

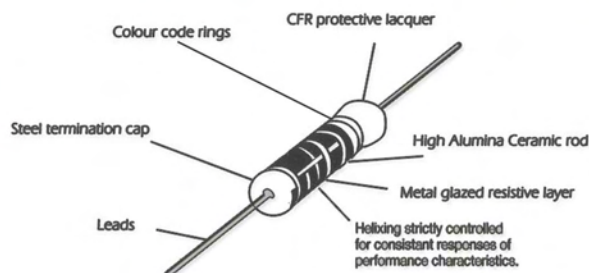
## HIGH VOLTAGE METAL GLAZE RESISTORS

**Series:** MVR37

**Features:**

A metal glazed film is deposited on a high grade ceramic body. After a helical groove has been cut in the resistive layer, tinned electrolytic copper wires are welded to end caps. The resistors are coated with lacquer which provides electrical, mechanical and climatic protection.

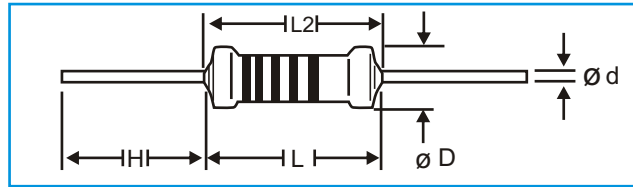
**Construction:**



**Technical Specifications :**

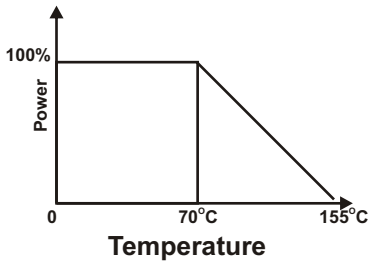
Description	Value
Resistance range	100K Ohm to 33M Ohm
Resistance tolerance and series	± 1% : E24/E96 Series ± 5% : E24 Series
Maximum dissipation at $T_{amb} = 70^{\circ}\text{C}$	0.5 W
Thermal Resistance ( $R_{th}$ )	120 K / W
Temperature Co-efficient	$\leq \pm 200 \times 10^{-6}/\text{K}$
Maximum Permissible Voltage	
DC	3500 V
RMS	2500 V
Dielectric withstanding voltage of the insulation for 1 minute	700 V
Basic Specification	IEC 60115 - 1B
Climatic Category (IEC 60068)	55/155/56
Stability after :	
Load (1000 hours)	$\Delta R/R \text{ max.: } \pm (1.5\% + 0.1 \text{ Ohm})$
Accelerated damp heat test (6 days)	$\Delta R/R \text{ max.: } \pm (1.5\% + 0.1 \text{ Ohm})$
Long term damp heat test (56 days)	$\Delta R/R \text{ max.: } \pm (1.5\% + 0.1 \text{ Ohm})$

**Dimensions:**



TYPE	øD MAX. (mm)	L MAX. (mm)	L2 MAX. (mm)	H MIN. (mm)	ød (mm)
MVR37	4.0	9.0	10.0	25	0.7 ± 0.03

**Derating Curve :**



LIMITING VALUES			
TYPE	LIMITING VOLTAGE (V)		LIMITING POWER (W)
	DC	AC	
MVR 37	3500	2500	0.5

**Test Procedures and Requirement**

TYPE	REQUIREMENTS
Robustness of Termination Tensile 10N, 10 sec. Bending half number of samples Torsion other half of samples	Number of failures < 10 x 10 <sup>-6</sup> Number of failures < 10 x 10 <sup>-6</sup> No damage Δ R max.; ± (0.5% R + 0.05 Ohm)
Solderability	Good tinning; no damage
Resistance to soldering heat	Δ R max.; ± (0.5% R + 0.05 Ohm)
Rapid change of temperature	Δ R max.; ± (0.5% R + 0.05 Ohm)
Bump	No damage Δ R max.; ± (0.5% R + 0.05 Ohm)
Vibration	No damage Δ R max.; ± (0.5% R + 0.05 Ohm)
Climatic Sequence : Dry Heat Damp Heat (accelerated) 1st Cycle Cold Low Air Pressure Damp Heat (accelerated) remaining cycles	R <sub>ins</sub> min.: 10 <sup>3</sup> M Ohm Δ R max.; ± (0.5% R + 0.1 Ohm)
Damp Heat (steady state)	Δ R max.; ± (1.5% R + 0.1 Ohm)
Endurance	Δ R max.; ± (1.5% R + 0.1 Ohm)
Temperature Coefficient	≤ ± 200 ppm/°C
Voltage Proof on insulation	No Breakdown
Noise	Max. 2.5 μV/V
Insulation resistance	R <sub>ins</sub> min.: 10 <sup>4</sup> M Ohm
Short time overload 2x limiting voltage Duration	Δ R max.; ± (2.0% R + 0.05 Ohm) 5 sec ON, 45 sec OFF - No of cycles 10