

Metal Oxide Varistors (MOV) UL File NO: E317616

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

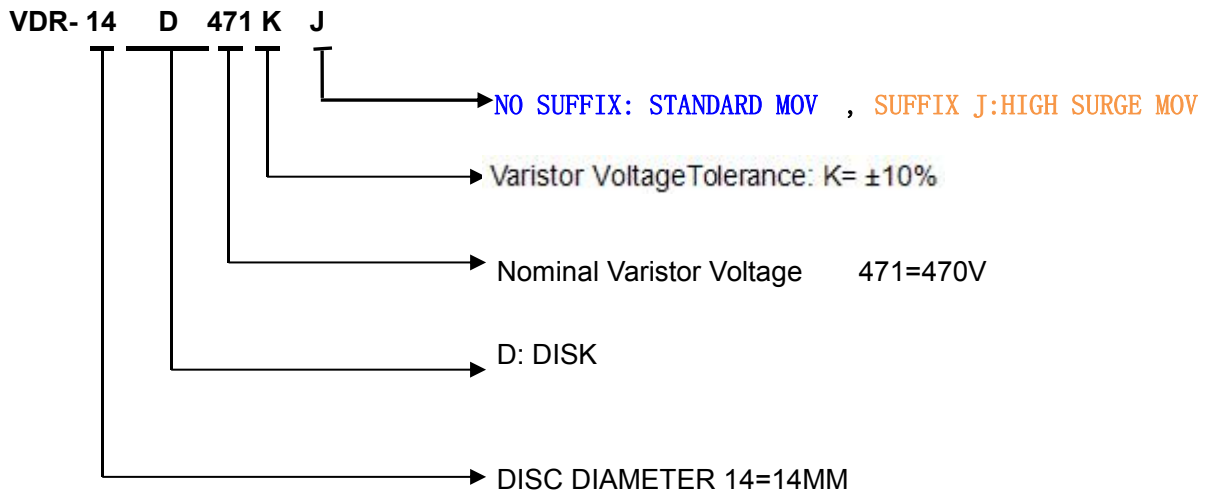


VDR-14D391K Picture

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



sales@huaandz.com

Electrical Characteristics



Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage	Withstanding Surge Current 8/20uS		Maximum Energy (10/1000µs)		Typical Capacitance (Reference)
Standard	High Surge	V _{AC} (V)	V _{DC} (V)	V _{1mA} (V)	V _c (V)	I(A)	I(A)	(J)	(J)	1KHz(pf)
					AT 50A	Standard	High Surge	Standard	High Surge	
VDR-14D180K	VDR-14D180KJ	11	14	18(15~21.6)	36	1000	2000	4	7	11100
VDR-14D220K	VDR-14D220KJ	14	18	22(19.5~26)	43	1000	2000	5	8	9100
VDR-14D270K	VDR-14D270KJ	17	22	27(24~30)	53	1000	2000	6	10	7400
VDR-14D330K	VDR-14D330KJ	20	26	33(29.5~36.5)	66	1000	2000	7.5	12	6100
VDR-14D390K	VDR-14D390KJ	25	31	39(35~43)	77	1000	2000	8.6	13	5100
VDR-14D470K	VDR-14D470KJ	30	38	47(42~54)	93	1000	2000	10	17	4300
VDR-14D560K	VDR-14D560KJ	35	45	56(50~62)	100	1000	2000	11	20	3600
VDR-14D680K	VDR-14D680KJ	40	56	68(61~75)	135	1000	2000	14	24	2900
VDR-14D820K	VDR-14D820KJ	50	65	82(74~90)	135	4500	6000	22	27	2400
VDR-14D101K	VDR-14D101KJ	60	85	100(90~110)	165	4500	6000	28	33	2000
VDR-14D121K	VDR-14D121KJ	75	100	120(108~132)	200	4500	6000	32	40	1700
VDR-14D151K	VDR-14D151KJ	95	125	150(135~165)	250	4500	6000	40	53	1300
VDR-14D181K	VDR-14D181KJ	115	150	180(162~198)	300	4500	6000	50	60	1100
VDR-14D201K	VDR-14D201KJ	130	170	200(180~220)	340	4500	6000	57	70	1000
VDR-14D221K	VDR-14D221KJ	140	180	220(198~242)	360	4500	6000	60	78	900
VDR-14D241K	VDR-14D241KJ	150	200	240(216~264)	395	4500	6000	63	84	830
VDR-14D271K	VDR-14D271KJ	175	225	270(243~297)	455	4500	6000	70	99	740
VDR-14D301K	VDR-14D301KJ	190	250	300(270~330)	500	4500	6000	77	108	670
VDR-14D331K	VDR-14D331KJ	210	275	330(297~363)	550	4500	6000	85	115	610
VDR-14D361K	VDR-14D361KJ	230	300	360(324~396)	595	4500	6000	93	130	560
VDR-14D391K	VDR-14D391KJ	250	320	390(351~429)	650	4500	6000	100	140	510
VDR-14D431K	VDR-14D431KJ	275	350	430(387~473)	710	4500	6000	115	155	460
VDR-14D471K	VDR-14D471KJ	300	385	470(423~517)	775	4500	6000	125	175	430
VDR-14D511K	VDR-14D511KJ	320	415	510(459~561)	845	4500	6000	125	180	390
VDR-14D561K	VDR-14D561KJ	350	460	560(504~616)	925	4500	6000	125	185	360
VDR-14D621K	VDR-14D621KJ	385	505	620(558~682)	1025	4500	6000	125	190	320
VDR-14D681K	VDR-14D681KJ	420	560	680(612~748)	1120	4500	6000	130	200	290
VDR-14D751K	VDR-14D751KJ	460	615	750(675~825)	1240	4500	6000	143	210	270
VDR-14D781K	VDR-14D781KJ	485	640	780(702~858)	1290	4500	6000	148	220	260
VDR-14D821K	VDR-14D821KJ	510	670	820(738~902)	1355	4500	6000	157	235	240
VDR-14D911K	VDR-14D911KJ	550	745	910(819~1001)	1500	4500	6000	175	255	220

Electrical Characteristics



Part Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage	Withstanding Surge Current 8/20uS		Maximum Energy (10/1000μs)		Typical Capacitance (Reference)
Standard	High Surge	V _{AC} (V)	V _{DC} (V)	V _{1mA} (V)	V _c (V)	I(A)	I(A)	(J)	(J)	1KHz(pf)
					AT 50A	Standard	High Surge	Standard	High Surge	
VDR-14D102K	VDR-14D102KJ	625	825	1000(900~1100)	1650	4500	6000	190	280	200
VDR-14D112K	VDR-14D112KJ	680	895	1100(990~1210)	1815	4500	6000	213	310	180
VDR-14D122K	VDR-14D122KJ	750	990	1200(1080~1320)	1980	4500	6000	213	310	150
VDR-14D182K	VDR-14D182KJ	1000	1465	1800(1620~1980)	2970	4500	6000	250	335	130

Dimension(mm)

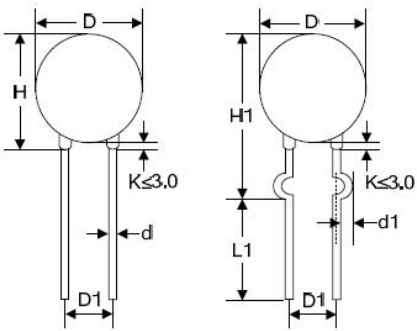


TABLE 1

Symbol	Dimensions
H(max.)	20.0
H1(max.)	21.0
L(min.)	20.0
L1(min.)	15.0
D(max.)	16.5
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	3.94	301K	4.64
220K	4.02	331K	5.02
270K	4.16	361K	5.20
330K	4.38	391K	5.38
390K	4.14	431K	5.63
470K	4.33	471K	5.87
560K	4.58	511K	6.12
680K	4.87	561K	6.42
820K	4.08	621K	6.79
101K	4.25	681K	7.16
121K	4.40	751K	7.23
151K	4.12	781K	7.29
181K	4.26	821K	7.51
201K	4.36	911K	7.55
221K	4.40	102K	8.00
241K	4.55	112K	8.50
271K	4.60	182K	12.0

Packing Information

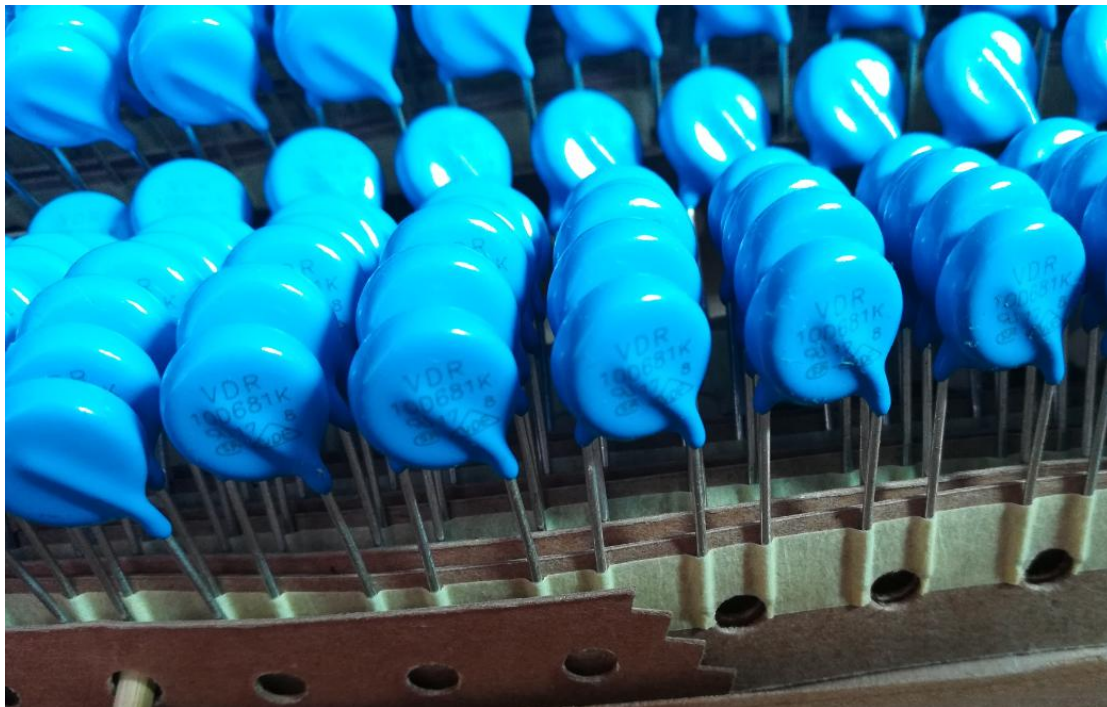
Part Number	Quantity	Packaging Option	Packaging Specification
VDR-14DxxxK	500PCS	Plastic bag	Bulk Pack

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Bulk Pack



Ammo Pack



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