INTRODUCTION

The MF series Metal Film Resistors are manufactured by vacuum deposition of multiple layers of metal film on high thermal conductive ceramic rods and are coated with layers of lacquer.

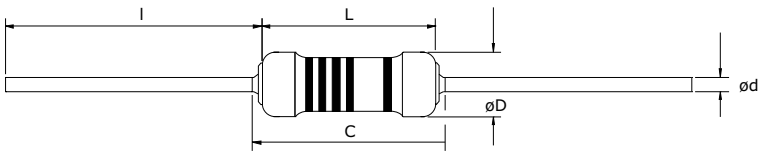
FEATURES

- Low Temperature Coefficient Resistance.
- Wide Resistance Range.
- Tight Tolerance.
- Precision Performance Characteristics.
- Lead Free

RATINGS

Type	MF 50	MF 55	MF55SS	MF 60	MF60SS	MF 65	MF 70
Rated Power at 70°C	1/6W	1/4W	0.4W	1/2W	0.6W	1W	2W
Operating Temp. Range Derated to 0 Load at	-55ºC to +155ºC +155ºC						
Maximum Working Voltage	200V	250V	200V	350V	250V	500V	500V
Maximum Overload Voltage	400V	500V	400V	700V	500V	700V	1000V
Resistance Range 1% E-96, E-24 5%, E-24	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ
Temperature Coefficient	50ppm/°C	50ppm/°C	50ppm/°C	50ppm/°C	50ppm/°C	50ppm/°C	50ppm/°C

DIMENSIONS

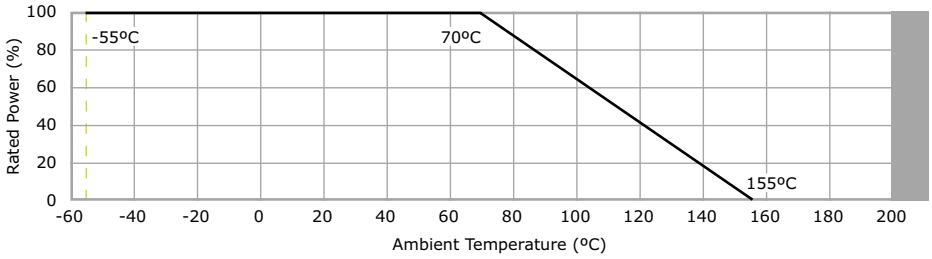


Type	DIMENSIONS (Millimeters)				
	L	C	D	l	d
MF50/MF55SS	3.30± 0.4	4.1 Max	1.70± 0.2	28.0± 3.0	0.45± 0.05
MF55/MF60SS	6.35± 0.5	7.1 Max	2.30± 0.3	28.0± 3.0	0.60± 0.05
MF 60	9.00± 0.5	11.8 Max	3.20± 0.5	28.0± 3.0	0.60± 0.05
MF 65	12.00± 1.0	15.0 Max	4.50± 0.5	35.0± 3.0	0.80± 0.05
MF 70	16.00± 1.0	22.0 Max	5.00± 0.5	35.0± 3.0	0.80± 0.05

PERFORMANCE CHARACTERISTICS

Performance Test	Test Method	Specification
DC Resistance	MIL-STD-202F, Method 303	±1% Tolerance
Resistance Temperature Coefficient	MIL-STD-202F, Method 304	±50ppm/ºC
Short Time Overload	MIL-R-55342E, Sect. 4.7.5	±(0.5% + 0.05Ω)
Dielectric Withstanding Voltage	MIL-STD-202F, Method 301	±(0.5% + 0.05Ω) No Mechanical Damage
Insulation Resistance	MIL-STD-202F, Method 302	>10^4MΩ
Current Noise	MIL-STD-202F, Method 308	<0.3μ v/v
Solderability	MIL-STD-202F, Method 208	>95% coverage
Resistance to Soldering Heat	MIL-R-55342E, Sect. 4.7.7	±(0.5% + 0.05Ω)
Robustness of electrode (Terminal Strength)	MIL-STD-202F, Method 211	±(0.25% + 0.05Ω) No Mechanical Damage
Resistance to Solvents	MIL-STD-202F, Method 215	No Damage to lacquer & colour coding
Moisture Resistance	MIL-STD-202F, Method 106	±(0.5% + 0.05Ω)
Temperature Cycling	MIL-STD-883F, Method 1010.7	±(0.5% + 0.05Ω)
Low Temperature Operation	MIL-R-55342E, Sect. 4.7.4	±(0.5% + 0.05Ω)
High Temperature Exposure	MIL-R-55342E, Sect. 4.7.6	±(1.0% + 0.1Ω)
Thermal Shock	MIL-STD-202F, Method 107	±(0.5% + 0.1Ω)
Loadlife	MIL-STD-202F, Method 108	±(1.0% + 0.1Ω)

DERATING CURVE



ORDERING CODE

MF XXXX - XXXX X - X X

Resistor	Size	Nominal Resistance			Resistance Tolerance	Packaging	Quantity
Metal Film Resister	50 55SS 55 60SS 60 65 70	Resistors	3-Digit	E24 Series 2.2Ω=2R2 100Ω=101	J=±5% F=±1% D=±0.5% B=±0.1%	A=Ammo (52MM) S=Spool (52MM) M=Ammo (26MM) R=Spool (26MM) N=Ammo (73MM) Q=Spool (73MM)	1 = 1000 pcs 2 = 2000 pcs 3 = 3000 pcs 5 = 5000 pcs
			4-Digit	E96 Series 10.2Ω=10R2 10KΩ=1002