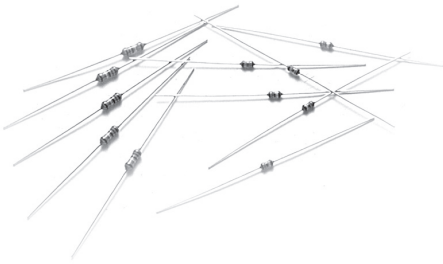


Metal Film Resistors

Professional Type

Miniature Style [MF0 Series]



INTRODUCTION

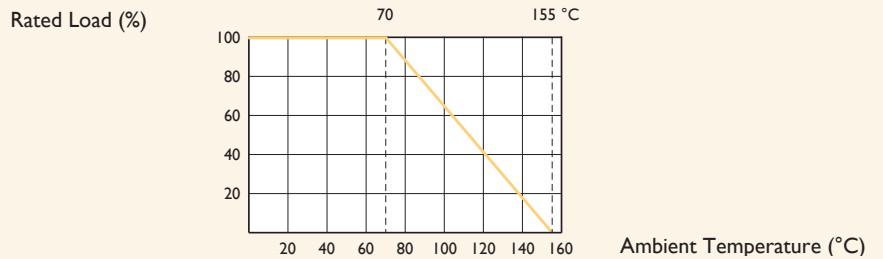
The MF0 Series Metal Film Professional Resistors are manufactured using a vacuum sputtering system to deposit multiple layers of mixed metal alloys and passivative materials onto a carefully treated high grade ceramic substrate. After a helical groove has been cut in the resistive layer; tinned connecting leads of electrolytic copper are welded to the end-caps. The resistors are coated with layers of blue color lacquer.

FEATURES

| | |
|----------------------|-----------------------|
| Power Rating | 0.4W, 0.6W |
| Resistance Tolerance | ±0.5%, ±1%, ±2%, ±5% |
| T.C.R. | ±50ppm/°C, ±100ppm/°C |

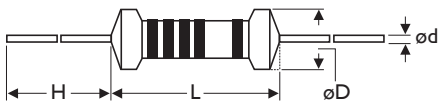
DERATING CURVE

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with the curve below.



DIMENSIONS

Unit: mm



| STYLE | DIMENSION | | | |
|-----------|-----------|---------|--------|-----------|
| | L | øD | H | ød |
| Miniature | | | | |
| MF0204 | 3.4±0.3 | 1.9±0.2 | 28±2.0 | 0.45±0.05 |
| MF0207 | 6.3±0.5 | 2.4±0.2 | 28±2.0 | 0.55±0.05 |

Note:

ELECTRICAL CHARACTERISTICS

| STYLE | MF0204 | MF0207 |
|-----------------------------|---|--------|
| Power Rating at 70°C | 0.4W | 0.6W |
| Maximum Working Voltage | 250V | 350V |
| Maximum Overload Voltage | 500V | 700V |
| Voltage Proof on Insulation | 300V | 500V |
| Resistance Range | 1Ω - 4M7Ω & 0Ω for E24 & E96 series value | |
| Operating Temp. Range | -55°C to +155°C | |
| Temperature Coefficient | ±50ppm/°C , ±100ppm/°C | |

Note: Special value is available on request

ENVIRONMENTAL CHARACTERISTICS

| PERFORMANCE TEST | TEST METHOD | APPRAISE |
|-------------------------------|---|---|
| Short Time Overload | IEC 60115-1 4.13 2.5 times RCWV for 5 sec. (Not more than maximum Overload Voltage) | ±0.25%+0.05Ω |
| Voltage Proof on Insulation | IEC 60115-1 4.7 In V-Block for 60 sec., test voltage as above table | No Breakdown |
| Temperature Coefficient | IEC 60115-1 4.8 Between -55°C to +155°C | By type |
| Insulation Resistance | IEC 60115-1 4.6 in V-block for 60 Sec. | >10,000MΩ |
| Solderability | IEC 60115-1 4.17 245±5°C for 3±0.5 Sec. | 95% Min. coverage |
| Solvent Resistance of Marking | IEC 60115-1 4.30 IPA for 5±0.5 Min. with ultrasonic | No deterioration of coatings and markings |
| Robustness of Terminations | IEC 60115-1 4.16 Direct load for 10 Sec. in the direction of the terminal leads | ≥2.5kg (24.5N) |
| Periodic-pulse Overload | IEC 60115-1 4.39 4 times RCWV 10,000 cycles (1 Sec. on, 25 Sec. off) | ±1.0%+0.05Ω |
| Damp Heat Steady State | IEC 60115-1 4.24 40±2°C, 90-95% RH for 56 days, loaded with 0.1 times RCWV | ±1.5%+0.05Ω |
| Endurance at 70°C | IEC 60115-1 4.25 70±2°C at RCWV (or Umax., Whichever less) for 1,000 Hr. (1.5Hr.on, 0.5Hr. Off) | ±1.5%+0.05Ω |
| Temperature Cycling | IEC 60115-1 4.19 -55°C ⇌ Room Temp. ⇌ +155°C ⇌ Room Temp. (5 cycles) | ±0.75%+0.05Ω |
| Resistance to Soldering Heat | IEC 60115-1 4.18 260±3°C for 10±1 Sec., immersed to a point 3±0.5mm from the body | ±0.25%+0.05Ω |

Note: RCWV(Rated Continuous Working Voltage) = $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$ or Max. working voltage listed above, whichever less.

Revision: 2020

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Metal Film Resistors - Through Hole](#) category:

Click to view products by [Yageo](#) manufacturer:

Other Similar products are found below :

[FRN25J330R](#) [FRN50J1R0S](#) [H4100RBYA](#) [H415RBZA](#) [H41K1BYA](#) [H41K5BYA](#) [H41M0BDA](#) [H420R5BCA](#) [H421R5BZA](#) [H4221RBYA](#)
[H424K3BDA](#) [H442K2BDA](#) [H45K62BZA](#) [H4634RBZA](#) [H473R2BZA](#) [H4931KBZA](#) [H8160KFDA](#) [H8274KBZA](#) [H82K0FDA](#) [H82K0FZA](#)
[H87K5DYA](#) [RLR05C6201GS](#) [HR01623J](#) [HR01682J](#) [270-1.69M-RC](#) [LR0204F110R](#) [LR0204F18R](#) [LR0204F20K](#) [LR0204F20R](#)
[LR0204F510R](#) [LR1F121R](#) [LR1F133K](#) [LR1F383R](#) [LR1F3K01](#) [LR1F4K75](#) [LR2F330RJIT](#) [LR2F910R](#) [ERX-2SZJR20E](#) [SQMR5390RJ](#)
[SQMR74K7J](#) [SQPR533KJ](#) [FMF-25FTF52-100K](#) [FRN50J100RS](#) [FRN50J470RS](#) [H4100RBZA](#) [H414R3BZA](#) [H415KBYA](#) [H4174KBZA](#)
[H4174RBDA](#) [H41K21BYA](#)