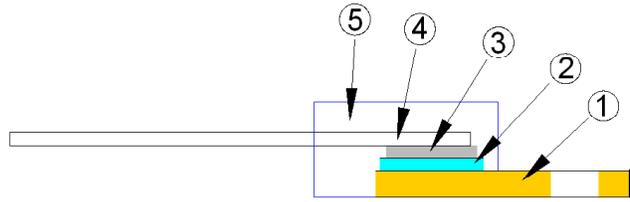


TO-220 Power Resistor



Construction



① Flange	④ Lead
② Alumina Substrate	⑤ Molding
③ Resistor Layer	

Features

- 50 Watts 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
- Electrically isolated case
- Non-Inductive design

Applications

- Switching Power Supplies
- Snubbers Circuits
- Automated Machine Controller
- RF Power Amplifiers
- Low Energy Pulse Loading
- UPS
- Voltage Regulation

Dimensions

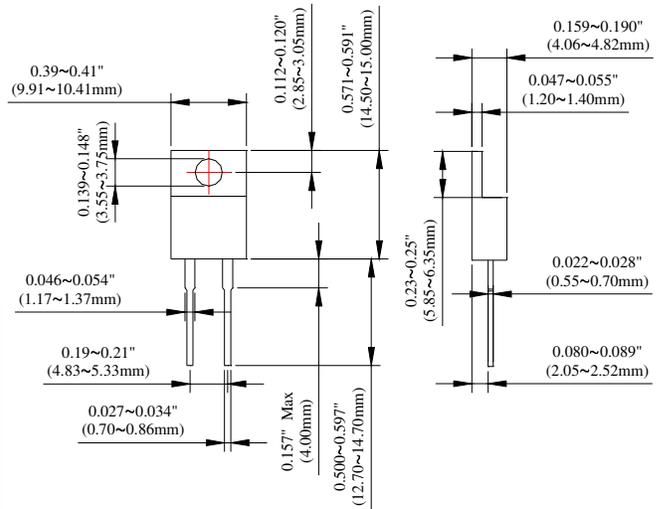
Unit: mm

Type	Weight (g) (1000pcs)
TR50	1902

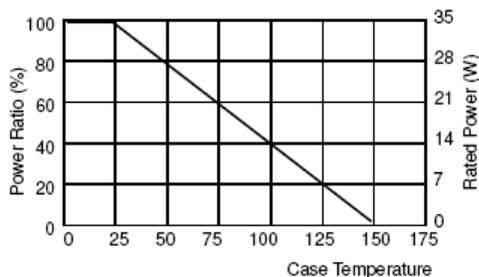
Electrical Characteristics Specifications

Resistance Range	TCR (PPM/°C)			
	±0.5%	±1%	±5%	±10%
0.05Ω - 0.1Ω			-	-
>0.1Ω - 1Ω			-	-
>1Ω - 3Ω		±300	±300	±300
>3Ω - 10Ω		±100 ±200	±100 ±200	±100 ±200
>10Ω - 10KΩ	±50 ±100 ±200	±50 ±100 ±200	±50 ±100 ±200	±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



Derating Curve



Part Numbering

TR	50	J	B	D	1001
Product Type	Power	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Resistance
	50: 50 Watts	D: ±0.5% F: ±1% J: ±5% K: ±10%	B: Bulk	D: ±50 E: ±100 F: ±200 G: ±300 - : No Specified	R100: 0.1Ω 0100: 10Ω 4700: 470Ω 1001: 1000Ω 1002: 10000Ω

Environmental Characteristics

Item	Requirement	Test Method
Temperature Coefficient of Resistance (T.C.R.)	As Spec.	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%	2,000 hours at rated power
Damp Heat with Load	ΔR±0.5%	40±2°C, 90~95% R.H. Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Solderability	90% min. coverage	245±5 °C for 3 seconds
Thermal Shock	ΔR±0.3%	-65 °C~150 °C, 100 cycles
Terminal Strength	ΔR±0.2%	(Pull Test) 2.4N
Vibration, High Frequency	ΔR±0.2%	20g peak

- Lead Material: Tinned Copper
- Maximum Torque: 0.9 N-m
- Without a Heat Sink, When in Free Air at 25 °C, the TR35 is Rated for 2.50W
- 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.