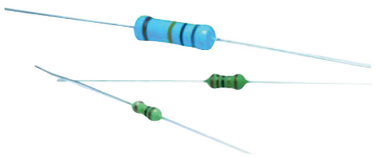
Precision Metal Film Resistor

multicomp PRO

RoHS Compliant



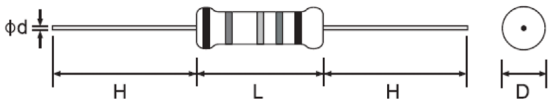
Features

- EIA standard colour coding
- Low noise and voltage coefficient
- Low temperature coefficient range
- Wide precision range in small package
- Too low or too high ohmic value can be supplied on case to case basis
- Nichrome resistor element provides stable performance in various environment
- Multiple epoxy coating on vacuum deposited metal film provides superior moisture protection

Performance Specifications

Temperature Coefficient	: Within the maximum temperature coefficient specified
Short Time Overload	: ± (0.5% + 0.05Ω) Maximum, with no evidence of mechanical damage
Insulation Resistance	: Minimum 10,000MΩ
Dielectric Withstanding Voltage	: No evidence of flashover, mechanical damage, arcing or insulation breakdown
Pulse Overload	: ±(1% + 0.05Ω) Maximum, with no evidence of mechanical damage
Terminal Strength	: No evidence of mechanical damage
Resistance to Soldering Heat	: ±(1% + 0.05Ω) Maximum, with no evidence of mechanical damage
Solderability	: Minimum 95% coverage
Resistance to Solvent	: No deterioration of protective coating and markings
Temperature Cycling	: ± (1% + 0.05Ω) Maximum, with no evidence of mechanical damage
Humidity (Steady state)	: ± (2% + 0.05Ω) Maximum, with no evidence of mechanical damage
Load Life in Humidity	: Normal type ± (1.5% + 0.05Ω) Maximum
Load Life	: Normal type ± (1.5% + 0.05Ω) Maximum

Diagram



Part Number	Style	Power Rating at 70°C	Dimension (mm)					Standard Packing Quantity
			D Max.	L Max.	d ±0.05	H ±3	PT	
Normal Size								
MCMF0W8	MF 12	1/8W (0.125W)	1.85	6.8	0.45	28	52	5,000
MCMF0W4	MF 25	1/4W (0.25W)	2.5	3.5	0.54	28	52	5,000
MCMF0W2	MF 50	1/2W (0.5W)	3.6	10	0.54	28	52	1,000
MCMF01W	MF 100	1W	5	12	0.7	25	52	1,000
MCMF02W	MF 200	2W	5.5	16	0.7	28	64	1,000
MCMF034	MF 300	3W	6.5	17.5	0.75	28	64	500

Dimensions : Millimetres

Part Number	Style	Power Rating at 70°C	Dimension (mm)					Standard Packing Quantity
			D Max.	L Max.	d ±0.05	H ±3	PT	
Small Size								
MCMF0S4	MF 25-S	1/4W (0.25W)	1.85	3.5	0.45	28	52	5,000
MCMFF04	MF 40-SS	0.4W	1.9	3.7	0.45	28	52	5,000
MCMF0S2	MF50-S	1/2 W (0.5W)	3	9	0.54	28	52	2,000
MCMF0M7	MF 75-S	0.75W	3.5	10	0.54	28	52	5,000
MCMF01S	MF 100-S	1W	3.5	10	0.54	28	52	1,000
MCMF02S	MF 200-S	2W	5	12	0.7	28	52	1,000
MCMF03S	MF 300-S	3W	5.5	16	0.7	28	64	1,000

Notes:

Dimensions : Millimetres

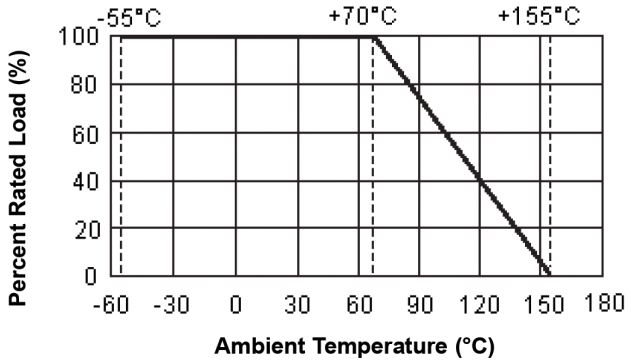
Extra small size types (-SS) are Non flame coating (Dark Green Colour)

General Specifications

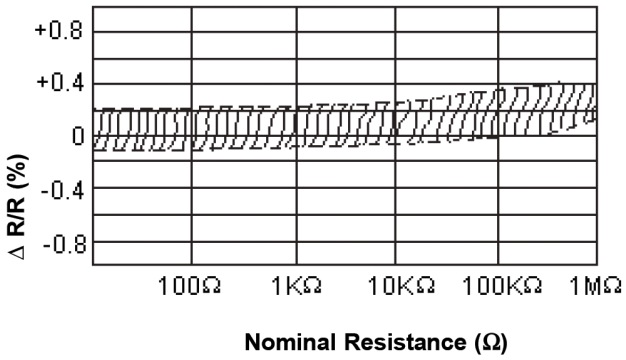
Part Number	Style	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Tolerance	Resistance Range	TCR
MCMF12	MF12	200V	400V	400V	±1%	10Ω to 1MΩ	±50 PPM/°C
MCMF0S4	MF25-S				±2%	10Ω to 1MΩ	±100 PPM/°C
MCMFF04	MF40-SS	200V	400V	200V	±5%	1Ω to 1MΩ	±200 PPM/°C
MCMF0W4	MF25	250V	500V	500V	±1%	10Ω to 1MΩ	±50 PPM/°C
MCMF0W2	MF50	350V	700V	700V	-	-	-
MCMF0S2	MF50-S				-	-	-
MCMF01W	MF100	500 V	1,000V	1,000V	±5%	51.1Ω to 1MΩ	±50 PPM/°C
MCMF02W	MF200					51.1Ω to 1MΩ	±100 PPM/°C
MC MF03W	MF300					10Ω to 1MΩ	±200 PPM/°C

Part Number	Style	Special Order		
		Tolerance	Resistance Range	TCR
MCMF12	MF12	±0.25%	51.1Ω to 200kΩ	±15 PPM/°C
MCMF0S4	MF25-S	±0.5%	51.1Ω to 511kΩ	±25 PPM/°C
MCMFF04	MF40-SS			±50 PPM/°C
MCMF0W4	MF25	±0.1%	100Ω to 100kΩ	±15 PPM/°C
MCMF0W2	MF50	±0.1%	100Ω to 300kΩ	±15 PPM/°C
MCMF0S2	MF50-S		51.1Ω to 511kΩ 10Ω to 1MΩ	±25 PPM/°C ±50 PPM/°C
MCMF01W	MF100	-	-	-
MCMF02W	MF200	-	-	-
MC MF03W	MF300	-	-	-

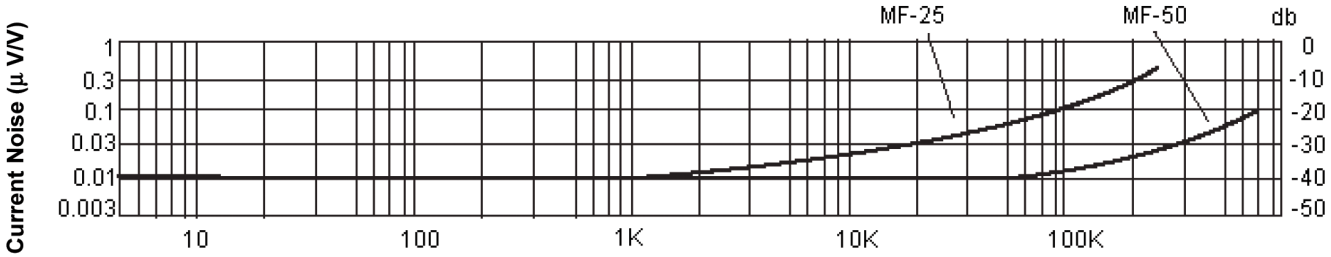
Derating Curve



Load Life



Current Noise Level



Part Number Explanation

MCMF	0	W4	B	B	1002	A 5 0
Type	Feature	Wattage	Tolerance	PPM Requirement	Resistance	Internal Reference
Metal Film	0 = Standard F = Non-Flame	W8 = 1/8W W4 = 1/4W 1W = 1W 2W = 2W 3W = 3W Small Size S2 = 1/2W-S Extra Small Size 04 = 0.4W-SS	B = ±0.1% C = ±0.25% D = ±0.5% F = ±1% G = ±2% J = ±5%	B = 15 ppm C = 25 ppm F = 50 ppm G = 100 ppm J = 200 ppm	1st to 3rd digits are significant figures of the resistance and the 4th digit indicates the number of zeros. R = Decimal Point 1331 = 1.33 kohms 49R9 = 49.9 ohms	