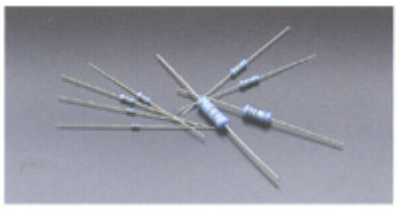
PRECISION METAL FILM FIXED RESISTOR

Features



- EIA standard color-coding
- Non - Flame type available
- Low noise & 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 environments
- Multiple epoxy coating on vacuum-deposited metal film provides superior moisture protection

Ordering Procedure: (Ex.: MFR 1/2W, +/-5%, 200PPM, 10Ω, T/B-1000)

M	F	0	W	2	J	J	0	1	0	0	A	1	0

Resistor Type:
MF = Metal Film Fixed Resistors

Special Feature:
0 = Standard Product
F = Non-Flame
I = Non-Inductive

Wattage:
Normal size:
W8=1/8W,
W4=1/4W,
W2=1/2W,
1W=1W,
2W=2W,
3W=3W

Small size:
S4=1/4W-S,
S2=1/2W-S,
06=0.6W-S

Extra small size:
U2=1/2W-SS,
04=0.4W-SS

Tolerance:
B = ±0.1%
C = ±0.25%
D = ±0.5%
F = ±1%
G = ±2%
J = ±5%

PPM requirement:
B = 15PPM
C = 25PPM
F = 50PPM
G = 100PPM
J = 200PPM

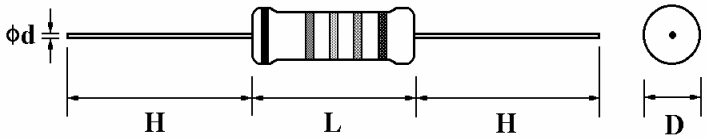
Resistance Value:
- E-24 series: the 1st digit is "0", the 2nd & 3rd digits are for the significant figures of the resistance and the 4th indicate the number of zeros following;
  "J" ~ 0.1, "K" ~ 0.01
  Ex.: 4.7Ω ~ 47J, 4.7KΩ ~ 472
- E-96 series: the 1st to 3rd digits are significant figures of resistance and the fourth one denotes number of zeros following:
  Ex.: 1.33KΩ = 1331

Packing Type:
A = Tape/Box
T = Tape/Reel
B = Bulk/Box
P = Tape/Box of PT-26 product

Packing Qty:
1 = 1,000 pcs, 2 = 2,000 pcs, 3 = 3,000 pcs,
4 = 4,000 pcs, 5 = 5,000 pcs,
A = 500 pcs, B = 2,500 pcs,
0 = for Bulk/Box packing

Additional Information:
P = Panasert type
1 = Avisert type 1
2 = Avisert type 2
3 = Avisert type 3
0 = PT-52 mm
8 = PT-58 mm
9 = PT-64 mm

Dimension (mm)



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Normal Size

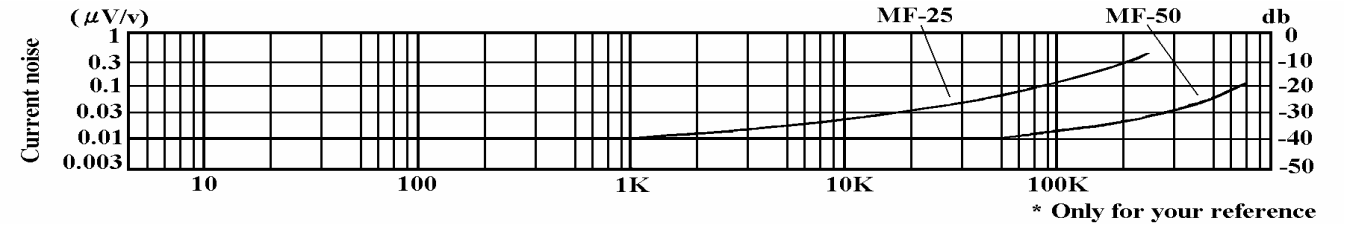
Part No.	Style	Power Rating at 70°C	Dimension (mm)			
			D Max	L Max	d +0.02 -0.05	H±3
MF0W8	MF-12	1/8W (0.125W)	1.85	3.5	0.5	28
MF0W4	MF-25	1/4W (0.25W)	2.5	6.8	0.6	28
MF0W2	MF-50	1/2W (0.5W)	3.5	10.0	0.6	28
MF01W	MF-100	1W	5.0	12.0	0.8	28
MF02W	MF-200	2W	5.5	16.0	0.8	28
MF03W	MF-300	3W	6.5	17.5	0.8	28

Small Size

Part No.	Style	Power Rating at 70°C	Dimension (mm)			
			D Max	L Max	d +0.02 -0.05	H±3
MF0S4	MF-25-S	1/4W (0.25W)	1.85	3.5	0.5	28
MFF04	MF-40-SS	0.4W	1.9	3.7	0.5	28
MF0S2	MF-50-S	1/2W (0.5W)	3.0	9.0	0.6	28
MFFU2	MF-50-SS	1/2W (0.5W)	2.5	6.8	0.6	28
MF006	MF-60-S	0.6W	2.5	6.8	0.6	28

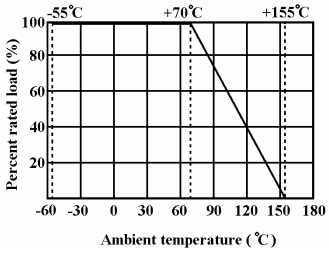
Non-Flammable coating for Extra Small size types (-SS)

Current Noise Level

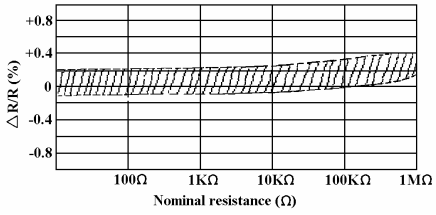


* Only for your reference

Derating Curve



Load Life



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General Specifications

Part No.	Style	Max. Overload Voltage	Max. Working Voltage	Dielectric With-standing V.	Resistance Tolerance	T.C.R.	Resistance Range	Special Order		
								Resistance Tolerance	T. C. R.	Resistance Range
MF0W8 MF0S4	MF-12 MF-25-S	400V	200V	400V	± 5% ± 2% ± 1%	±200PPM/°C ±100PPM/°C ±50PPM/°C	1Ω - 1MΩ 10Ω - 1MΩ 10Ω - 1MΩ	±0.25% ±0.5%	±15PPM/°C ±25PPM/°C ±50PPM/°C	51.1Ω-200KΩ 51.1Ω-511KΩ
MFF04	MF-40-SS	400V	200V	200V						
MF0W4 MF006	MF-25 MF-60-S	500V	250V	500V	± 5% ± 2% ± 1%	±200PPM/°C ±100PPM/°C ±50PPM/°C	1Ω - 1MΩ 10Ω - 1MΩ 10Ω - 1MΩ	±0.1% ±0.25% ±0.5%	±15PPM/°C ±25PPM/°C ±50PPM/°C	100Ω–100KΩ 51.1Ω-330KΩ 10Ω–1MΩ
MFFU2	MF-50-SS	500V	250V	250V						
MF0W2 MF0S2	MF-50 MF-50-S	700V	350V	700V	± 5% ± 2% ± 1%	±200PPM/°C ±100PPM/°C ±50PPM/°C	1Ω - 1MΩ 10Ω - 1MΩ 10Ω - 1MΩ	±0.1% ±0.25% ±0.5%	±15PPM/°C ±25PPM/°C ±50PPM/°C	100Ω–330KΩ 51.1Ω-511KΩ 10Ω–1MΩ
MF01W MF02W MF03W	MF-100 MF-200 MF-300	1000V	500V	1000V	± 5% ± 2% ± 1%	±200PPM/°C ±100PPM/°C ±50PPM/°C	10Ω - 1MΩ 51.1Ω - 1MΩ 51.1Ω - 1MΩ	±0.1% ±0.25% ±0.5%	±15PPM/°C ±25PPM/°C ±50PPM/°C	100Ω–330KΩ 51.1Ω-511KΩ 51.1Ω–1MΩ

Note: MF - xx - ss is Non-Flame coating.

Performance Specifications

Temperature coefficient	Within the maximum temperature coefficient specified
Short-time overload	ΔR/R ≤ ±(0.5% + 0.05Ω), with no evidence of mechanical damage.
Dielectric withstanding voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Pulse overload	ΔR/R ≤ ±(1.0% + 0.05Ω), with no evidence of mechanical damage.
Terminal strength	No evidence of mechanical damage.
Resistance to soldering heat	ΔR/R ≤ ±(1.0% + 0.05Ω), with no evidence of mechanical damage.
Solderability	Min. 95% coverage
Resistance to solvent	No deterioration of protective coating and markings.
Temperature cycling	ΔR/R ≤ ±(1.0% + 0.05Ω), with no evidence of mechanical damage.
Load life in humidity	Normal type: ΔR/R ≤ ± 1.5%; Non-Flame type: ΔR/R ≤ ± 5%
Load life	Normal type: ΔR/R ≤ ± 1.5%; Non-Flame type: ΔR/R ≤ ± 5%

** For complete details, please see Page 69.*