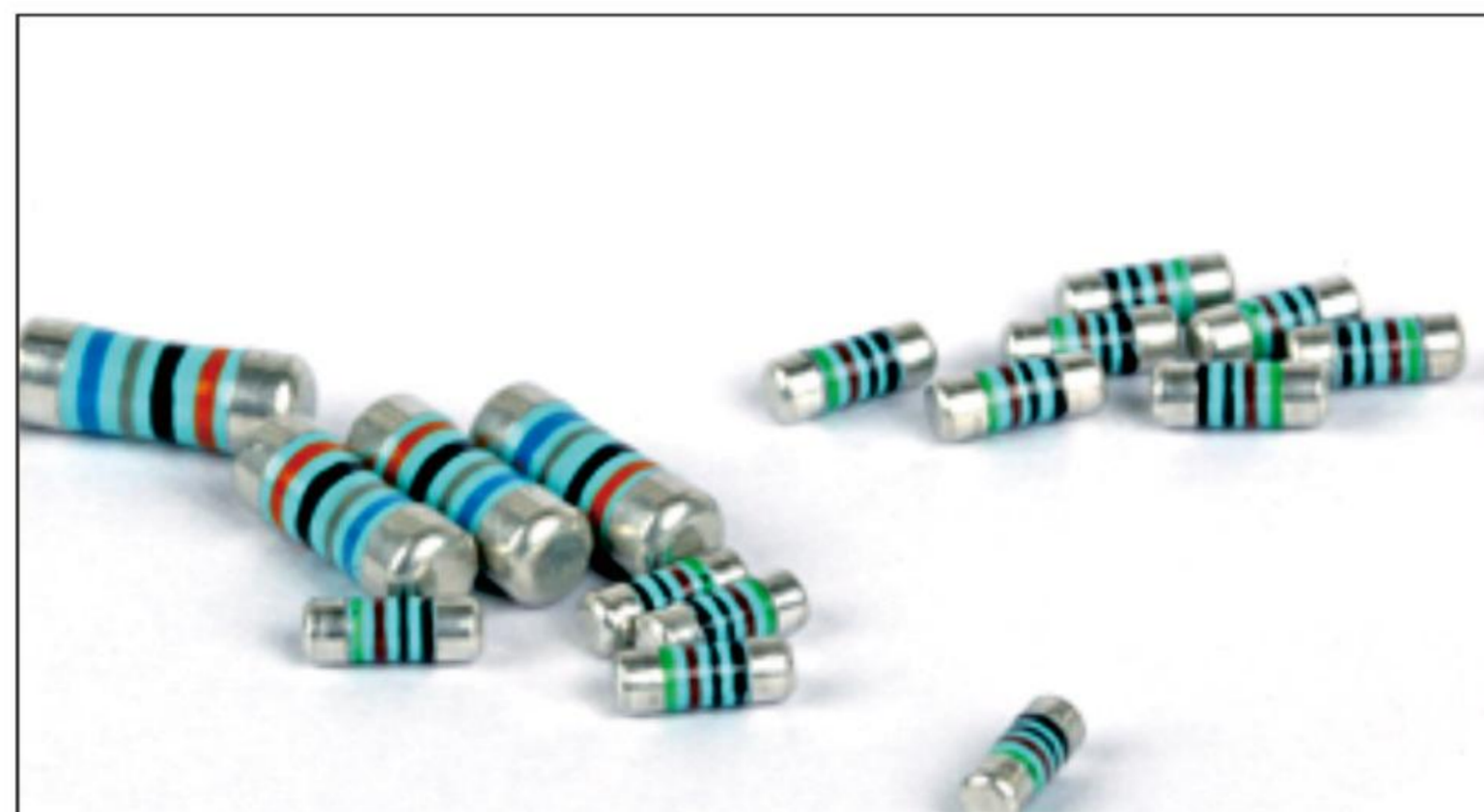
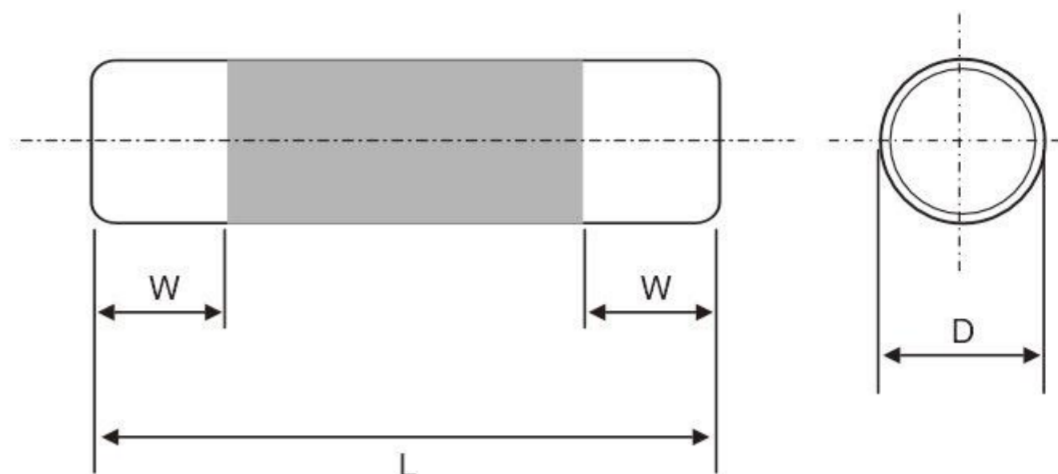


# Series MELF 0204/0207

## Metal Film MELF Resistors



### Construction



### Dimensions (mm)

Model	L ± 0.3	D ± 0.3	W ± 0.1
MELF0204	3.5	1.4	1.0
MELF0204S	3.5	1.4	1.0
MELF0207	5.9	2.2	1.4
MELF0207S	5.9	2.2	1.4

### Characteristics

- Temp Range: -65°C ~ 150°C
- Stability: ± 1.0% 70°C 1000h
- Coated Style
- SMD
- Small Size

### Technical Standard

GB/T5729-2003 Fixed resistors for use in electronic equipment-Part 1: Generic specification  
Q/BDS 009A-2024 MELF0204/0207 Detail specification for post-mounted metal film resistors

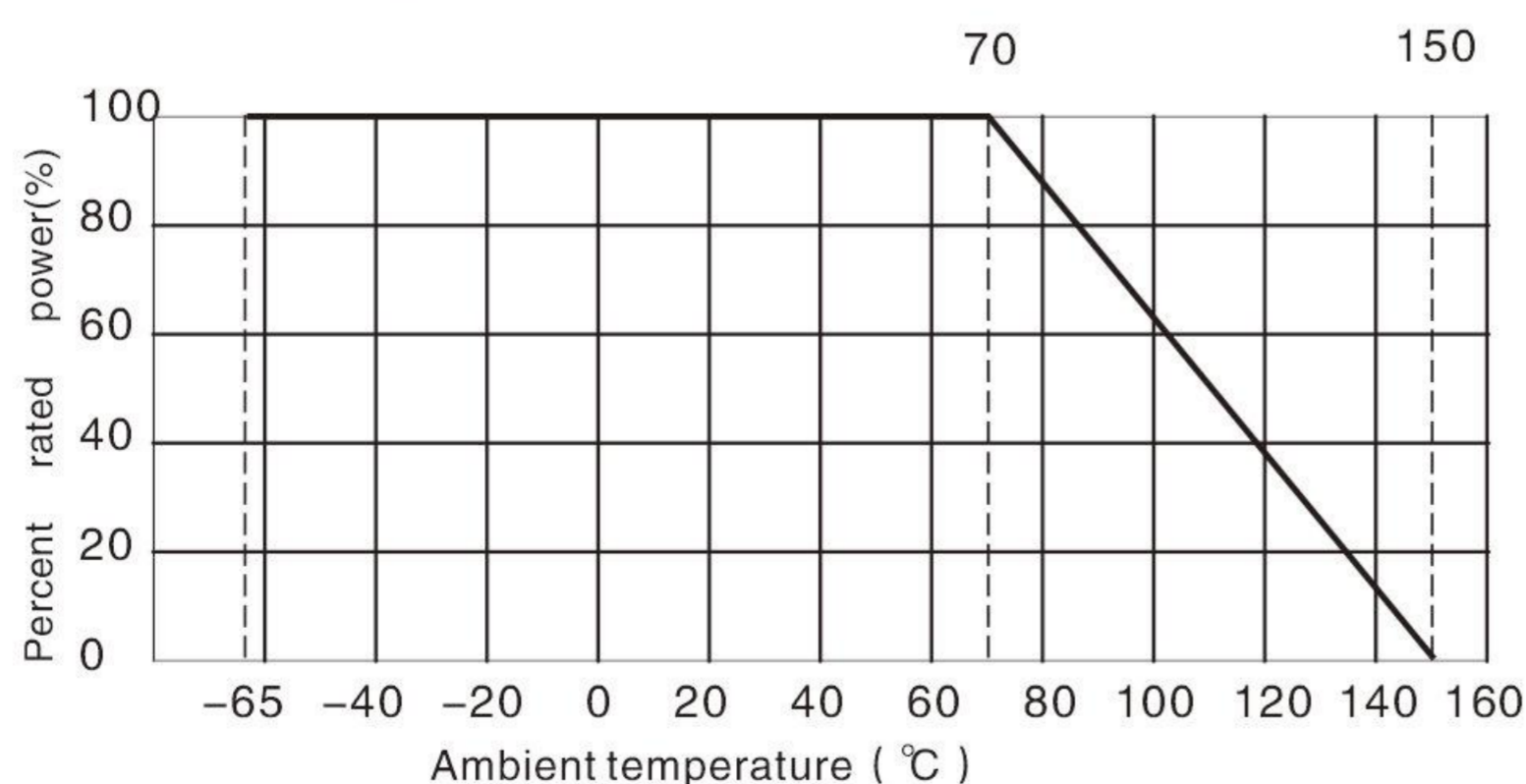
### Application Area

MELF0204 series resistor adopts leadless cap structure, the cap end adopts lead-free tin plating, conforms to ROHS standard, the surface is coated with epoxy resin, color ring identification, can be installed by SMT chip, has the characteristics of small size, high precision, stable and reliable resistance, and has passed the test of the State Grid Metrology Center. It is widely used in smart meters, test equipment, industrial control instruments and other instruments.

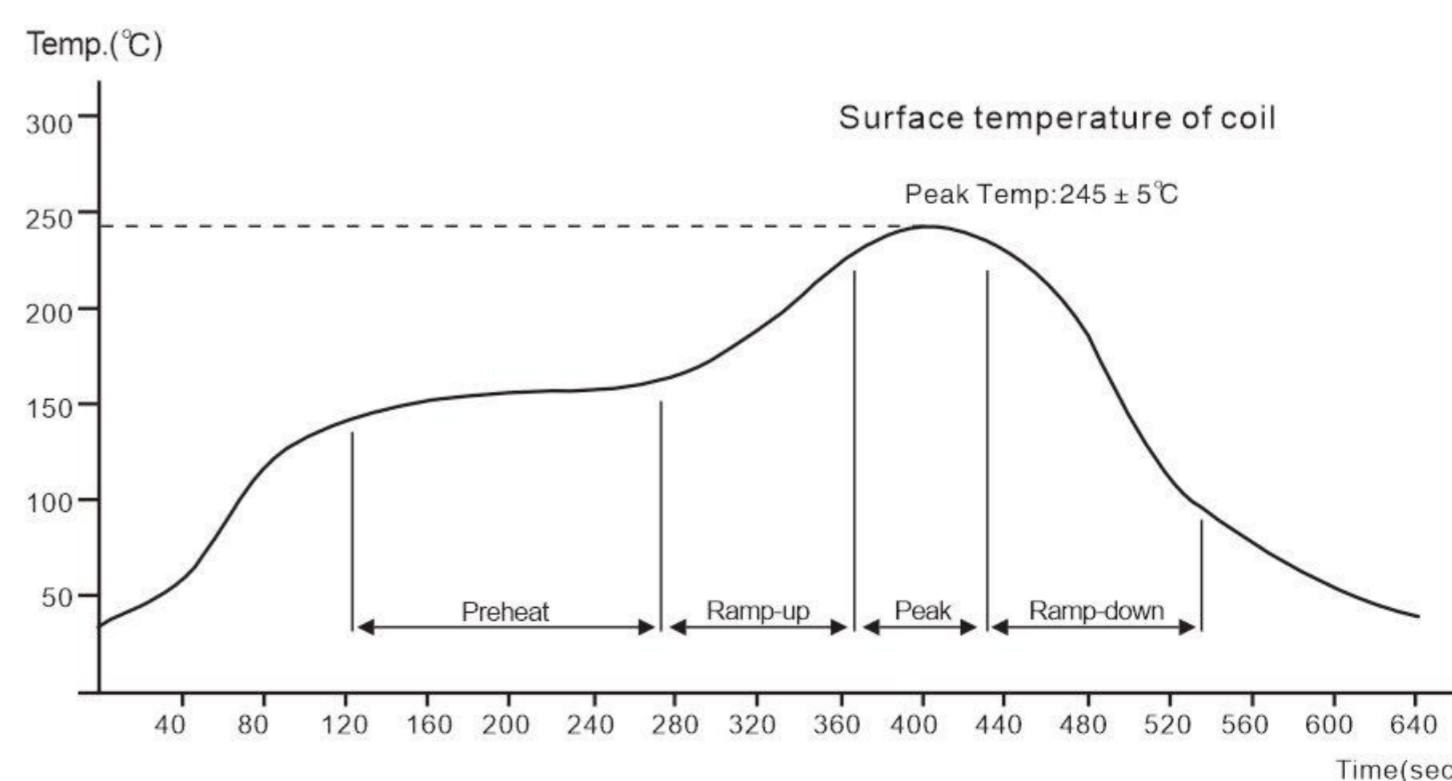
### Technical Specifications

TYPE	MELF0204	MELF024S	MELF0207	MELF0207S
Power Rating at Tu70°C(W)	1/6	1/4	1/4	1/2
Limiting Element voltage (V)	200	250	250	300
Resistance Range(Ω)	10R ~ 1M	10R ~ 1M	10R ~ 2M	10R ~ 2M
Absolute Tolerance	B(± 0.1%), C(± 0.25%), D(± 0.5%), F(± 1.0%), G(± 2.0%), J(± 5.0%)			
TC-Range(10 <sup>-6</sup> /K)	C3(± 25), C2(± 50), C1(± 100)			

### Derating Curve



### Surface Mount Resistance Reflow Soldering Plot





# Series MELF0204/0207

## Metal Film MELF Resistors



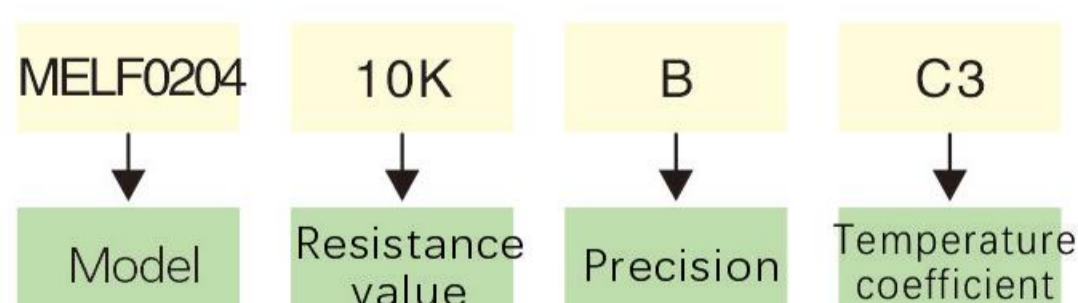
### Performance Characteristics

Test Items	Standards	Test Method
Temperature Shock	$\Delta R \leq \pm(0.25\%R+0.01\Omega)$	-65°C ~ 150°C, 5cycles
Short Time Overload	$\Delta R \leq \pm(0.25\%R+0.01\Omega)$	2.5 times of the rated voltage, the maximum voltage shall not exceed 2 times of the limit voltage, 5S
Resistance to Solder	$\Delta R \leq \pm(0.25\%R+0.01\Omega)$	260°C ± 5°C, 10 ± 2S
Resistance to Moisture	$\Delta R \leq \pm(0.5\%R+0.01\Omega)$	40 °C ± 2 °C, humidity 90% ~ 95%, 1000 H 1.5 H on, 0.5 H off
70°C Endurance	$\Delta R \leq \pm(0.5\%R+0.01\Omega)$	70 °C, rated load, 1000h 1.5h, 0.5 H break
Solderability	Lectrode area cover by solder ≥ 95%	245°C ± 5°C, 3 ± 0.5S

### Comparison table of available resistance range

TYPE			MELF0204	MELF0204S	MELF0207	MELF0207S
Code	Precision%	Resistance range				
B	± 0.1	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
C	± 0.25	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
D	± 0.5	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
F	± 1.0	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
G	± 2.0	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
J	± 5.0	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
Characteristic Code	Temperature coefficient 10 <sup>-6</sup> /K					
C3	± 25	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
C2	± 50	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M
C1	± 100	MIN FROM	10R	10R	10R	10R
		MAX TO	1M	1M	2M	2M

### Examples for purchase



#### Explain

1. If the resistance value, accuracy and temperature coefficient of the resistor exceed the above comparison table, it can be supplied by agreement.
2. Temperature coefficient of resistance test point 25 °C ~ 85 °C.
3. If the resistor is installed with an electric iron. The welding temperature shall not exceed 260 °C and the welding time shall not exceed 5 seconds.
4. Once the installed resistor is removed, it cannot be reused.

Packaging: Bulk in plastic bags (MOQ: 500 pcs), 1000 pcs for taping.