

# TGH600 Series

## 600 Watt Thick Film SOT227 Package



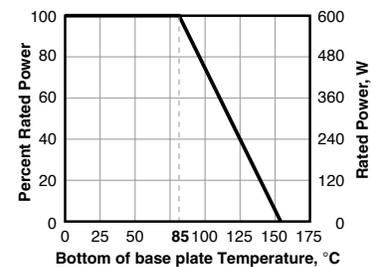
Due to the TGH600's non-inductive design, they are ideally suited for high-frequency and pulse-load applications. The TGH600 series resistors are designed for direct mounting onto a heatsink and provides up to 600 watts of power dissipation. Popular applications include variable speed drives, power supplies, control devices, telecom, robotics, motor controls, and other switching designs.



### CHARACTERISTICS

<b>Ohmic range</b>	0.25 to 1K
<b>Resistance tolerance</b>	±10%; ±5% on request
<b>Temperature coefficient</b>	±250ppm/°C (others on request)
<b>Maximum working voltage</b>	500V DC (higher voltage on request)
<b>Power rating</b>	600W at 85°C bottom case temperature
<b>Electric strength voltage</b>	Dielectric strength up to 4,000VDC against ground
<b>Isolation voltage</b>	between R1 and R2: 500V; 1,000V on request
<b>Partial discharge</b>	2kVrms, <80pC
<b>Insulation resistance</b>	10GΩ min. at 1kV
<b>Short time overload</b>	1.25 x rated power at 85°C bottom case temp. for 10 sec, ΔR = 0.4% max.
<b>Operating temperature</b>	-55°C to +155°C

### Derating



Best results can be reached by using a thermal transfer compound with a heat conductivity of 2.9W/mK or better.

### PERFORMANCE DATA

Test	Method	ΔR
<b>Moisture Resistance</b>	MIL-Std-202, Method 106	(0.5% + 0.001W) max
<b>Thermal shock</b>	Mil-Std-202, Method 107, Cond F	(0.3% + 0.01W) max
<b>Terminal Strength</b>	MIL-Std-202, Method 211, Cond A (pull test) 2.4N	(0.2% = 0.01W) max
<b>Vibration, High Frequency</b>	MIL-Std-202, Method 204, Cond D	(0.2% + 0.01W) max
<b>Life</b>	20 years (120,000 hours) Operating failure rate of 8.3 x 10 <sup>-7</sup> fail/hour.	

Requirements to be achieved under the following conditions: T<sub>amb</sub>=25°C, T<sub>HS</sub>=70°C, P<sub>applied</sub>=P<sub>n</sub>

(continued)

