

- TO-220 Housing
- Rated Power 10 Watts
- Resistances from 0.5 to 150K Ohms
- High Stability Foil Resistance Elements
- Resistance Tolerance to $\pm 0.02\%$
- Operating Temperature -55°C to $+155^{\circ}\text{C}$
- Low Inductance ($<50\text{nH}$) and Thermal EMF



Riedon's TO-220 precision foil resistors satisfy demanding applications for high accuracy and stable power resistors housed in the convenient TO-220 case. The PF1220's Nichrome foil resistance element makes a wide resistance range available. It is bonded to an Al_2O_3 substrate ensuring excellent power dissipation and stability. Careful choice of materials and rugged construction ensure a reliable component, and the very small tolerance and temperature coefficient provide high precision in difficult applications.

SPECIFICATIONS

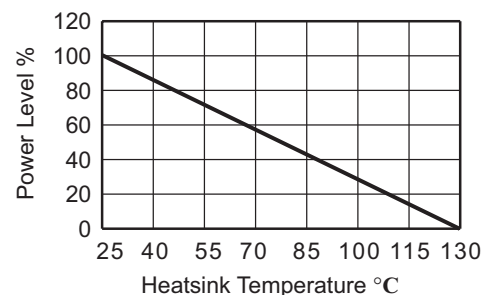
Resistance Range	- 0.5 to 150K Ohms (100 Ohm Max. for 4-Terminal)
Free Air Power Rating	- 1.5 Watts ($T_{\text{ambient}}=70^{\circ}\text{C}$)
Power Rating on Heatsink	- 10 Watts ($T_{\text{heatsink}}=25^{\circ}\text{C}$)
Thermal Resistance	- 10.8°C/W
Temperature Coefficient	- $\pm 1\text{ppm}/^{\circ}\text{C}$ ($+20^{\circ}\text{C}$ to $+60^{\circ}\text{C}$) $\pm 3\text{ppm}/^{\circ}\text{C}$ (-55°C to $+125^{\circ}\text{C}$) $\pm 5\text{ppm}/^{\circ}\text{C}$ (-55°C to $+155^{\circ}\text{C}$)
Stability	- 0.01%
Thermal EMF	- $< 1\mu\text{V}/^{\circ}\text{C}$
Proof Voltage	- 1KVDC
Maximum Current	- 25 A
Operating Temperature	- -55°C to $+155^{\circ}\text{C}$
Resistance Element	- Nichrome Foil
Substrate	- Al_2O_3
Housing	- Epoxy or PPS
Leads	- Cu, Tinned, 2 or 4 pin

Resistance	Tolerances Available ($\pm\%$)
0.5 to $<10\Omega$	0.1, 0.25, 0.5, 1
≥ 10 to $<50\Omega$	0.05, 0.1, 0.25, 0.5, 1
$\geq 50\Omega$	0.02, 0.05, 0.1, 0.25, 0.5, 1

Ordering information:

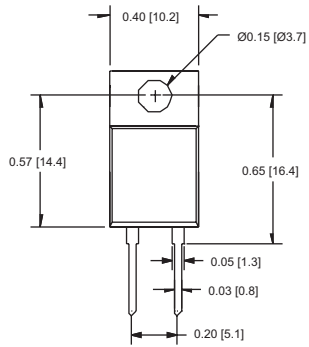
Part Number - Resistance - Tolerance - TCR
 Example: PF1220 0.5 Ohm 0.1% 5ppm

PF1220 Power Derating Curve

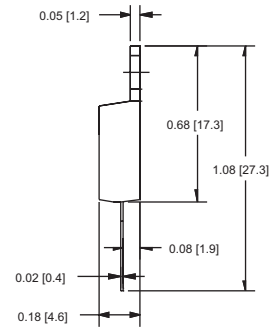
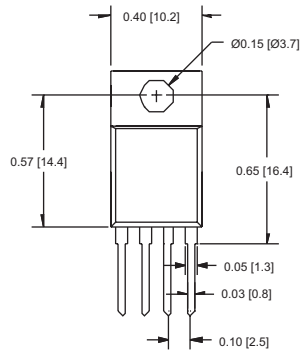


Dimensions

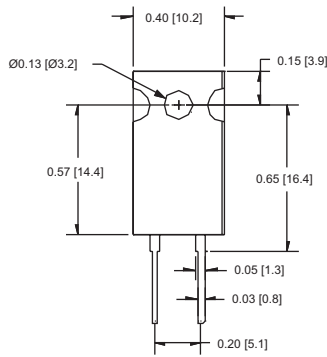
PF1220



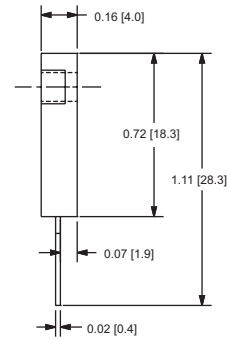
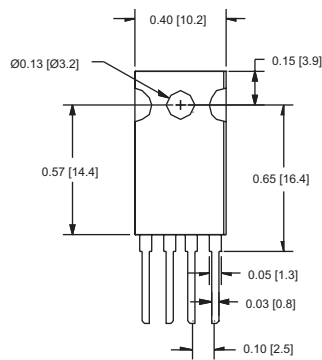
PF1220-4



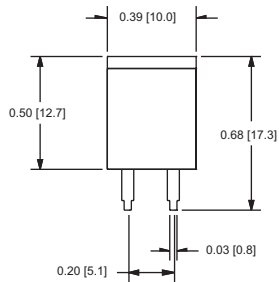
PF1221



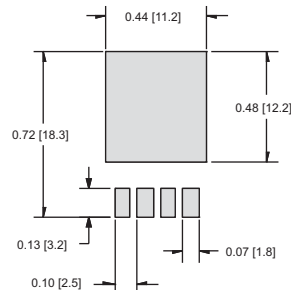
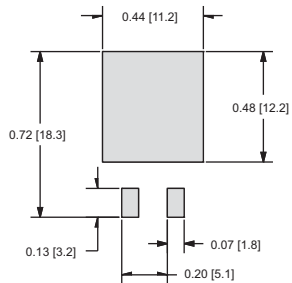
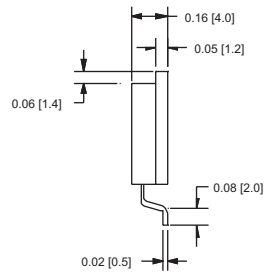
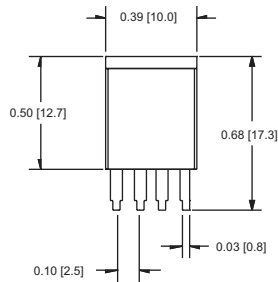
PF1221-4



PF1220S



PF1220S-4



Solder Pad Layouts