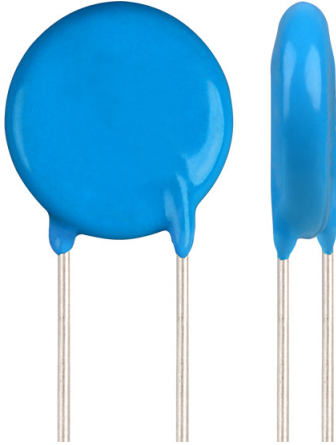


MOV Varistor

Round, 14mm

multicomp **PRO**

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 G.8.1 of IEC 62368-1:2018

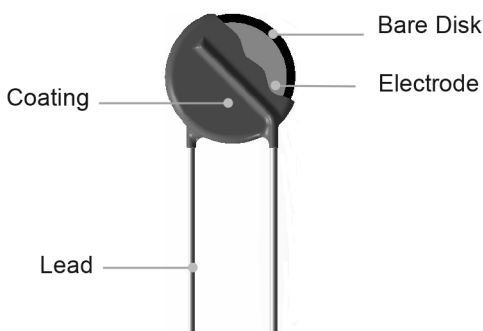
Features

- 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

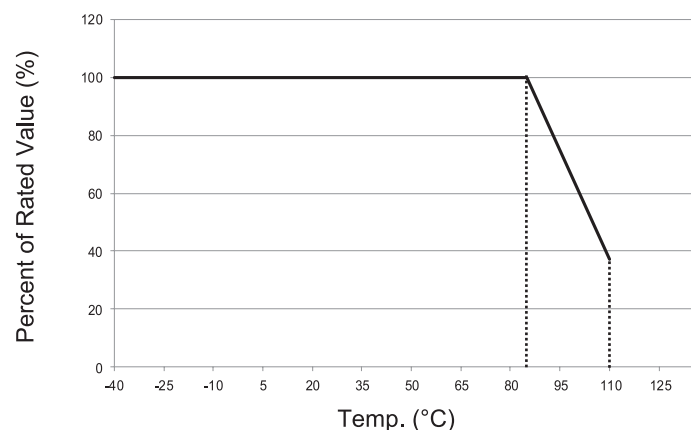
Applications

- 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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sg.element14.com/b/multicomp-pro

multicomp **PRO**

MOV Varistor

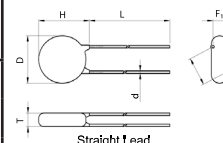
Round, 14mm

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 (Min.)	H (Max.)	T (Max.)	D (Max.)	d	F	F ₁	A (Max.)
MPV14D101KNK	20	18.5	4.6	16.5	0.8 ±0.05	7.5 ±0.6	1.3 - 2.8	21.5
MPV14D112KNK			9.9				5.9 - 7.9	
MPV14D121KNK			4.8				1.4 - 3	
MPV14D151KNK			5.1				1.6 - 3.3	
MPV14D181KNK			4.5				1.3 - 2.8	
MPV14D201KNK			18.5				1.3 - 2.9	
MPV14D221KNK			4.7				1.4 - 3	
MPV14D241KNK			4.9				1.4 - 3.1	
MPV14D271KNK			5				1.5 - 3.3	
MPV14D361KNK			5.6				1.9 - 3.8	
MPV14D391KNK			5.7				2 - 4	
MPV14D431KNK			6				2.2 - 4.2	
MPV14D471KNK			6.2				2.4 - 4.4	
MPV14D511KNK			6.4				2.6 - 4.6	
MPV14D561KNK			6.7				2.9 - 4.9	
MPV14D621KNK			7.1				3.2 - 5.2	
MPV14D681KNS			7.4				3.6 - 5.6	
MPV14D751KNK			7.9				4 - 6	
MPV14D820KNK			4.4				1.2 - 2.6	
MPV14D911KNK			8.8				4.9 - 6.9	



Specification Table

Part Number	Surge Level	Max. Continuous Operating Voltage		Varistor Voltage @1 mA DC		Clamping Voltage (Max.)		Max. Peak Current (1 time, 8/20 μs)	Max. Energy (10/1000 μs)	Typical Capacitance (For reference only) @1 kHz	Agency Approvals	
		Vac	Vdc	Min.	Max.	VC	IP	K		(pF)	UL	TUV
		(V)	(V)	(V)	(V)	(V)	(V)	(kA)	(J)			
MPV10D101KNK	S	420	560	612	748	1120	50	4.5	130	290	•	•

● : Approved ○ : Unauthorized

MOV Varistor

Round, 14mm

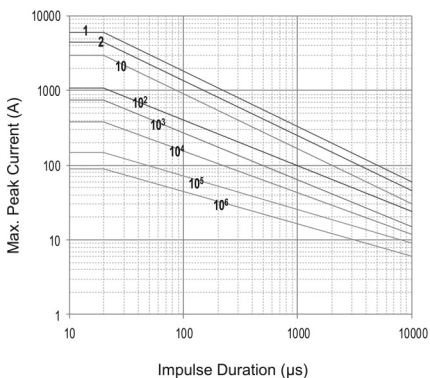
Specification Table

Part Number	Max. Continuous Operating Voltage		Varistor Voltage @1 mA DC		Clamping Voltage (Max.)		Max. Peak Current (1 time, 8/20 μ s)	Max. Energy (10/1000 μ s)	Typical Capacitance (For reference only) @1 kHz	Agency Approvals		
	Vac	Vdc	Min.	Max.	VC	IP	K		(pF)	UL	TUV	
	(V)	(V)	(V)	(V)	(V)	(V)	(kA)	(J)				
MPV14D101KNK	60	85	90	110	165	50	6	35	2000	•	•	
MPV14D112KNK	680	895	990	1210	1815			280	180		○	
MPV14D121KNK	75	100	108	132	200			42	1700		•	•
MPV14D151KNK	95	125	135	165	250			53	1300			
MPV14D181KNK	115	150	162	198	300			60	1100			
MPV14D201KNK	130	170	180	220	340			70	1000			
MPV14D221KNK	140	180	198	242	360			78	900			
MPV14D241KNK	150	200	216	264	395			84	830			
MPV14D271KNK	175	225	243	297	455			99	740			
MPV14D361KNK	230	300	324	396	595			130	560			
MPV14D391KNK	250	320	351	429	650			140	510			
MPV14D431KNK	275	350	387	473	710			155	460			
MPV14D471KNK	300	385	423	517	775			175	430			
MPV14D511KNK	320	415	459	561	845			180	390			
MPV14D561KNK	350	460	504	616	925			185	360			
MPV14D621KNK	385	505	558	682	1025			190	320			
MPV14D681KNS	420	560	612	748	1120			200	290			
MPV14D751KNK	460	615	675	825	1240			210	270			
MPV14D820KNK	50	65	74	90	135			28	2400			
MPV14D911KNK	550	745	819	1001	1500			255	220			

• : Approved ○ : Unauthorized

Performance Curve

Max. Peak Current Derating Curves



MP011874

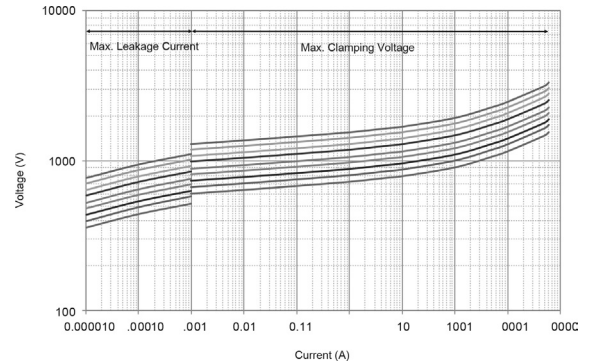
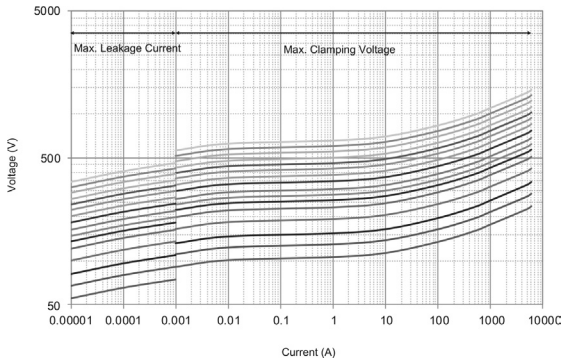
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MOV Varistor

Round, 14mm



Voltage-Current Characteristic Curves



Part Number Table

Description	Part Number
Varistor, MOV, 165V, Disc 14mm	MPV14D101KNK
Varistor, MOV, 1.815KV, Disc 14mm	MPV14D112KNK
Varistor, MOV, 200V, Disc 14mm	MPV14D121KNK
Varistor, MOV, 250V, Disc 14mm	MPV14D151KNK
Varistor, MOV, 300V, Disc 14mm	MPV14D181KNK
Varistor, MOV, 340V, Disc 14mm	MPV14D201KNK
Varistor, MOV, 360V, Disc 14mm	MPV14D221KNK
Varistor, MOV, 395V, Disc 14mm	MPV14D241KNK
Varistor, MOV, 455V, Disc 14mm	MPV14D271KNK
Varistor, MOV, 595V, Disc 14mm	MPV14D361KNK
Varistor, MOV, 650V, Disc 14mm	MPV14D391KNK
Varistor, MOV, 710V, Disc 14mm	MPV14D431KNK
Varistor, MOV, 775V, Disc 14mm	MPV14D471KNK
Varistor, MOV, 845V, Disc 14mm	MPV14D511KNK
Varistor, MOV, 925V, Disc 14mm	MPV14D561KNK
Varistor, MOV, 1.025KV, Disc 14mm	MPV14D621KNK
Varistor, MOV, 1.12KV, Disc 14mm	MPV14D681KNS
Varistor, MOV, 1.24KV, Disc 14mm	MPV14D751KNK
Varistor, MOV, 135V, Disc 14mm	MPV14D820KNK
Varistor, MOV, 1.5KV, Disc 14mm	MPV14D911KNK

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