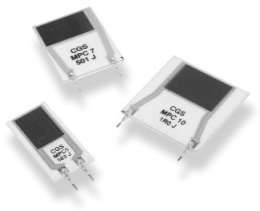
Type MPC Series



A range of non inductive thick film power resistors complementing the T0220 packaged MPR 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 idea solution for small snubber circuits, the output side of high speed pulse generators and low inductive resistor requirements in switch mode power supplies.

Key Features

- High Power Density
- Easy to Mount
- Non Inductive
- Stable at 100ppm/°C
- Temperature Range -55°C to +125°C
- High Power up to 10 Watts
- Voltage Proof 5000V dc
- Non Flammable

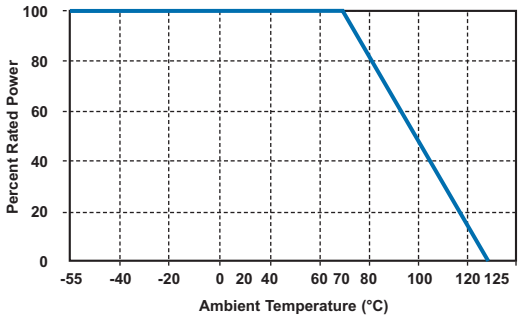
Characteristics - Electrical

Resistance Values:	R10 to 200K
Resistance Tolerance:	1%, 5%
Temp. Coefficient of Resistance:	±100ppm/°C
Rated Power @ 70°C:	3 to 10 Watts nominal
Equivalent Parallel Capacitance (100 MHz):	1.0pf
Maximum Operating Voltage:	300V AC
Withstanding Voltage:	5000V
Operating Temperature Range:	-55°C to +125°C
Overload Current:	20 x rated current up to 8 ms (ΔR ± 0.5%)

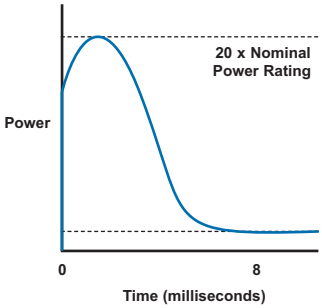
Characteristics - Mechanical

	Test Condition MILR83401	Specification
Life (Rated Power):	40°C, rated power, 90 min ON 30 min OFF, 1000 hrs.	ΔR± (1.0% + 0.05 ohm)
Life (Moisture Load):	60°C, 90 - 95% RH, rated power 90 min ON 30 min OFF, 1000 hrs.	ΔR± (1.0% + 0.05 ohm)
Temperature Cycling:	Room temp > -55°C 30 min > RT 10 min ± 120°C 30 min > RT 10 min 5 cycles	ΔR± (0.25% + 0.05 ohm)
Flammability:	UL94V-O rated	
Soldering Heat:	350°C Solderpot, 3 secs.	ΔR± (0.25% + 0.05 ohm)
Insulation Resistance:	DC 100V, 1 min	Over 1000M ohm
Vibration:	10 - 50 Hz, 1 min, 20G, X-Y-Z 1 hr.	ΔR± (0.25% + 0.05 ohm)

Power Derating Curve



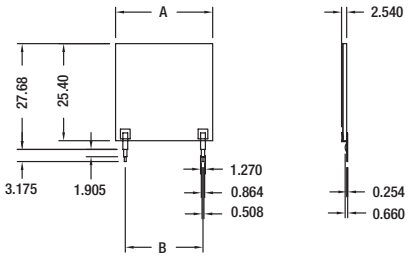
Overload Characteristics



High Power Resistors

Type MPC Series

Dimensions



Size	MPC3	MPC5	MPC7	MPC10
A	10.16	12.7	19.05	25.4
B	5.08	5.08	12.70	20.32

Product Marking

Value (Ohms)	1	2	5	10	20	50	100	200	500	1K	2K	5K	10K	20K	50K	100K	200K
Code	1R0	2R0	5R0	100	200	500	101	201	501	102	202	502	103	203	503	104	204

How to Order

MPC	52	1K0	J
Common Part	Power Rating / Size	Resistance Value	Tolerance
MPC - Thick Film Planar Resistor	32 - 3 Watts 52 - 5 Watts 75 - 7 Watts 108 - 10 Watts	See code in table above	F ±1% J ±5%

NB: Due to the wide range of available values/tolerances etc.some variants may not be tooled for production. It is possible that a small tooling charge may be levied dependant on order quantity or potential. Please check.

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

TE Connectivity:

1969656-1 3430B2F51RTDF SBCHE64R7K SMW73R0JT 2005330-1 MPT100C18RF TE50BR39J 1-794222-0 141991-2 2310537-1 CPF0402B37K4E1 CRGCQ2010J3K3 SBCHE154R7K U5254-000005-030PA 2834055-1 3631B101LL 1903112-2 2-292161-3 936348-1 RH73H2A40MKTN 1393431-1 1743455-2 175977-2 1-962915-1 917696-1 ROX05SJ18R 2377783-2 2380312-2 3-1393225-0 650075-000