

## Data Sheet

Customer :

Product Type: TO-220 Power Resistors

Part No.: TR30 Series

Issued Date: 31-Oct-08

Document No TR30 Series REV.A7

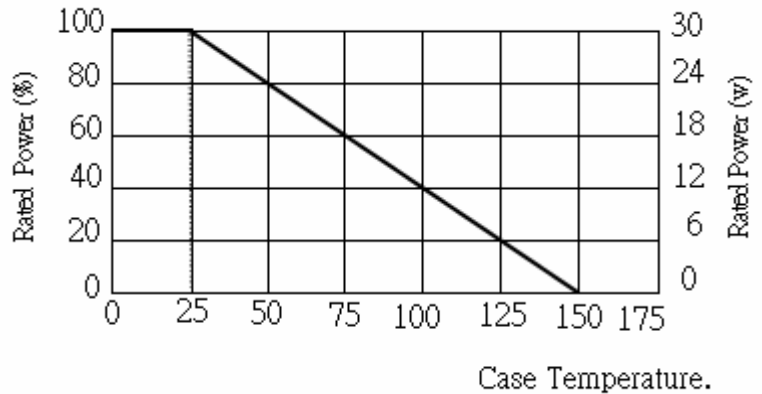


Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
31-Oct-08	31-Oct-08	31-Oct-08	31-Oct-08	
<i>Kris</i>	<i>Ann</i>	<i>Judy</i>		

## TO-220 Power Resistors ( TR30 Series )

### Features:

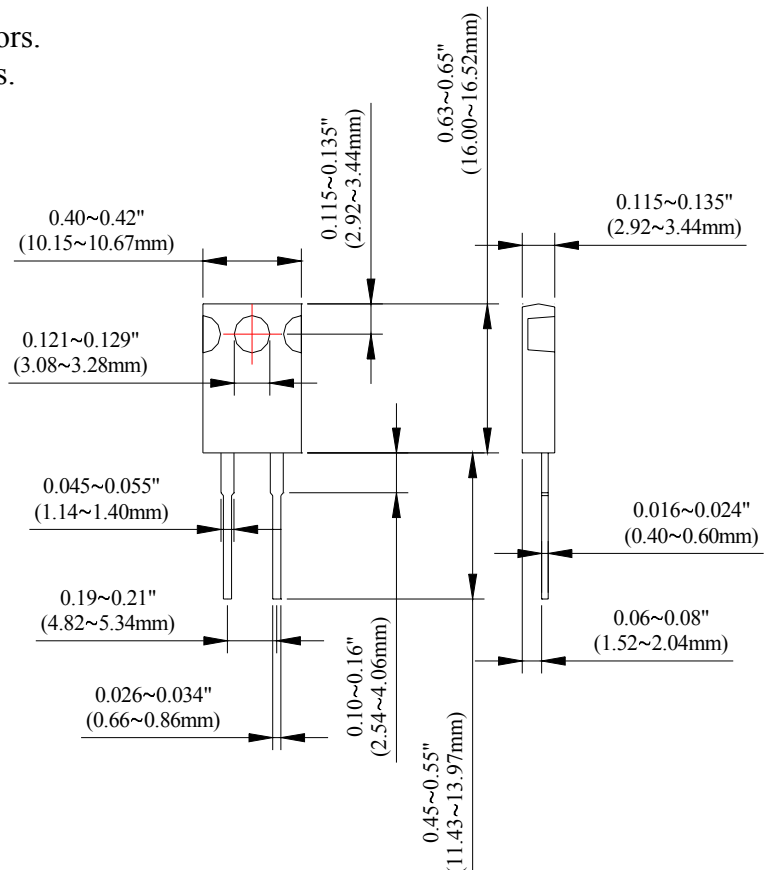
- 30 Watt at 25°C case temperature heat sink mounted
- TO-220 style power package
- Single screw mounting to heat sink.
- Molded case for protection and easy to mount.
- Electrically isolated case.
- Non-inductive design.



### Applications:

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

### Dimensions:



### Ordering Information:

**TR 30 J B D 1001**

(1) (2) (3) (4) (5) (6)

(1) Type: TR=TO-220 Power Resistors

(2) Power : 30=30 Watts

(3) Tolerance: D=0.5%, F=1%, J=5%, K=10%

(4) Packaging Style: T=Tube, B=Bulk

(5) TCR: - =No specified, D=±50ppm/°C, E=±100ppm/°C, F=±200ppm/°C, G=±300ppm/°C

(6) Resistance: R050=0.050Ω, R100=0.100Ω, 1R00=1Ω, 1R10=1.1Ω

0100=10Ω, 4700=470Ω, 1001 =1KΩ, 1002=10KΩ



## Electrical Characteristics Specifications:

Resistance Range	Resistance Tolerance	TCR (PPM/°C)
0.05Ω ~ 0.1Ω	±5% ±10%	- (No Specified)
>0.1Ω ~ 1Ω	±5% ±10%	- (No Specified)
>1Ω ~ 3Ω	±1% ±5% ±10%	±300
>3Ω ~ 10Ω	±1% ±5% ±10%	±100 ±200
>10Ω ~ 10KΩ	±0.5% ±1% ±5% ±10%	±50 ±100 ±200

**\*We are Capable of Manufacturing the Following Options Based on Customer's Requirement.:**

- Operating Voltage:350V Max.
- Dielectric Strength:1800VAC
- Insulation Resistance: 10GΩmin.
- Working Temperature Range: -65°C to +150°C
- Resistance Value <1Ωis Available

## Environmental Characteristics:

Test Item	Specification	Test Method
Temperature Coefficient of Resistance	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 %	MIL-PRF-39009D,4.8.13 Rated power, 2,000 hours
Humidity (Steady State)	ΔR± 0.5 %	MIL-STD-202F, Method 103B 40°C,90~95%RH,RCWV 1.5hours ON,0.5hours OFF, total 1000~1048 hours
Thermal Shock	ΔR ± 0.3 %	MIL-STD-202F, Method 107G. -65°C~150°C, 100 cycle
Terminal Strength	ΔR ±0.2 %	MIL-STD-202F, Method 211, Cond. A (Pull Test) 2.4N,
Vibration, High Frequency	ΔR ± 0.2 %	MIL-STD-202F, Method 204, Cond. D,
Solderability	90% Min. Coverage	MIL-STD-202F Method 208H 245°C±5°C,3±0.5(sec)

- Lead Material: Tinned Copper.
- Maximum Torque: 0.9 Nm..
- When in Free Air at 25°C, the TR30 is Rated for 2.25W.
- 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.