Type MPC Series

Key Features

High power density

Easy to mount

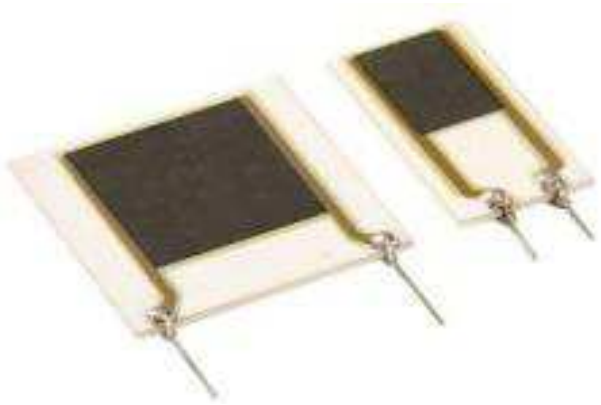
Non inductive

Stable at 100PPM/°C

Temperature range -55°C to +155°C

High power up to 10 Watts

Wide range Of tolerances



A range of non-inductive thick film power resistors complementing the T0220 packaged MPT series (20 Watt heat sink styles), being vertically mounted and suitable to dissipate power from 3 Watts up to 10 Watts. Available in values from 1R0 to 200K ohms they are the ideal solution for small snubber circuits, the output side of high speed pulse generators and low inductive resistor requirements in switch mode power supplies.

Characteristics – Electrical

Power Rating @70°C	Up to 10W
Maximum Working Voltage	Up to 500V
Short Term Overload	5 x rated power for 5 seconds
Available Tolerance	0.5%, 1%, 5%
Temperature Coefficient of Resistance	±100PPM/°C
Operating Temperature Range	-55°C to +155°C

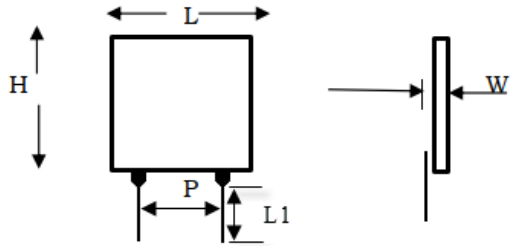
Type Item	MPC3	MPC5	MPC7	MPC10
Power Rating @70°C	3W	5W	7W	10W
Max Working Voltage	200V	300V	400V	500V
Resistance Range	1R0 ~ 200K			

Environmental Characteristics

Characteristics	Method	Standards
Short Term Overload	5 x Rated Power – 5 Sec	ΔR±(1.0% +0.05 Ohms)
Load Life	Rated 1000 Hrs 1.5/0.5 Hr ON/OFF	ΔR±(2.0% +0.05 Ohms)
Temperature Cycling	-55 /+155, 5 cycles	ΔR±(0.5% +0.05 Ohms)
Insulation Resistance	At 500V for 1 Min	Shall not be less than 10,000 M Ohms
Dielectric Test		No Flash over at 5KV
Resistance Soldering Heat	260°C 10 sec	ΔR±(0.5% +0.05 Ohms)
Solderability	Solder bath dip – 5 Sec	Greater than 95% Coverage
Resistance to Solvents	Solvent dip – 3 Min	ΔR±(0.5% +0.05 Ohms)
Damp Heat Steady State	40°C/95% Rh – 56 days	ΔR±(0.5% +0.05 Ohms)
Terminal Strength	Bending, Tensile, Torsion	No Mechanical Damage

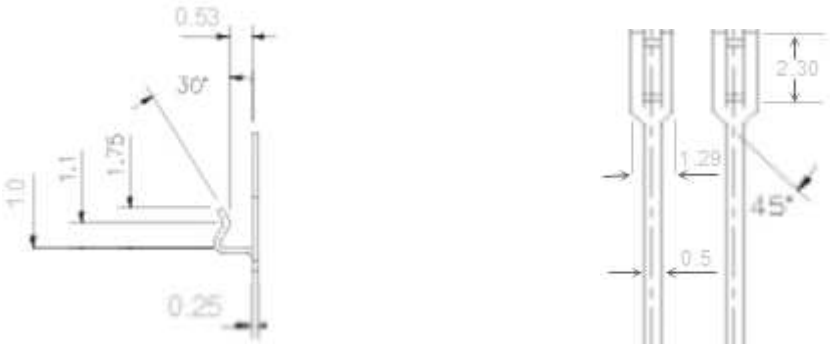
Reference Standards:

Dimensions

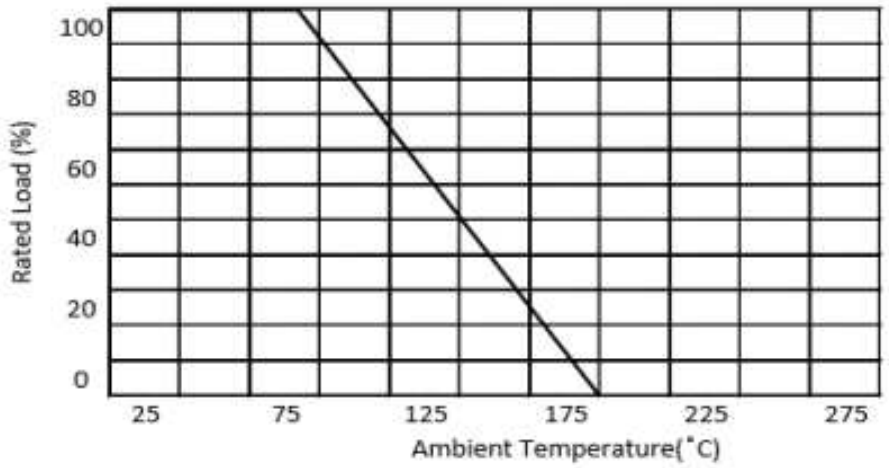


Type	L±0.13	H±0.13	W±0.05	P±0.38	L1	Unit Weight g/pc
MPC3	10.16	25.4	2.50	5.08	3.175	1.12
MPC5	12.7	25.4	2.50	5.08	3.175	1.3
MPC7	19.05	25.4	2.50	12.7	3.175	1.8
MPC10	25.4	25.4	2.50	20.32	3.175	2.6

Terminal pin detail



Derating Curve



Packaging

MPC3 and MPC5

50 pcs per tray, 20 trays = 1000pcs

0	0	0	0	0	0	0	0	0	0	0	0
0	1	1	1	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	1	1	1	0
0	0	0	0	0	0	0	0	0	0	0	0

MPC7

35 pcs per tray, 29 trays = 1015pcs

0	0	0	0	0	0	0	0	0
0	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	0
0	0	0	0	0	0	0	0	0

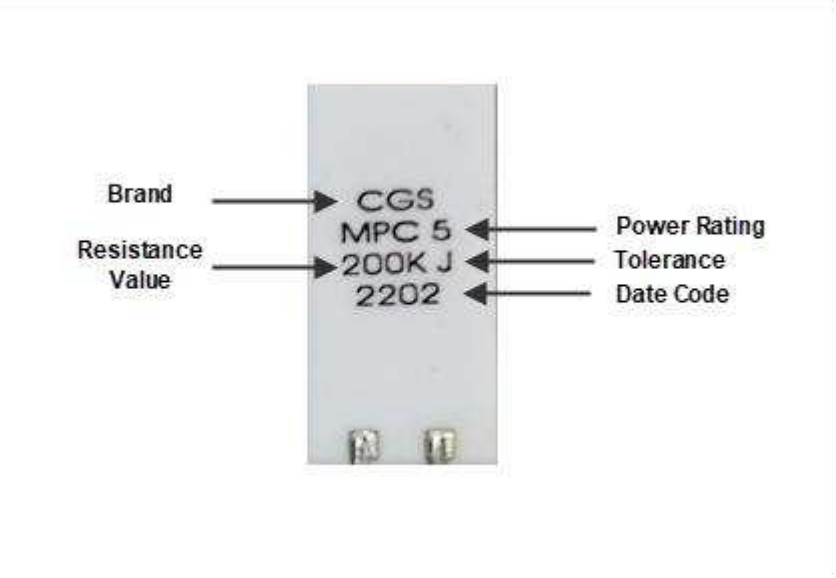
MPC10

42 pcs per tray, 24 trays = 1008pcs

1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1

Marking

Marking is on the rear of component



How To Order

MPC	52	1K0	J
Common Part	Power Rating/Size	Resistance Value	Tolerance
MPC – Thick Film Planar Resistance	32 – 3 Watts 52 – 5 Watts 75 – 7 Watts 108 – 10 Watts	1 ohm (1000 milliohms) 1R0 1K ohm (1000 ohm) 1K0 100K ohm (100,000 ohm) 100K	D ±0.5% F ±1% J ±5%