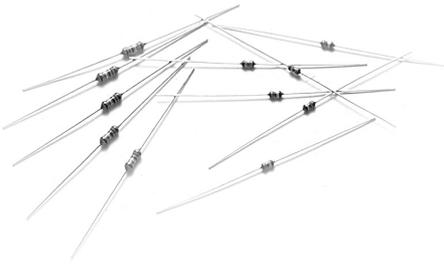


## Metal Film Resistors

# Professional Type

## Miniature Style [ MF0 Series ]



### INTRODUCTION

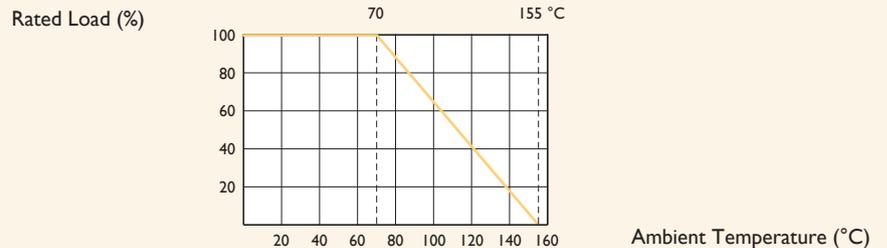
The MF0 Series Metal Film Professional Resistors are manufactured using vacuum sputtering system to deposit multiple layers of mixed metals alloy and passive materials onto a carefully treated high grade ceramic substrate. After a helical groove has been cut in the resistive layer, tinned connecting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

### FEATURES

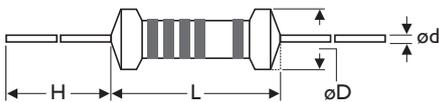
Power Rating	0.4W, 0.6W
Resistance Tolerance	±1%
T.C.R.	±50ppm/°C

### 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
Dielectric Withstanding Voltage	300V	500V
Resistance Range	1 Ω - 10M Ω & 0 Ω for E24 & E96 series value	
Operating Temp. Range	-55°C to +155°C	
Temperature Coefficient	±50ppm/°C	

Note: Special value is available on request

## ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 times RCWV for 5 Sec.	±0.25%+0.05 Ω
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V-Block for 60 Sec.	By type
Temperature Coefficient	JIS-C-5202 5.2	-55°C to +155°C	By type
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>10,000M
Solderability	JIS-C-5202 6.5	260±5°C for 5±0.5 Sec.	95% Min. coverage
Resistance to Solvent	JIS-C-5202 6.9	IPA for 1 Min. with ultrasonic	No deterioration of coatings and markings
Terminal Strength	JIS-C-5202 6.1	Direct load for 10 Sec. in the direction of the terminal leads	≥2.5kg (24.5N)
Pulse Overload	JIS-C-5202 5.8	4 times RCWV 10,000 cycles (1 Sec. on, 25 Sec. off)	±1.0%+0.05 Ω
Load Life in Humidity	JIS-C-5202 7.9	40±2°C, 90-95% RH at RCWV for 1,000 Hr. (1.5 Hr. on, 0.5 Hr. off)	±1.5%+0.05 Ω
Load Life	JIS-C-5202 7.10	70°C at RCWV for 1,000 Hr. (1.5 Hr. on, 0.5 Hr. off)	±1.5%+0.05 Ω
Temperature Cycling	JIS-C-5202 7.4	-55°C ⇄ Room Temp. ⇄ +155°C ⇄ Room Temp. (5 cycles)	±0.75%+0.05 Ω
Resistance to Soldering Heat	JIS-C-5202 6.4	350±10°C for 3±0.5 Sec.	±0.25%+0.05 Ω

Note: Rated Continuous Working Voltage (RCWV) =  $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$