POWER FILM RESISTORS TO 140 WATT

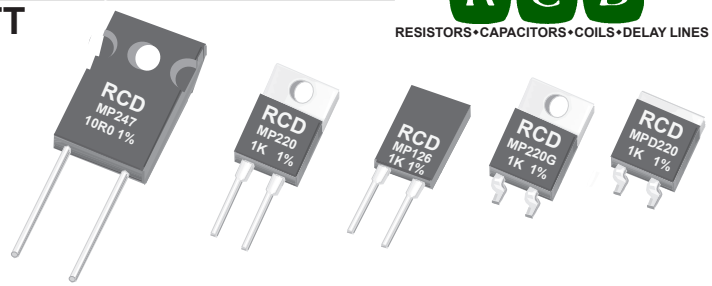
MP SERIES

RoHS Term.W is RoHS compliant & 260°C compatible

- ❒ Industry's widest range of TO-style power resistors!
- ❒ Standard resistance range: 0.01Ω to 56KΩ
- ❒ Standard tolerance: ±1%, ±2%, ±5% (available to 0.025%)
- ❒ Non-Inductive performance
- ❒ Resistor is electrically isolated from the mounting surface

OPTIONS

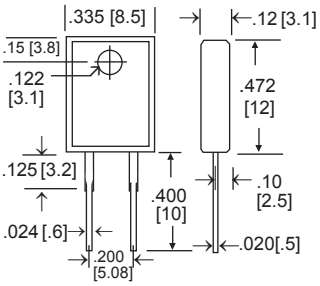
- ❒ Option P: Increased pulse capability
- ❒ Option G: Gull-wing lead formation for surface mounting
- ❒ Option B: Increased power design
- ❒ Numerous design modifications are available (special marking, custom lead wires, burn-in, etc).



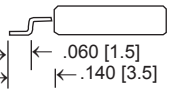
High Performance Molded Heat-Sink Resistors

RCD's MP series feature power film resistor elements designed for excellent environmental stability as well as superior high-frequency performance (custom designs up to 1GHz avail.). All sizes feature metal base plate for optimum heat transfer. The resistor is electrically isolated from the metal tab, and molded into various package styles with high-temp flame-retardant epoxy. **MP126 and MP220 in reduced wattage ratings now available in tighter TCs and tolerances from 10Ω to 49.9K: MP126 (5W) to 0.025% and 2ppm, MP220 (10W) to 0.05% and 5ppm.**

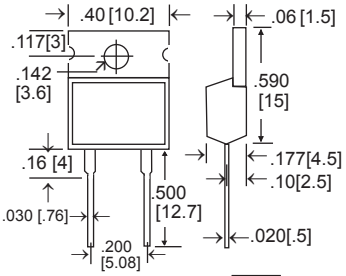
MP126



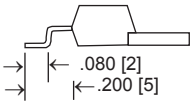
MP126G



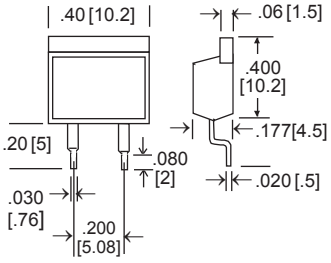
MP220, MP220B



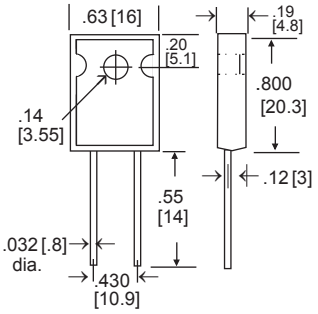
MP220G, MP220GB



MPD220



MP247, MP247B



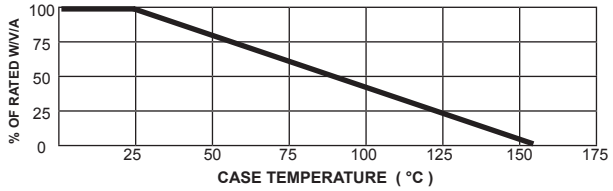
SPECIFICATIONS

RCD Type	Max. Power with Heat Sink (25°C)	Max Power[1] w/o Heat Sink (25°C)	Thermal Resis. [2]	Max. Voltage[3,4]	Resistance Range (Ω)[4]
MP126	20W	1.25W	<6°C/W	300V	.01 - 56K
MP126G	20W	1.25W	<6°C/W	300V	.01 - 56K
MP220	35W	2.0W	3.3°C/W	350V	.01 - 56K
MP220G	25W	2.0W	3.3°C/W	350V	.01 - 56K
MPD220	35W	2.0W	3.3°C/W	350V	.01 - 56K
MP220B	50W	2.25W	2.3°C/W	350V	.1 - 56K
MP220GB	45W	2.25W	2.3°C/W	350V	.1 - 56K
MP247	100W	3.0W	1.3°C/W	500V	.01 - 56K
MP247B	140W	3.5W	<1°C/W	500V	.1 - 56K

[1] Power rating without heat sink is based on unit being mounted on double-sided 2oz 1" x 1" x .063" PCB. [2] $R_{\theta JC}$ Film (J) to Case (C) [3] Voltage determined by E= $(PR)^{1/2}$, not to exceed the Max.Voltage Rating [4] Extended range available, consult factory.

POWER RATING

Power rating is based on the resistor being tightly screwed to a suitable heat sink (with thermal compound) to limit hot spot case temperature to 155°C. Derate W, V, A by .77%/°C above 25°C (as depicted in chart below). Mounting torque not to exceed 8 in-lbs. Refer to Applic.Guide R-34 for additional detail concerning heat-sink resistor mounting guidelines.



TYPICAL PERFORMANCE CHARACTERISTICS

Standard Temperature Coefficient (Typ, +25°C to +125°C)	50ppm ≥10Ω (2ppm avail) 100ppm 0.1 - 9.9Ω 250ppm 0.01 - 0.99Ω
Operating Temperature Range	-55 to +155°C
Std. Resistance Tol. (0.025%-5% avail)	±1% ≥.05Ω, ±5% <.05Ω
Dielectric Strength	1500VAC (up to 2.5KV avail)
Current Rating	30A max.
Insulation Resistance	10,000 MΩ min.
Load Life Stability	±1%
Overload	1.5x W, 5S, nte 1.5x Max V
Thermal Shock (Mil-Std-202 M107C)	±0.25%
Soldering Stability	±0.1%
Moisture Res (Mil-STD-202, M106)	±0.5%

P/N DESIGNATION:

MP220 ❒ - 1001 - F B ❒ W

RCD Type

Options: P, G, B, etc (leave blank for std)

Resis.Code 0.025%-1%: 3 digits &multiplier (R010=.01Ω, R100=.1Ω, 1R00=1Ω, 10R0=10Ω, 1000=100Ω, 1001=1K, etc)

Resis.Code 2%-10%: 2 digits & multiplier (R01=.01Ω, R10=0.1Ω, 1R0=1Ω, 100=10Ω, 101=100Ω, 102=1K, etc.)

Tolerance Code: J=5%, G=2%, F=1%, D=0.5%, C=0.25%, B=0.1%, A=0.05%, X=0.025%

Packaging: B = Bulk, T = Taped (bulk is standard)

Optional Temp. Coefficient: 25=25ppm, 50=50ppm, 25=25ppm, 10=10ppm, 5=5ppm, 2=2ppm (leave blank for std)

Termination: W= Pb-free (std), Q= Sn/Pb (leave blank if both acceptable)

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