

MELF RESISTORS

EII13

Resistors shall have a power rating based on continuous full load operation at an ambient temperature of 70°c
For temperature in excess of 70 °C, the load shall be derated

•Resistors shall have a rated direct-current (DC) continuous working voltage

•an approximate sine-wave root-mean-square (RMS) alternatingcurrent (AC) continuous working voltage at commercial-line frequency and waveform curresponding to the power rating

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Part Number System



Explanation of Part Number System (MELF Carbon Film Resistors)

atings:					
Туре	MECF 0204	MECF 0207	MECF 0207		
Power Rating	0.25W (1/4W-S)	0.25W (1/4W)	0.50W (1/2W-S)		
Max. Working Voltage	250 V	300 V	300 V		
Max. Overload Voltage	500 V	600 V	600 V		
Temperature Range	$-55^{\circ}\mathrm{C} \sim +155^{\circ}\mathrm{C}$				
Ambient Temperature	70 °C				

1 Power rating:

Resistors shall have a power rating based on continuous full load operation at an ambient temperature of 70 $^{\circ}$ C. For temperature in excess of 70 $^{\circ}$ C, the load shall be derated as shown in the figure 1.

2 Voltage rating:

Resistors shall have a rated direct-current (DC) continuous working voltage or an approximatesine-wave root-mean-square (RMS) alternating-current (AC) continuous working voltage at commercial-line frequency and waveform curresponding to the power rating , as determined from the following formula :

$$RCWV = \sqrt{P \times R}$$

Were : RCWV = Rated DC or RMS AC continuous working voltage at commercial-line frequency and waveform (volt)

- P = Power Rating (watt)
- R = Nominal Resistance (ohm)

In no case shall the rated DC or RMS AC continuous working voltage be greater than the applicable maximum value.



Construction :



No.	Name	Material
1	Basic Body	Rod Type Ceramics
2	Resistance Film	Carbon Film
3	End Cap	Steel (Tin plated iron surface)
4	Coating	Insulated resin (Color : Ivory)
5	Color Code	Epoxy Resin

Power rating and dimensions



Dimension :

	Dimension (mm)					
Туре	Power Rating	L	C Min	D1	D2 Max	D3 Max
MECF 0204	0.25W	3.5±0.2	0.5	1.40±0.15	1.55	1.25
MECF 0207	0.25W	5.9±0.2	0.5	2.2±0.1	2.4	2.1
MECF 0207	0.5W	5.9±0.2	0.5	2.2±0.1	2.4	2.1

Power Rating :

Туре	Power Rating at 70 °C	Tolerance %	Resistance Range
MECF 0204	0.25W(1/4W-S)	± 5	$1\Omega \sim 1M\Omega$
MECF 0207	0.25W(1/4W)	± 5	$1\Omega \sim 1M\Omega$
MECF 0207	0.50W(1/2W-S)	± 5	$1\Omega \sim 1M\Omega$

Part Number System



Explanation of Part Number System (MELF Metal Film Resistors)

Ratings:

Туре	MEMF 0204	MEMF 0207	MEMF 0207		
Power Rating	0.25W (1/4W-S)	0.25W (1/4W)	0.50W (1/2W-S)		
Max. Working Voltage 200 V		250 V	250 V		
Max. Overload Voltage	400 V	500 V	500 V		
Temperature Range	-55°C ∼ +155°C				
Ambient Temperature	70 °C				

1 Power rating:

Resistors shall have a power rating based on continuous full load operation at an ambient temperature of 70 $^\circ\!C$. For temperature in excess of 70 $^\circ\!C$, the load shall be derated as shown in the figure 1.

2 Voltage rating:

Resistors shall have a rated direct-current (DC) continuous working voltage or an approximate sine-wave root-mean-square (RMS) alternating-current (AC) continuous working voltage at commercial-line frequency and waveform curresponding to the power rating , as determined from the following formula :

RCWV =
$$\sqrt{P_{XR}}$$

Were : RCWV = Rated DC or RMS AC continuous working voltage at commercial-line frequency and waveform (volt)

P = Power Rating (watt)

R = Nominal Resistance (ohm)

In no case shall the rated DC or RMS AC continuous working voltage be greater than the applicable maximum value.



Construction :



No.	Name	Material	
1	Basic Body	Rod Type Ceramics	
2	Resistance Film	Metal Film	
3	End Cap	Steel (Tin plated iron surface)	
4	Coating	Insulated epoxy resin (Color : Blue)	
5	Color Code	Epoxy Resin	

Power rating and dimensions



Dimension :

	Dimension (mm)					
Туре	Power Rating	L	C Min	D1	D2 Max	D3 Max
MEMF 0204	0.25W	3.5±0.2	0.5	1.40±0.15	1.55	1.25
MEMF 0207	0.25W	5.9±0.2	0.5	2.2±0.1	2.4	2.1
MEMF 0207	0.5W	5.9±0.2	0.5	2.2±0.1	2.4	2.1

Power Rating :

Туре	Power Rating at 70 $^\circ\!\mathrm{C}$	Tolerance %	Resistance Range
MEMF 0204	0.25W(1/4W-S)	± 5	10Ω ~ 1MΩ
MEMF 0207	0.25W(1/4W)	± 5	10Ω ~ 1MΩ
MEMF 0207	0.50W(1/2W-S)	± 5	10Ω ~ 1MΩ