

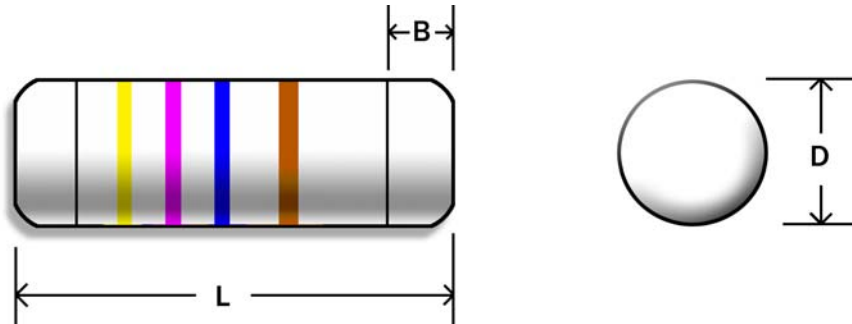
CM- Carbon Film MELF Resistor

Specifications Per

- IEC 115-1 115-2
- JIS C 52021
- MIL-R-226848

Features

- SMD enabled structure
- Conformal Multi-layer Coating Against Humidity
- Excellent Solderability Termination



Dimensions

Type	Body Length (L)	Body Diameter (D)	Soldering spot (B)	Net Weight Per 1000 pcs
CM16	3.45±0.1mm	1.35±0.1mm	0.6mm Min.	17 grams
CM204	3.45±0.1mm	1.35±0.1mm	0.6mm Min.	17 grams
CM207	5.9±0.2mm	2.2±0.1mm	1.0mm Min.	66 grams
CM52	5.9±0.2mm	2.2±0.1mm	1.0mm Min.	66 grams

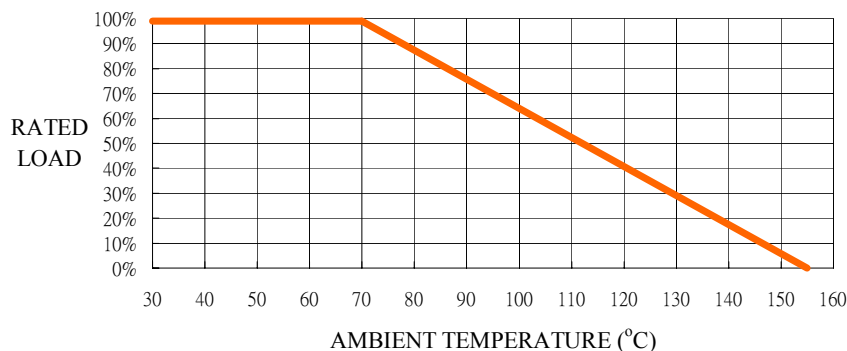
General Specifications

Type	Power Rating (at 70°C)	Max. Working Voltage	Max. Overload Voltage	Resistance Range Min.	Resistance Range Max.	Resistance Tolerance	Standard Resistance Value
CM16	1/6W	200V	300V	0, 0.1Ω	1MΩ	±5%	E-24
CM204	1/4W	200V	300V	0, 0.1Ω	1MΩ	±5%	E-24
CM207	1/3W	300V	600V	0, 0.1Ω	10MΩ	±5%	E-24
CM52	1/2W	350V	600V	0, 0.1Ω	10MΩ	±5%	E-24

For zero ohm jumper, resistance value is under 20 mΩ. Rated current is 2A for CM16 & CM204. 4A for CM207 & CM52. For 1 m~100mΩ please see CSM series.

Special sizes, values, and specifications not listed available on special order.

POWER DERATING CURVE



Jul. 08, 2001

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Technical Summary:

Characteristics	Limits			
Dielectric Withstanding Voltage, VAC or DC	CM16,CM204: 200 CM207,CM52: 500			
Temperature Coefficient, PPM / °C	CM16 & CM204		CM207 & CM52	
	1Ω~33K	±300	1Ω~33K	±300
	33K~330K	- 500	33K~330K	- 500
	330K~470K	- 700	330K~470K	- 700
	470K~910K	-1000	470K-1M	-1000
Over 910K	-1500	Over 1M	-1500	
Operating Temperature Range, °C	-55 ~ +155			
Insulation Resistance, MΩ	>10 ⁴			
Voltage Coefficient, PPM / V	<25			

Performance Specifications

Tests Characteristics	Test Conditions	Limits
Short Time Overload	IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage)	±(1%+0.05R)
Load Life In Humidity	IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity	±5%
Load Life 1,000 hours	IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	±3%
Resistance To Soldering Heat	IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature	±(1%+0.05R)
Solderability	MIL-STD-202 Method 208 Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied	95% Min.
Vibration	MIL-STD-202 Method 204 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 1.52mm and 10 to 20,000 Hz.	±(1%+0.1R)
Terminal Endurance	IEC 60115-1 4.25.3 1000 hours at 155°C without load	±(1%+0.05R)
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±(1%+0.05R)

Ordering Information

Type	Tolerance	Resistance Value	Packaging	Special Request (Optional)
CM204 CM207	J (5%)	10K	B TR	LV (Low value)

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