

TO-247 (100W)

Construction



| | |
|---------------------|-----------|
| ① Alumina Substrate | ③ Lead |
| ② Resistor Layer | ④ Molding |

Features

- 100 Watts at 25°C case temperature heat sink mounted
- TO-247 style power package
- Single M3 screw mounting to heat sink
- Molded case for protection and easy to mount
- Electrically isolated case
- Non-Inductive design

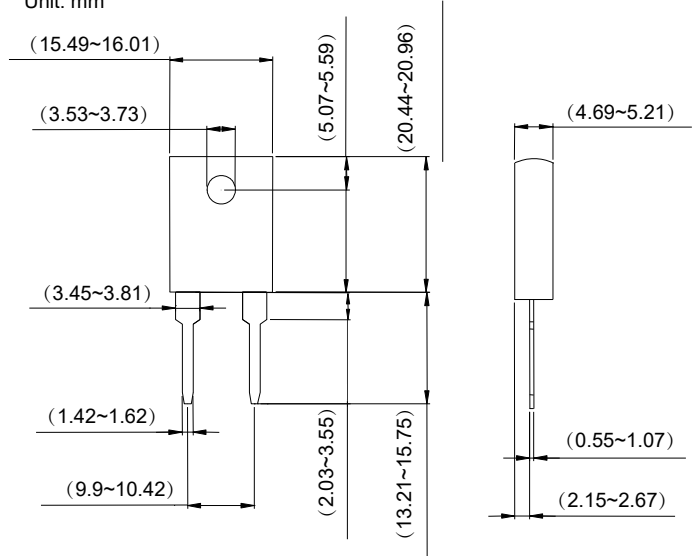
Applications

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

Dimensions

| Type | Weight (g) (1000pcs) |
|-------|-------------------------|
| TR100 | 3381 |

Unit: mm



Part Numbering

| T0 | 247 | 100W | 15R | 5% | |
|-------|-----|------|--|--------------------------------------|---|
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 产品类别 | 封装 | 功率 | 阻值 | 精度 | |
| 大功率电阻 | 247 | 100W | R100: 0.1Ω 0100: 10Ω 4700: 470Ω 1001: 1000Ω 1002: 10000Ω | D=±0.5% F=±1% J=±5% K: ±10% | |



TO-247大功率电阻系列规格书

| | |
|------|------------|
| 系列号 | TO-247 |
| 修订日期 | 2022-04-25 |
| 版本号 | Ho-A0 |

TO-247 (100W)

Electrical Characteristics Specifications

| Resistance Range | TCR (PPM/°C) | | |
|------------------|---------------------|---------------------|---------------------|
| | ±1% | ±5% | ±10% |
| 0.05Ω - 1Ω | | — | — |
| >1Ω - 3Ω | ±300 | | |
| >3Ω - 10Ω | ±100 ±200 | ±100 ±200 | ±100 ±200 |
| >10Ω - 10KΩ | ±50 ±100 ±200 | ±50 ±100 ±200 | ±50 ±100 ±200 |

- Operating Voltage: 350V Max.
- Dielectric Strength: 1800V AC
- Insulation Resistance: 10GΩ min.
- Working Temperature Range: -65°C to +175°C

Derating Curve



Environmental Characteristics

| Item | Requirement | Test Method |
|--|-------------------|--|
| Temperature Coefficient of Resistance (T.C.R.) | As Spec. | Referenced to 25°C, ΔR taken at +105°C |
| Load Life | ΔR±1.0% | Rated power, 2,000 hours |
| Solderability | 90% min. coverage | 245±5°C for 3 seconds |
| Momentary Overload | ΔR±0.5% | 1.5 times rated power and V (dc) ≤ 1.5V Max. for 5 seconds |
| Dielectric strength | ΔR±0.15% | 1800v AC, 60 seconds |
| Moisture resistance | ΔR±0.5% | -10°C~+65°C, RH>90%, cycle 240 hours |
| Thermal Shock | ΔR±0.5% | -65°C~150°C, 100 cycles |
| Terminal Strength | ΔR±0.2% | (Pull Test) 2.4N |
| Vibration, High Frequency | ΔR±0.4% | 20g peak |

- Lead Material: Tinned Copper
- When in Free Air at 25°C, the TR100 is Rated for 3.5W
- 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.