

## Data Sheet

**Customer:**

**Product:** TO-247 Power Resistors – TR100 Series

**Sizes.:** TR100

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VIKING TECH CORPORATION  
光頤科技股份有限公司  
No.70, Guangfu N. Rd., Hukou  
Township, Hsinchu County  
303, Taiwan (R.O.C)

TEL:886-3-5972931  
FAX:886-3-5972935•886-3-5973494  
E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH  
光頤科技股份有限公司高雄分公司  
No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,  
806, Taiwan

TEL:886-7-8217999  
FAX:886-7-8228229  
E-mail:sales@viking.com.tw

VIKING ELECTRONICS (WUXI) CO., LTD.  
光頤電子(無錫)有限公司  
No.22 Xixia Road, Machinery & Industry Park,  
National Hi-Tech Industrial Development Zone  
of Wuxi, Wuxi, Jiangsu Province, China  
Zip Code:214028  
TEL:86-510-85203339  
FAX:86-510-85203667•86-510-85203977  
E-mail:china@viking.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
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<i>Mandy Chen</i>	<i>Ben Chang</i>	<i>Ben Chang</i>		

## TO-247 Power Resistors

### ■ Features

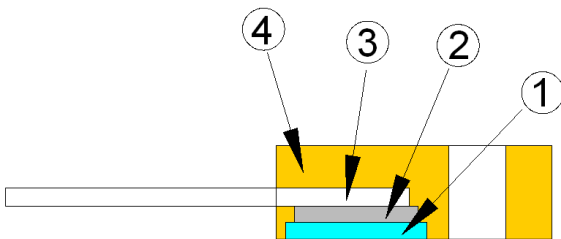
- 100 watts at 25°C case temperature heat sink mounted
- TO-247 style power package
- Single M3 screw mounting to heat sink
- Molded case for protection and easy to mount
- Electrically isolated case
- Non-Inductive design

### ■ Applications

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



### ■ Construction

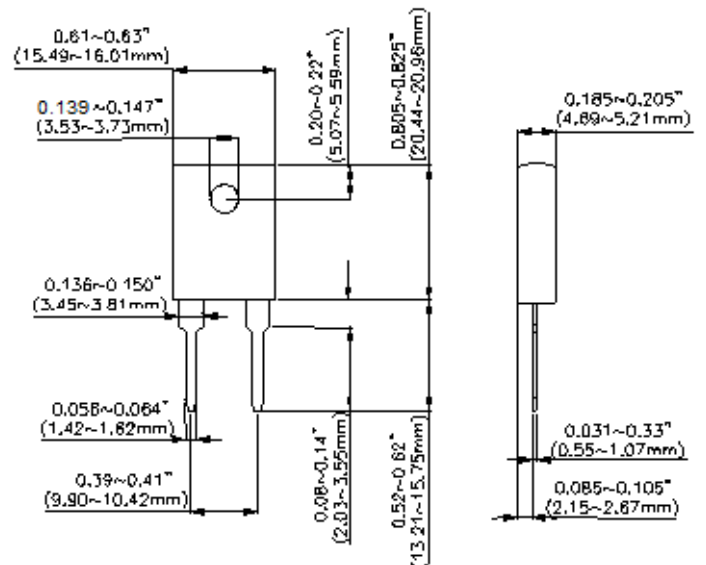


① Alumina Substrate	③ Lead
② Resistor Layer	④ Molding

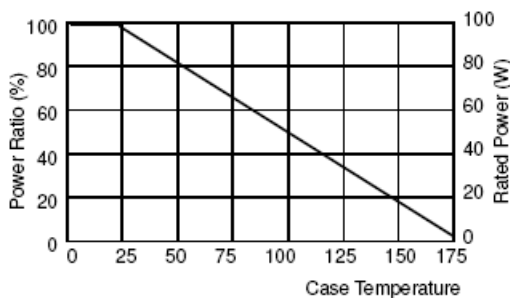
### ■ Dimensions

Unit: mm

Type	Weight (g) (1000pcs)	Packaging
		Tube
TR100	3381	35pcs

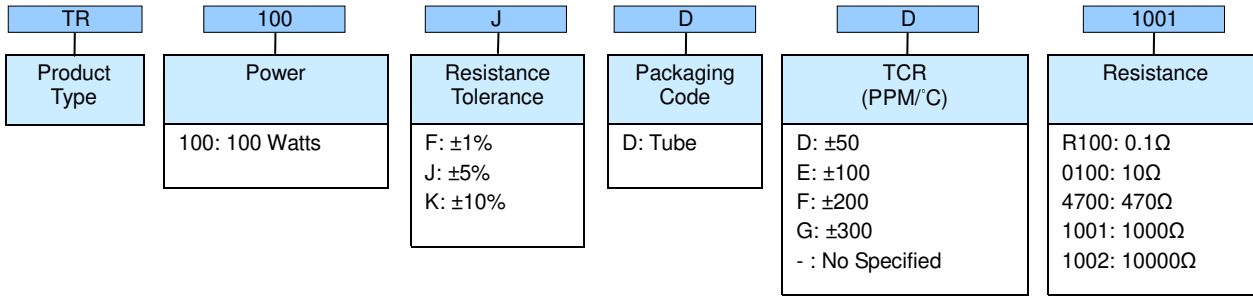


### ■ Derating Curve



**TO-247 Power Resistors**

**Part Numbering**



**Electrical Characteristics Specifications**

Type	Item	Resistance Range				TCR (PPM/°C)
		±0.5%	±1%	±5%	±10%	
TR100	-	-	-	0.05Ω - 0.1Ω		No Specified
	-	≥ 0.1Ω - 1Ω				No Specified
	-	≥ 1Ω - 5Ω				±100 ±200 ±300
	≥ 5Ω - 10Ω				±100 ±200 ±300	
	≥ 10Ω - 100KΩ				±50 ±100 ±200	

- Operating Voltage: 700V Max.
- Dielectric Strength: 1800V AC
- Insulation Resistance: 10GΩ min.
- Operating Temperature Range: -65°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
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) ≤ 1.5VMax. 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
- Maximum Torque: 0.9 Nm
- 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
- Storage Temperature: 25±5°C ;Humidity: < 75%RH