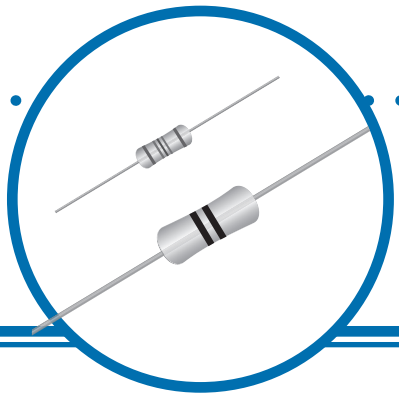
Flameproof Power Metal Film Resistor

TT electronics



MFP Series

- Flameproof protection
- Small size for power rating

Electrical Data

IRC Type	Power Rating @ 70°C (watts)	Resistance Range (watts)	Limiting Element Voltage (volts)	TCR (ppm/°C)	Resistance Tolerance* (%)	Standard Values	Thermal Impedance (°C/watt)	Ambient Temperature (°C)
MFP05	0.5	7R5 - 15R0	350	100	1, 2, 5	E24 preferred	150	-55 to 155
MFP1	<1 ohm: 0.7 >1 ohm: 1.0	0.1 - 1M		<1 ohm: 300 1 ohm-9.1 ohm: 200>10 ohm: 100			120	
MFP2	2	1R0 - 1M		100			82	

* Below 1 ohm 5% TOL preferred.

Environmental Data

Characteristic		Maximum
Load: 1000 hours at 70°C	ΔR	5
Shelf Life: 12 months at room temperature	ΔR	2
Derating from rated power at 70°C	ΔR	zero at 155°C
Climatic	ΔR	3
Climatic Category	ΔR	50/155/56
Temperature rapid change	ΔR	0.5
Resistance to solder heat	ΔR	0.5
Voltage proof	**volts**	500 min

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Physical Data

Dimensions (mm) and Weight (g)							
IRC Type	**L max**	**D max**	**f min**	**d nom**	**PCB mounting centers**	**Min. Bend Radius**	**Wt. nom**
MFP05	3.5	1.8	22.4	0.5	7.6	0.5	0.1
MFP1	6.2	2.3	21.0	0.6	10.2	0.6	0.3
MFP2	10.0	4.0	19.0	0.8	18.4	1.2	0.55

Construction
The resistance element is a precisely controlled thin film of metal alloy on a high purity ceramic core, protected by a cement coating applied so that terminations remain completely clear.

This permits a well defined body length, (clean lead to clean lead dimension L).

Terminations

Material Solder-coated copper wire.

Strength The terminations meet the requirements of IEC 68.2.21

Solderability The terminations meet the requirements of IEC 115-1, Clause 4.17.3.2

Marking
MF Series resistors are color coded with 4 or 5 bands depending on value and tolerance. IEC colors are used.

Solvent Resistance
The body protection and marking are resistant to all normal industrial cleaning solvents suitable for printed circuits.

Flammability
The resistors coating will not burn or emit incandescent particles under any condition of applied temperature or power overload.

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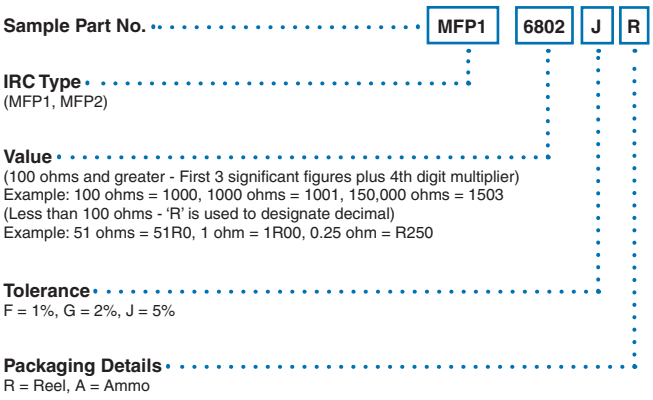
Application Notes

1. If the resistors are to dissipate full rate power, it is recommended that the terminations should not be soldered closer than 4mm from the body.

2. Due to operating temperature limitations imposed by some pcb materials, derating may be necessary. An estimate of the temperature rise to be expected can be calculated using the thermal impedance figures given under Electrical Data.

3. MFP resistors can also be supplied pre-formed, contact factory for details.

Ordering Data



Packaging

MFP resistors are normally supplied tape packed ready for loading onto automatic sequencing and insertion machines.

The standard taping method and critical dimensions are shown below. Component wires will not protrude beyond the outside edge of the tapes. All taped resistors will be supplied either on reels or in ammopacks, depending on quantities ordered. Pre-formed resistors are supplied loose packed in plastic bags or boxes. This product and packaging is denoted code F.

Type	Code	MFP05	MFP1	MFP2
Reel	**R**	5000	5000	2500
Ammopack A	**A**	5000	5000	2500