

Data Sheet

Customer: _____

Product: Power Resistors - TR100 Series

Size : TO-247

Issued Date: 07-July-2023

Edition: Ver. 2

Record of change

Date	Ver.	Description	Page
30-Nov.-2017	1		
07-July-2023	2	Parameters updated	1 ~ 2

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07-July-2023	07-July-2023	07-July-2023	
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TO-247 Power Resistors

(TR100 Series)

■ Features

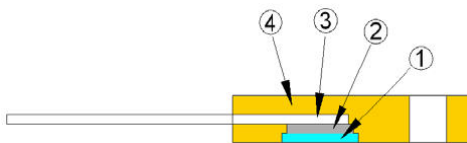
- 100 Watts at 25°C case temperature heat sink mounted
- To-247 style power package
- Single M3 screw mounting to heat sink
- Molded case for protection and easy to mount
- Electrically isolated case
- Non-Inductive design

■ Applications

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



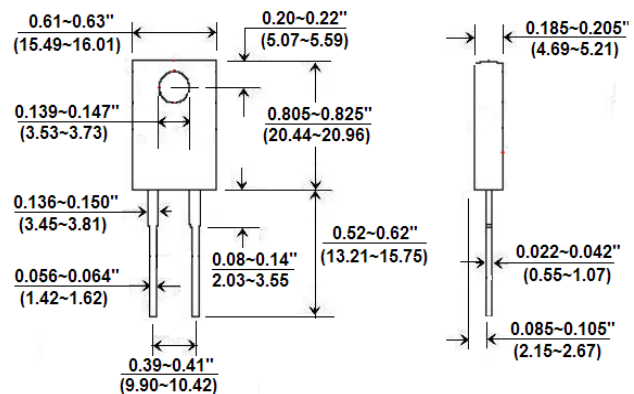
■ Construction



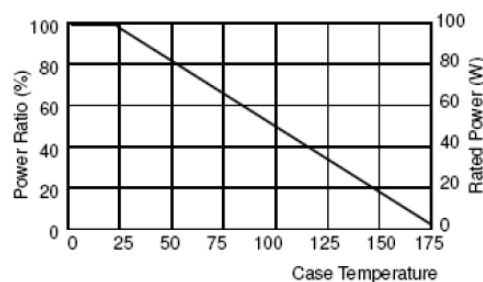
1	Alumina Substrate	3	Lead
2	Resistor Layer	4	Molding

■ Dimensions (Unit:mm/inch)

Type	Weight(g) (1000pcs)	Packaging
		Tube
TR100	3381	35 pcs



■ Derating Curve



TO-247 Power Resistors

(TR100 Series)

Part Numbering

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

Electrical Characteristics Specifications

Item Type	Resistance Range			TCR (ppm/°C)
	±1%	±5%	±10%	
TR100	-	0.05Ω - 1Ω		No Specified
		>1Ω - 3Ω		±200 ±300
		>3Ω - 10Ω		±100 ±200
		>10Ω - 100KΩ		±50 ±100 ±200

- ※Operating Voltage: 700V Max.
- ※Dielectric Strength: 1800VAC
- ※Insulation Resistance: 10GΩ Min.
- ※Operating Temperature Range: -65°C ~ +175°C

Environmental Characteristics

Test 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±1.0%	2,000 hours at rated power
Solderability	90% min. coverage	245±5°C for 3 seconds
Momentary Overload	ΔR±0.5%	1.5 times rated power and V(dc) ≤ 1.5V Max. 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 TR100 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 Center of the Component mounted on the Designed Heat Sink.
- ※Thermal Grease should be Applied Properly
- ※Storage Temperature: 25±5°C ; Humidity: <75% RH