

TGHM Series

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



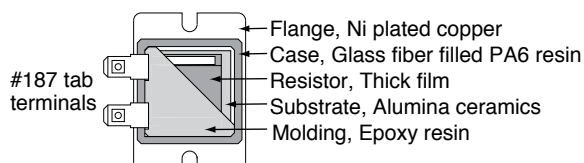
FEATURES

- 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 0.1Ω is available, 0.1Ω-1MΩ |
| 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 | $\Delta R \pm 1.0\%$ | Continuous power 1000 hours. |
| Humidity | $\Delta R \pm 1.0\%$ | 60°C, 90 to 95%RH, DC0.1W, 1000 hours. |
| Temperature Cycle | $\Delta R \pm 1.0\%$ | -55°C 30 min., +155°C 30min., 5 cycles. |
| Insulation Resistance | Over 1000MΩ | Between terminals and flange. |
| Vibration | $\Delta R \pm 0.5\%$ | 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 recommended | |

CONSTRUCTION



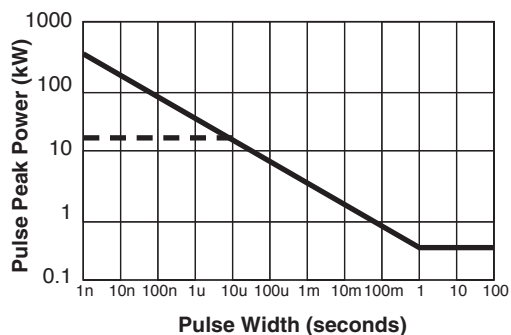
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TGHM Series

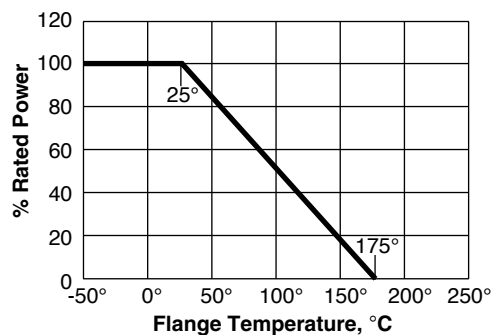
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CHARACTERISTICS

Pulse Durability



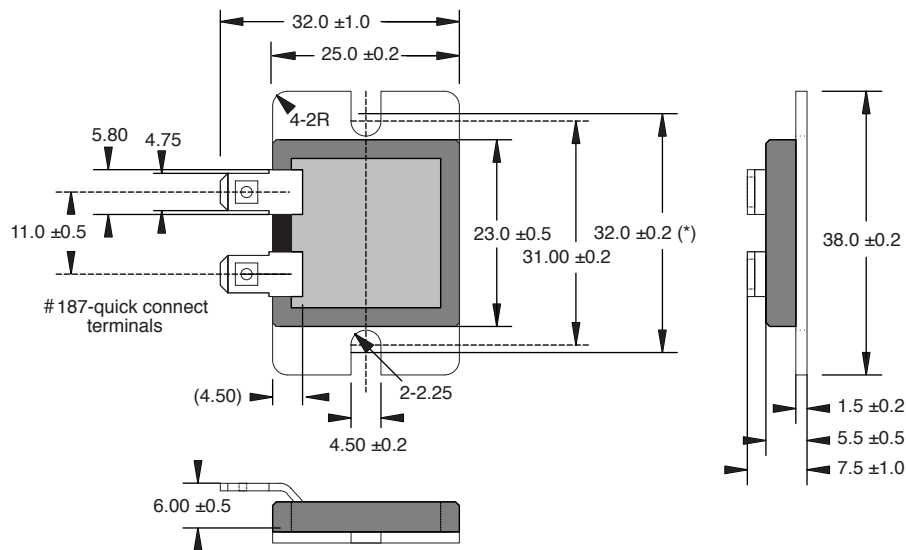
Derating



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.

DIMENSIONS

(mm)



ORDERING INFORMATION

| Configuration | | | |
|--------------------------------|---------------------|--|---------------------|
| V = config. 1 X = config. 2 | | | |
| T G H M V R 1 0 0 J E | | | |
| TGHM Series | Wattage M = 300W | Resistance Value Example: R500 = 0.500Ω 1R00 = 1.0Ω 250R = 250Ω 1K00 = 1,000Ω 10K0 = 10,000Ω | Tolerance J = 5% |
| E = RoHS compliant | | | |

Standard Part Numbers

| | |
|-------------|-------------|
| TGHMVR100JE | TGHMV50R0JE |
| TGHMVR200JE | TGHMV100RJE |
| TGHMVR500JE | TGHMV500RJE |
| TGHMV1R00JE | TGHMV1K00JE |
| TGHMV5R00JE | TGHMV2K50JE |
| TGHMV10R0JE | TGHMV5K00JE |
| TGHMV25R0JE | TGHMV10K0JE |
| TGHMV33R0JE | |

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