MP2060 Kool-Pak® Clip Mount Power Film Resistor

TO-220 Style Power Resistor Designed for Clip Mounting - Non-Inductive

• Up to 60 Watts continuous power at +25°C case temperature, 0.020Ω and above.
• Up to 60 Amps continuous current at +25°C case temperature, 0.015Ω and below.
• TO-220 Style package utilizes proven power semiconductor thermal solutions.
• Equivalent to UL94 V-0 flammability rating.
• Excellent pulse/surge performance.
• Non-inductive design for high speed switching, snubbers and rf applications.
• Operation up to +150°C case temperature.
• Electrically isolated case.

Specifications:

Temperature Coefficient: TC referenced to +25°C. ∆R taken at +150°C 0.50 ohm and above, -20 to +80 ppm/°C 0.050 ohm to 0.49 ohm, 0 to +100 ppm/°C 0.015 ohm to 0.049 ohm, 0 to +200 ppm/°C 0.005 ohm to 0.014 ohm, 0 to +300 ppm/°C

Inductance: 10 nH typical in series when measured at the shoulder of the lead.

Capacitance: <1 pf typical without heat sink. DWV: 1500 Vrms AC isolation to the mounting surface or a clip in contact with the top surface.

Insulation Resistance: 10,000 Megohms, min.

The resistor element is electrically isolated from the mounting surface.

Momentary Overload: 1.5 times rated power for 5 seconds, ∆R ±(0.5 percent + 0.0005 ohm) max.

Load Stability: 2000 hours at rated power ∆R less than ±(1 percent +0.0005 ohm).

Moisture Resistance: MIL-Std-202, Method 106, ∆R ±(0.5 percent + 0.0005 ohm) max.

Thermal Shock: MIL-Std-202, Method 107, Cond. F, ∆R ±(0.5 percent + 0.0005 ohm) max.

Shock: 100G, MIL-Std-202, Method 213, Cond. A, ∆R ±(0.4 percent + 0.0005 ohm) max.

Vibration, High Frequency: MIL-Std-202, Method 204, Condition D, ∆R ±(0.4 percent + 0.0005 ohm) max.

Terminal Strength: MIL-Std-202, Method 211, Cond. A (Pull Test) 5 lbs., ∆R ±(0.2 percent + 0.0005 ohm) max.

Terminal Material: Solderable

Measurement Note: Resistance measurements shall be made at 0.2 inch (5.08 mm) from the resistor body.

New
Clip Mount Values to 0.005Ω

These products are covered by one or more patents, also patents pending.

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<tbody>
<tr>
<td>MP2060</td>
<td>TO-220</td>
<td>0.005Ω 1%</td>
<td>18 Watts</td>
<td>60 A rms</td>
<td>6.94°C/Watt</td>
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<tr>
<td></td>
<td></td>
<td>0.010Ω 2%</td>
<td>36 Watts</td>
<td>60 A rms</td>
<td>3.47°C/Watt</td>
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<tr>
<td></td>
<td></td>
<td>0.015Ω 5%</td>
<td>54 Watts</td>
<td>60 A rms</td>
<td>2.31°C/Watt</td>
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<tr>
<td></td>
<td>0.020Ω 1K</td>
<td>60 Watts</td>
<td>1 = √(P/R) 250 Vrms</td>
<td>2.08°C/Watt</td>
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For additional applications information regarding mounting and pulse handling see the Caddock Applications Notes at caddock.com or contact Applications Engineering.

Standard Resistance Values:

Tolerance: 1% Standard (except as noted)

0.005Ω 5% 0.010Ω 1% 0.015Ω 2% 0.020Ω 2% 0.025Ω 3% 0.030Ω 4% 0.035Ω 5% 0.040Ω 6% 0.050Ω 7% 0.075Ω 8% 0.10Ω 9% 0.15Ω 10% 0.20Ω 11% 0.25Ω 12% 0.30Ω

For custom values and tolerances contact Applications Engineering

Packaging Information: MP2060 resistors are packaged in plastic shipping tubes, 50 pieces per tube. These resistors are available in a 50 piece minimum quantity and in full tube quantity increments (i.e. 50, 100, 150, etc.).