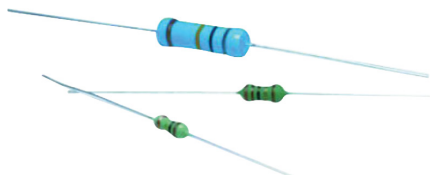


Precision Metal Film Resistor

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	: $\pm (0.5\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage
Insulation Resistance	: Minimum 10,000M Ω
Dielectric Withstanding Voltage	: No evidence of flashover, mechanical damage, arcing or insulation breakdown
Pulse Overload	: $\pm(1\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage
Terminal Strength	: No evidence of mechanical damage
Resistance to Soldering Heat	: $\pm(1\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage
Solderability	: Minimum 95% coverage
Resistance to Solvent	: No deterioration of protective coating and markings
Temperature Cycling	: $\pm(1\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage
Humidity (Steady state)	: $\pm(2\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage
Load Life in Humidity	: Normal type $\pm(1.5\% + 0.05\Omega)$ Maximum
Load Life	: Normal type $\pm(1.5\% + 0.05\Omega)$ Maximum

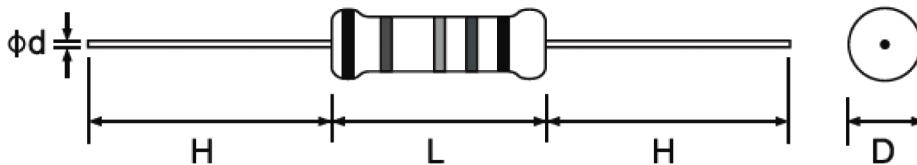
General Specifications

Part Number	Style	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Tolerance	Resistance Range	TCR
MCMF12	MF12	200V	400V	400V	$\pm 1\%$	10 Ω to 1M Ω	± 50 PPM/ $^{\circ}$ C
MCMF0S4	MF25-S				$\pm 2\%$	10 Ω to 1M Ω	± 100 PPM/ $^{\circ}$ C
MCMFF04	MF40-SS	200V	400V	200V	$\pm 5\%$	1 Ω to 1M Ω	± 200 PPM/ $^{\circ}$ C
MCMF0W4	MF25	250V	500V	500V	$\pm 1\%$	10 Ω to 1M Ω	± 50 PPM/ $^{\circ}$ C
MCMF0W2	MF50	350V	700V	700V	-	-	-
MCMF0S2	MF50-S				-	-	-
MCMF01W	MF100	500V	1,000V	1,000V	$\pm 5\%$	51.1 Ω to 1M Ω	± 50 PPM/ $^{\circ}$ C
MCMF02W	MF200					51.1 Ω to 1M Ω	± 100 PPM/ $^{\circ}$ C
MCMF03W	MF300					10 Ω to 1M Ω	± 200 PPM/ $^{\circ}$ C

Precision Metal Film Resistor

Part Number	Special Order		
	Tolerance	Resistance Range	TCR
MCMF12	±0.25%	51.1Ω to 200kΩ	±15 PPM/°C
MCMF0S4	±0.5%	51.1Ω to 511kΩ	±25 PPM/°C
MCMFF04			±50 PPM/°C
MCMF0W4	±0.1%	100Ω to 100kΩ	±15 PPM/°C
MCMF0W2	±0.1%	100Ω to 300kΩ	±15 PPM/°C
MCMF0S2		51.1Ω to 511kΩ	±25 PPM/°C
		10Ω to 1MΩ	±50 PPM/°C
MCMF01W	-	-	-
MCMF02W	-	-	-
MCMF03W	-	-	-

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	3.5	0.45	28	52	5,000
MCMF0W4	MF 25	1/4W (0.25W)	2.5	6.8	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
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	1/2W (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

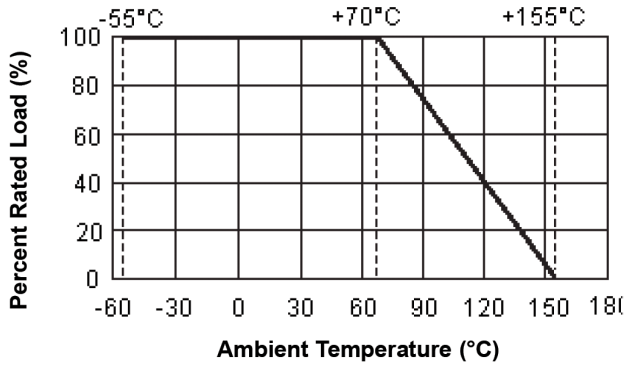
Note:

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

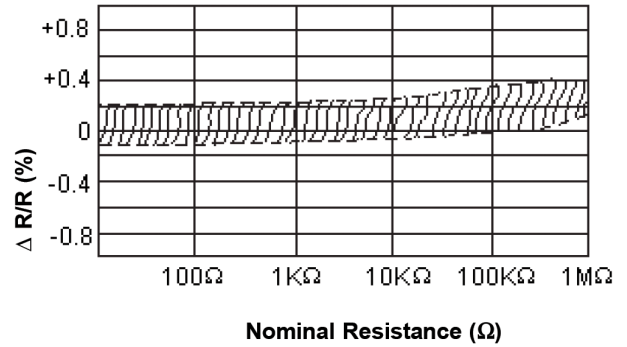
Dimensions : Millimetres

Precision Metal Film Resistor

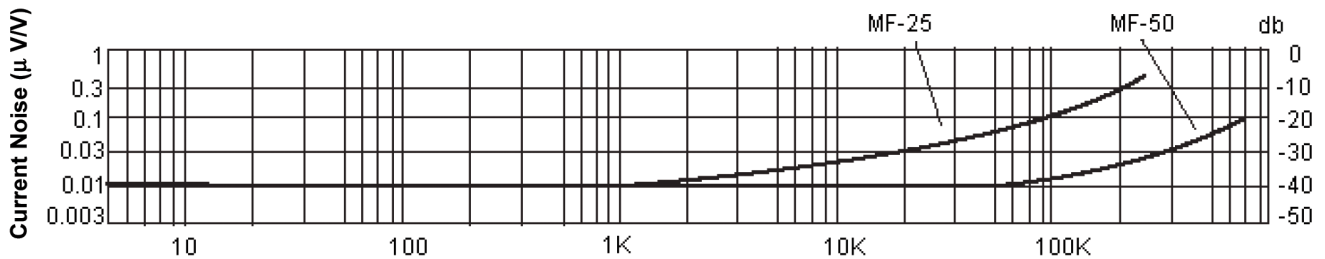
Derating Curve



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	

Part Number Table

Description	Part Number
Precision Metal Film Resistor	MCMF0W4BB1002A50

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell Limited 2016.