Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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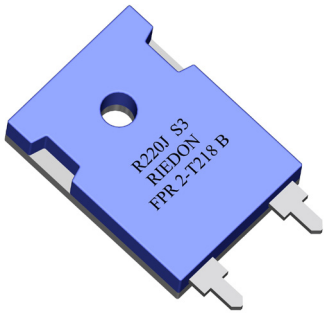
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

FPR 2-T218

Precision Shunt Resistors

In Stock at DIGI-KEY

RIEDON



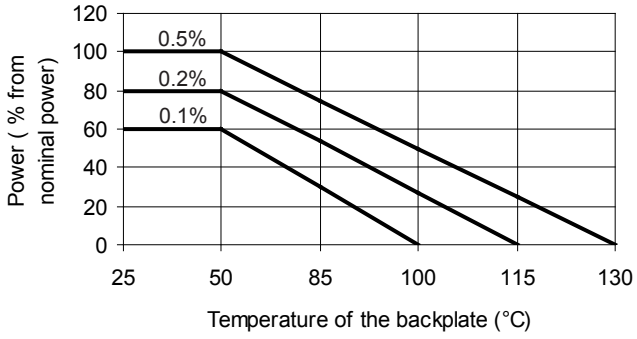
RoHS compliant

- **Resistances from 0.002Ohm to 50Ohms**
- **Power Rating to 30Watt**
- **Resistance Tolerances to ±0.25%**
- **TCR to ±15ppm/K**
- **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 K/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/K
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 Number - Resistance - Tolerance
FPR 2-T218 0.068 Ohms 0.5%

SPECIFICATIONS (continued)

Temperature Coefficient

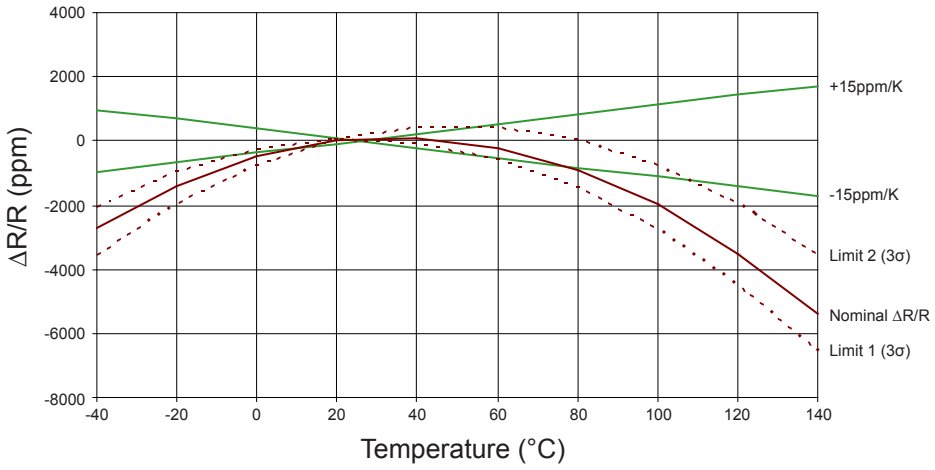
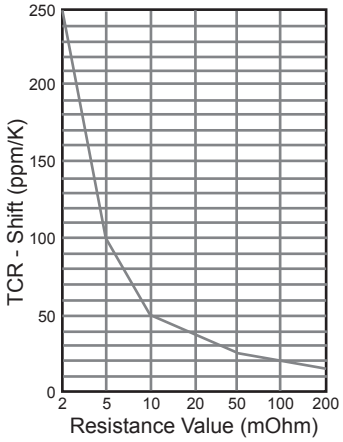
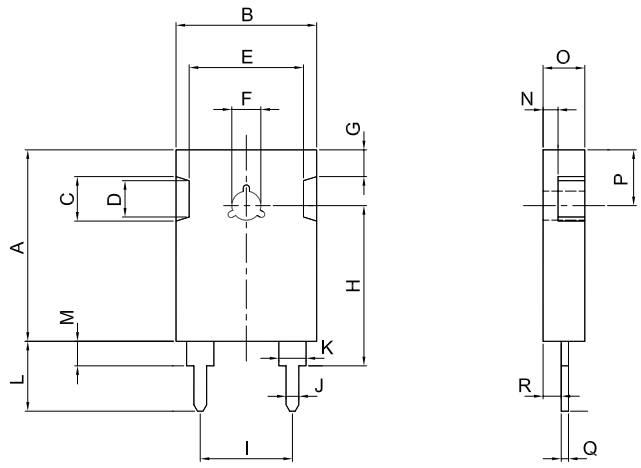


table A



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