



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!



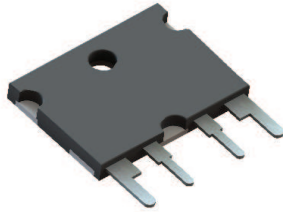
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- TCR to $\pm 2\text{ppm}/^\circ\text{C}$
- 0.001 to 20 Ohm
- Power Rating to 40Watt
- Resistance Tolerances to $\pm 0.5\%$
- Very Low Inductive
- Load Stability to 0.1%
- Package Style 2321 4 Terminal



SPECIFICATIONS

Type	PCS
Resistance Range	0.001 to 20 Ohm
Power rating (70°C)	3 W
Power Rating with Heat Sink	40W
Tolerances: from 0.001 Ohm from 0.01 Ohm	.5% / 1% / 2% / 5% 0.1% / 0.25% / 0.5% / 1% / 2% / 5%
Thermal Resistance	2.0 C/W
Stability (2000h)	0.1% / 0.2% / 0.5% (depends on stress)
Temperature Coefficient Standard (N) Option 1 (M) Option 2 (L) upon request for selected values	$\pm 10\text{ppm}/^\circ\text{C}$ (20 to 60°C) $\pm 5\text{ppm}/^\circ\text{C}$ (20 to 60°C) $\pm 2\text{ppm}/^\circ\text{C}$ (20 to 60°C) other specifications upon request
Isolation Voltage	300 VDC
Max. Current	150 A
Thermal EMF	< 1 $\mu\text{V}/\text{K}$
Operating Temperature Range	-40 to 130°C
Resistor Material	CuMnSn-Foil
Substrate	Anodized aluminium
Connector Material	Cu / tinned
Housing	Epoxy
Terminals	4
Max Torque	0.8 Nm

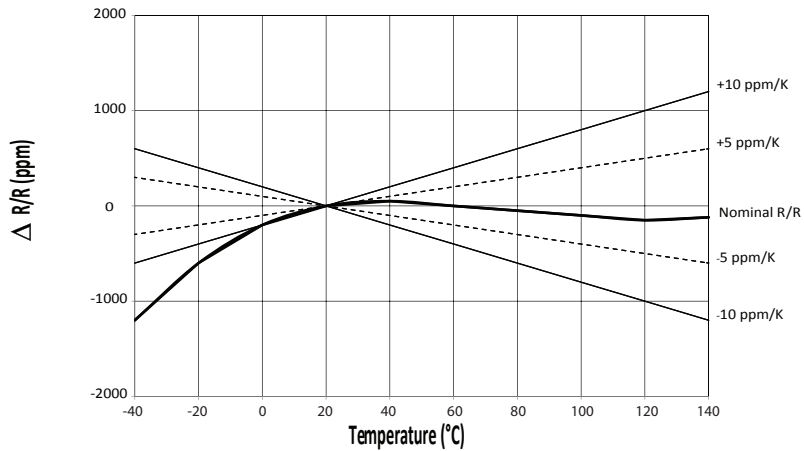
Applications:

- Power Modules
- Frequency Converters
- Switch Mode Power Supplies
- Current Monitoring

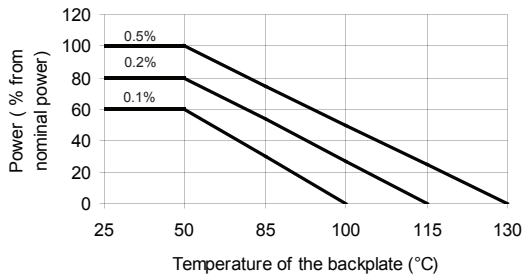
Ordering Information

Part Description: Part Type - Resistance - Tolerance - TCR
 PCS 10 Ohms 1% 10PPM

Temperature Coefficient



Derating



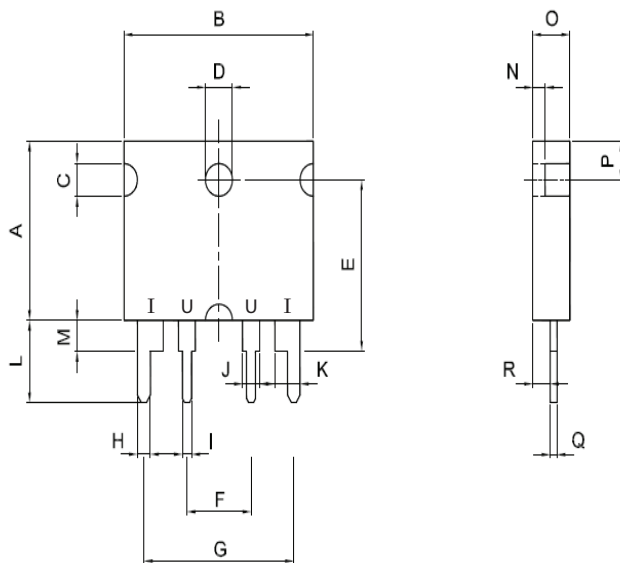
Power Rating Notes -

The PCS 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 :

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

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



I = Current
 U = Voltage

Dimension	mm	tol. (±mm)	inches	tol. (±inches)
A	17.25	±0.2	0.68	±0.008
B	22.30	±0.2	0.88	±0.008
C	3.20	±0.1	0.13	±0.004
D	∅3.20	±0.1	∅0.13	±0.004
E	16.75	±0.008	0.66	±0.2
F	7.62	±0.008	0.30	±0.2
G	17.78	±0.008	0.70	±0.2
H	1.50	±0.2	0.06	±0.008
I	1.10	±0.008	0.04	±0.2
J	2.00	±0.004	0.08	±0.1
K	3.00	±0.004	0.12	±0.1
L	8.00	±0.008	0.31	±0.2
M	3.00	±0.008	0.12	±0.2
N	1.50	±0.004	0.06	±0.1
O	4.50	±0.004	0.18	±0.1
P	3.75	±0.008	0.15	±0.2
Q	0.80	±0.1	0.03	±0.004
R	2.10	±0.008	0.08	±0.2