

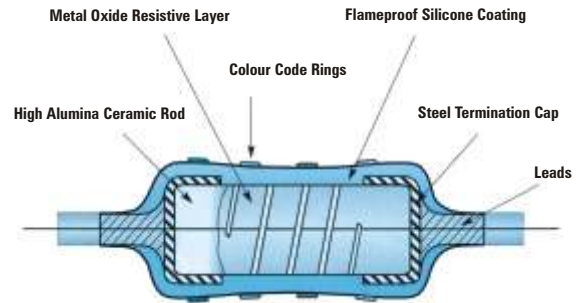
## POWER METAL FILM RESISTORS

**Series:** MPR01, MPR02, MPR03

**Construction:**

**Features:**

- ▶ High Power in small packages.
- ▶ Lead (Pb)-free solder contacts.
- ▶ Pure tin plating provides compatibility with lead (Pb)-free and lead containing soldering processes.



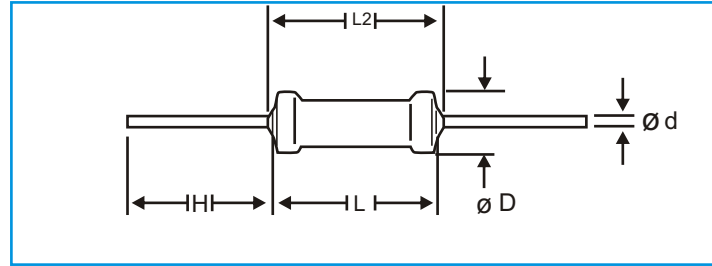
**Applications :**

- ▶ All general purpose power applications

**Technical Specifications :**

Description	MPR01	MPR02	MPR03
		Cu-lead	
Resistance range	0.22 Ohm ~ 1 M Ohm	0.33 Ohm ~ 1 M Ohm	0.68 Ohm ~ 1 M Ohm
Resistance tolerance and series	± 1% (E-24, E-96 Series); ± 5% (E-24 Series)		
Maximum dissipation at $T_{amb} = 70^{\circ}C$			
R < 1 Ohm	0.6 W	1.2 W	2 W
1 Ohm ≤ R	1 W	2 W	3 W
Thermal Resistance ( $R_{th}$ )	75 K/W		
Temperature Co-efficient	≤ ± 250 ppm/°C		
Maximum Permissible Voltage	350 V	500 V	750 V
Basic Specification	IEC 60115 - 1 and 60115 - 4		
Climatic Category	55/155/56		
Stability after :			
Load	Δ R/R max.: ±5% + 0.1 Ohm		
Climatic tests	Δ R/R max.: ±3% + 0.1 Ohm		
Soldering	Δ R/R max.: ±1% + 0.05 Ohm		

**Dimensions :**



TYPE	øD MAX (mm)	L MAX. (mm)	L2 MAX. (mm)	H MIN. (mm)	ød (mm)
					cu
MPR01	2.5	6.5	8.5	25	0.58 ± 0.05
MPR02	3.9	10.0	12.0	25	0.78 ± 0.05
MPR03	5.2	15	17	28	0.78 ± 0.05

**Mass Per 100 Units**

TYPE	MASS (g)
MPR01 Cu 0.6 mm	21.2
MPR02 Cu 0.8 mm	50.4
MPR03 Cu 0.8 mm	119.2

**Performance Data**

TYPE	PROCEDURE	SPEC.
Insulation Resistance	Max voltage (DC) after 1 min V block method	10,000 M Ohms
Robustness of Termination	load 10 N, 10s load 5 N, 4x90° 3x360° in opposite directions	Δ R/R max.: ±5% + 0.05 Ohm
Vibration	Frequency 10 to 500 Hz, displacement 1.5mm or acceleration 10g, three direction, total 6 hour (3x2 hour)	Δ R/R max.: ±5% + 0.05 Ohm
Endurance (at 70°C)	1000 hour, loaded with Pn or Vmax 1.5 hours on and 0.5 hours off	Δ R/R max.: ±5% + 0.1 Ohm
Solderability	8 hours steam or 16 hours 155°C, leads immersed 6mm for 2 sec ±0.5sec in a solder bath at 235±5°C	95% coverage
Damp Heat Steady State	Duration: 56 days, 40°C, 90 to 95% RH	Δ R/R max.: ±3% + 0.1 Ohm
Resistance to Solvent	Solvent : Trichloroethylene for 3 min	Marking should be legible