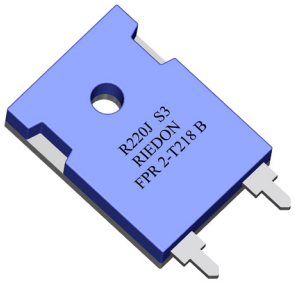
FPR 2-T218

Precision Shunt Resistors



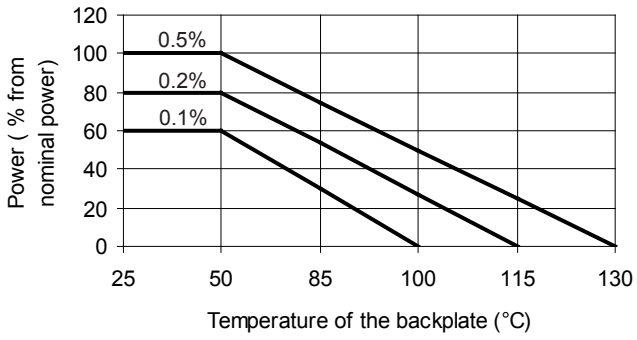
RoHS compliant

- **Resistances from 0.002Ohm to 50Ohms**
- **Power Rating to 30Watt**
- **Resistance Tolerances to ±0.25%**
- **TCR to ±15ppm/°C**
- **Load Stability to 0.1%**
- **TO-218 (TO-247) Housing**

SPECIFICATIONS

Type	FPR 2-T218
Resistance Range	0.002 to 50 Ohms
Power rating free air 70°C with heatsink	 2 W 30 W
Thermal Resistance Rthj-c	2.5 °C/W
Tolerances from 0.002 Ohms from 0.01 Ohms from 0.02 Ohms	 1% / 2% / 5% 0.5% / 1% / 2% / 5% 0.25% / 0.5% / 1% / 2% / 5%
Stability	0.1% / 0.2% / 0.5% (depends on stress)
Temperature Coefficient	R > 0.2 Ohms ±15ppm/K (20 to 60°C) R ≤ 0.2 Ohms TCR see table A next page
Voltage Proof	300 VDC
Thermal EMF	< 0.1µV/°C
Operating Temperature Range	-40 to 130°C
Resistor Material	CuNiMn-Foil
Substrate	anodized aluminium
Housing	PPS
Connector Material	Cu tinned
Terminals	2
Max. Torque	1 Nm

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)

Ordering Information

Part Description: Part Type - Resistance - Tolerance
FPR 2-T218 0.068 Ohms 0.5%

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SPECIFICATIONS (continued)

Temperature Coefficient

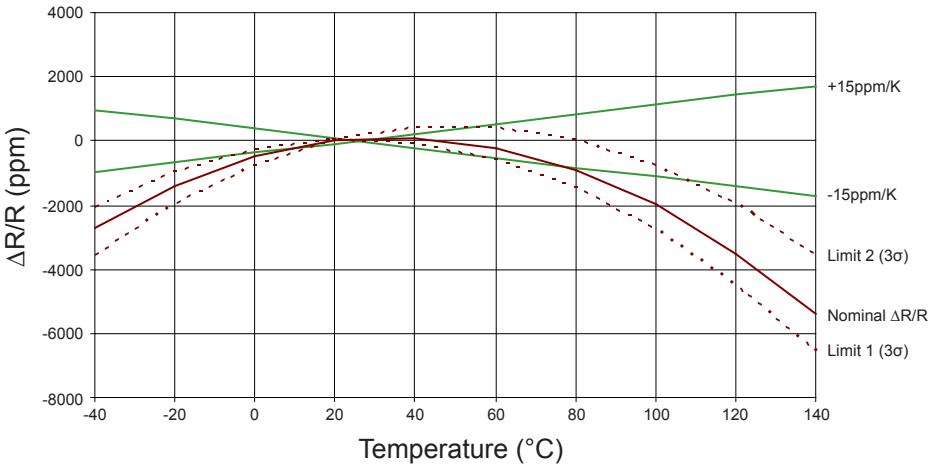
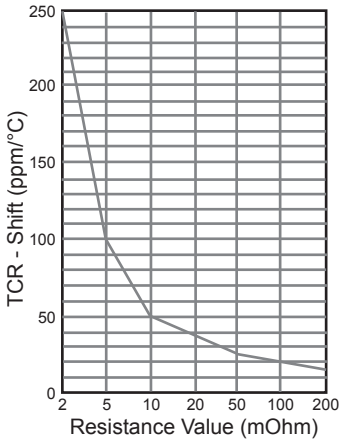
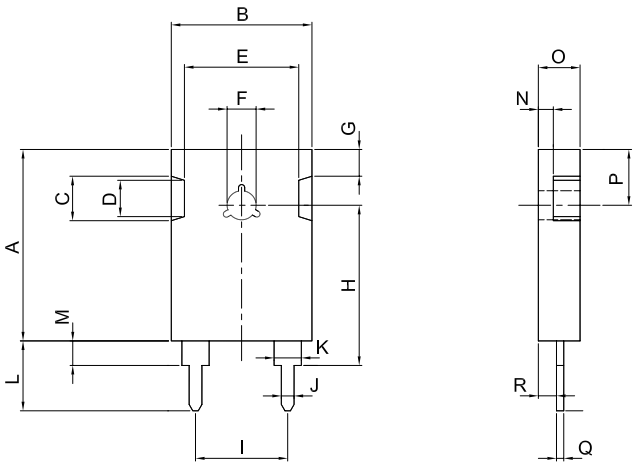


table A



DIMENSIONS



Dimension	mm	tol. (±mm)	inches	tol. (±inches)
A	21.10	0.2	0.83	0.008
B	15.50	0.2	0.61	0.008
C	4.90	0.1	0.19	0.004
D	4.00	0.1	0.16	0.004
E	12.60	0.2	0.50	0.008
F	Ø3.2	0.1	Ø0.13	0.004
G	2.95	0.1	0.12	0.004
H	17.75	0.2	0.70	0.008
I	10.16	0.2	0.40	0.008
J	1.40	0.1	0.06	0.004
K	3.00	0.1	0.12	0.004
L	14.50	0.2	0.57	0.008
M	2.80	0.1	0.11	0.004
N	1.65	0.1	0.06	0.004
O	4.60	0.1	0.18	0.004
P	6.15	0.2	0.24	0.008
Q	0.80	0.1	0.03	0.004
R	2.00	0.1	0.08	0.004

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