

**RoHS
Compliant**



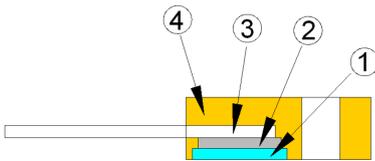
Features

- 100 watts at 25°C case temperature heat sink mounted
- TO-247 style power package
- Single M3 screw mounting to heat sink
- Molded case for protection and easy to mount
- Electrically isolated case
- Non-Inductive design

Applications

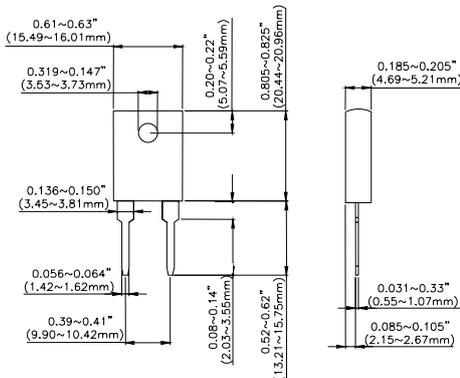
- Gate Resistors in Power Supplies
- Snubbers
- Load and Dumping Resistors in CRT Monitors
- Terminal Resistance in RF Power Amplifiers
- Voltage Regulation
- Low Energy Pulse Loading
- UPS

Construction

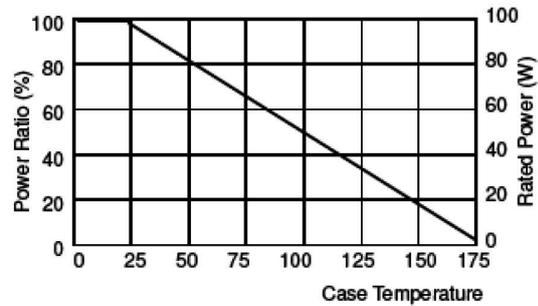


1	Alumina Substrate
2	Resistor Layer
3	Lead
4	Molding

Dimensions



Derating Curve



Dimensions : Inches (Millimetres)

Electrical Characteristics Specifications

Type	Item	Resistance Range			TCR (PPM/°C)
		±1%	±5%	±10%	
MCTR100	-	0.05Ω – 1Ω			No Specified
	-	>1Ω – 3Ω			±300
	-	>3Ω -10Ω			±100 ±200

Electrical Characteristics Specifications

Type \ Item	Resistance Range			TCR (PPM/°C)
	±1%	±5%	±10%	
MCTR100	>10Ω -100kΩ			±50 ±100 ±200

Operating Voltage : 700V Max.
 Dielectric Strength : 1,800V AC
 Insulation Resistance : 10GΩ min.
 Working Temperature Range : -65°C to +175°C

Environmental Characteristics

Item	Requirement	Test Method
Temperature Coefficient of Resistance (T.C.R.)	As Spec.	Referenced to 25°C, ΔR taken at +105°C
Load Life	ΔR ±1%	Rated power, 2,000 hours
Solderability	90% min. Coverage	245 ±5°C for 3 seconds
Momentary Overload	ΔR ±0.5%	1.5 times rated power and V (DC) ≤1.5VMax. for 5 seconds
Dielectric strength	ΔR ±0.15%	1800V AC, 60 seconds
Moisture resistance	ΔR ±0.5%	-10°C ~ +65°C, RH>90%, cycle 240 hours
Thermal Shock	ΔR ±0.5%	-65°C ~150°C, 100 cycles
Terminal Strength	ΔR ±0.2%	(Pull Test) 2.4N
Vibration, High Frequency	ΔR ±0.4%	20g peak

Lead Material: Tinned Copper; Maximum Torque: 0.9 Nm

When in Free Air at 25°C, the MCTR100 is Rated for 3.5W

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 centre of the component mounted on the designed heat sink

Thermal grease should be applied properly

Part Number Explanation

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

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