

Precision Metal Film Resistors



Features:

- EIA standard colour coding.
- Non-flame type available.
- 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 a 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.

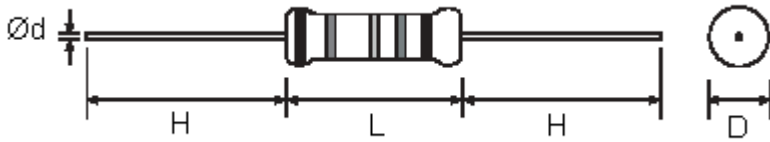
Performance Specifications

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 10,000 Mega Ohm
Dielectric Withstanding Voltage	: No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Pulse Overload	: $\pm(1.0\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage.
Terminal Strength	: No evidence of mechanical damage.
Resistance to Soldering Heat	: $\pm(1.0\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage.
Solderability	: Minimum 95% coverage.
Resistance to Solvent	: No deterioration of protective coating and markings.
Temperature Cycling	: $\pm(1.0\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage.
Humidity (Steady state)	: $\pm(2.0\% + 0.05\Omega)$ Maximum, with no evidence of mechanical damage.
Load Life in Humidity	: Normal type : $\pm(1.5\% + 0.05\Omega)$ Maximum. : Non-Flame type : $\pm(5.0\% + 0.05\Omega)$ Maximum.
Load Life	: Normal type : $\pm(1.5\% + 0.05\Omega)$ Maximum. : Non-Flame type : $\pm(5.0\% + 0.05\Omega)$ Maximum.

Part Number Explanation:

MCMF	0	W8	F	F	49R9	A	2	0
Type	Feature	Wattage	Tolerance	PPM Requirement	Resistance			
Metal Film	0 = Standard	W8 = 1/8W W4 = 1/4W 1W = 1W 2W = 2W 3W = 3W	B = $\pm 0.1\%$ C = $\pm 0.25\%$ D = $\pm 0.5\%$ F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$	B = 15ppm C = 25ppm F = 50ppm G = 100ppm J = 200ppm	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 kohm 49R9 = 49.9 ohm			

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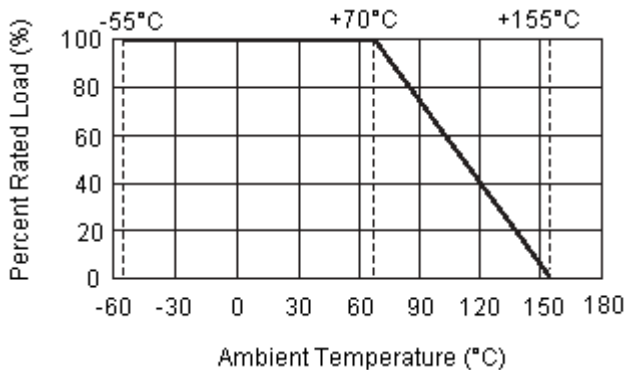
Dimensions : Millimetres

Part Number	Style	Power Rating at 70°C	Dimension (mm)					Std Packing Qty
			D Maximum	L Maximum	d ±0.05	H ±3	PT	
Normal Size								
MCMF0W8	MF 12	1/8W (0.125W)	1.85	3.5	0.45	28	52	5000
MCMF0W4	MF 25	1/4W (0.25W)	2.5	6.8	0.54	28	52	5000
MCMF0W2	MF 50	1/2W (0.50W)	3.5	10.0	0.54	28	52	1000
MCMF01W	MF 100	1W	5.0	12.0	0.70	25	52	1000
MCMF02W	MF 200	2W	5.5	16.0	0.70	28	64	1000
MCMF03W	MF 300	3W	6.5	17.5	0.75	28	64	500

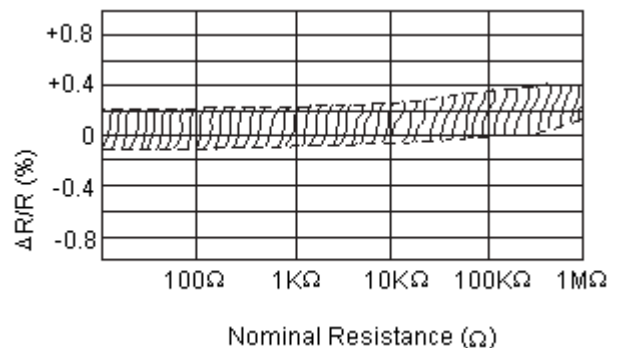
General Specifications

Part Number	Style	Maximum Working Voltage	Maximum Overload Voltage	Dielectric Withstanding Voltage	Tolerance %	Resistance Range	TCR	Special Order		
								Tolerance %	Resistance Range	TCR
MCMF0W8	MF12	200V	400V	400V	±1%	10Ω to 1MΩ	±50PPM/°C	±0.25%	51.1Ω to 200KΩ	±15PPM/°C
MCMF0W4	MF25	250V	500V	500V	±1%	10Ω to 1MΩ	±50PPM/°C	±0.1%	100Ω to 100KΩ	±15PPM/°C
MCMF0W2	MF 50	350V	700V	700V	±1%	10Ω to 1MΩ	±50PPM/°C	±0.1%	100Ω to 330KΩ	±15PPM/°C
MCMF01W	MF100	500V	1000V	1000V	±1%	51.1Ω to 1MΩ	±50PPM/°C	±0.1%	100Ω to 330KΩ	±15PPM/°C
MCMF02W	MF200	500V	1000V	1000V	±2%	51.1Ω to 1MΩ	±100PPM/°C	±0.25%	51.1Ω to 511KΩ	±25PPM/°C
MCMF03W	MF300	500V	1000V	1000V	±5%	10Ω to 1MΩ	±200PPM/°C	±0.5%	51.1Ω to 1MΩ	±50PPM/°C

Derating Curve



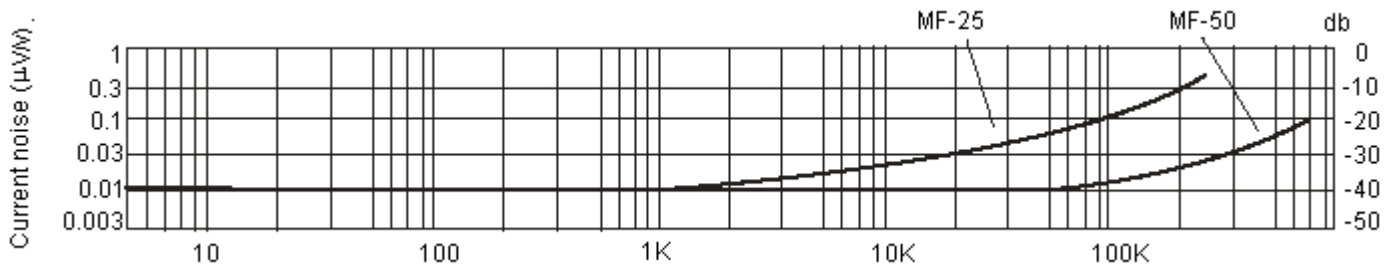
Load Life



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Current Noise Level



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