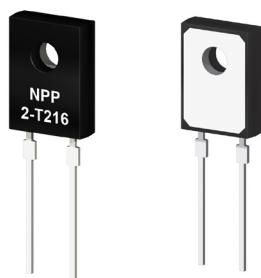


NPR NPP 2-T126

TO-126 Power Film Resistors



- Resistances from 0.01 to 51K Ohms
- Power Rating to 20Watt
- Resistance Tolerances to $\pm 0.05\%$
- TCR to $\pm 5\text{ppm/K}$
- TO-126 Housing
- Convenient SMD DPak Available
- Low Inductance ($< 50\text{nH}$)



SPECIFICATIONS

Type	Power Rating		Thermal Resistance	Resistance Range ³		Tolerances	Temperature Coefficients
	Heatsink ¹	Free Air ²		Min	Max		
NPR 2-T126	20W	1W	5.9K/W	0.01 Ω	51K Ω	$\pm 1\%$ ($R > 0.1\Omega$) $\pm 5\%$	$\pm 50\text{ppm/K}$ ($R > 10\Omega$) $\pm 100\text{ppm/K}$ ($R > 0.1\Omega$) $\pm 250\text{ppm/K}$
NPP 2-T126	5W	0.5W	6.0K/W	0.1 Ω	51K Ω	$\pm 0.05\%$ / $\pm 0.1\%$ / $\pm 0.25\%$ ($R > 5\Omega$) $\pm 0.5\%$ ($R > 1\Omega$) / $\pm 1\%$ ($R > 0.1\Omega$) $\pm 2\%$ / $\pm 5\%$	± 5 / $\pm 10\text{ppm/K}$ ($R > 1\Omega$) $\pm 25\text{ppm/K}$ ($R > 0.1\Omega$) $\pm 100\text{ppm/K}$

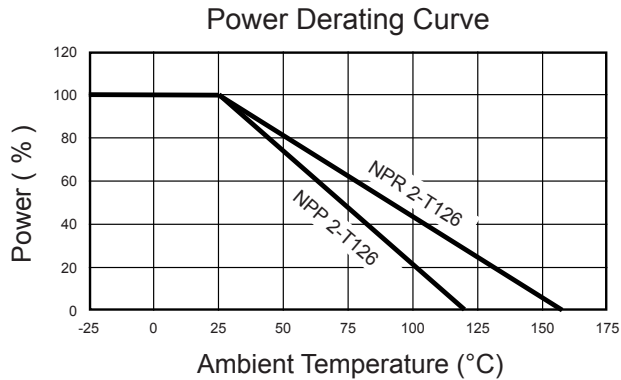
¹ Power rating based on 25°C Flange Temperature

² Power rating based on 25°C Ambient Temperature

³ Consult Factory for Higher or Lower Values

Specification	Value	
Maximum Current	25A	
Temperature Range	-55°C to +155°C : NPP 2T126 -55°C to +120°C : NPR 2-T126	
Dielectric Strength	2000 VAC	
Max. Operating Voltage	500 V	
Insulation Resistance	>1000 Meg-Ohm	
Environmental Performance	ΔR	Test Conditions
Load Life	$\pm 1\%$	25°C / 90 min ON / 30 min OFF / 1000 hr
Humidity Resistance	$\pm 1\%$	40°C / 90-95% RH / DC 0.1W / 1000 hr
Temperature Cycle	$\pm 0.25\%$	-55°C for 30 min / +155°C for 30 min / 1000 hr
Solder Heat	$\pm 0.1\%$	+350°C / 3s
Vibration	$\pm 0.25\%$	

SPECIFICATIONS (continued)



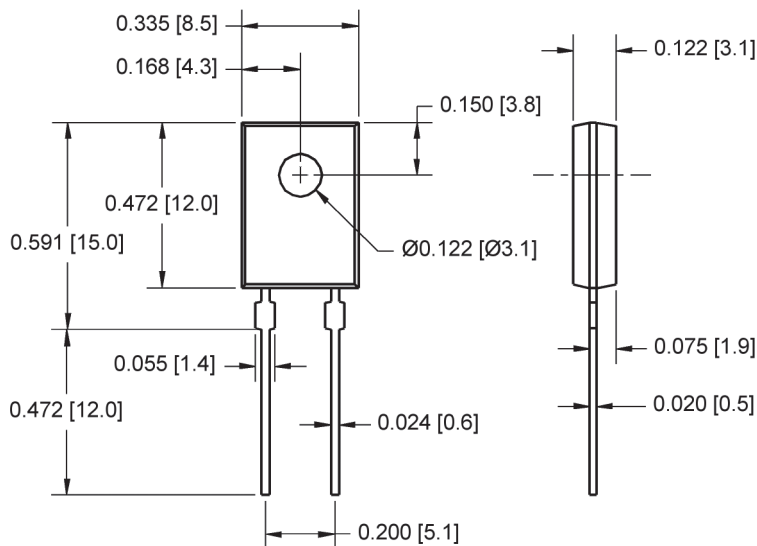
Power Rating Notes -

The NPR 2-T126 Series Foil Resistors must be attached to a suitable heatsink. The maximum internal resistor temperature is 155°C (120°C for the NPP 2-T126).

To specify an appropriate heatsink use the following formula :

$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta R}) - T_A}{P}$$

Where: $R_{\theta H}$ = Thermal Resistance of Heatsink (K/W)
 $R_{\theta R}$ = Thermal Resistance of Resistor (K/W)
 T_{MAX} = Maximum Temperature of Resistor
 T_A = Ambient Temperature of Heatsink (°C)
 P = Power Through Resistor (W)



Mounting Notes -

The NPR 2-T126 Series Film Resistors must be attached to a suitable heatsink. Mount resistor using thermal grease to a clean / flat surface. Use a compression washer to provide 150 to 300 pounds (665 to 1330N) of mounting force. Torque mounting screw to 8 in-lbs (0.9 Nm).

Ordering Information

Part Number - Resistance - Tolerance - TCR

Example: NPR 2-T126 0.5 Ohm 1% 100ppm