

# NPS 2-T126

Power SMD Resistors



- Resistances from 0.025Ohm to 10kOhms
- Power Rating to 25Watt
- Resistance Tolerances to  $\pm 1\%$
- TCR to  $\pm 100\text{ppm}/^\circ\text{C}$
- Load Stability to 0.5%
- TO-126 Housing (D-Pak)
- Solder Reflow Secure at  $260^\circ\text{C} / 20\text{s}$

## SPECIFICATIONS

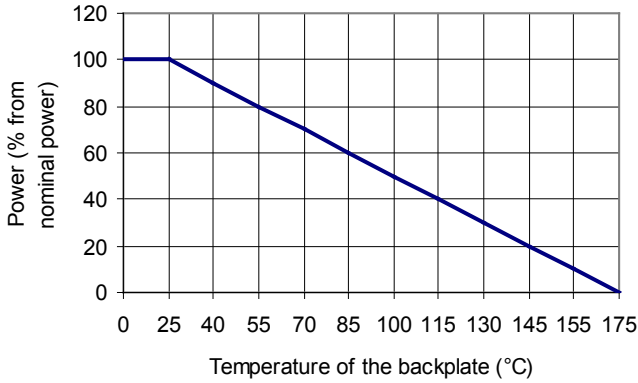
Type	NPS 2-T126			
Terminals	2			
Resistance Range	0.025 to 0.049Ohms	0.05 to 0.099Ohms	0.1 to 0.99Ohms	1Ohms to 10kOhms
Power Rating (with heatsink)	25 W			
Thermal Resistance Rthj-c	6.0 K/W			
Tolerances (others upon request)	2% / 5%		1% / 2% / 5%	
Stability	0.5%			
Temperature Coefficient (TCR 50ppm upon request)	$\pm 500\text{ ppm}/^\circ\text{C}$	$\pm 400\text{ ppm}/^\circ\text{C}$	$\pm 300\text{ ppm}/^\circ\text{C}$	$\pm 100\text{ ppm}/^\circ\text{C}$
Voltage Proof	2.0 kV DC			
Operating Temperature	$-40^\circ\text{C}$ to $175^\circ\text{C}$			
Resistor Material	Thick Film			
Substrate	$\text{Al}_2\text{O}_3$			
Housing	Epoxy			
Connector Material	Cu / Ni-flash / lead-free tinned			
Reflow soldering	lead-free soldering $260^\circ\text{C} / 20\text{s}$			

## Ordering Information

Part Description: Part Type - Resistance - Tolerance  
NPS 2-T126 1.1 Ohms 1%

**SPECIFICATIONS** (continued)

**Derating**

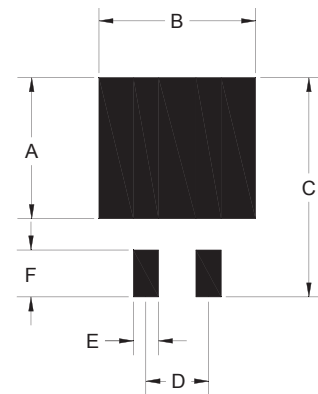
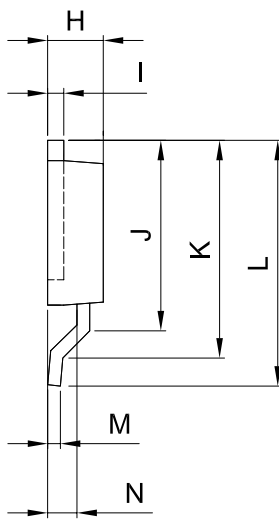
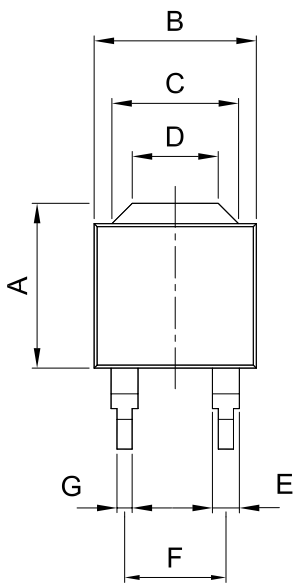


**Power Rating Notes -**  
 The NPS Series Resistors must be attached to a suitable heat-sink. The maximum internal resistor temperature is 175°C. To specify an appropriate heatsink use the following formula :

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

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 )

**Dimensions**



Note: Back tab is isolated from both pins.

Dimension	mm	tol. (±mm)	inches	tol. (±inches)
A	8.26	0.2	0.33	0.008
B	8.13	0.2	0.32	0.008
C	6.35	0.1	0.25	0.004
D	4.31	0.1	0.17	0.004
E	1.35	0.1	0.05	0.004
F	5.08	0.1	0.20	0.004
G	0.76	0.1	0.03	0.004
H	2.79	0.1	0.11	0.004
I	0.8	0.1	0.03	0.004
J	9.55	0.2	0.38	0.008
K	10.92	0.2	0.43	0.008
L	12.32	0.2	0.49	0.008
M	0.6	0.1	0.02	0.004
N	1.47	0.1	0.06	0.004

Dimension	mm	inches
A	8.51	0.335
B	7.87	0.310
C	14.1	0.555
D	5.08	0.200
E	1.65	0.065
F	3.81	0.150