

# METAL GLAZE HIGH VOLTAGE MELF RESISTORS

## (MMV SERIES)

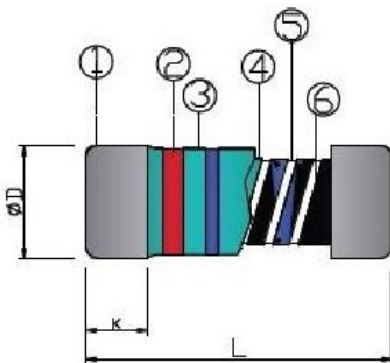
### Features

- Excellent overall stability
- Advanced thin film technology. Compliant to RoHS.
- Tight tolerance down to  $\pm 1\%$
- Extremely low TCR down to  $\pm 100\text{ppm}/^\circ\text{C}$
- High pulse loading (up to 8 KV) capability
- Compatible with lead (Pb)-free and lead containing soldering processes

### Applications

- Telecommunication
- Medical equipment
- Measurement/Testing Equipment
- Automotive
- Industrial

### Construction & Dimension

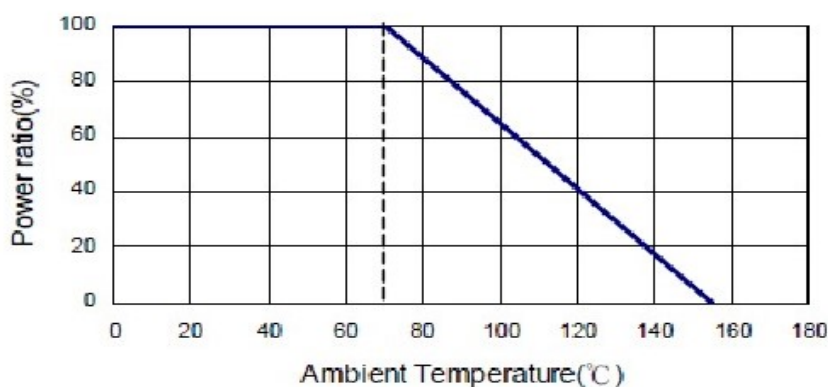


1	Steel Termination Cap.
2	Color Code Rings
3	Insulation Coating
4	Metal Glaze Resistive Layer
5	Trimming Line
6	Alumina Cermic Rod

Type	L (mm)	D (mm)	K (min.)	Weight (g) (1000pcs)	Packaging
MMV0204	$3.5 \pm 0.2$	$1.4 \pm 0.15$	0.7	18.3	3,000 EA
MMV0207	$5.9 \pm 0.2$	$2.2 \pm 0.20$	0.8	77.8	2,000 EA
MMV0309	$8.5 \pm 0.3$	$3.0 \pm 0.30$	1.4	218.7	2,500 EA

\*Packaging: 0309 Reel Diameter 13", 0204, 0207 Reel Diameter 7"

### Derating Curve



## Standard Electrical Specifications

Type	Power Rating (at 70 °C)	Operating temp.Range ( ° C )	Max. Working Voltage (V)	Max. Pulse Voltage (V)	Max. Overload Voltage(V)	Resistance Tolerance	Resistance Range
MMV-0204	1/4 W	-55~ +155	400V	2,000	600	±1%, ±5%	100K~6.8MΩ
MMV-0207	1/2 W	-55~ +155	500V	6,000	1000	±1%, ±5%	100K~6.8MΩ
MMV-0309	1 W	-55~ +155	700V	8,000	1000	±1%, ±5%	100K~6.8MΩ

## Environmental Characteristics

Item	Requirement	Test Method
Temperature Coefficient	100ppm/°C ,200ppm/°C	-55~ +125°C , 25°C is the reference temperature.
Short Time Overload	±1.0%	RCWV x 2.5 or Max. Overload voltage for 5 seconds
Damp Heat with Load	±5.0%	40±2°C, 90-95°C R.H. Max. Working voltage for 1000hrs. with 1.5 hrs. "ON" and 0.5 hrs. "OFF"
Endurance	±5.0%	70±2°C, Max. Working voltage for 1000hrs. with 1.5 hrs. "ON" and 0.5 hrs. "OFF"
Pulse Withstanding Voltage	±20%	50 Discharges form 1 nF capacitor charged to pulse Voltage. 2.5 Sec. ON 2.5 Sec. OFF 50 cycles. Pulse Voltage 0207, ≤1MΩ 4KV, >1MΩ 7KV; 0309, ≤1MΩ 5KV, >1MΩ 8KV
Bending Strength	±0.5%	Bending once for 5 seconds with 2mm.
Solderability	95% min. coverage	245±5°C for 3 seconds.
Resistance of soldering heat	±1.0%	260±5°C for 10 seconds.
Voltage Proof	No breakdown or flashover	0204:300V, 0207:500V, 0309:700V for 1 minute
Insulation Resistance	> 1,000MΩ	0204:300V, 0207:500V, 0309:700V for 1 minute
Temperature cycle	±1.5%	-55 to +125°C, 5 cycles

## How to order

MMV — 0207		1002	F	R
Type		Resistance	Tolerance	Packaging Codes
High voltage Melf Resistors	Size and Wattage	5% 3-digit codes 104=100K ohm  1% 4-digit codes 1003=100K ohm	J=5% F=1%	3000pcs/Reel for MMV-0204 2000pcs/Reel for MMV-0207 2500pcs/Reel for MMV-0309

