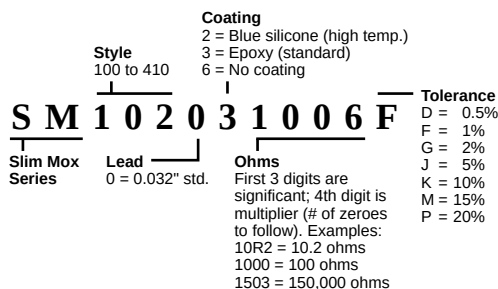
### DERATING



### PERFORMANCE DATA

| Characteristic                  | Test Method                                      | Specification                        |
|---------------------------------|--------------------------------------------------|--------------------------------------|
| Humidity                        | MIL-STD-202, Method 103B, Condition B            | ±0.25%                               |
| Dielectric Withstanding Voltage | MIL-STD-202, Method 301, 750V                    | ±0.25%                               |
| Insulation Resistance           | MIL-STD-202, Method 302, Condition A or B        | >10,000M or greater dry              |
| Thermal Shock                   | MIL-STD-202, Method 107G, Condition B, B-1, or F | ±0.20%                               |
| Load Life                       | MIL-STD-202, Method 108A, Condition D            | ±1.0%                                |
| Resistance to Solvents          | MIL-STD-202, Method 215G                         | No degradation of coating or marking |
| Terminal Strength               | MIL-STD-202, Method 211A, Condition A or B       | ±0.25%                               |
| Shock (Specified Pulse)         | MIL-STD-202, Method 213B, Condition I            | ±0.25%                               |
| Vibration, High Frequency       | MIL-STD-202, Method 204D, Condition D            | ±0.20%                               |
| Power Conditioning              | MIL-R-49462A, Par 4.8                            | ±0.50%                               |
| Solderability                   | MIL-STD-202, Method 208F                         | >95% Coverage                        |

### ORDERING INFORMATION



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