

TGR Thick Film Resistors

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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.

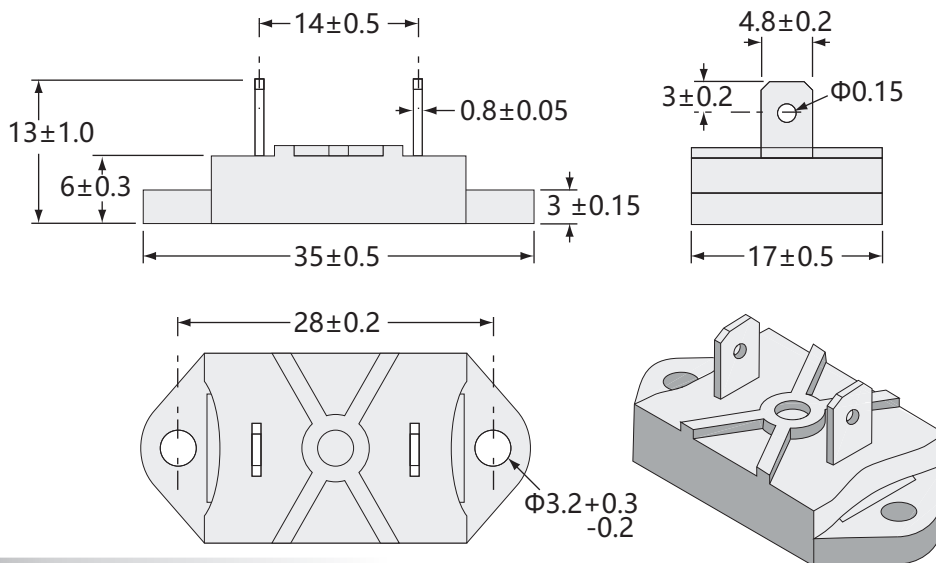
Features

- I Thermally efficient design uses ceramic base plate for better dissipation
- II Non-Inductive design
- III ROHS compliant
- IV Materials in accordance with UL 94 V-0

Applications

This thick-film resistor is suited for lower power applications and comes in a molded package. Suitable for variable speed drives, power supply, control equipment, communication, automatic control, engine control, etc.

Dimensions



Ordering Information

Example:

TGR	100	J	4R7
(1)	(2)	(3)	(4)
Series Name	Power Rating	Resistance Tolerance	Resistance

(1) Type: TGR SERIES

(2) Power Rating: 100=100W

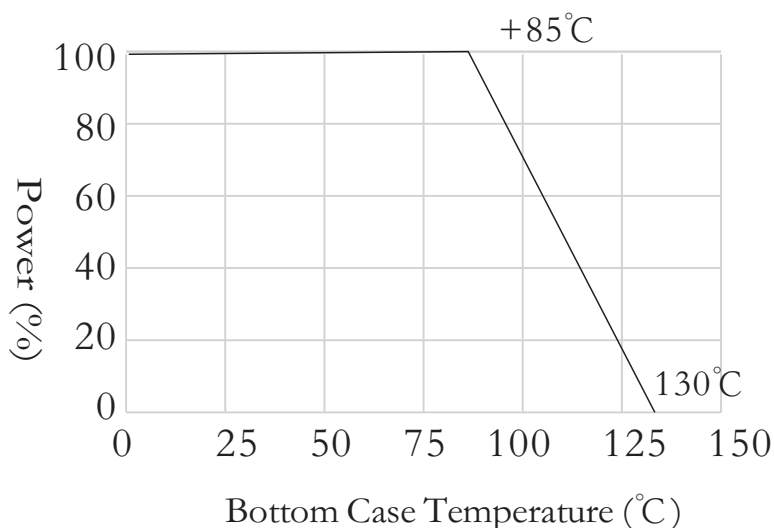
(3) Tolerance: F=1%, J=±5%, K=±10%

(4) Resistance Value: R24=0.24Ω, 4R7=4.7R, 47R0=47Ω, 1MR00=1MΩ

Applications And Ratings

Type	Power(W)	Resistance Range(Ω)	Max. operating voltage(V)	Tolerance range
TGR	100W	0.24 Ω ~ 1M Ω	1000V DC	$\pm 1\%$ $\pm 5\%$ $\pm 10\%$

Derating Curve



A thermal interface material with a specific thermal resistance $>3.4\text{W} / (\text{mK})$ and a printed thickness of $<0.15\text{mm}$ shall be pre-applied on the resistor.

Performance

Resistance value range	0.24 Ω to 1M Ω
Tolerance range	$\pm 1\%$ to $\pm 10\%$
TCR	$\geq 1\Omega$: $\pm 150\text{ppm}/^\circ\text{C}$ $< 1\Omega$: $\pm 250\text{ppm}/^\circ\text{C}$ ($+25^\circ\text{C}$ to $+105^\circ\text{C}$, ref. to $+25^\circ\text{C}$, others on request)
Rated power	100W at $+85^\circ\text{C}$ bottom case temp.
Derating	0.45 K/W
Max. operating voltage	1000V DC
Dielectric strength	3000V DC
Working temperature	-55°C to $+130^\circ\text{C}$
Base plate installation	M3 screw, max. torque 0.7Nm
Weight	6 grams

Suggested Mounting Procedure

- (1) Position component and press down by hand
- (2) Fix both mounting screws (M3) with 0.1 to 0.2 Nm torque
- (3) Apply final torque to mounting screws of 0.6 to 0.7 Nm