



# TO-220 Power Resistors

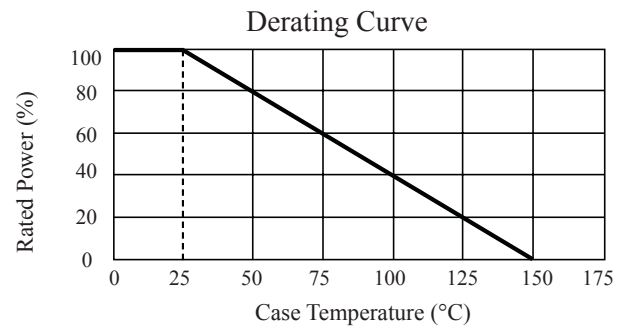
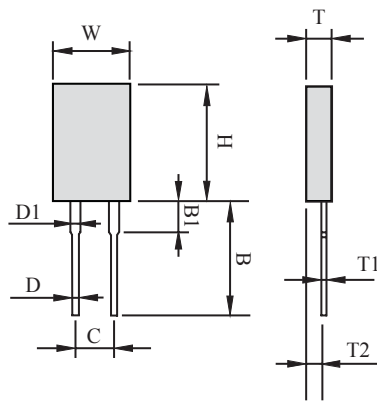
## TO-220 Power Resistors - RMG50 Series / 薄膜功率电阻器

### ► Power Resistor Features

- 50 Watt at 25°C Case Temperature Heat Sink Mounted.
- TO-220 Style Power Package.
- Molded Case for Protection and Easy to Mount.
- Isolated Case.
- Low ohm value.

### ► Applications

- Switching Power Supplies.
- Non-inductive design for high frequency.
- Pulsing applications.
- UPS.
- Voltage Regulation.



### ► Dimensions (Unit: mm)

Type	W	H	T	T1	T2	B	B1	C	D	D1
RMG50	10.15~10.67	16.00~16.52	2.92~3.44	0.40~0.60	1.52~2.04	11.43~13.97	2.54~4.06	4.82~5.34	0.66~0.86	1.14~1.40

### ► Electrical Characteristics Specifications

Resistance Range	Resistance Tolerance	TCR(PPM/°C)
0.05Ω~1Ω	±5.00% ±10.0%	-
2Ω~5Ω	±1.00% ±5.00% ±10.0%	±200
5Ω~10Ω	±1.00% ±5.00% ±10.0%	±100 ±200
11Ω~10KΩ	±0.50% ±1.00% ±5.00% ±10.0%	±50 ±100 ±200

- Note:1.Operating Voltage:350V Max.  
 2.Dielectric Strength: 1800VAC  
 3.Insulation Resistance: 10GΩmin.  
 4.Working Temperature Range:-65°C to +150°C  
 5.Resistance Value < 1Ω is Available





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## ► Environmental Characteristics

Test Item	Specification	Test Method
Temperature Coefficient of Resistance	10Ω and above, ±50ppm/°C 1Ω and 10Ω, (±100ppm)/°C	Referenced to 25°C, ΔR taken at +105°C
Short Time Overload	Δ R±0.3%	2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds.
Load Life	Δ R±1.0%	MIL-R-39009,2,000 hours at rated power.
Humidity (Steady State)	Δ R±0.5%	MIL-STD-202F, Method 103B 40°C, 90~95%RH, RCWV 1.5hours ON, 0.5hours OFF. total 1000~1048 hours.
Thermal Shock	Δ R±0.3%	MIL-STD-202, Method 107G. -65°C~150°C,100 cycle
Terminal Strength	Δ R±0.2%	MIL-STD-202, Method 211, Cond.A(Pull Test) 2.4N.
Vibration, High Frequency	Δ R±0.2%	MIL-STD-202, Method 204, Cond.D.

Note:1.Lead Material: Tinned Copper.

2.Maximum Torque: 0.9 Nm.

3.Without a Heat Sink, When in Free Air at 25°C, the RMG50 is Rated for 3W.

4.The Case Temperature is to be used for the Definition of the Applied Power Limit.

5. The Case Temperature Measurement Must be Made with a Thermocouple Contacting the Center of the Component Mounted on the Designed Heat Sink.

6.Thermal Grease Should be Applied Properly.

## ► How to Order

RMG	50	J	P	D	1001
①	②	③	④	⑤	⑥

① Product Type: TO-220 Power Resistors

② Power Rating

Code	Power Rating
	50 Watts

③ Resistance Tolerance

Code	Resistance Tolerance
D	±0.5%
F	±1%
G	±2%
J	±5%
K	±10%

④ Packaging

Code	Packaging
T	Tube
P	Bulk

⑤ TCR

Code	TCR
D	±50PPM/°C
E	±100PPM/°C
F	±200PPM/°C
-	No specified

⑥ Resistance

Code	Resistance
0R10	0.1Ω
0100	10Ω
4700	470Ω
1001	1000Ω
1002	10000Ω

