

Data Sheet

Customer: _____

Product: TO-220 Power Resistors – TR35 Series

Size: TR35

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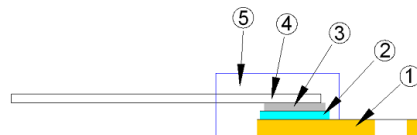
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TO-220 Power Resistors – TR35 Series



Construction



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

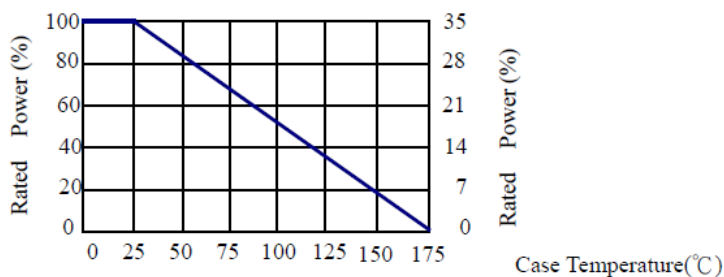
Features

- 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

Applications

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

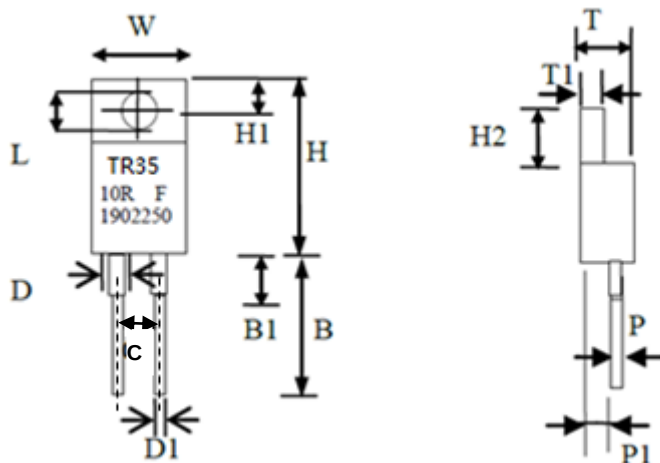
Derating Curve



Derating Curve Slope: 0.23W/ °K

Thermal Resistance: 4.28 °K/W

Dimensions



Unit: mm

Type	W	H	H1	B	B1	D	D1	L	C	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	3.85 ±0.3	5.08 ±0.25	4.60 ±0.20	1.20 ±0.10	6.25 ±0.35	0.60 ±0.15	2.3 ±0.25	50 pcs

Part Numbering

TR	35	J	D	D	1001	059
Product Type	Power	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Resistance	Internal Code
	35: 35 Watts	D: ±0.5% F: ±1% J: ±5% K: ±10%	D: Tube	D: ±50 E: ±100 F: ±200 G: ±300 - : No Specified	R100: 0.1Ω 0100: 10Ω 4700: 470Ω 1001: 1KΩ 1002: 10KΩ	

Electrical Characteristics Specifications

Item Type	Resistance Range				TCR (PPM/°C)
	±0.5%	±1%	±5%	±10%	
TR35	-	-	0.05Ω - 0.1Ω		No Specified
	-	≥ 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

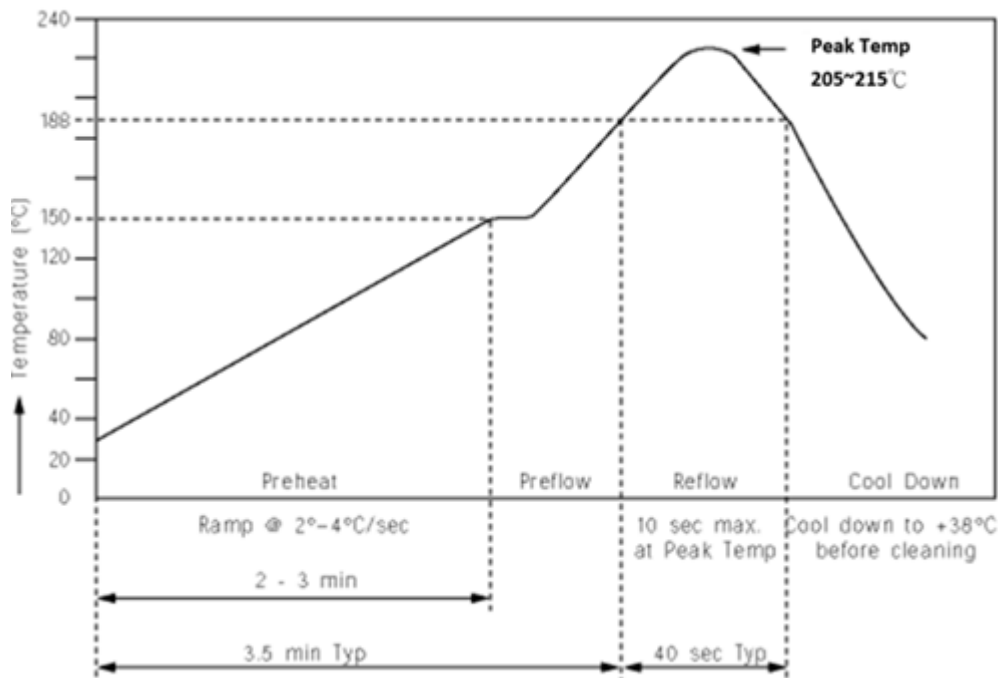
Environmental Characteristics

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°C~150°C, 100 cycles
Terminal Strength	ΔR±0.2%	(Pull Test) 2.4N
Vibration, High Frequency	ΔR±0.2%	20g peak

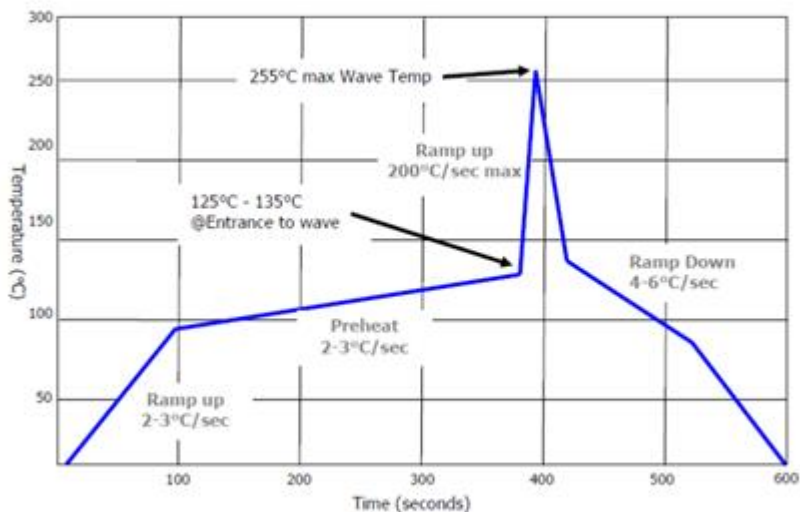
- Lead Material: Tinned Copper
- Maximum Torque: 0.9 N-m
- Without a Heat Sink, When in Free Air at 25°C, the TR35 is Rated for 2.50W
- The Case Temperature is to be used for the Definition of the Applied Power Limit
- The Case Temperature Measurement must be made with a Thermocouple Contacting the Center of the Component mounted on the Designed Heat Sink.
- Thermal Grease should be Applied Properly.
- Storage Temperature: 25±5°C; Humidity: < 75%RH

■Soldering Conditions

Reflow Profile



wave soldering profile



iron soldering temperature condition: 350 ~ 380°C 5sec