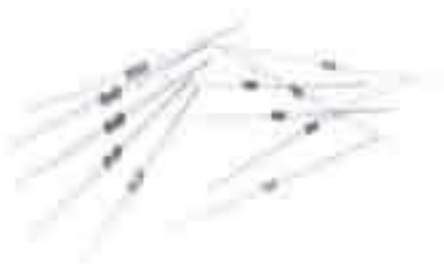
Metal Film Resistors

PROFESSIONAL TYPE

Miniature Style [MF0 Series]



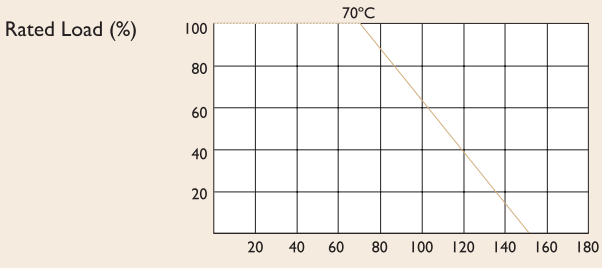
INTRODUCTION

The MF0 Series are manufactured by high vacuum sputtering deposit Metal Film on high thermal conductivity and specific gravity ROSENTHAL ceramic or same grade rods. The resistors are coated with multilayers of blue color lacquer.

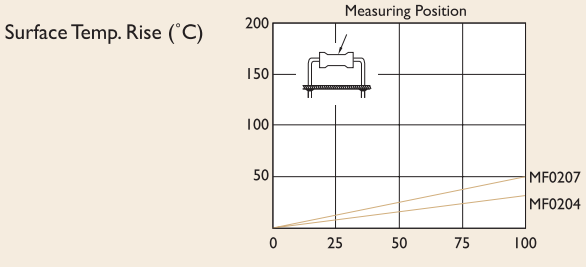
FEATURES

DIN	44061, 45921 part 107
CECC	40101-039, 40101-017
MIL	10509F (Char. D & C)
Resistance Tolerance	±1%
T.C.R.	±50ppm/°C

DERATING CURVE

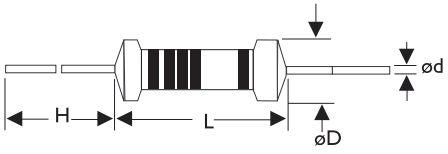


HOT-SPOT TEMPERATURE



DIMENSIONS

Unit : mm



STYLE	L	øD	H	ød
MF0204	3.4±0.3	1.9±0.2	28±2.0	0.5±0.05
MF0207	6.3±0.5	2.4±0.2	28±2.0	0.6±0.05

Note :

ELECTRICAL CHARACTERISTICS

STYLE	MF0204	MF0207
Power Rating at 70°C	0.4W	0.6W
Operating Temp. Range	-55°C to +155°C	
Maximum Working Voltage	200V	300V
Maximum Overload Voltage	400V	600V
Dielectric Withstanding Voltage	300V	500V
Value Range ±1%	10Ω~1MΩ	
Temperature Coefficient	±50ppm/°C	

* Standard resistance is 10Ω~1MΩ, below or over this resistance on request.

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 Times RCWV for 5 Seconds	±(0.25%+0.05Ω)
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V-Block for 60 Seconds	by Type
Temperature Coefficient of Resistance	JIS-C-5202 5.2	-55°C to +155°C	±50ppm/°C
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>10000MΩ
Solderability	JIS-C-5202 6.5	235°±5°C for 5±0.5 Seconds	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	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 10000 Cycles (1 Sec. on , 25 Sec. off)	±(1%+0.05Ω)
Load Life in Humidity	JIS-C-5202 7.9	40±2°C, 90~95% RH at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±(1.5%+0.05Ω)
Load Life	JIS-C-5202 7.10	70°C at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±(1.5%+0.05Ω)
Temperature Cycling	JIS-C-5202 7.4	-55°C→Room Temp.→+155°C→Room Temp. for 5 Cycles	±(0.75%+0.05Ω)
Resistance to Soldering Heat	JIS-C-5202 6.4	350°C±10°C for 3±0.5 Seconds	±(0.25%+0.05Ω)

* Rated Continuous Working Voltage (RCWV)= $\sqrt{\text{Power Rating x Resistance Value}}$