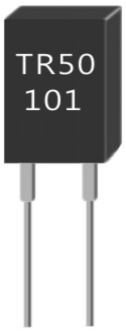
TO-220 Power Resistors- TR50



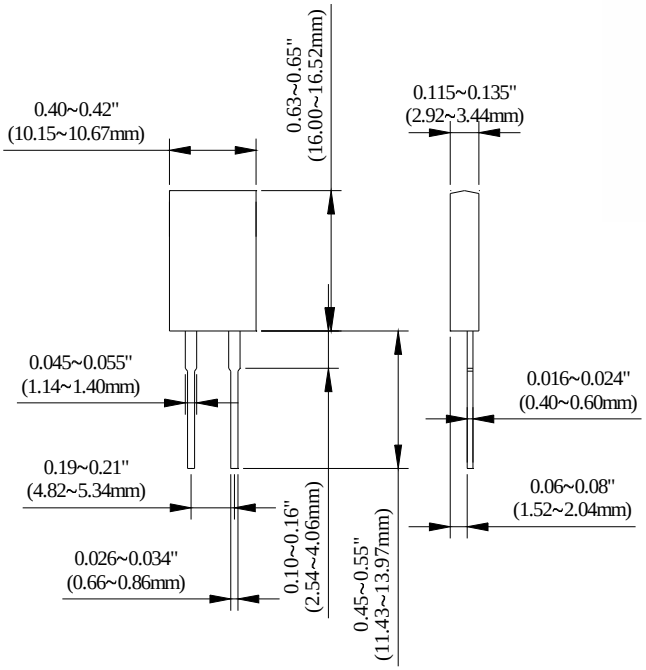
Features:

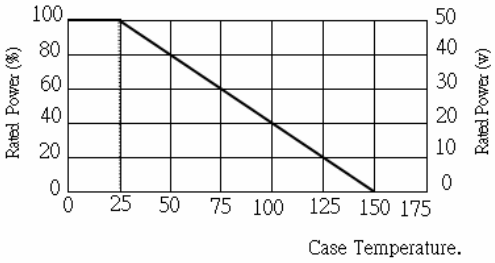
- 50 Watt @ 25°C Case Temperature Heat Sink Mounted.
- TO-220 Style Power Package.
- Molded Case for Protection and Easy to Mount.
- Isolated Case.
- Low ohm value.

Applications:

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

Dimensions:





Part Numbering

TR	50	J	B	D	1001
①	②	③	④	⑤	⑥

①Product Type

Product Type	
TR	TO-220 Power Resistors

② Power

Codes	Power Rating
50	50 Watts

③Resistance Tolerance

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

④Packaging

Code	Type
T	Tube
B	Bulk

⑤TCR

Codes	Type
D	±50PPM/℃
E	±100PPM/℃
F	±200PPM/℃
-	No specified

⑥ Resistance

Codes	Type
0R10	0.1Ω
0100	10Ω
4700	470Ω
1001	1000Ω
1002	10000Ω

RoHS

Electrical Characteristics Specifications

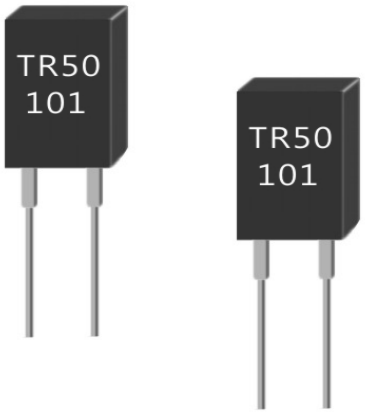
Resistance Range	Resistance Tolerance	TCR (PPM/℃)
0.05Ω~1Ω	±5.00% ±10.0%	--
2Ω~5Ω	±1.00% ±5.00% ±10.0%	±200
5Ω~10Ω	±1.00% ±5.00% ±10.0%	±100 ±200
11Ω~10KΩ	±0.50% ±1.00% ±5.00% ±10.0%	±50 ±100 ±200

- Operating Voltage:350V Max.
- Dielectric Strength: 1800VAC
- Insulation Resistance: 10GΩ min.
- Working Temperature Range:-65°C to +150°C
- Resistance Value < 1Ω is Available

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	ΔR± 0.3%	2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds.
Load Life	ΔR ± 1.0%	MIL-R-39009, 2,000 hours at rated power.
Humidity (Steady State)	ΔR± 0.5%	MIL–STD–202F, Method 103B 40℃,90~95%RH,RCWV 105hours ON,0.5hours OFF. total 1000~1048 hours
Thermal Shock	ΔR ± 0.3%	MIL–STD–202, Method 107G. -65℃~150℃, 100 cycle
Terminal Strength	ΔR ± 0.2%	MIL–STD–202, Method 211, Cond. A (Pull Test) 2.4N.
Vibration, High Frequency	ΔR ± 0.2%	MIL–STD–202, Method 204, Cond. D.

- Lead Material: Tinned Copper
- Maximum Torque: 0.9 N-m
- Without a Heat Sink, When in Free Air at 25°C, the TR50 is Rated for 3W.
- The Case Temperature is to be used for the Definition of the Applied Power Limit.
- The Case Temperature Measurement Must be Made with a Thermocouple Contacting the Center of the Component Mounted on the Designed Heat Sink.
- Thermal Grease Should be Applied Properly.



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