

**RoHS  
Compliant**



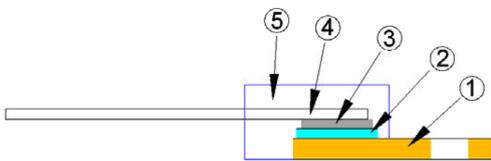
## Features

- 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

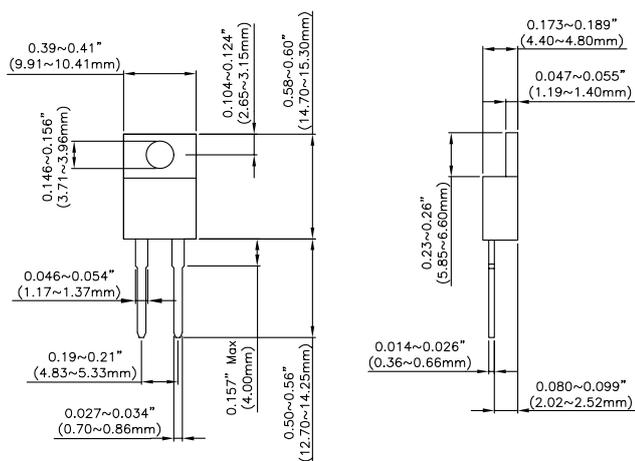
- Switching Power Supplies
- Snubbers Circuits
- Automated Machine Controller
- RF Power Amplifiers
- Low Energy Pulse Loading
- UPS
- Voltage Regulation

## Construction



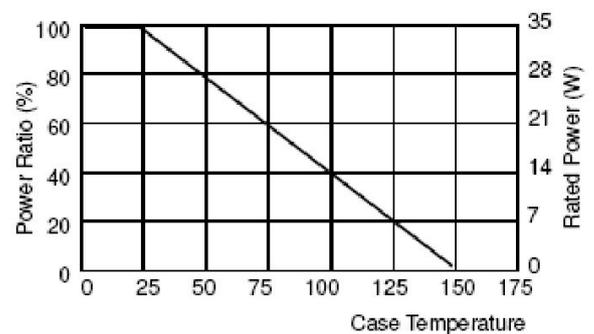
1	Flange
2	Alumina Substrate
3	Resistor Layer
4	Lead
5	Molding

## Dimensions



Dimensions : Millimetres

## Derating Curve



Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
Element14.com/multicomp-pro

## 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

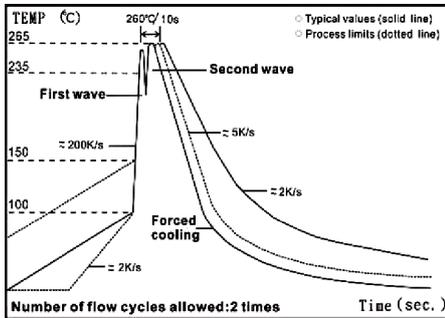
The Case Temperature is to be used for the Definition of the Applied Power Limit

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

<b>MCTR</b>	<b>35</b>	<b>J</b>	<b>D</b>	<b>D</b>	<b>0100</b>
<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

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.