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 multiplepath 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.

Model No.	Watt- age	Oper. Temp. (Max.)	Dielect. Strength	Resistance		Dimensions in inches and (millimeters)			Leadwire
				Min.	Max.	А	В	С	Leauwire
MV217	1.5	275°C	800	0.20 Ω	50 Ω	.400 ±.060 (10.16 ±1.52)	.140 ±.030 (3.56 ±.76)	.025 ±.002 (.64 ±.05)	Solderable
MV228	2.0	275°C	1,000	0.10 Ω	50 Ω	.480 ±.060 (12.19 ±1.52)	.230 ±.030 (5.84 ±.76)	.040 ±.002 (1.02 ±.05)	Solderable
MV234	3.0	275°C	1,000	0.10 Ω	50 Ω	.570 ±.060 (14.48 ±1.52)	.300 ±.030 (7.62 ±.76)	.040 ±.002 (1.02 ±.05)	Solderable
MV261	6.0	275°C	1,000	0.10 Ω	50 Ω	.910 ±.060 (23.11 ±1.52)	.350 ±.040 (8.89 ±.76)	.040 ±.002 (1.02 ±.05)	Solderable
MV311	10.0	275°C	1,000	0.10 Ω	50 Ω	2.000 ±.080 (50.80 ±2.03)	.350 ±.040 (8.89 ±1.02)	.040 ±.002 (1.02 ±.05)	Solderable



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Specifications:

Resistance Tolerance: $\pm 1\%$ (5% and 10% are also available).

Temperature Coefficient: 5 ohms and above, $\pm 100 \text{ ppm/°C}$, referenced to $\pm 25^{\circ}\text{C}$, ΔR taken at $\pm 15^{\circ}\text{C}$ and $\pm 105^{\circ}\text{C}$.

Below 5 ohms, ±(200 ppm + 0.00002 ohm)/°C, referenced to +25°C, ΔR taken at -15°C and +105°C.

Insulation Resistance: 10,000 Megohms, min.

Momentary Overload: 5 times rated power for 5 seconds, $\Delta R \pm (1 \text{ percent} + 0.001 \text{ ohm}) \text{ max}.$

Thermal Shock: Mil-Std-202, Method 107, Cond. C, $\Delta R \pm (1 \text{ percent} + 0.001 \text{ ohm})$ max.

Moisture Resistance: Mil-Std-202, Method 106, $\Delta R \pm (1 \text{ percent} + 0.001 \text{ ohm}) \text{ max}.$

Load Life: 1,000 hours at +25°C at rated power, ΔR ±(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.





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