PRECISION METAL FILM FIXED RESISTORS

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 environment
- Multiple epoxy coating on vacuum deposited metal film Provides superior moisture protection





Normal Size

| Part No | Style | Power Rating at 70℃ | | Std | | | | |
|---------|--------|---------------------------|--------|--------|------|---------------------|----|----------------|
| | | | D Max. | L Max. | H ±3 | D ±0.05 | PT | Packing Qty |
| MF0W8 | MF 12 | 1/8W (0.125W) | 1.85 | 3.5 | 28 | 0.45 | 52 | 5,000 |
| MF0W4 | MF 25 | 1/4W (0.25W) | 2.5 | 6.8 | 28 | 0.54 ⁽¹⁾ | 52 | 5,000 |
| MF0W2 | MF 50 | 1/2W (0.5W) | 3.5 | 10.0 | 28 | 0.54 | 52 | 1,000 |
| MF01W | MF 100 | 1W | 5.0 | 12.0 | 25 | 0.70 | 52 | 1,000 |
| MF02W | MF 200 | 2W | 5.5 | 16.0 | 28 | 0.70 | 64 | 1,000 |
| MF03W | MF 300 | 3W | 6.5 | 17.5 | 28 | 0.75 | 64 | 500 |

Small Size

| | Style | Power Rating at 70℃ | | Std | | | | |
|---------|--------------|---------------------------|--------|--------|------|---------------------|----|----------------|
| Part No | | | D Max. | L Max. | H ±3 | d ±0.05 | PT | Packing Qty |
| MF0S4 | MF 25-S | 1/4W (0.25W) | 1.85 | 3.5 | 28 | 0.45 | 52 | 5,000 |
| MFF04 | MF 40- SS | 0.4W | 1.9 | 3.7 | 28 | 0.45 | 52 | 5,000 |
| MFFU2 | MF 50- SS | 1/2W (0.5W) | 2.5 | 6.8 | 28 | 0.54 ⁽¹⁾ | 52 | 5,000 |
| MF0S2 | MF 50-S | 1/2W (0.5W) | 3.0 | 9.0 | 28 | 0.54 | 52 | 4,000 |
| MF006 | MF 60-S | 0.6W | 2.5 | 6.8 | 28 | 0.54 ⁽¹⁾ | 52 | 5,000 |
| MF0M7 | MF 75-S | 0.75W | 3.5 | 10.0 | 28 | 0.54 | 52 | 1,000 |
| MF01S | MF 100- S | 1W | 3.5 | 10.0 | 28 | 0.54 | 52 | 1,000 |
| MF02S | MF 200- S | 2W | 5.0 | 12.0 | 25 | 0.70 | 52 | 1,000 |
| MF03S | MF 300- S | ЗW | 5.5 | 16.0 | 28 | 0.70 | 64 | 1,000 |

Notes:

• Extra small size types (-SS) are Non flame coating (Dark Green color).

• ⁽¹⁾Lead diameter of MF0W4, MF006 & MFFU2 can be provided in 0.50mm, 0.54mm & 0.60mm

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| Performance Specification | | | | | | |
|---------------------------------|--|--|--|--|--|--|
| Temperature Coefficient | Within the maximu | m temperature coefficient specified. | | | | |
| Short Time Overload | ±(0.5% + 0.05Ω)Ma | ax, with no evidence of mechanical damage. | | | | |
| Insulation Resistance | Min. 10,000 Mega | Ohm | | | | |
| Dielectric Withstanding Voltage | No evidence of flashover, mechanical damage, arcing or insulation breakdown. | | | | | |
| Pulse Overload | ±(1.0% + 0.05Ω)Μa | ax, with no evidence of mechanical damage. | | | | |
| Terminal Strength | No evidence of mechanical damage. | | | | | |
| Resistance to Soldering Heat | \pm (1.0% + 0.05 Ω)Max, with no evidence of mechanical damage. | | | | | |
| Solderability | Min. 95% coverage |). | | | | |
| Resistance to Solvent | No deterioration of | protective coating and markings. | | | | |
| Temperature Cycling | ±(1.0% + 0.05Ω)Μa | ax, with no evidence of mechanical damage. | | | | |
| Humidity (Steady state) | ±(2.0% + 0.05Ω)Ma | ax, with no evidence of mechanical damage. | | | | |
| Load Life in Humidity | Normal type: | ±(1.5% + 0.05Ω)Max | | | | |
| | Nor-Flame type: | ±(5.0% + 0.05Ω)Max | | | | |
| Load Life | Normal type: | ±(1.5% + 0.05Ω)Max | | | | |

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

| М | F | R | 0 | Ŵ | 2 | Ĵ | J | 0 | 1 | 0 | 0 | Α | 1 | 0 |
|-------|------------------|--------|-------|----------------------------------|---------------|---------------|-----------------|--------------------------|-----------------------------|--------------------------|------------|------------------------|----------------------|------------|
| Туре: | | | I | Wattage | e: | | | Resist | tance Value | : | | | | |
| MF = | Metal F | Film | | Norma | l size | | | • E-2 | 4 series: | | | | | |
| MT = | Metal F | Film | | W8 = 1 | /8W | | | 1 th | digit is "0" | | | | | |
| | Tin plat | ted | | W4 = 1 | | | 2 nd | & 3 rd digits | are the sig | gnificant | | | | |
| | copper | steel | | W2 = 7 | | | fig | ures of the | resistance | | | | | |
| | lead wi | re | | 1W = 1 | 1W | | | 4 th | indicates th | e number o | of zeors: | | | |
| - | | | | 2VV = 2 3W = 3 | 2W 3W | | | "J″ Ex. | ~ 0.1. "K" ~ : 4.7Ω ~ 47 | · 0.01 J, 4.7KΩ ~ | 472 | | | |
| | | | | Small | size | | | • E-9 | 6 series: | | | | | |
| | | | | S4 = | 1/4W-S | | | 1 st | to 3 rd digits | are the sig | nificant | | | |
| | | | | 06 = | 0.6W-S | | | the | 4 th digit ind | licates the | number | | | |
| | Featu | re: | | M7 = | 0.75W- | S | | of z | eros. | | | | | |
| | 0 = St F = Nc | andard | ne | 15 = 25 = | 100-S 2W-S | | | EX. | : 1.33KΩ = | 1331 | | | | |
| | I = No | n-Indu | ctive | 3S = | 3W-S | | | | | | | | | |
| • | | | | Extra small size U2 = 1/2W-SS | | | | | Pa | acking Type |): | | | |
| | | | | | | | | | A: T: | = таре/вох = Tape/Ree | 5 (| | | |
| | | | | | | | | | B = | = Bulk/Box | | | | |
| | | | | -04 = 0.4W-SS | | | | P = Tape/Box of PT-26mm | | | | | | |
| | | | | | | | | Packing Qty | | | | | | |
| | | | | Tolera | nce: | E _ +1% | | | | 1 = 1,00 | 0 pcs, 2 | = 2,000 | pcs | |
| | | | | $C = \pm 0$ |).25% | $G = \pm 2\%$ | , | | | A = 4,00 A = 500 | pcs, B | s = 3,000 s = 2,500 | 00 pcs | |
| | | | | $D = \pm 0$ |).5% | J = ±5% | | | | 0 = Bulk | k/Box | | • | |
| | | | | • | | | | | | | Additiona | I Inform | ation: | |
| | | | | | PPN | 1 requirem | ent: | | | | P = Pana | sert type | е | |
| | | | | | Б= С= | : 25ppm | | | | | 2 = Avisei | t type 2 | | |
| | | | | | F = | 50ppm | | | | | 3 = Aviser | t týpe 3 | | |
| | | | | | G = | = 100ppm | | | | | 0 = PI-52 | 2mm, Pi | l-26mm, d wire fo | r Bulk/Boy |
| | | | | | | 200000 | | | | | 8 = PT-58 | Bmm | | |
| | | | | | | | | | | | 9 = PT-64 | lmm ". | | |
| | | | | | | | | | | | / = Lead | wire (H) | 38mm | |

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| | | Max | Max | Dielectric | Tol Bosistanos | | | Special Order | | | |
|----------|----------|---------|----------|--------------|----------------|------------|--------------------|---------------|---------------|-------------------|--|
| Part NO. | Style | Working | Overload | Withstanding | 101 | Resistance | T.C.R | Tol% | Resistance | T.C.R. | |
| | | Voltage | Voltage | Voltage | 70 | Kange | | | Range | | |
| MF0W8 | MF12 | 2001/ | 400\/ | 400\/ | ±1% | 10Ω ~1ΜΩ | ±50PPM/℃ | ±0.25% | 51.1Ω~200KΩ | ±15PPM/℃ | |
| MF0S4 | MF25-S | 2007 | 400 V | 400 V | ±2% | 10Ω ~1ΜΩ | ±100PPM/ °C | +0.5% | 51 10 511KO | ±25PPM/℃ | |
| MFF04 | MF 40-SS | 200V | 400V | 200V | ±5% | 1Ω ~1ΜΩ | ±200PPM/ °C | 10.5% | 51.122~511K12 | ±50PPM/ °C | |
| MF0W4 | MF 25 | 0501/ | 5001/ | 500)/ | ±1% | 10Ω ~1MΩ | ±50PPM/°C | ±0.1% | 100Ω~100ΚΩ | ±15PPM/℃ | |
| MF006 | MF 60-S | 2507 | 5007 | 500 V | ±2% | 10Ω ~1ΜΩ | ±100PPM/°C | ±0.25% | 51.1Ω~300ΚΩ | ±25PPM/ °C | |
| MFFU2 | MF 50-SS | 250V | 500V | 250V | ±5% | 1Ω~1MΩ | ±200PPM/°C | ±0.5% | 10Ω~1ΜΩ | ±50PPM/ ℃ | |
| MF0W2 | MF 50 | | | | +1% | 100 ~1MO | +50PPM/°C | ±0.1% | 100Ω~330ΚΩ | +15PPM/℃ | |
| MF0S2 | MF 50-S | 350V | 700V | 700V | ±2% | 10Ω ~1MΩ | ±100PPM/°C | ±0.25% | 51.1Ω~511KΩ | ±25PPM/℃ | |
| ME01S | MF 100- | | | | ±5% | 1Ω~1MΩ | ±200PPM/°C | | | ±50PPM/℃ | |
| | Wil 100 | | | | | | | ±0.5% | 10Ω~1MΩ | | |
| MF02S | MF 200-S | | | | | | | ±0.1% | 100Ω~330ΚΩ | | |
| MF03S | MF 300-S | | | | ±1% | 51.1Ω ~1ΜΩ | ±50PPM/°C | | | ±15PPM/℃ | |
| ME02W | MF 100 | 500V | 1000V | 1000V | ±2% | 51.1Ω ~1MΩ | ±100PPM/°C | ±0.25% | 51.1Ω~511KΩ | ±25PPM/ °C | |
| MF03W | MF 300 | | | | ±5% | 10Ω~1ΜΩ | ±200PPM/°C | ±0.5% | 51.1Ω~1MΩ | ±50PPM/° C | |

Note: MFFU2 (MF50-SS) Dielectric Withstanding Voltage Non flame 250V Epoxy 500V

Deratin Curve



Load Life



Current Noise Level

