

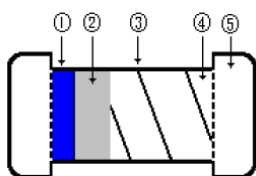
MELF High Voltage Resistor



■Features

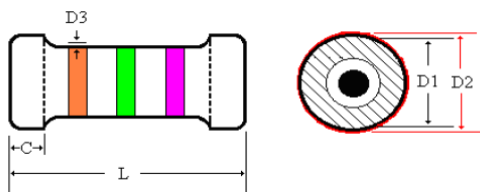
- For SMD enabled structure
- it is epoxy resin coating material
- Lowest TCR control to 25ppm, normal type is 5% 200ppm, 1% 100ppm, 0.5% 50ppm
- high voltage applications for power capacitor, motor start-up protection, car & motorcycle engine ignition, etc. other surge energy request able to design for engineer design request

■Construction & Dimension



①	Insulation Coating	④	Ceramic Rod
②	Marking	⑤	Electrode Cap
③	Conductive Layer		

■Dimension

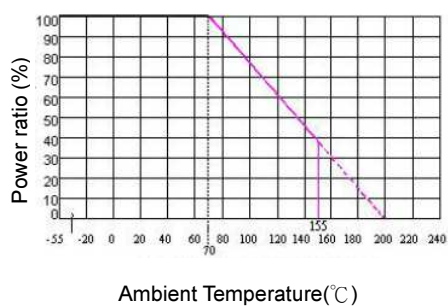


Type	L (mm)	D1 (mm)	D2 max (mm)	D3 max (mm)	C min (mm)
CSRH0207	6.50±0.50	2.20±0.20	2.40	0.3	1.2
CSRH0309	8.50±0.50	3.20±0.20	3.40	0.3	1.2

■Part Numbering

CSRH	0207	D	T	D	V	1000
Product Type	Dimensions (L×D2)	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Power Rating	Resistance
	0207: 6.5x2.4 0309: 8.5x3.4	D: ±0.5% F: ±1% G: ±2% J: ±5%	T: Taping Reel B: Bulk	D: ±50 E: ±100 F: ±200	U: 1/2W T: 1W	1001: 1KΩ 1004: 1MΩ

Derating Curve



Standard Electrical Specifications

Item Type	Power Rating at 70°C	Operating Temp. Range	Max. Operating Voltage	Max. Overload Voltage	Surge Voltage For EN60065	Resistance Range			
						±0.5%	±1%	±2%	±5%
0207	1/2W	-55 ~ +155°C	1000V	1500V	1500V Max	1KΩ-100MΩ			
0309	1W	-55 ~ +155°C	2500V	2500V	2500V Max	1KΩ-100MΩ			

Pulse Properties

This test condition is follow UL 1676 and EN 60065 is pulse wave and test circuit, but the high voltage test is follow standard electrical specification

Technical Specification

Characteristics	Standard	
	0207	0309
Dielectric Voltage for AC Source	200V	250V
Insulation Resistance(MΩ)	≥ 1000	
Temperature Coefficient(ppm/°C)	±25~200ppm	
Short Time Overload Test	±1% within	

TCR can design is depending on client request, from ±25ppm and over

■ Environmental Characteristics

Item	Requirement	Test Method
Short Time Overload	$\pm 1.0\%$	IEC-60115-1 4.13 RCWV*2.5 or Max. Overload voltage whichever is lower for 5 seconds
Resistance to Soldering Heat	$\pm 0.5\%$	IEC-60115-1 4.18.2 260°C for 10 \pm 1 seconds
Solderability	95% min. coverage	IEC-60115-1 4.17.2 230 \pm 3°C for 2 \pm 0.2 seconds
Thermal Shock Test	$\pm 2.0\%$	IEC-60115-1 4.17.2 5cycle for -55°C 30minute 155°C 30minute
Thermal Endurance Test	$\pm 1.0\%$	IEC-60115-1 4.25.3 1000 hrs at 200°C and without load
Load Life Test	$\pm 1.5\%$	IEC-60115-1 4.25.1 70 \pm 2°C, condition apply rated power for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Load Life In Humidity Test	$\pm 1.5\%$	IEC-60115-1 4.24 40 \pm 2°C, 90~95% R.H., for 56 days, loaded with 0.1 times rate power

■ Storage Temperature: 15~28°C; Humidity < 80%RH