

## Radial Lead Varistor (MOV)

### 32D Series

#### Description

The 32D series radial leaded varistors provides an ideal circuit protection solution for lower DC voltage applications by offering higher surge ratings than ever before available in such small discs.

The maximum peak surge current rating can reach up to 25KA (8/20  $\mu$ s pulse) to protect against high peak surges, including indirect lightning strike interference, system switching transients and abnormal fast transients from the power source.



#### Features

- ◆ Wide operating voltage (V1mA) range from 200V to 1800V
- ◆ Fast responding to transient over-voltage
- ◆ Large absorbing transient energy capability
- ◆ Low clamping ratio and no following-on current
- ◆ Meets MSL level 1, per J-STD-020

#### Applications

- ◆ Transistor, diode, IC, thyristor or triac semiconductor protection
- ◆ Surge protection in consumer electronics
- ◆ Surge protection in industrial electronics
- ◆ Surge protection in electronic home appliances, gas and petroleum appliances
- ◆ Relay and electromagnetic valve surge absorption

#### General Characteristics

<b>Material</b>	No Radioactive Material
<b>Operating Temperature</b>	-55~85 C
<b>Storage Temperature</b>	-55~125 C
<b>Body</b>	Nickel Plated
<b>Leads</b>	Tin Plated
<b>Devices with No lead</b>	Nickel Plated

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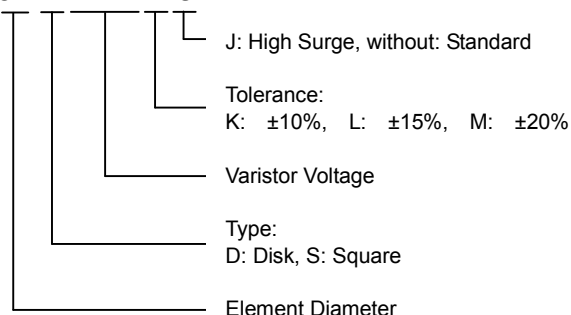
Type Number	Maximum Allowable voltage		Varistor Voltage V 1mA (V)	Maximum Clamping Voltage		Withstanding Surge Current		Maximum Energy (10/1000µs) (J)	Rated Power (W)	Typical Capacitance (Reference) @1KHZ (pF)
	V <sub>AC</sub> (V)	V <sub>DC</sub> (V)		I <sub>P</sub> (A)	V <sub>C</sub> (V)	1 Time	2 Times			
						I(A)				
32D201K	130	170	200(180~220)	150	340	20000	14000	155	1.0	3200
32D221K	140	180	220(198~242)	150	360	20000	14000	170	1.0	2900
32D241K	150	200	240(216~264)	150	395	20000	14000	190	1.0	2650
32D271K	175	225	270(243~297)	150	455	20000	14000	210	1.0	2400
32D301K	190	250	300(270~330)	150	500	20000	14000	220	1.0	2100
32D331K	210	275	330(297~363)	150	550	20000	14000	230	1.0	1900
32D361K	230	300	360(324~396)	150	595	20000	14000	245	1.0	1750
32D391K	250	320	390(351~429)	150	650	20000	14000	300	1.0	1600
32D431K	275	350	430(387~473)	150	710	20000	14000	335	1.0	1500
32D471K	300	335	470(423~517)	150	775	20000	14000	385	1.0	1400
32D511K	320	415	510(459~561)	150	845	20000	14000	420	1.0	1250
32D561K	350	460	560(504~616)	150	925	20000	14000	420	1.0	1150
32D621K	385	505	620(558~682)	150	1025	20000	14000	425	1.0	1050
32D681K	420	560	680(612~748)	150	1120	20000	14000	430	1.0	950
32D751K	460	615	750(675~825)	150	1240	20000	14000	460	1.0	850
32D781K	485	640	780(702~858)	150	1290	20000	14000	485	1.0	850
32D821K	510	670	820(738~902)	150	1355	20000	14000	505	1.0	800
32D911K	550	745	910(819~1001)	150	1500	20000	14000	560	1.0	700
32D102K	625	825	1000(900~1100)	150	1650	20000	14000	620	1.0	650
32D112K	680	895	1100(990~1210)	150	1814	20000	14000	685	1.0	600
32D122K	750	990	1200(1080~1320)	150	1980	20000	14000	785	1.0	550
32D152K	900	1200	1500(1350~1650)	150	2475	20000	14000	950	1.0	500
32D182K	1000	1465	1800(1620~1980)	150	2970	20000	14000	1100	1.0	400

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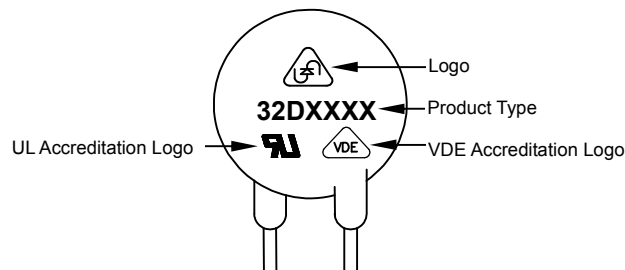
## 32D Series

### Part Numbering

**32 D XXX K J**



### Part Marking



### Packaging Information

Part Number	Quantity	Packaging Option	Packaging Specification
32DXXXXX	500	BOX	Bulk Pack

### Package Dimensions Unit: mm

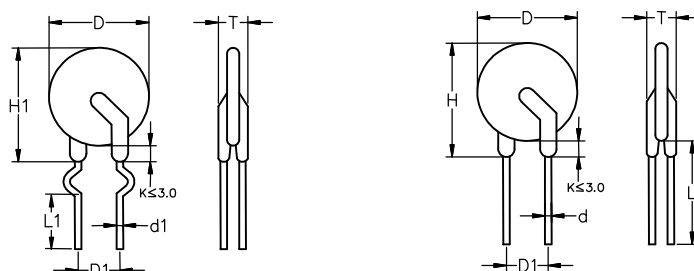


TABLE1

Symbol	Dimensions
H(max.)	26.5
H1(max.)	28.0
L(min.)	20.0
L1(min.)	15.0
D(max.)	23.0
D1(±0.8)	7.5+0.8/10.0+1.0
T(max.)	TABLE2
d(±0.05)	0.8
d1(±0.4)	1.4

TABLE2

Model	T(max.)	Model	T(max.)
180K	4.8	331K	5.8
220K	4.9	361K	6.0
270K	5.0	391K	6.2
330K	5.2	431K	6.5
390K	5.5	471K	6.7
470K	5.6	511K	6.9
560K	5.7	561K	7.0
680K	5.08	621K	7.2
820K	4.9	681K	7.5
101K	5.1	751K	8.2
121K	5.3	781K	5.3
151K	5.6	821K	8.5
181K	5.0	911K	9.0
201K	5.2	102K	9.5
221K	5.3	112K	10.1
241K	5.4	122K	10.6
271K	5.6	182K	13.2
301K	5.7	-	-