

TO-220 Power Resistors- TR20



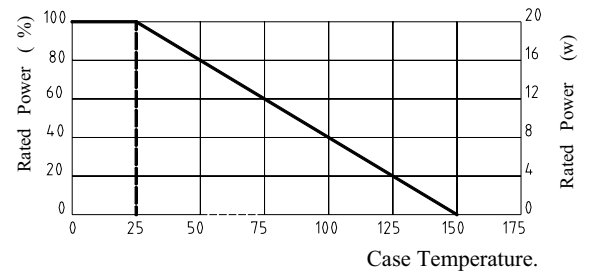
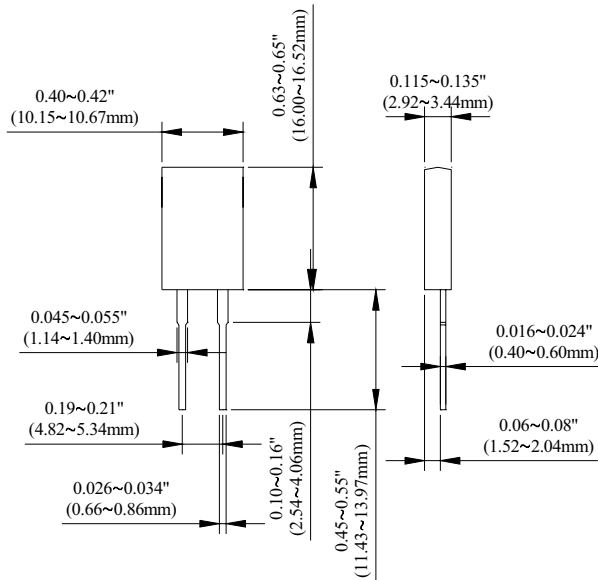
Features:

- 20 Watt at 25°C Case Temperature Heat Sink Mounted
- TO-220 Style Power Package
- Single Screw Mounting to Heat Sink.
- Molded Case for Protection and Easy to Mount.
- Isolated Case.
- Non Inductive.

Applications:

- High Speed Switching Power Supplies.
- Snubber Circuits.
- Load Resistor for Pulse Generators.
- Voltage Regulation.
- VHF Amplifiers.

Dimensions



Ordering Information:

TR 20 J I 1001

(1) (2) (3) (4) (5)

(1)Type: TR=TO-220 Power Resistors

(2)Power : 20=20 Watts

(3)Tolerance: D=0.5%, F=1%,G=2%,J=5%, K=10%

(4) Packaging Style: T=Tube

(5) Resistance: 0R10=0.1Ω, 0100=10Ω,4700=470Ω, 1001 =1KΩ,1002=10KΩ

Electrical Characteristics Specifications:

Resistance Range	Resistance Tolerance	TCR (PPM/°C)
0.05Ω~10Ω	±1.00% ±2.00% ±5.00% ±10.0%	±100
* 11Ω~10KΩ		±50

* Viking is Capable of Manufacturing the Following Options Based on Customer's Requirement.:

- Operating Voltage:350V Max.
- Dielectric Strength: 1800VAC
- Insulation Resistance: 10GΩmin.
- Working Temperature Range:-55°C to +150°C
- 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+0.002Ω)/°C	Referenced to 25°C, ΔR taken at +105°C
Short Time Overload	ΔR± (0.3% + 0.001Ω) max.	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% + 0.001Ω).	MIL-R-39009, 2,000 hours at rated power.
Moisture Resistance	ΔR± (0.5% + 0.001Ω) max.	MIL-STD-202, Method 106,
Thermal Shock	ΔR ± (0.3% + 0.001Ω) max.	MIL-STD-202, Method 107, Cond. F,
Terminal Strength	ΔR ± (0.2% + 0.001Ω) max.	MIL-STD-202, Method 211, Cond. A (Pull Test) 2.4N,
Vibration, High Frequency	ΔR ± (0.2% + 0.001Ω) max.	MIL-STD-202, Method 204, Cond. D,

- Lead Material: Tinned Copper.
- Derating (Thermal Resistance): 0.16W/°K (6.25°K/W).
- Without a Heat Sink.
- When in Free Air at 25°C, the TR20 is Rated for 3W.
- Derating for Temp. Above 25°C is 0.018W/°K.
- 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.