TNP10 Series

Thin Film TO-126 Resistor

Ohmite offers a high power heatsinkable TO-126 packaged resistor. They can achieve 1W in free air and 10W when attached to a proper heatsink. The non-inductive design is ideal for high speed circuits. These models exhibit low noise, high frequency operation and high density installation. Applications include: Constant current sources, electronic load circuits, LSI tests, measurement, audio PA systems and motor control.

SPECIFICATIONS

Series	Wattage*	Resistance Range (Ω)	Tolerance	TCR (ppm/°C)	Heat Resistance**
TNP10S	10W	0.09-0.1	5% (J)	±250	5.9°C/W
		0.1-9.1	±1% (F), 5% (J)	±100	
		10-51K	±1% (F)	±50	

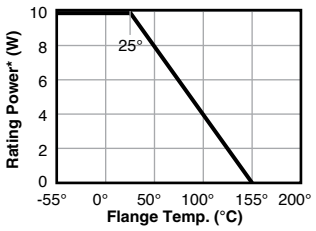
* Flange temp. -55° - 25°C; 1W at free air **From hot spot to flange

CHARACTERISTICS

Resistance Range	Values listed below; others on request
Temp. Range	-55°C to +155°C
Rated Temperature	+25°C
Rated Power	10W (-55 to 25°C flange temperature), 1W free air

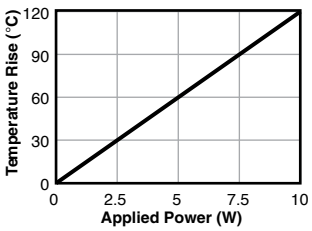
Item	Performance	Condition
Dielectric Withstanding Voltage	2000VAC	60 sec., between terminals and flange
Insulation Resistance	Over 1000MΩ	Between terminals and flange
Moisture Resistance	±(1.0%+0.05Ω)	60°C, 90 to 95%RH, DC 0.1W, 1000 hrs.
Load Life	±(1.0%+0.05Ω)	25°C, 90min. ON, 30min. OFF, 1000hrs
Soldering Heat	±(1.0%+0.05Ω)	350 ±5°C, 3 sec.
Solderability	Over 95% of surface	230 ±5°C, 3 sec.
Vibration	±0.25%	IEC 60068-2-6

Derating

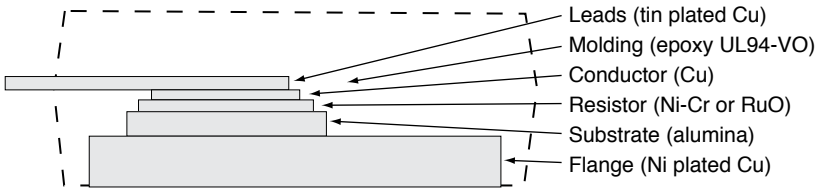


*with 2.8K/W heatsink

Temperature Rise



Coonstruction



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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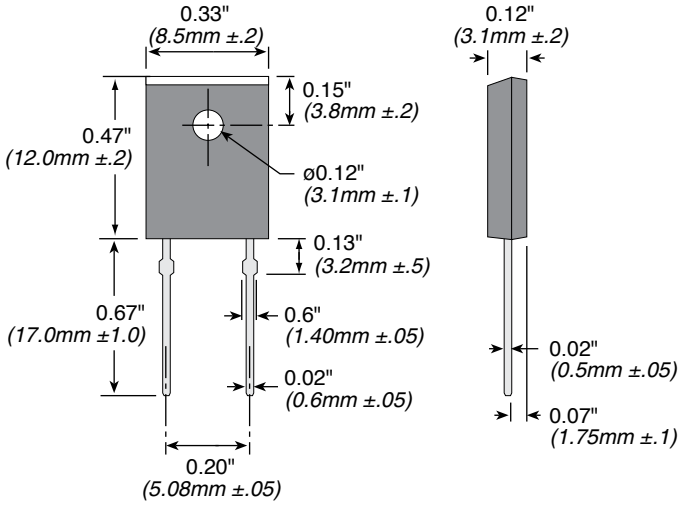
DIMENSIONS

(in./mm)



ORDERING INFORMATION

Tolerance
F = 1%
J = 5%

T N P 1 0 S C 5 0 R 0 F E

Series

TCR
H = 250ppm
A = 100ppm
C = 50ppm

Resistance
R500 = 0.500Ω
1R00 = 1Ω
250R = 250Ω
1K00 = 1,000Ω
25K5 = 25,500Ω

RoHS compliant

Standard part numbers

Other values on request

TNP10SHR100JE	TNP10SA5R00FE	TNP10SC75R0FE
TNP10SHR150JE	TNP10SA7R50FE	TNP10SC100RFE
TNP10SAR200JE	TNP10SC10R0FE	TNP10SC120RFE
TNP10SHR250JE	TNP10SC12R0FE	TNP10SC150RFE
TNP10SHR330JE	TNP10SC15R0FE	TNP10SC200RFE
TNP10SAR500JE	TNP10SC20R0FE	TNP10SC330RFE
TNP10SA1R00FE	TNP10SC25R0FE	TNP10SC560RFE
TNP10SA1R50FE	TNP10SC27R0FE	TNP10SC1K00FE
TNP10SA2R00FE	TNP10SC47R0FE	TNP10SC10K0FE
TNP10SA3R00FE	TNP10SC50R0FE	

ASSOCIATED PARTS

TNP10 resistors may be mounted with Ohmite **C Series (parts C126-XXX) heatsinks:** http://www.ohmite.com/cat/sink_c.pdf