

# TGHG Series

## Precision Current Sense Resistors



The TGHG Series uses state of the art technology to provide highly reliable, non inductive performance. This resistor is ideal for many current monitoring and controls applications.



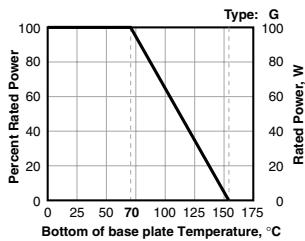
### FEATURES

- Resistance values beginning at 0.5mΩ
- Non Inductive
- Four terminal Kelvin connection
- SOT 227 Package
- Four terminals to isolate measurement path from current flow path
- Accuracy in a high power package

### CHARACTERISTICS

<b>Heat Sink</b>	Nickel-plated copper
<b>Terminal Nuts</b>	American standard 303 stainless steel
<b>Standard Resistance Values</b>	0.5mΩ-1Ω, others on request
<b>Resistance Tolerances</b>	0.5% (0.0005 thru 0.022Ω), 1%, 5%
<b>Temperature Coefficient</b>	referenced to 25°C, ΔR taken at -15°C and +105°C, <60ppm/°C; <500ppm/°C for resistance range 27mΩ-49mΩ)
<b>Power Rating</b>	100W at 70°C case temperature; 50Amp permanent (higher on request)
<b>Dielectric strength</b>	1000VDC, higher value on request
<b>Heat Resistance</b>	$R_{th} < 0.56\text{K/W}$
<b>Protection class</b>	acc. to IEC 950/CSA22.2 950/M -89 and EN 60950.88:2
<b>Working Temp. Range</b>	-55°C to +155°C
<b>Max. Torque for Contacts</b>	1.3Nm 8 (static)
<b>Max Torque for Base Plate</b>	1.5 Nm (static)

### Derating



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

### THIS PRODUCT IS DESIGNED FOR USE WITH PROPER HEATSINKING.

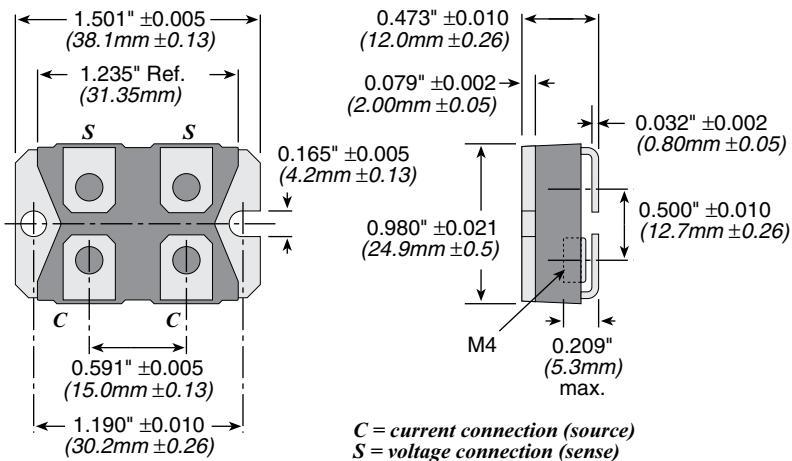
Maximum base plate temperature of the resistor must be monitored and kept within specified limits to establish the power rating. Best technique is to attach a thermocouple to the side of the base plate of the resistor. Temperature of plastic housing or heat sink cannot be used to establish rating of the resistor.

(continued)

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## DIMENSIONS



## ORDERING INFORMATION

**Configuration**  
 C = current sense      **E = RoHS compliant**

**T G H G C R 0 2 0 0 F E**

TGH = series      Wattage G = 100W      Resistance Value Example: R0200=0.02 ohms      Tolerance D = 0.5%  
 F = 1%      I = 5%

## Standard part numbers

Ohms	100 Watt TGHG
0.00050	TGHGCR0005FE
0.00100	TGHGCR0010FE
0.00200	TGHGCR0020FE
0.00500	TGHGCR0050FE
0.01000	TGHGCR0100FE
0.01500	TGHGCR0150FE
0.02000	TGHGCR0200FE
0.02500	TGHGCR0250FE
0.05000	TGHGCR0500FE
0.07500	TGHGCR0750FE
0.10000	TGHGCR1000FE

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