

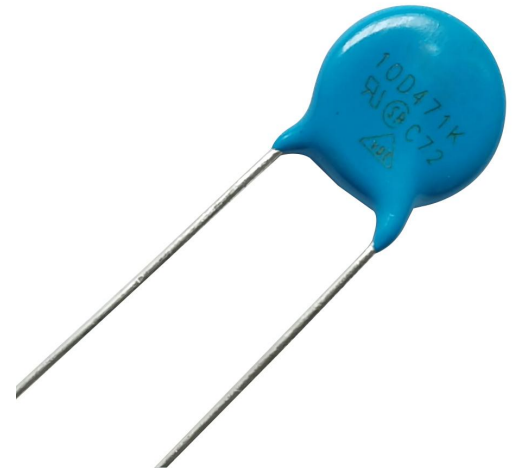
### Metal Oxide Varistors (MOV) Data sheet

#### Features

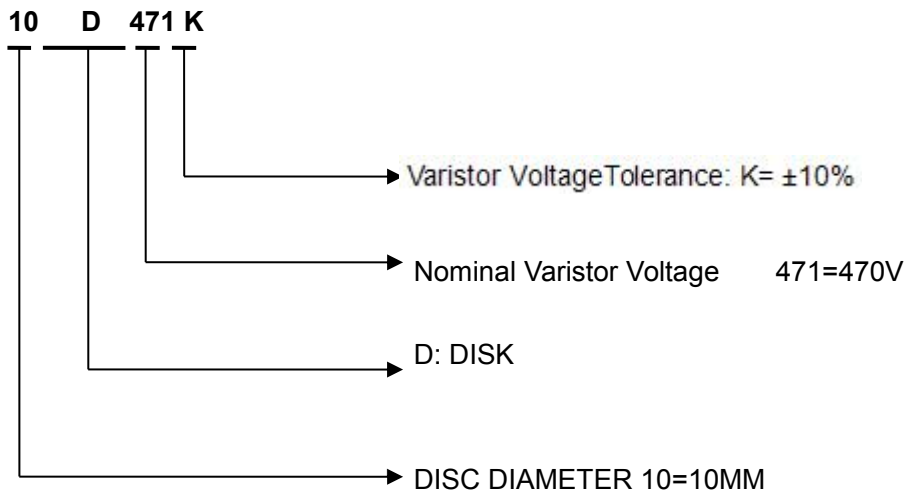
- Wide operating voltage (V1mA) range from 18V to 1100V
- Fast responding to transient over-voltage
- Large absorbing transient energy capability
- Low clamping ratio and no follow-on current
- Meets MSL level 1, per J-STD-020
- Safety certification: UL1414,UL1449,CSA,VDE
- Operating Temperature: -40°C ~ +85°C
- Storage Temperature: -40°C ~ +125°C

#### 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



#### Description of Part Number

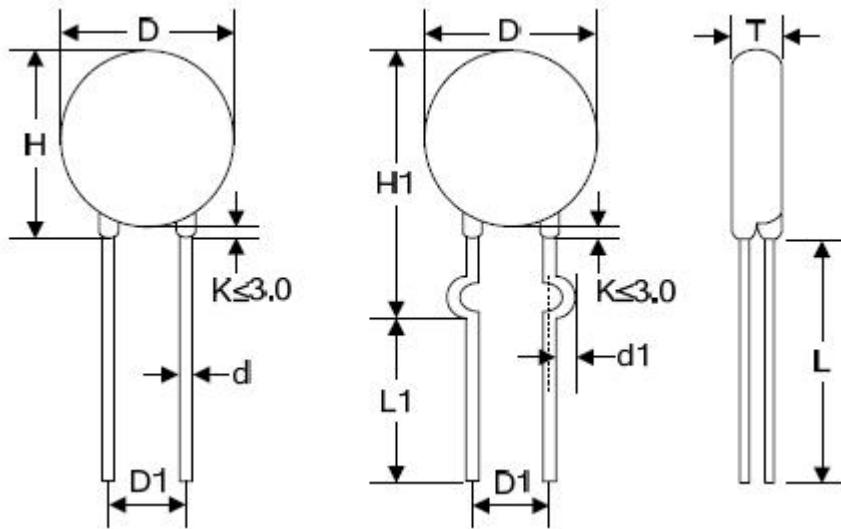


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Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage $V_{1mA}(V)$	Maximum Clamping Voltage		Withstanding Surge Current $I(A)$	Maximum Energy (10/1000 $\mu$ s) $(J)$	Rated Power $(W)$	Typical Capacitance (Reference) 1KHz(pf)
	$V_{AC}(V)$	$V_{DC}(V)$		$I_P(A)$	$V_C(V)$				
10D180K	11	14	18(15~21.6)	5	36	500	2.1	0.05	5600
10D220K	14	18	22(19.5~26)	5	43	500	2.5	0.05	4500
10D270K	17	22	27(24~30)	5	53	500	3	0.05	3700
10K330K	20	26	33(29.5~36.5)	5	66	500	4	0.05	3000
10D390K	25	31	39(35~43)	5	77	500	4.6	0.05	2400
10D470K	30	38	47(42~54)	5	93	500	5.5	0.05	2100
10D560K	35	45	56(50~62)	5	100	500	7	0.05	1800
10D680K	40	56	68(61~75)	5	135	500	8.2	0.05	1500
10D820K	50	65	82(74~90)	25	135	2500	12	0.4	1200
10D101K	60	85	100(90~110)	25	165	2500	15	0.4	1000
10D121K	75	100	120(108~132)	25	200	2500	18	0.4	830
10D151K	95	125	150(135~165)	25	250	2500	22	0.4	670
10D181K	115	150	180(162~198)	25	300	2500	27	0.4	560
10D201K	130	170	200(180~220)	25	340	2500	30	0.4	500
10D221K	140	180	220(198~242)	25	360	2500	32	0.4	450
10D241K	150	200	240(216~264)	25	395	2500	35	0.4	420
10D271K	175	225	270(243~297)	25	455	2500	40	0.4	370
10D301K	190	250	300(270~330)	25	500	2500	40	0.4	330
10D331K	210	275	330(297~363)	25	550	2500	40	0.4	300
10D361K	230	300	360(324~396)	25	595	2500	43	0.4	280
10D391K	250	320	390(351~429)	25	650	2500	47	0.4	260
10D431K	275	350	430(387~473)	25	710	2500	60	0.4	230
10D471K	300	385	470(423~517)	25	775	2500	65	0.4	210
10D511K	320	415	510(459~561)	25	845	2500	70	0.4	200
10D561K	350	460	560(504~616)	25	925	2500	70	0.4	180
10D621K	385	505	620(558~682)	25	1025	2500	70	0.4	160
10D681K	420	560	680(612~748)	25	1120	2500	70	0.4	150
10D751K	460	615	750(675~825)	25	1240	2500	70	0.4	130
10D781K	485	640	780(702~858)	25	1290	2500	80	0.4	130
10D821K	510	670	820(738~902)	25	1355	2500	85	0.4	120
10D911K	550	745	910(819~1001)	25	1500	2500	93	0.4	110
10D102K	625	825	1000(900~1100)	25	1650	2500	102	0.4	100
10D112K	680	895	1100(990~1210)	25	1815	2500	115	0.4	90

### Dimension(mm)



**TABLE 1**

Symbol	Dimensions
H(max.)	16.5
H1(max.)	17.5
L(min.)	20.0
L1(min.)	15.0
D(max.)	12.5
D1(±0.8)	7.5
T(max.)	TABLE 2
d(±0.05)	0.8
d1(±0.4)	1.4

**TABLE 2**

Model	T(max.)	Model	T(max.)
180K	4.6	301K	5.5
220K	4.7	331K	5.8
270K	4.8	361K	6.0
330K	5.0	391K	6.2
390K	5.3	431K	6.5
470K	5.4	471K	6.7
560K	5.5	511K	6.8
680K	5.6	561K	7.0
820K	4.7	621K	7.3
101K	4.9	681K	7.6
121K	5.1	751K	8.0
151K	5.4	781K	8.1
181K	4.8	821K	8.3
201K	5.0	911K	8.8
221K	5.1	102K	9.3
241K	5.2	112K	9.9
271K	5.4	182K	10.0

### Packing Information

Part Number	Quantity	Packaging Option	Packaging Specification
10DxxxK	500	Plastic bag	Bulk Pack

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