

High Power Resistors



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

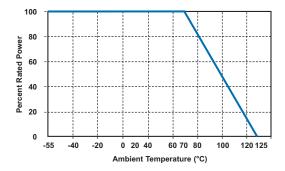
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Resistance Values:	R10 to 200K				
Resistance Tolerance:	1%, 5%				
Temp. Coefficient of Resistance:	±100ppm/°C				
Rated Power @ 70°C:	3 to 10 Watts nominal				
Equivalent Parallel Capacitance (100 MHz):	1.0pf				
Maximum Operating Voltage:	300V AC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

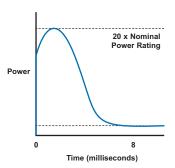
Characteristics - Mechanical

	Test Condition MILR83401	Specification
Life (Rated Power):	40°C, rated power, 90 min ON 30 min OFF, 1000 hrs.	$\Delta R\pm$ (1.0% + 0.05 ohm)
Life (Moisture Load):	60°C, 90 - 95% RH, rated power 90 min ON 30 min OFF, 1000 hrs.	$\Delta R\pm$ (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	$\Delta R\pm$ (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.	$\Delta R\pm (0.25\% + 0.05 \text{ ohm})$

Power Derating Curve



Overload Characteristics

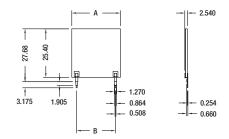






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Dimensions



Size	MPC3	MPC5	MPC7	MPC10
Α	10.16	12.7	19.05	25.4
В	5.08	5.08	12.70	20.32

Product Marking

Value (Ohm	s) 1	2	5	10	20	50	100	200	500	1K	2K	5K	10K 20K	50K 100K200	Κ
Code	1R0	2R0	5R0	100	200	500	101	201	501	102	202	502	103 203	503 104 204	4



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.