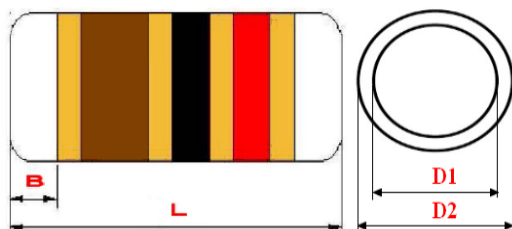


CARBON FILM MELF RESISTORS

(CM SERIES)

Features

- Cylindrical SMD Style Carbon Film Resistors
- Conformal Multi-layer Coating Against Humidity.
- Excellent Solderability Termination, Specially plated Electrodes



Dimensional Specifications

Type	Body Length (L)	D1 Min.	D2 Max	(B) min
CM-0102	2.0±0.1	1.12	1.4	0.4
CM-0016	3.5±0.2	1.12	1.5	0.5
CM-0204	3.5±0.2	1.12	1.5	0.5
CM-0204P	3.5±0.2	1.12	1.5	0.5
CM-0207	5.9±0.2	1.72	2.4	0.5
CM-0052	5.9±0.2	1.72	2.4	0.5
CM-01SS	5.9±0.2	1.72	2.4	0.5
CM-0309	8.5±0.2	2.55	3.4	0.5
CM-0100	8.5±0.2	2.55	3.4	0.5
CM-02SS	8.5±0.2	2.55	3.4	0.5
CM-02S	10.5±0.5	3.7	4.3	1
CM-03S	14.5±0.5	4.2	4.8	1

Performance Specifications

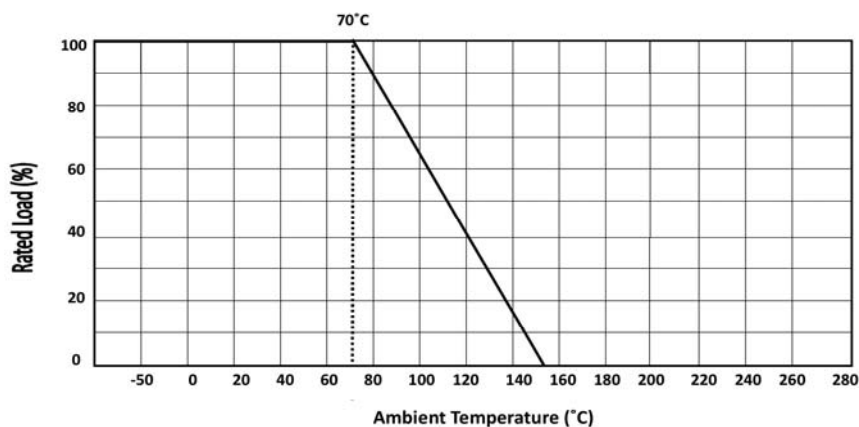
Requirements	Characteristics					Test Method (JIS-C5202)
Temp. Coefficient (PPM/°C)	TCR TYPE	0 ~ -350	0 ~ -600	0 ~ -1000	0 ~ -1500	JIS-C(5202-5.2)
	CM-0207 above	UNDER 10K	11K~150K	160K~2M2	-	
	CM-0102 ~ CM-0204	UNDER 1K	1K1~47K	51K~470K	510K~1M	
Short Time Overload	±(1.0%+0.05Ω)					JIS-C(5202-5.5)
Intermittent	±(1.0%+0.05Ω)					JIS-C(5202-5.8)
Resistance to Soldering heat	±(1.0%+0.05Ω)					JIS-C(5202-6.4)
Solderability	95% Coverage min					JIS-C(5202-6.5)
Moisture Resistance	±(5.0%+0.1Ω)					JIS-C(5202-7.9)
Load Life	±(3.0%+0.1Ω)					JIS-C(5202-7.10)



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
CM-0102	1/8W	150V	300V	1Ω	1MΩ	±5%	E-24
CM-0016	1/6W	200V	400V	1Ω	1MΩ	±5%	E-24
CM-0204	1/4W	250V	500V	1Ω	1MΩ	±5%	E-24
CM-0204P	0.4W	250V	500V	10Ω	500KΩ	±5%	E-24
CM-0207	1/3W	300V	600V	1Ω	1MΩ	±5%	E-24
CM-0052	1/2W	300V	600V	1Ω	1MΩ	±5%	E-24
CM-0309	1/2W	350V	700V	1Ω	1MΩ	±5%	E-24
CM-01SS	1WSS	350V	700V	1Ω	1MΩ	±5%	E-24
CM-0100	1WS	350V	700V	1Ω	1MΩ	±5%	E-24
CM-02SS	2WSS	350V	700V	1Ω	1MΩ	±5%	E-24
CM-02S	2WS	500V	1000V	1Ω	1MΩ	±5%	E-24
CM-03S	3WS	500V	1000V	1Ω	1MΩ	±5%	E-24

Note: standard tolerance ±5%, ±2% available upon request.



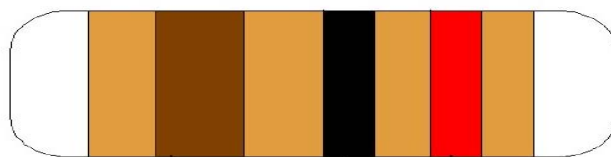
Parts Number System

CM — 0207		103	J	R
Carbon film	Size and Wattage	Resistance	Tolerance	Packaging Codes
Melf resistors		3-digit codes 103=10K ohm	J=5% G=2%	2000pcs/Reel for CM-0207 CM-0052, CM-01SS 2500pcs/Reel for CM-0309, CM-0100, CM-02SS 3000pcs/Reel for CM-0102, CM-0016 CM-0204 B-Bulk pack R-tape reeled

T.C.R K=100ppm, C=50ppm, E=25ppm -- No TCR marked on P/N for 5% Tolerance



Color Band



COLOR	1 ST VALUE (Thickness)	2 ND VALUE	MULTIPLIER	TOLERANCE %	
BLACK	0	0	10^0		
BROWN	1	1	10^1		
RED	2	2	10^2	±2	G
ORANGE	3	3	10^3		
YELLOW	4	4	10^4		
GREEN	5	5	10^5		
BLUE	6	6	10^6		
VIOLET	7	7	10^7		
GREY	8	8	10^8		
WHITE	9	9	10^9		
GOLD			10^{-1}	±5%	J
SILVER			10^{-2}	±10%	K
PLAIN				±20%	M