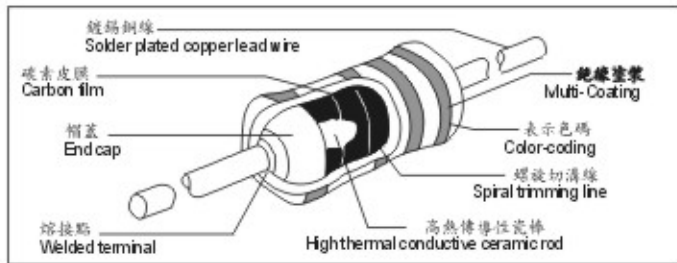


### 製品介紹 INTRODUCTION

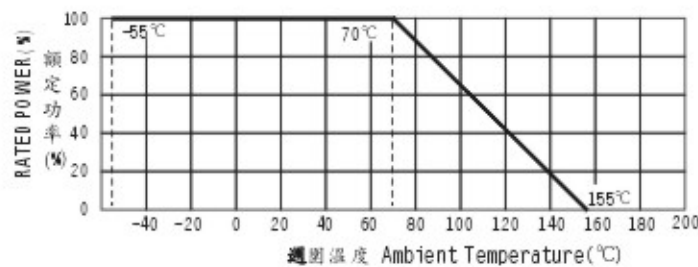
MF 金屬皮膜電阻器，屬於高性能之精密電阻器，適用於精密電子回路。

MF Metal film resistor, is a precise and functional resistor. It is suitable for applications on precise electronic circuits.

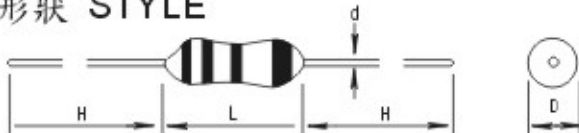
### 構造 CONSTRUCTION



### 功率曲線 DERATING CURVE



### 形狀 STYLE



### 尺寸 DIMENSIONS

形名 Type	尺寸 Dimensions(mm)				額定功率 Power Rating	最高工作電壓 Max. Working Voltage	最高過負荷電壓 Max. Overload Voltage	耐電壓 Dielectric Withstanding Voltage	電阻值範圍 Resistance Range
	L	D	d	H					
普通型 Normal size	MF1/6W	3.2 ± 0.2	1.8 ± 0.2	0.40 ± 0.02	28 ± 3	0.16W	200V	400V	0.1Ω~10M
	MF1/4W	6.5 ± 0.5	2.3 ± 0.3	0.45 ± 0.02	28 ± 3	0.25W	250V	500V	0.1Ω~10M
	MF1/2W	9.0 ± 1.0	3.2 ± 0.5	0.50 ± 0.02	28 ± 3	0.5W	350V	700V	0.1Ω~10M
	MF1W	12.0 ± 1.0	4.5 ± 0.5	0.65 ± 0.02	30 ± 3	1W	500V	1000V	0.1Ω~10M
	MF2W	15.5 ± 1.0	5.0 ± 1.0	0.75 ± 0.02	30 ± 3	2W	500V	1000V	0.1Ω~10M
小型化 Small size	MF1/4W(S)	3.2 ± 0.2	1.8 ± 0.2	0.40 ± 0.02	28 ± 3	0.25W	200V	400V	0.1Ω~10M
	MF1/2W(S)	6.5 ± 0.5	2.3 ± 0.3	0.45 ± 0.02	28 ± 3	0.5W	250V	500V	0.1Ω~10M
	MF1W(S)	9.0 ± 1.0	3.2 ± 0.5	0.50 ± 0.02	28 ± 3	1W	350V	700V	0.1Ω~10M
	MF2W(S)	12.0 ± 1.0	4.5 ± 0.5	0.65 ± 0.02	28 ± 3	2W	500V	1000V	0.1Ω~10M
	MF3W(S)	15.5 ± 1.0	5.0 ± 1.0	0.75 ± 0.02	30 ± 3	3W	500V	1000V	0.1Ω~10M

NOTE: Special specification can be constructed on request.

### 訂貨方式 HOW TO ORDER

SN	1/4W	T52	J	10K
種類 Type	額定功率 Power Rating	形狀/包裝方式 Form/ Packaging	電阻值容差 Resistance Tolerance	公稱電阻值 Nominal Resistance
	Normal Size Small Size	S Bulk (Straight)	B ± 0.1%	4-Digit: E-96, 24 Series
	1/6W 1/4W(S)	M Bulk, M-Form series (Horizontal Forming)	C ± 0.25%	e.g. 0R12 = 0.12Ω
	1/4W 1/2W(S)	U Bulk, u-Form series (Vertical Forming)	D ± 0.5%	120R = 120Ω
	1/2W 1W(S)	Txx Boxed (26, 52, 63, 73, 83mm width taping)	F ± 1%	1K2 = 1.2KΩ
	1W 2W(S)	T/R Tape on reel packing	G ± 2%	12K = 12KΩ
	2W 3W(S)	U/T Radial taping	J ± 5%	12M = 12MΩ

### 特徵 FEATURES

- 高安定性 High stability
- 低雜音，低溫度係數 Low noise, Low temp. Coefficient
- 精密特性 Precision characteristics

### 特性 CHARACTERISTICS

試驗項目 Test Items	規格值 Specified Value
溫度係數 Temp. Coefficient of resistance	± 50, ± 100PPM/°C
短時間過負荷 Short time overload	± (1%+0.05Ω)
耐電壓 Dielectric withstanding voltage	無損壞的異狀 No evidence of damage
絕緣抵抗 Insulation resistance	> 10 <sup>10</sup> MΩ
端子強度 Terminal strength	無損壞的異狀 No evidence of damage
耐濕負荷 Moisture load life	± (1.5%+0.05Ω)
壽命實驗 (定格負荷) 70°C Load life at 70°C	± (2%+0.05Ω)
溫度循環 Temperature cycling	± (1%+0.05Ω)
抗焊錫熱 Resistance to solder ing heat	± (0.5%+0.05Ω)
焊錫性 Solderability	> 95%
耐溶劑性 Resistance to solvent	無損壞的異狀 No evidence of damage

TOL :  $\pm 0.02\%$ 、 $\pm 0.05\%$ 、 $\pm 0.1\%$ 、 $\pm 0.25\%$ 、 $\pm 1\%$ 

 TC :  $\pm 5\text{PPM}$ 、 $\pm 10\text{PPM}$ 、 $\pm 15\text{PPM}$ 、 $\pm 25\text{PPM}$ 、 $\pm 50\text{PPM}$ 

TYPE		MF 1/8	MF 1/4	MF 1/2	MF 1W	MF 2W	型 號	
MIL-R-10509F		RN50	RN55	RN60	RN65071	RN70	美國標準 MIL-R-10509F	
DIN-44061		0204	0207	0411	0617	0719	西德工業標準 DIN-44061	
POWER RATING (W)	70℃	0.125	0.250	0.500	0.75	1.00	70℃	額定功率 (W)
	100℃	0.067	0.110	0.173	0.350	0.610	100℃	
	125℃	0.050	0.100	0.125	0.250	0.500	125℃	
MAX WORKING VOLTAGE(V)		200	250	300	350	400	最大工作電壓 (V)	

 STANDARD RESISTANCE RANGE ( $\Omega$ )

標準組值範圍

TYPE		MF 1/8	MF 1/4	MF 1/2	MF 1W	MF 2W	型 號	
P( $\pm 0.02\%$ )	from		5	5	10	10	由	( $\pm 0.02\%$ )-P
	to		1M21	1M21	2M	2M	到	
W( $\pm 0.05\%$ )	from	100	5	5	10	10	由	( $\pm 0.05\%$ )-W
	to	100k	1M21	1M5	2M	2M	到	
B( $\pm 0.010\%$ )	from	10	1	1	1	1	由	( $\pm 0.010\%$ )-B
	to	500k	1M5	2M5	5M	10M	到	
C( $\pm 0.25\%$ )	from	10	1	1	1	1	由	( $\pm 0.25\%$ )-C
	to	600k	2M5	5M	10M	10M	到	
D( $\pm 0.50\%$ )	from	10	1	1	1	1	由	( $\pm 0.50\%$ )-D
	to	800k	5M	10M	10M	10M	到	
F( $\pm 1.00\%$ )	from	10	1	1	1	1	由	( $\pm 1.00\%$ )-F
	to	1M	10M	10M	10M	10M	到	
C7( $\pm 5\text{ppm}/^\circ\text{C}$ )	from		10	10	10	10	由	( $\pm 5\text{ppm}/^\circ\text{C}$ )-C7
	to		1M	1M	1M	1M	到	
C6( $\pm 10\text{ppm}/^\circ\text{C}$ )	from	100	10	10	10	10	由	( $\pm 10\text{ppm}/^\circ\text{C}$ )-C6
	to	100k	1M5	1M5	1M5	1M5	到	
C5( $\pm 15\text{ppm}/^\circ\text{C}$ )	from	100	5	5	5	5	由	( $\pm 15\text{ppm}/^\circ\text{C}$ )-C5
	to	200k	1M5	1M5	1M5	1M5	到	
C3( $\pm 25\text{ppm}/^\circ\text{C}$ )	from	10	5	5	5	5	由	( $\pm 25\text{ppm}/^\circ\text{C}$ )-C3
	to	600k	2M5	2M5	2M5	2M5	到	
C2( $\pm 50\text{ppm}/^\circ\text{C}$ )	from	10	5	5	5	5	由	( $\pm 50\text{ppm}/^\circ\text{C}$ )-C2
	to	1M	10M	10M	10M	10M	到	