Type MV Low Resistance Power Film Resistors

Values from 0.1 ohm to 50 ohms with Exclusive Non-Inductive Design

Type MV Low Resistance Power Film Resistors combine Caddock’s Exclusive Non-Inductive Design with many high performance capabilities of Micronox® resistance films to achieve these special advantages:

- Low Resistance - from 0.1 ohm to 50 ohms.
- Maximum Operating Temperature up to +275°C.
- Five Sizes and Power Ratings.
- Full Power Ratings without derating for Non-Inductive Performance.
- See MP900 Series Power Resistor Products for Resistances as Low as 0.005Ω.

The interdigitated terminations in the Type MV resistors provide a multiple-path distribution of the current into parallel resistance sections, which provides low resistance values and non-inductive performance. This Exclusive Non-Inductive Design provides significant performance improvements in high speed or inductance sensitive electronic circuits, including high performance power amplifiers, high-speed data transmission systems, high frequency video amplifiers, current switching circuits, and current sensing circuits.

### Specifications:

**Resistance Tolerance:** ±1% (5% and 10% are also available).

**Temperature Coefficient:** 5 ohms and above, ±100 ppm/°C, referenced to +25°C, ∆R taken at -15°C and +105°C. Below 5 ohms, ±(200 ppm + 0.00002 ohm)/°C, referenced to +25°C, ∆R taken at -15°C and +105°C.

**Insulation Resistance:** 10,000 Megohms, min.

**Momentary Overload:** 5 times rated power for 5 seconds, ∆R ±(1 percent + 0.001 ohm) max.

**Thermal Shock:** Mil-Std-202, Method 107, Cond. C, ∆R ±(1 percent + 0.001 ohm) max.

**Moisture Resistance:** Mil-Std-202, Method 106, ∆R ±(1 percent + 0.001 ohm) max.

**Load Life:** 1,000 hours at +25°C at rated power, ∆R ±(1 percent + 0.001 ohm) max.

**Encapsulation:** High Temperature Silicone Conformal.

**Measurement Note:** For these specifications, resistance measurement shall be made at a point 0.3 inch (7.62 mm) from the resistor body.

### Ordering Information:

**Model Number:** MV234 - 0.10 - 1%

**Resistor Value:**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Wattage</th>
<th>Oper. Temp. (Max.)</th>
<th>Dielect. Strength</th>
<th>Resistance</th>
<th>Dimensions in inches and (millimeters)</th>
<th>Leadwire</th>
</tr>
</thead>
<tbody>
<tr>
<td>MV217</td>
<td>1.5</td>
<td>275°C</td>
<td>800</td>
<td>0.20 Ω</td>
<td>50 Ω</td>
<td>Solderable</td>
</tr>
<tr>
<td>MV228</td>
<td>2.0</td>
<td>275°C</td>
<td>1,000</td>
<td>0.10 Ω</td>
<td>50 Ω</td>
<td>Solderable</td>
</tr>
<tr>
<td>MV234</td>
<td>3.0</td>
<td>275°C</td>
<td>1,000</td>
<td>0.10 Ω</td>
<td>50 Ω</td>
<td>Solderable</td>
</tr>
<tr>
<td>MV261</td>
<td>6.0</td>
<td>275°C</td>
<td>1,000</td>
<td>0.10 Ω</td>
<td>50 Ω</td>
<td>Solderable</td>
</tr>
<tr>
<td>MV311</td>
<td>10.0</td>
<td>275°C</td>
<td>1,000</td>
<td>0.10 Ω</td>
<td>50 Ω</td>
<td>Solderable</td>
</tr>
</tbody>
</table>

**Derating Curve:**

![Derating Curve](image)