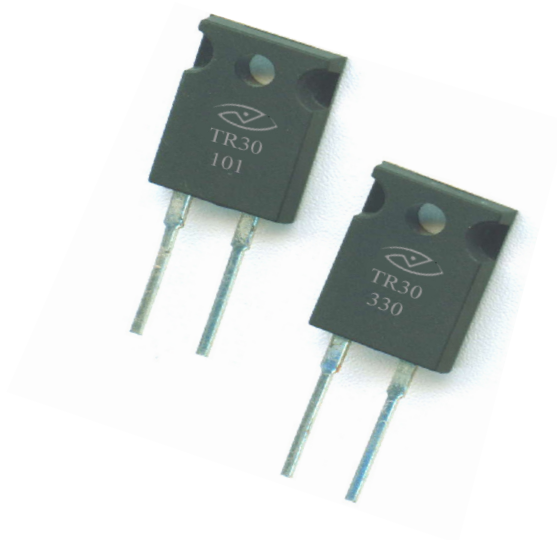


POWER - Resistors

TR 30



POWER - Resistors

TO-220 Power Resistors TR30 Series

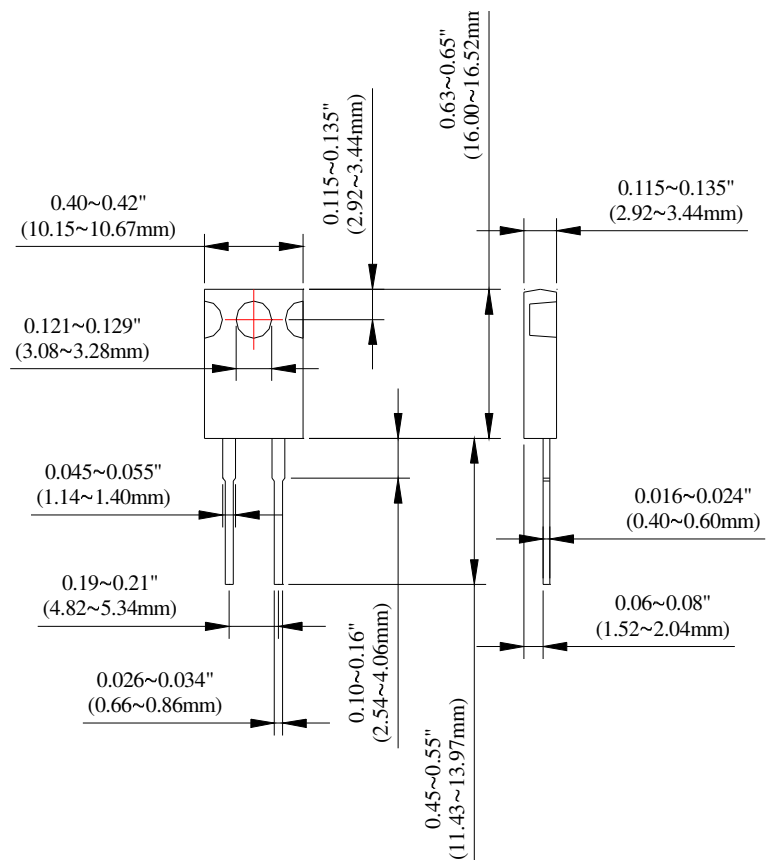
► Features:

- 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:



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► 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%, G=2%, J=5%, K=10%

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

(5) TCR: -= Not specified, D=±50ppm/°C; E=±100ppm/°C; F=±200ppm/°C; G=±300ppm/°C

(6) Resistance: 0R10=0.1Ω, 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

***electronic sensor + resistor GmbH is 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 <1Ω is Available

POWER - Resistors

► 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	$\Delta R \pm 0.3\%$	2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds,
Load Life	$\Delta R \pm 1.0\%$	MIL-PRF-39009D, 4.8.13 2,000 hours at rated power.
Humidity (Steady State)	$\Delta R \pm 0.5\%$	MIL-STD-202F, Method 103B, 40 °C, 90~95%RH; RCWV 1.5hours ON, 0.5hours OFF total 1000~1048 hours
Thermal Shock	$\Delta R \pm 0.3\%$	MIL-STD-202F, Method 107G -65 °C ~ 150 °C, 100 cycles
Terminal Strength	$\Delta R \pm 0.2\%$	MIL-STD-202F, Method 211, Cond. A (Pull Test) 2.4N,
Vibration, High Frequency	$\Delta R \pm 0.2\%$	MIL-STD-202, Method 204, Cond. D,

- Lead Material: Tinned Copper.
- Maximum Torque: 0.9 Nm.
- Derating (Thermal Resistance): 0.144W/°K (6.94K/W).
- When in Free Air at 25 °C, the TR30 is Rated for 2.25W.
- Derating for Temp. Above 25 °C is 0.018W/°K.
- 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.