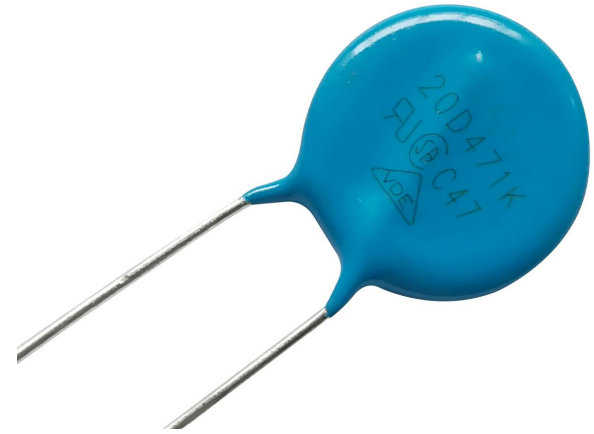


### Metal Oxide Varistors (MOV) Data sheet

#### Features

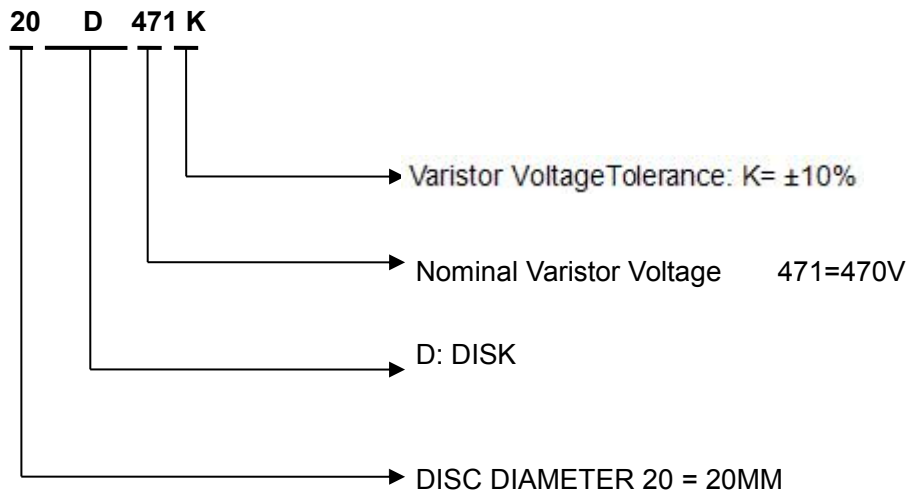
- Wide operating voltage (V1mA) range from 18V to 1800V
- Fast responding to transient over-voltage
- Large absorbing transient energy capability
- Low clamping ratio and no follow-on current
- Meets MSL level 1, per J-STD-020
- Safety certification: UL1414,UL1449,CSA,VDE
- Operating Temperature: -40°C ~ +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

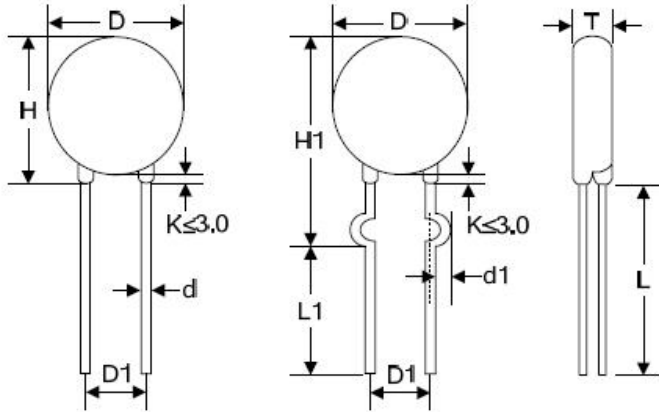


Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current	Maximum Energy (10/1000 $\mu$ s)	Rated Power	Typical Capacitance (Reference)
	V <sub>AC</sub> (V)	V <sub>DC</sub> (V)		V <sub>1mA</sub> (V)	I <sub>P</sub> (A)				
	Standard					I(A) Standard	(J) Standard	(W)	1KHz(pf)
20D180K	11	14	18(15~21.6)	20	36	2000	11	0.2	28500
20D220K	14	18	22(19.5~26)	20	43	2000	14	0.2	18500
20D270K	17	22	27(24~30)	20	53	2000	16	0.2	13000
20K330K	20	26	33(29.5~36.5)	20	65	2000	23	0.2	11500
20D390K	25	31	39(35~43)	20	77	2000	26	0.2	8500
20D470K	30	38	47(42~54)	20	93	2000	30	0.2	7400
20D560K	35	45	56(50~62)	20	100	2000	41	0.2	6500
20D680K	40	56	68(61~75)	20	135	2000	46	0.2	5800
20D820K	50	65	82(74~90)	100	135	6500	38	1	4900
20D101K	60	85	100(90~110)	100	165	6500	45	1	4000
20D121K	75	100	120(108~132)	100	200	6500	55	1	3300
20D151K	95	125	150(135~165)	100	250	6500	70	1	2700
20D181K	115	150	180(162~198)	100	300	6500	85	1	2200
20D201K	130	170	200(180~220)	100	340	6500	95	1	2000
20D221K	140	180	220(198~242)	100	360	6500	100	1	1800
20D241K	150	200	240(216~264)	100	395	6500	108	1	1650
20D271K	175	225	270(243~297)	100	455	6500	127	1	1500
20D301K	190	250	300(270~330)	100	500	6500	136	1	1300
20D331K	210	275	330(297~363)	100	550	6500	150	1	1200
20D361K	230	300	360(324~396)	100	595	6500	163	1	1100
20D391K	250	320	390(351~429)	100	650	6500	180	1	1000
20D431K	275	350	430(387~473)	100	710	6500	190	1	930
20D471K	300	385	470(423~517)	100	775	6500	220	1	850
20D511K	320	415	510(459~561)	100	845	6500	220	1	780
20D561K	350	460	560(504~616)	100	925	6500	220	1	710
20D621K	385	505	620(558~682)	100	1025	6500	220	1	650
20D681K	420	560	680(612~748)	100	1120	6500	230	1	600
20D751K	460	615	750(675~825)	100	1240	6500	255	1	580
20D781K	485	640	780(702~858)	100	1290	6500	265	1	560
20D821K	510	670	820(738~902)	100	1355	6500	282	1	525
20D911K	550	745	910(819~1001)	100	1500	6500	310	1	495
20D102K	625	825	1000(900~1100)	100	1650	6500	342	1	480

20D112K	680	895	1100(990~1210)	100	1815	6500	383	1.0	460
20D122K	750	990	1200(1080~1320)	100	1980	6500	408	1.0	320
20D182K	1000	1465	1800(1620~1980)	100	2970	6500	625	1.0	320

### Dimension(mm)



**TABLE 1**

Symbol	Dimensions
H(max.)	26.5
H1(max.)	28.0
L(min.)	20.0
L1(min.)	15.0
D(max.)	23.0
D1	7.5±0.8/10.0±1.0
T(max.)	TABLE 2
d(±0.05)	0.8/1.0
d1(±0.4)	1.4/1.6

**TABLE 2**

Model	T(max.)	Model	T(max.)
180K	4.35	361K	5.38
220K	4.44	391K	5.55
270K	4.59	431K	5.77
330K	4.80	471K	5.99
390K	4.56	511K	6.21
470K	4.77	561K	6.48
560K	5.02	621K	6.81
680K	5.32	681K	7.14
820K	4.48	751K	7.53
101K	4.65	781K	7.69
121K	4.80	821K	7.91
151K	4.52	911K	8.17
181K	4.66	102K	8.64
201K	4.76	112K	9.16
221K	4.84	122K	9.69
241K	4.95	142K	11.26
271K	5.00	162K	11.78
301K	5.05	182K	12.83
331K	5.22	-	-

### Packing Information

Part Number	Quantity	Packaging Option	Packaging Specification
20DxxxK	250	Plastic bag	Bulk Pack

[sales@huaandz.com](mailto:sales@huaandz.com)