

**RoHS
Compliant**



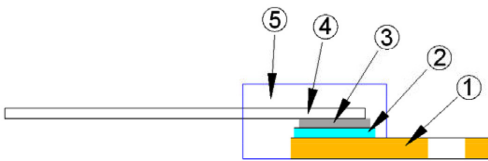
Features

- 35 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

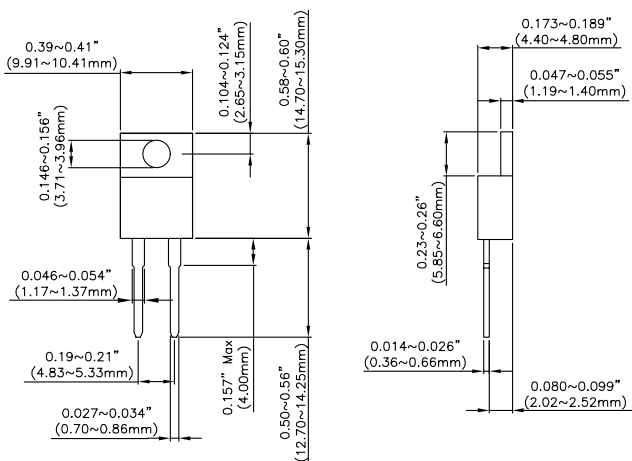
- Switching Power Supplies
- Snubbers Circuits
- Automated Machine Controller
- RF Power Amplifiers
- Low Energy Pulse Loading
- UPS
- Voltage Regulation

Construction



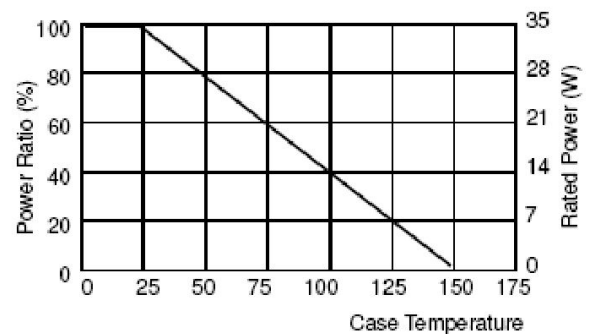
1	Flange
2	Alumina Substrate
3	Resistor Layer
4	Lead
5	Molding

Dimensions



Dimensions : Millimetres

Derating Curve



Electrical Characteristics Specifications

Type	Item	Resistance Range				TCR (PPM/°C)
		±0.5%	±1%	±5%	±10%	
MCTR35				0.5Ω – 0.91Ω		No Specified
				1Ω – 2.7Ω		±100 ±300
				3Ω – 10Ω		±100 ±200
				>10Ω – 100kΩ		±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

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., RCWV for 1000 hrs with 1.5hrs "ON" and 0.5 hr "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 MCTR35 is Rated for 2.50W

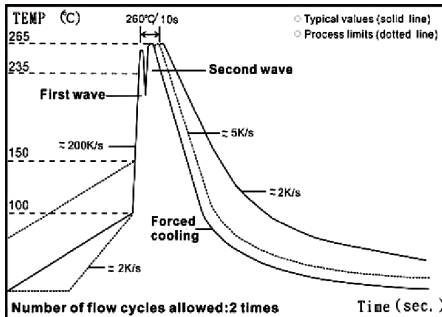
The Case Temperature is to be used for the Definition of the Applied Power Limit

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

RCWV(Rated Continuous Working Voltage)=√(P×R) or Max. Operating Voltage whichever is lower.

Soldering Condition



Wave Soldering (Flow Soldering)

- (1) Time of wave soldering at maximum temperature point 260°C : 10s
- (2) Time of soldering iron at maximum temperature point 410°C : 5s

Part Number Explanation

MCTR	35	J	D	D	0100
<u>Series Type</u>	<u>Power</u> 35: 35 Watts	<u>Resistance Tolerance</u> D: ±0.5% F: ±1% J: ±5% K: ±10%	<u>Packaging Code</u> B: Bulk D: Tube	<u>TCR (PPM/°C)</u> D: ±50 E: ±100 F: ±200 G: ±300 - : No Specified	<u>Resistance</u> R100: 0.1Ω 0100: 10Ω 4700: 470Ω 1001: 1kΩ 1002: 10kΩ

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