

Standard MOV Varistor

Square, 25mm

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**RoHS
Compliant**



Description

Metal Oxide Varistor (MOV) as one nonlinear resistance element is mainly made of zinc oxide (ZnO), which has very high surge capacity and big nonlinear coefficient. Below the threshold voltage, its resistance is very high, nearly no current flows through, but above the threshold voltage, the resistance reduces sharply, huge current can be discharged. Due to this characteristic, varistor as a protection component in electronic and electrical equipment can absorb abnormal over-voltage and lightning surge.

Varistor is with High Surge Current Density, Low Clamping Voltage, and Good Surge Capacity.

Approvals

UL1449 4th Edition
TUV EN 61051-1:2008
IEC 61051-1:2007
IEC 61051-2:1991+A1
IEC 61051-2-2:1991
Annex Q of IEC 60950-1:2005+A1+A2

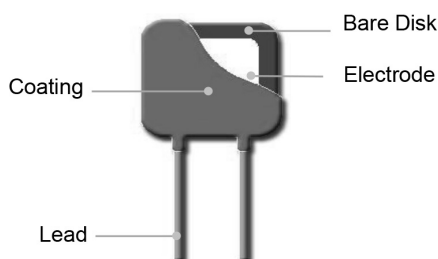
Features

- Epoxy Resin Coating
- Silicone Resin Coating
- Low Leakage Current
- Bidirectional and Symmetrical V/I Characteristics
- Operating Temperature Range
- Low Temperature: -40°C
- High Temperature: +85°C to +105°C

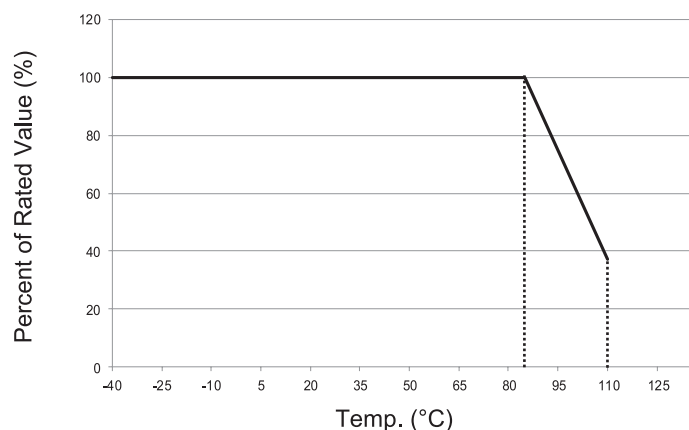
Applications

- Power Supplies
- Home Electrical Appliances
- Industrial Devices
- Surge Protectors
- Telecom Devices

Product Structure



Temp. Derating Curve



For Normal Temp. Series

Note:

When ambient Temp. exceeds 85°C, the peak surge current and energy rating should be reduced as shown in the left curve.

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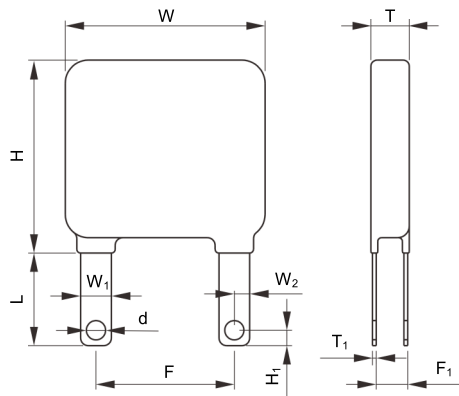
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General Technical Data

Item	Value	Unit
Operating Temperature	-40 to +85	°C
Storage Temperature	-40 to +125	°C
Voltage Proof	≥2500	Vac
Insulation Resistance	≥100	MΩ

Dimensions



Part Number	L	W (Max.)	W1	W2	H (Max.)	H1	T (Max.)	T1	d	F	F1
MPV25S241KNK	12 ±3	28	4 ±0.05	2 ±0.05	30	2 ±0.05	4.6	0.5 ±0.05	2.5 ±0.05	18 ±0.6	1.4 - 2.9
MPV25S431KNK							5.8				2 - 4

Specification Table

Part Number	Max. Continuous Operating Voltage		Varistor Voltage @1 mA DC		Clamping Voltage (Max.)		Max. Discharge Current (8/20 μs)		Max. Energy (10/1000 μs)	Typical Capacitance (For reference only) @1 kHz	Agency Approvals	
	Vac	Vdc	Min.	Max.	VC	IP	In	I _{max}	(J)	(pF)	UL	TUV
	(V)	(V)	(V)	(V)	(V)	(V)	(kA)					
MPV25S241KNK	150	200	216	264	395	175	10	25	302	2800	✓	✓
MPV25S431KNK	275	350	387	473	710				575	1600		

✓: Approved

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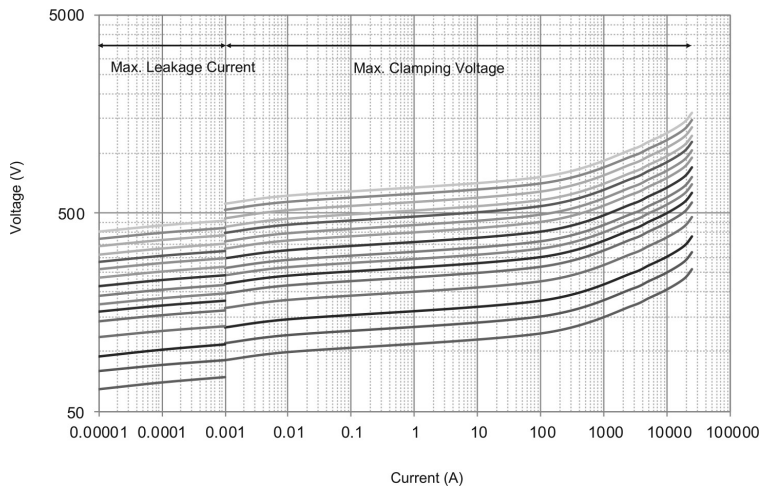
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Performance Curve

Max. Peak Current Derating Curves



Part Number Table

Description	Part Number
Varistor, MOV, 395V, Disc 25mm	MPV25S241KNK
Varistor, MOV, 710V, Disc 25mm	MPV25S431KNK

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