

Characteristics

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

Technical Standard

GJB1929-1994 General Specification for High Stability Film Fixed Resistors
Q/BDS 009-2005 MELF0204/0207 Series Metal Film Resistors Detailed Specification

Dimensions (mm)

Type	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

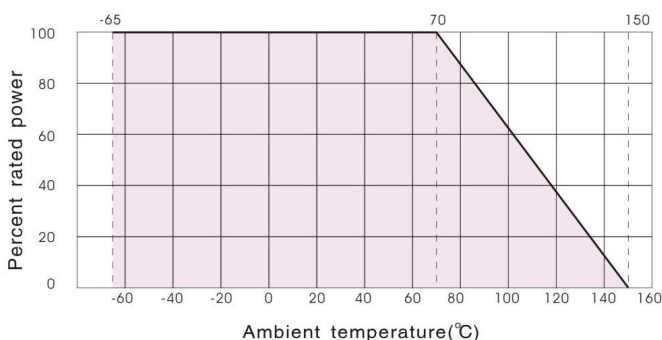
Application Area

MELF0204 series resistors are lead-free cap structure, the cap end is lead-free tin-plated, ROHS compliant, surface coated with epoxy resin, color ring marking, and can be mounted by SMT chip, with small size, high precision, stable and reliable resistance, etc., which have passed the testing of the State Grid Metrology Center, and are widely used in smart meters, test equipment, industrial control instruments, and other instruments and meters.

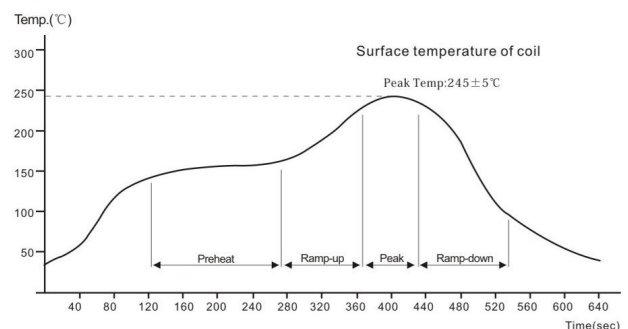
Technical Specifications

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
Tolerance Range	B(± 0.1%), C(± 0.25%), D(± 0.5%), F(± 1.0%), G(± 2.0%), J(± 5.0%)			
TC-Range(10 ⁻⁶ /K)	C3(± 25), C2(± 50), C1(± 100)			

Derating Curve



Surface Mount Resistor Reflow Profile



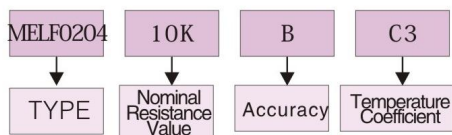
■ Performance Characteristics

Test Item	Standards	Test Method
Short Time Overload	$\leq \pm (0.5\% R + 0.05 \Omega)$	2.5 times the rated voltage, the maximum voltage does not exceed 2 times the limit voltage, 5s
Temperature shock	$\leq \pm (0.5\% R + 0.05 \Omega)$	-65°C ~ 150°C, 5 cycles, 0.5h
Low temp. Operation	$\leq \pm (0.5\% R + 0.05 \Omega)$	-65°C ~ 150°C, 1h, rated voltage not more than 200V, 45min
Dielectric Strength	$\leq \pm (0.5\% R + 0.05 \Omega)$	450V, 1min, 100v/s
Resistance to Solder	$\leq \pm (0.5\% R + 0.05 \Omega)$	260°C, 10s
Resistance to moisture	$\leq \pm (1.5\% R + 0.05 \Omega)$	-10°C ~ 65°C, RH80-98%, 240h
Load life	$\leq \pm (1.0\% R + 0.05 \Omega)$	125°C, Pe, 1000h
Shock	$\leq \pm (0.5\% R + 0.05 \Omega)$	980m/s ² , 6ms
Vibration	$\leq \pm (0.5\% R + 0.05 \Omega)$	10 ~ 2000Hz, 0.75mm, 150m/s ²

■ Comparison table of available resistance ranges

TYPE			MELF0204	MELF0204S	MELF0207	MELF0207S
Code	Resistance Accuracy %	Resistance Range				
B	± 0.1	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
C	± 0.25	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
D	± 0.5	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
F	± 1.0	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
G	± 2.0	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
J	± 5.0	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
Characteristic Code	Temperature Coefficient					
C3	± 25	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
C2	± 50	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M
C1	± 100	FROM	10R	10R	10R	10R
		TO	1M	1M	2M	2M

■ Examples for purchase



Description:

1. Resistor resistance value, precision, temperature coefficient beyond the above control table can be supplied by agreement.
2. Resistance temperature coefficient test point 25°C ~ 85°C.
3. If the soldering iron is used to install the resistor. Soldering temperature should not exceed 260°C, and the soldering time should not exceed 5 seconds. The welding time should not

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