## **TGHM Series**

# RoHS

## 300 Watt SOT-227 Quick-Connect High-Power Resistors

### FEATURES

- Up to 300 watts of power dissipation with proper heatsinking at 25°C flange temperature
- #187 quick connect tab terminals provide easy connection to resistor
- Higher density packing, vibration-proof, TGHM is a high density design providing a low profile with 2000 volt withstanding voltage
- Vibration proof design passing IEC 60068-2-6
- Applications include harmonic filter, snubber resistors, surge protection, breeder resistor, dummy load, gate resistor, dumping resistor for automotive electronics, power supplies, pulse generators, high frequency amplifiers, theater audio equipment and power electronics



### PERFORMANCE DATA

Rating Power	300 Watts	At flange temperature -55°C to +25°C
Thermal Resistance	0.23 °C/W	From resistor to flange
Resistance Range	0.1Ω to 1MΩ	Lowest $0.1\Omega$ is available, $0.1\Omega$ -1M $\Omega$
Resistance values	E24+	Modified E24, additionally, 2.0 and 5.0.
TCR	±100ppm/K (A)	For -55°C to +175°C
Tolerance	±5% (J)	
Operation Temp.	-55°C to +175°C	At flange element surface
Max. Applied Voltage	$E = \sqrt{P \cdot R}$ or 1000V	
Withstanding Voltage	2000 VAC	60 seconds between terminals and flange. Leak current below 0.5mA
Load Life	ΔR±1.0%	Continuous power 1000 hours.
Humidity	ΔR±1.0%	60°C, 90 to 95%RH, DC0.1W, 1000 hours.
Temperature Cycle	ΔR±1.0%	-55°C 30 min., +155°C 30min., 5 cycles.
Insulation Resistance	Over 1000MΩ	Between terminals and flange.
Vibration	ΔR±0.5%	IEC60068-2-6, displacement 0.75mm or acceleration 100m/sec^2, 10Hz-54Hz sweep, 10 cycles X-Y-Z direction.
Flammability	UL94V-0	For resistor body
Weight	24 grams	
Torque, Mounting	1.6Nm max, 1.0Nm reco	ommended

### CONSTRUCTION



Flange, Ni plated copper
Case, Glass fiber filled PA6 resin
Resistor, Thick film
Substrate, Alumina ceramics
Molding, Epoxy resin

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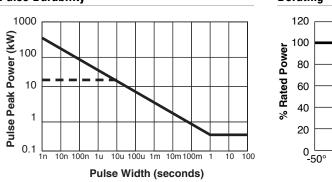
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### **Pulse Durability**

(mm)

rev 11/21-1

CHARACTERISTICS Derating



Limitation obtained by actual test with 0.01 duty continuous pulse repetition for TGHMV10R0JE, four times safety factor was considered. Please note this is not a specification, this is a typical data.

175

200°

250°

150°

### DIMENSIONS

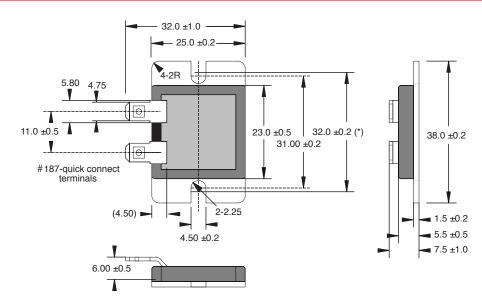
0°

50°

100°

Flange Temperature, °C

25



### ORDERING INFORMATION

