

## MFM series Metal Film MELF Resistors

### ◆ Features

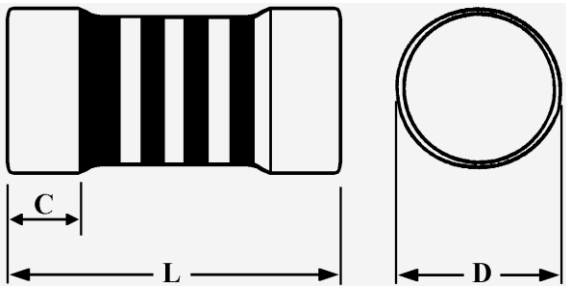
- » Excellent heat dissipation
- » Low noise characteristics
- » Free direction for mounting due to cylindrical design
- » Lead (Pb)-free and RoHS compliant



### ◆ Application

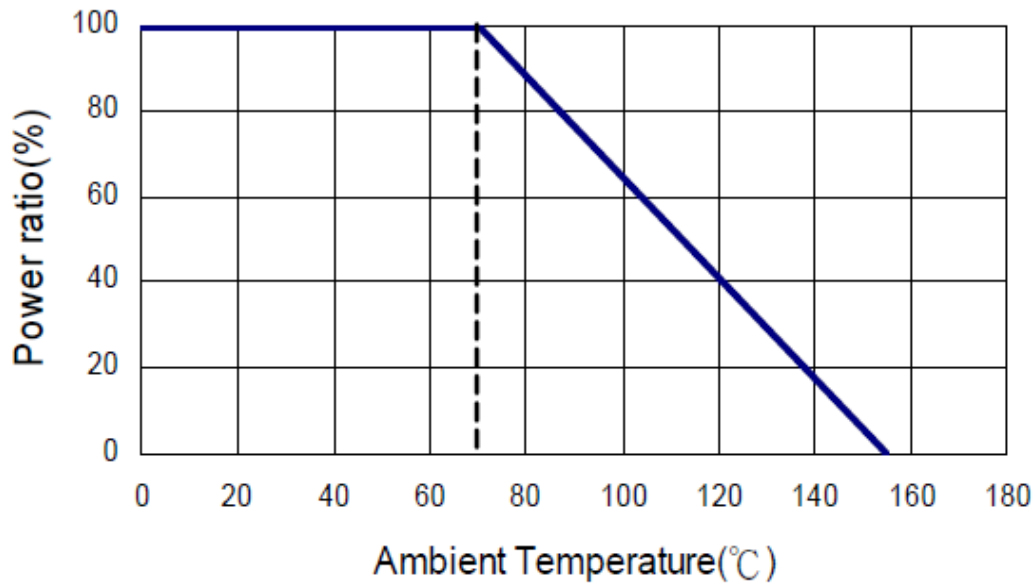
- » Telecommunication
- » Medical Equipment
- » Industrial Control Systems

### ◆ Dimension



Size	L	D	C
0102	2.00±0.10	1.30±0.10	0.55±0.10
0204	3.50±0.20	1.45±0.10	0.70±0.10
0207	5.70±0.20	2.20±0.10	0.80±0.20
0309	8.50±0.30	3.00±0.30	1.70±0.20
0411	10.50±0.30	4.00±0.30	2.30±0.20
0515	14.50±0.30	4.50±0.30	2.30±0.20

### ◆ Derating Curve



### ◆ Part Number

MFM	B	25S	F	C2	R	-	1K
<b>Type</b>	<b>Size</b>	<b>Watt</b>	<b>Tolerance</b>	<b>TCR Value</b>	<b>Packing</b>		<b>R value</b>
MFM	A=0102	1/8WS = 12S	F = ± 1%	C1=100ppm	R = Taping Reel		1KΩ = 1K
	B=0204	1/4WS = 25S	J = ± 5%	C2=50ppm	B = Bulk		100Ω = 100R
	C=0207	1/4W=25		C3=25ppm			
	D=0309	1/2W=50		C4=15ppm			
	E=0411	1/2WS=50S					
	F=0515	1W=100					
		1WS=100S					
		2WS=200S					
		3WS=300S					

## ◆ Specification

Size	Power rating at 70°C	Resistance		Operating Temp. Range	Max. Working Voltage	Max. Overload Voltage	TCR (PPM/°C)
		±1%	±5%				
0102	0.125W (1/8WS)	100Ω-1M	0.22Ω-2M	-55°C to +155°C	150V	300V	±15 ±25 ±50 ±100
0204	0.25W (1/4WS)	1Ω-1M	0.5Ω-2M		200V	400V	±15 ±25 ±50 ±100
0207	0.25W (1/4W)	1Ω-5M	0.22Ω-5M		200V	400V	±15 ±25 ±50 ±100
	0.5W (1/2WS)	1Ω-5M	0.22Ω-5M		300V	600V	
	1W	1Ω-5M	0.5Ω-5M		400V	700V	
0309	0.5W	1Ω-1M	0.1Ω-1M		350V	700V	±50
	1WS	1Ω-1M	0.1Ω-1M		500V	1000V	±100
0411	2WS	1Ω-1M	0.1Ω-1M		500V	1000V	±50 ±100
0515	3WS	1Ω-1M	0.1Ω-1M		500V	1000V	±50 ±100

Operating Voltage= $\sqrt{P \cdot R}$  or Max. operating voltage listed above, whichever is lower.

Overload Voltage= $2.5 \cdot \sqrt{P \cdot R}$  or Max. overload voltage listed above, whichever is lower.

Faithfullink is capable of manufacturing the optional spec based on customer's requirement.

## ◆ Environmental Characteristics

Item	Characteristics	Test Method
1. Operating Temp. Range 使用溫度範圍	-55°C to +155°C	
2. Temp. Coefficient 溫度係數	±100ppm/°C ±50ppm/°C ±25ppm/°C ±15ppm/°C	JIS-C-5202; 5.2
3. Short time overload 短時間過負載	±(1%+0.05Ω)	Rating voltage x 2.5 or Max. overload voltage for 5 sec. Whichever less
4. Pulse overload 斷續過負載	±(1%+0.05Ω)	Rating voltage x 3 or Max. pulse overload voltage for 10,000 cycle(1 sec. "on" 25 sec. "off ") Whichever less
5. Temperature cycling 溫度週率	±(1%+0.05Ω)	JIS-C-5202; 7.4
6. Load Life 壽命負載	±(5%+0.05Ω)	70°C±2°C, 1000h, 1.5h "on"/ 0.5h "off" cycle
7. Resistance to soldering heat ° 焊接耐熱性	±(1%+0.05Ω)	260°C±5°C, 5 sec ± 1 sec
8. Solderability 焊接性	90% Coverage/Min	235°C±5°C, 2 sec ± 0.5 sec
9. Bending test 端子強度	±(1%+0.05Ω)	Holding point width 90mm, Bending 5mm, 1 time
10. Non-Combustibility 不燃性	No evidence of flaming	UL-94 ; V-0

## ◆ Packing

SIZE	Standard Package Q'ty
0102	3K per reel
0204	3K per reel
0207	2K per reel
0309	2.5K per reel
0411	2K/bulk
0515	2K/bulk