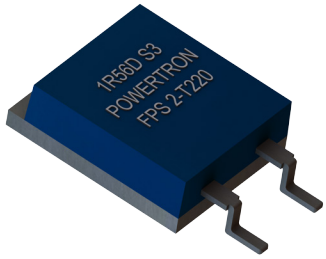
POWERTRON
A VPG Brand

FEATURES

- Resistances from 0.002Ohm to 10Ohms
- Power Rating to 15Watt
- Resistance Tolerances to ±0.5%
- TCR to ±50ppm/K
- Load Stability to 0.1%
- SMD D2Pak



Pb-free Available
RoHS* COMPLIANT

TABLE 1—SPECIFICATIONS		
TYPE		FPS 2-T220
Resistance Range		0.002 to 10 Ohms
Power Rating	**Free air 70°C**	1.5W
	With heatsink	15W
Tolerances **from 0.002 Ohms** **from 0.01 Ohms** **from 0.1 Ohms**		 2% / 5% 1% / 2% / 5% 0.5% / 1% / 2% / 5%
Thermal Resistance		4.8 K/W
Stability (1000h)		0.1% / 0.2% / 0.5% (depends on stress)
Temperature Coefficient		±50ppm/K (20 to 60°C) other specification upon request
Voltage Proof		300 VDC
Maximum Current		50A
Thermal EMF		< 0.1µV/K
Operating Temperature Range		-40 to 130°C
Resistor Material		CuNiMn-Foil
Substrate		Anodized aluminium
Housing		PPS
Connector Material		Cu / tinned
Terminals		2 (standard contact S)

ORDERING INFORMATION
Part Number - Resistance - Contact - Tolerance
FPS 2-T220 0R010 S 0.5%

FIGURE 1—TEMPERATURE COEFFICIENT

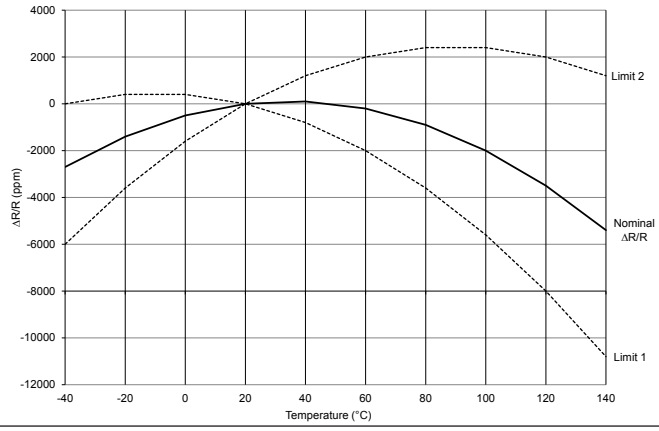
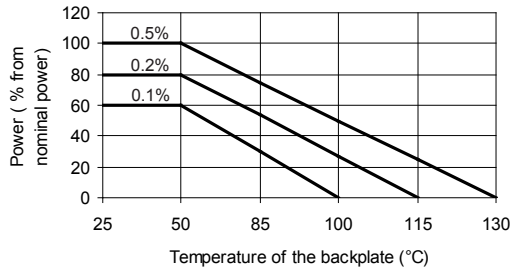


FIGURE 2—DERATING

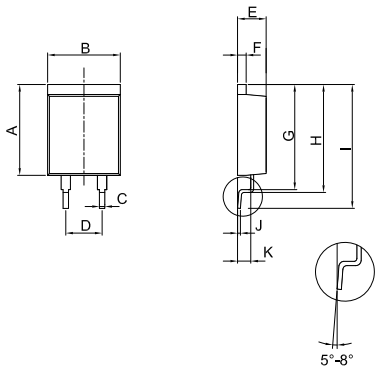


Power Rating Notes -
The FPR Series Resistors must be attached to a suitable heat-sink. The maximum internal resistor temperature is 130°C.
To specify an appropriate heatsink use the following formula :

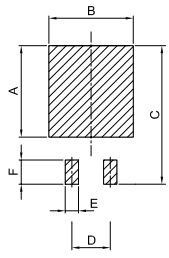
$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta R}) - T_A}{P}$$

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)

FIGURE 3—DIMENSIONS in mm (inches)



Dimension	
A ±0.2 (±0.008)	12.70 (0.50)
B ±0.2 (±0.008)	10.16 (0.40)
C ±0.1 (±0.004)	0.76 (0.03)
D ±0.1 (±0.004)	5.08 (0.20)
E ±0.1 (±0.004)	4.00 (0.16)
F ±0.1 (±0.004)	1.20 (0.05)
G ±0.2 (±0.008)	14.60 (0.57)
H ±0.2 (±0.008)	15.00 (0.59)
I ±0.2 (±0.008)	17.33 (0.68)
J ±0.1 (±0.004)	0.40 (0.02)
K ±0.1 (±0.004)	1.85 (0.07)



Dimension	
A	12.10 (0.476)
B	11.16 (0.439)
C	18.33 (0.722)
D	5.08 (0.200)
E	1.76 (0.069)
F	3.20 (0.126)

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