

Melf & Mini-Melf - Metal Film Resistor MM, MML Type

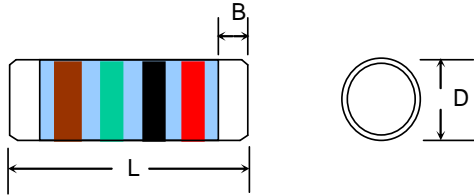


Specifications Per

IEC 115-1 115-2
CECC 40101
DIN 44061

Features

- ※ SMD enabled structure
- ※ Conformal Multi-layer Coating Against Humidity
- ※ Excellent Solderability Termination
- ※ 5% is 3-band coded, 1% and under is 4-band coded



Body Color : Light Blue
Marking: Color code (4 bands)

Dimensions

Type	Body Length (L)	Body Diameter (D)	Soldering spot (B)
MM204	3.5mm±0.2mm	1.4±0.15mm	0.6mm Min.
MML204	3.5mm±0.2mm	1.4±0.15mm	0.6mm Min.
MM207	5.9mm±0.2mm	2.2±0.1mm	1.0mm Min.
MML207	5.9mm±0.2mm	2.2±0.1mm	1.0mm Min.

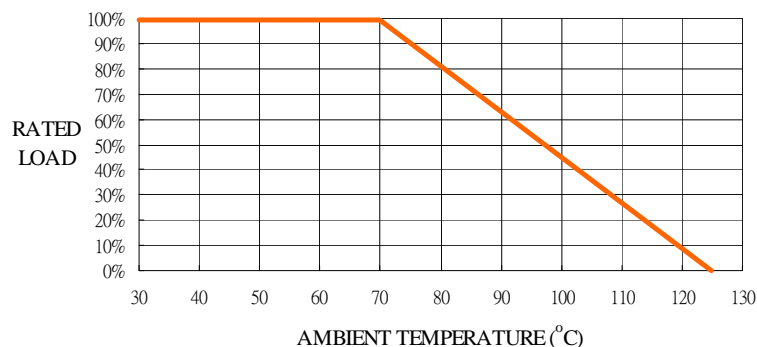
General Specifications

Type	Power Rating (at 70°C)	Max. Working Voltage	Max. Overload Voltage	Resistance Range Min.	Resistance Range Max.	Resistance Tolerance	Standard Resistance Value
MM204	1/8W	200V	400V	0 & 0.1Ω	1MΩ	±0.1%~±1%	E-24/E-96
						±2%, 5%	E-24
MML204	1/4W	200V	400V	0 & 0.1Ω	1MΩ	±0.1%~±1%	E-24/E-96
						±2%, 5%	E-24
MM207	1/4W	300V	500V	0 & 0.1Ω	10MΩ	±0.1%~±1%	E-24/E-96
						±2%, 5%	E-24
MML207	1/2W	300V	500V	0 & 0.1Ω	10MΩ	±0.1%~±1%	E-24/E-96
						±2%, 5%	E-24

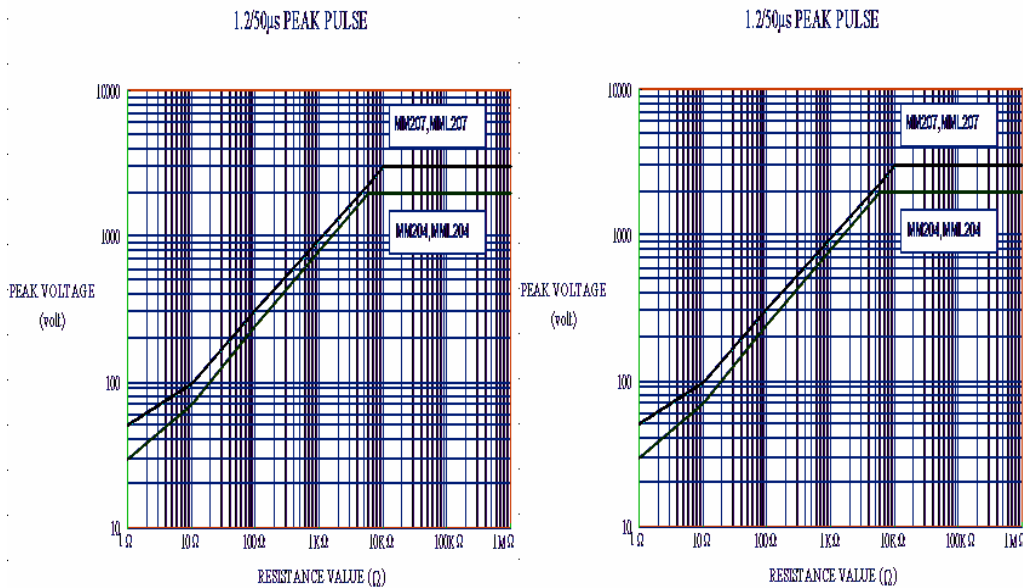
For zero-ohm jumper, resistance value is under 20 mΩ. Rated current is 2A for MM204 & MML204, 4A for MM207 and MML207.

Please contact factory for resistance value range of ±0.1%, ±0.25% and ±0.5%

POWER DERATING CURVE



Melf & Mini-Melf Resistor - MM, MML Type



Technical Summary

Characteristics	Limits			
Dielectric Withstanding Voltage, VAC or DC	MM204, MML204: 200VAC			
	MM207, MML207: 500VAC			
Temperature Coefficient, PPM / °C	±0.1%~±1%		±15, ±25	
	±1%, ±2%		±50	
	±5%		±100	
Operating Temperature Range, °C	-55 ~ +125			
Film Temperature, °C	MM204	MML204	MM207	MML207
	125	125	125	140
Insulation Resistance, MΩ	>10 ⁴			

Performance Specifications

Characteristics of Tests	Limits
Short Time Overload	±(0.5%+0.05R)
Temperature Cycling	±(0.25%+0.05R)
Humidity	±(1.5%+0.05R)
Load Life In Humidity	±(1.5%+0.05R)
Load Life 1,000 hours (at 70°C)	±(1.5%+0.05R)
Resistance To Soldering Heat	±(0.5%+0.05R)
Solderability	95% Min.
Vibration	±(1%+0.1R)
Terminal Strength	±(0.5%+0.05R)
Thermal Shock	±(0.5%+0.05R)

How to Order

<u>MM204</u>	<u>F</u>	<u>C</u>	-	<u>10K</u>
Type	Tolerance	PPM		Ohm-Value
MM204	J= ±5%	C=±15ppm		0R5 = 0.5 Ω
MML204	G=±2%	D=±25ppm		10R = 10 Ω
MM207	F=±1%	E=±50ppm		1K2 = 1.2K Ω
MML207	D=±0.5%	F=±100ppm		1M = 1M Ω
	C=±0.25%			
	B=±0.1%			