

Due to their non-inductive design, these resistors are ideally suited for high-frequency and pulse-load applications. Available in 120- or 200-watt sizes, this resistor is designed for direct mounting onto a heatsink. Popular applications include variable speed drives, power supplies, control devices, telecom, robotics, motor controls, and other switching designs.



# TGH Series

120 and 200 Watt SOT227 Package  
Thick Film Power



## SPECIFICATIONS

### Material

**Heat Sink:** Nickel-plated copper

**Contacts:** Nickel-plated copper

**Substrate:** Al2O3 (96%)

**Molding Compound:** High-performance epoxy, compliant to UL94-V0

**Terminal Nuts:** American standard 303 stainless steel

### Electrical

**Resistance Range:** 0.1Ω to 1MΩ

**Tolerance:** ±5%

**Temperature coefficient:** ±250ppm (at +105°C ref. to +25°C)

**Max. Work.Voltage:** 500V (up to 1,000V on special request)

**Power Rating at 85°C:** 120W (see derating)

**Partial Discharge:** up to 2,000Vrms/80 pC

**Voltage Proof:** Dielectric Strength up to 4,000V DC against ground

### Heat Resistance to Cooling

**Plate:**  $R_{th} < 0.35$  K/W

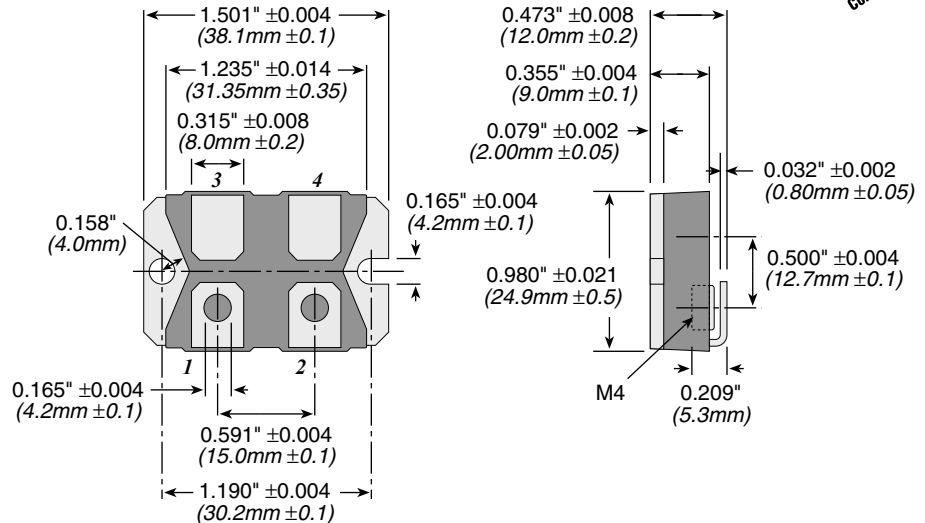
**Capacitance/Mass:** 45pF

**Working Temp. Range:** -55°C to +155°C

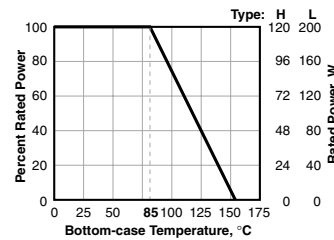
**Max. Torque for Base Plate (static):** 1.5 Nm

**Max. Torque for Contacts (static):** 1.3 Nm. M4 screws (not included)

**Derating (thermal resistance):** 2.86W/°K (0.35°K/W)



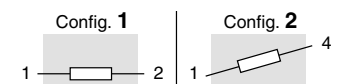
## DERATING



Best results can be reached by using a thermal transfer compound with a heat conductivity of better than 1W/mK

## CONFIGURATIONS

(per package)



## STANDARD PART NUMBERS

Ohms	120 Watt TGHH	200 Watt TGHL
0.1	TGHHVR100JE	TGHLVR100JE
0.5	TGHHV500JE	TGHLV500JE
1	TGHHV1R00JE	TGHLV1R00JE
5	TGHHV5R00JE	TGHLV5R00JE
10	TGHHV10R0JE	TGHLV10R0JE
25	TGHHV25R0JE	TGHLV25R0JE
33	TGHHV33R0JE	TGHLV33R0JE
50	TGHHV50R0JE	TGHLV50R0JE
100	TGHHV100RJE	TGHLV100RJE
150	TGHHV150RJE	TGHLV150RJE
500	TGHHV500RJE	TGHLV500RJE
680	TGHHV680RJE	TGHLV680RJE
1K	TGHHV1K00JE	TGHLV1K00JE
5K	TGHHV5K00JE	TGHLV5K00JE
10K	TGHHV10K0JE	TGHLV10K0JE

## ORDERING INFORMATION

Configuration  
V = config. 1  
X = config. 2  
E = RoHS compliant

**T G H H V 1 R 0 0 J E**

SOT 227 Series    Wattage    Resistance Value    Tolerance  
H = 120W    L = 200W    Example:    J = 5%  
R500 = 0.500Ω  
1R00 = 1Ω  
250R = 250Ω  
1K00 = 1,000Ω  
10K0 = 10,000Ω

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