Data Sheet

Customer:	
Product:	TO-220 Power Resistors – TR35 Series
Size:	TR35
Issued Date:	14-May-25
Edition:	REV.C

RoHS Compliant

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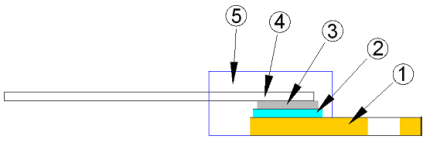
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TO-220 Power Resistors – TR35 Series



Construction

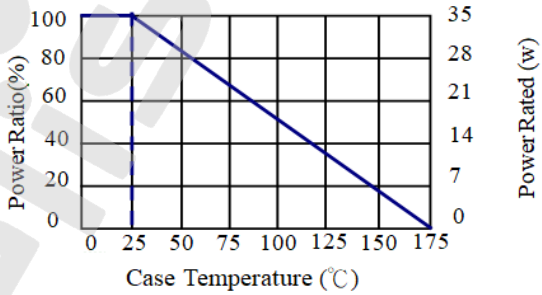


①	Radiator Fin	④	Copper Lead
②	Alumina Substrate	⑤	Molding
③	Resistor Layer		

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

Derating Curve



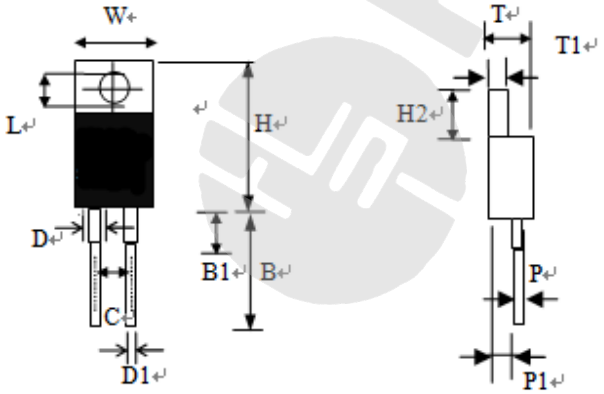
Derating Curve Slope: 0.23W/ °K

Thermal Resistancr: 4.28 °K/W

Applications

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

Dimensions



Unit: mm

Type	W	H	H1	B	B1	D	D1	C	L	T	T1	H2	P	P1	Packaging
															Tube
TR35	10.16 ±0.30	15.00 ±0.50	2.90 ±0.25	13.50 ±0.80	4.00 max	1.27 ±0.10	0.78 ±0.08	5.08 ±0.25	3.65 ±0.3	4.60 ±0.20	1.20 ±0.10	6.25 ±0.35	0.60 ±0.15	2.30 ±0.25	50 pcs

TO-220 Power Resistors- 35 Watts

■Part Numbering

TR	35	J	D	D	1001
Product Type	Power	Resistance Tolerance	Packaging Code	TCR (PPM/℃)	Resistance
	35: 35 Watts	D: ±0.5% F: ±1% J: ±5% K: ±10%	D: Tube	D: ±50 E: ±100 F: ±200 G: ±300 - : No Specified (±300~±700)	R100: 0.1Ω 0100: 10Ω 4700: 470Ω 1001: 1KΩ 1002: 10KΩ

■Electrical Characteristics Specifications

Item / Type	Resistance Range				TCR (PPM/℃)
	±0.5%	±1%	±5%	±10%	
TR35	-	-	0.05Ω - 0.1Ω		No Specified (±300~±700)
	-	≧ 0.1Ω - 1Ω			±300
	-	≧ 1Ω - 5Ω			±100 ±200 ±300
	≧ 5Ω - 10Ω				±100 ±200 ±300
	≧ 10Ω - 100KΩ				±50 ±100 ±200

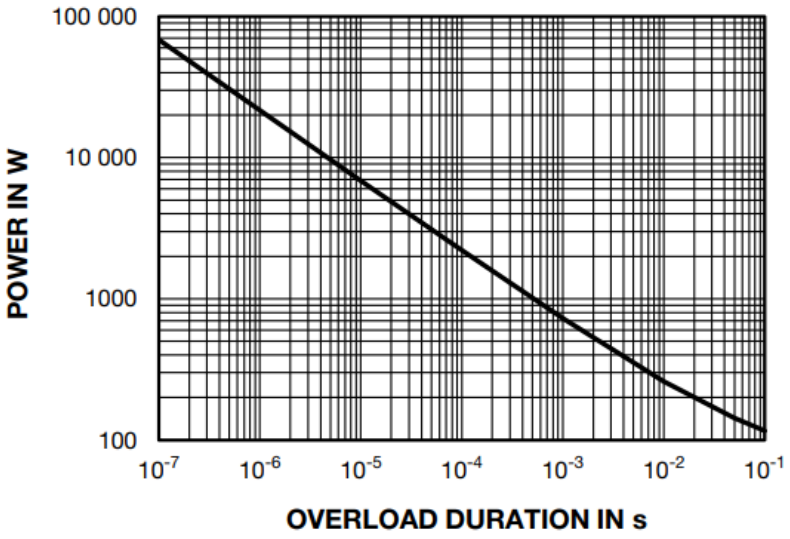
■ Operating Voltage: 350V Max.
■ Dielectric Strength: 1800VAC
■ Insulation Resistance: 10GΩ min.
■ Operating Temperature Range: -55°C to +175°C

■Environmental Characteristics

Item	Requirement	Test Method
Temperature Coefficient of Resistance (T.C.R.)	As Spec.	Referenced to 25°C, ΔR taken at +105°C
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 1.5 hrs “ON” and 0.5 hr “OFF”
Solderability	90% min. coverage	245±5°C for 3 seconds
Thermal Shock	ΔR±0.3%	-65℃~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.
■ Storage Temperature: 25±5℃; Humidity: < 75%RH
■Shelf life: 1 years Max

■Power Curve


100 000
10 000
1000
100
POWER IN W
10-7
10-6
10-5
10-4
10-3
10-2
10-1
OVERLOAD DURATION IN s

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version B9	Mar 31 ,2025		-Add Shelf life.
Version C	May 14 ,2025		-Modify the dimension L size. -Modify the TCR specification for 0.05Ω – 0.1Ω from No Specified to No Specified (±300~±700). -Add Power Curve.