LIEAN GIMN ENTERPRISE CO., LTD.

Date Sheet

Customer：	
Product Type:	TO-220 Power Resistors
Part No.:	TR50 Series
Issued Date:	31-Oct-08
Document No	TR50 Series REV.A4

Pb RoHS Compliant

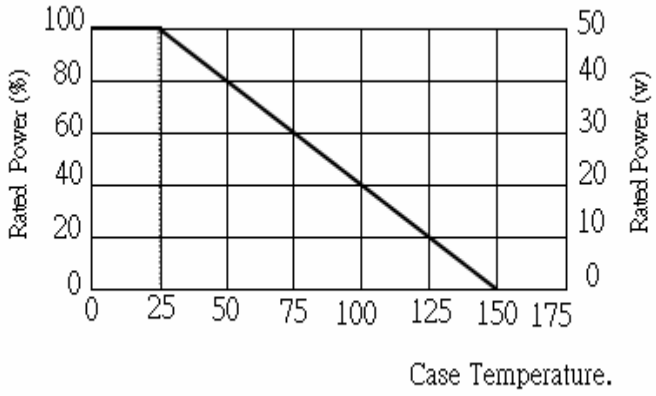
Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
31-Oct-08	31-Oct-08	31-Oct-08	31-Oct-08	
Kris	***Roland***	***Judy***		

Tel: +886-2-2793-6715／Fax: +886-2-2793-6716
4F, No. 163, Shing Ming Road, Nei Hu, Taipei, Taiwan. R.O.C.114

TO-220 Power Resistors
（TR50 Series）

Features:

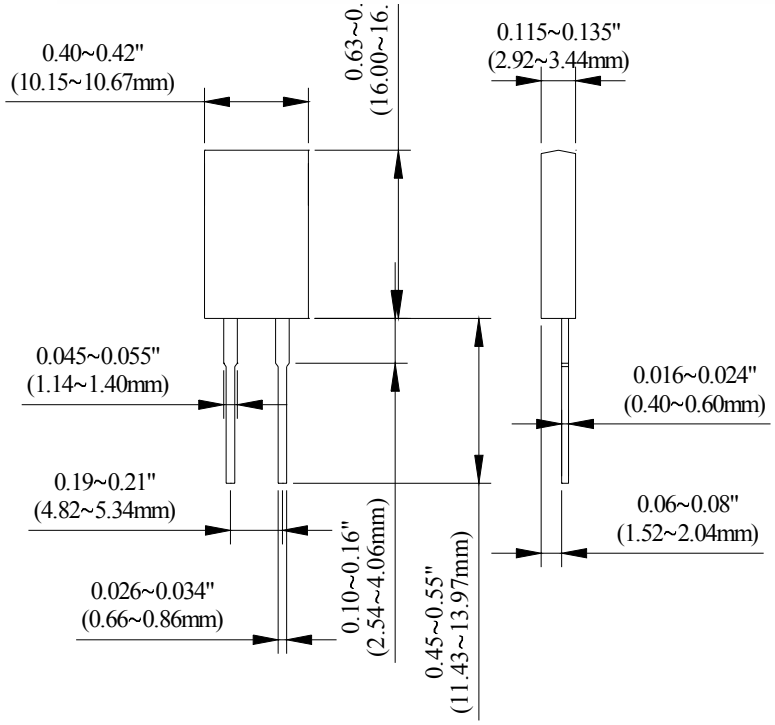
- 50 Watt at 25°C case temperature heat sink mounted
- TO-220 style power package
- Molded case for protection and easy to mount.
- Electrically isolated case.
- Non-inductive design.



Applications:

- Non-inductive Design For High Frequency.
- Pulsing Applications.
- Switching Power Supplies
- UPS.
- Voltage Regulation

Dimensions:



Ordering Information:

TR	50	J	B	D	1001
(1)	(2)	(3)	(4)	(5)	(6)

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

(2)Power : 50=50 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/℃, E=±100ppm/℃, F=±200ppm/℃, G=±300ppm/℃,

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

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

Tel: +886-2-2793-6715／Fax: +886-2-2793-6716
4F, No. 163, Shing Ming Road, Nei Hu, Taipei, Taiwan. R.O.C.114

Electrical Characteristics Specifications:

Resistance Range	Resistance Tolerance	TCR (PPM/℃)
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< 1Ω is 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-R-39009, 2,000 hours at reted power
Humidity (Steady State)	ΔR± 0.5 %	MIL–STD–202F, Method 103B 40℃,90~95%RH,RCWV 105hours ON,0.5hours OFF, total 1000~1048 hours
Thermal Shock	ΔR ± 0.3 %	MIL–STD–202F, Method 107G. -65℃~150℃, 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℃±5℃,3±0.5(sec)

- Lead Material: Tinned Copper.
- Maximum Torque: 0.9 N-m
- Without a Heat Sink, When in Free Air at 25°C, the TR50 is Rated for 3 W.
- 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.