

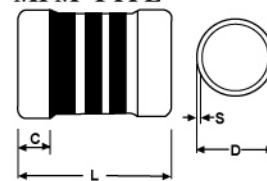
# Melf Metal Film Resistor - MFM Series



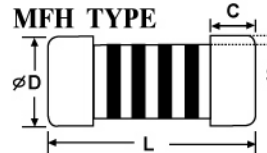
## Dimensions

Type	POWER RATING	Size	Dimensions(mm)				
			L	D	C	S	
						Max.	Min.
MFM	1/8W	0204	3.5±0.2	1.45±0.1	0.6±0.1	1.40	1.20
	1/4Ws						
	1/4W	0207	5.7±0.2	2.2±0.1	0.8±0.2	2.30	2.00
	1/2Ws						
	1Wss						
MFM	1Ws	0309	9.5±0.3	3.6±0.3	2.2±0.2	0.4±0.1	
	2Ws	0411	11.2±0.3	4.7±0.3	2.6±0.2	0.5±0.1	
	3Ws	0515	15.2±0.3	5.3±0.3	2.6±0.2	0.5±0.1	

MFM TYPE



MFH TYPE



Coating color: Beige.

## Range

Type	POWER RATING	Size	MAX. RATING VOLTAGE	MAX. OVERLOAD VOLTAGE	T.C.R	RESISTANCE RANGE				
						±0.1%	±2.5%	±0.5%	±1%	±5%
MFM	1/8W	0204	150V	300V	±15ppm ±25ppm ±50ppm ±100ppm	100Ω-56K	100Ω-100K	1Ω-1M	0Ω22-2M	
	1/4Ws		200V	400V		100Ω-56K	100Ω-100K	1Ω-1M	0Ω5-2M	
	1/4W	0207	200V	400V	±15ppm ±25ppm ±50ppm ±100ppm	100Ω-100K	10Ω-560K	1Ω-5M	0Ω22-5M	
	1/2Ws		300V	600V		100Ω-100K	10Ω-560K	1Ω-5M	0Ω22-5M	
	1Wss		400V	700V		100Ω-100K	10Ω-560K	1Ω-5M	0.5Ω-5M	
MFM	1Ws	0309	500V	1000V	±50ppm ±100ppm	-----	10Ω-100K	1Ω-1M	0.1Ω-1M	
	2Ws	0411				-----	10Ω-100K	1Ω-1M	0.1Ω-1M	
	3Ws	0515				-----	10Ω-100K	1Ω-1M	0.1Ω-1M	

Rated-Voltage =  $\sqrt{P(W) \times R(\Omega)}$  or Max. working voltage, whichever lower.

## Characteristics

Item	Characteristics	Test Method
Operating Temp. Range	-55°C~155°C	
Temperature Coefficient	±100ppm/°C : ±50ppm/°C ±25ppm/°C : ±15ppm/°C	JIS-C-5202; 5.2
Short time overload	±(0.5% + 0.05Ω)	Rating voltage X 2.5 or Max. overload Voltage for 5 sec. Whichever less
Pulse overload	±(0.5% + 0.05Ω)	Rating voltage X 4 or Max. pulse Overload voltage for 10,000 cycle (1 sec. "on" 25 sec. "off"), Whichever less
Temperature cycling	±(0.5% + 0.05Ω)	-55°C(30min.)/+85°C(30min.) for 5 cycle
Load Life in Humidity	±(1% + 0.05Ω)	40°C±2°C, 90%~95% RH, 1000h, 1.5h "on"/0.5h "off" cycle
Load Life	±(1% + 0.05Ω)	70°C±2°C, 1000h, 1.5h "on"/0.5h "off" cycle
Resistance to soldering heat	±(0.5% + 0.05Ω)	260°C±5°C, 5 sec±1 sec
Solderability	90% Coverage/Min	235°C±5°C, 2 sec±0.5 sec
Bending test	±(0.5% + 0.05Ω)	Holding point width 90mm, Bending 5mm, 1 time
Non-Combustibility	The resistors shall withstand Overload test in accordance With Article UL-94, V-0 without producing a fire hazard.	

## Packaging

Size	TAPE/REEL	BULK	CARTON
0204	3000pcs	-----	-----
0207	2000pcs	-----	-----
0309	2000pcs	2000pcs	20000pcs
0411	1500pcs	1000pcs	10000pcs
0515	NON	500pcs	5000pcs