



Φ14mm Metal Oxide Varistor 14D820K / 14D820KJ For Lower DC Voltage Applications

Our Product Introduction

for more products please visit us on socaydiode.com

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: 14D820K/14D820KJ
- Minimum Order Quantity: 500PCS
- Price: Negotiable
- Packaging Details: AMMO packing ,bag
- Delivery Time: 2weeks



Product Specification

- Product Name: Metal Oxide Varistor
- Dimensions: Φ14mm
- VAC: 50V
- VDC: 65V
- Varistor Voltage: 82(74~90)V
- IP: 50A
- VC: 135V
- Rated Power: 0.6W
- Typ. Capacitance: 2400pF
- Withstanding Surge Current: 4.5KA (1 Time)
- Highlight: Metal Oxide Varistor 14D820KJ, 14mm Metal Oxide Varistor, 14D820K



More Images



Product Description

Φ14mm Metal Oxide Varistor 14D820K / 14D820KJ For Lower DC Voltage Applications

DATASHEET: [14D Series_v2308.1.pdf](#)

Type Number		Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current		Maximum Energy (10/1000μs)		Rated Power	Typical Capacitance (Reference)		
Standard	High Surge	V _{AC} (V)	V _{DC} (V)	V _{1mA} (V)	I _P (A)	V _C (V)	I(A) Standard	I(A) High Surge	(J) Standard	(J) High Surge	(W)	@1KHZ (pF)		
							1 Time	2 Times	1 Time	2 Times				
14D180K	14D180KJ	11	14	18(15~21.6)	10	36	1000	500	2000	1000	4.0	7.0	0.1	11100
14D220K	14D220KJ	14	18	22(19.5~26)	10	43	1000	500	2000	1000	5.0	8.0	0.1	9100
14D270K	14D270KJ	17	22	27(24~30)	10	53	1000	500	2000	1000	6.0	10.0	0.1	7400

Our Product Introduction

for more products please visit us on socaydiode.com

14D33 OK	14D33 OKJ	20	26	33(29.5~36.5)	10	66	100 0	500	200 0	100 0	7.5	12.0	0.1	6100
14D39 OK	14D39 OKJ	25	31	39(35~43)	10	77	100 0	500	200 0	100 0	8.6	13.0	0.1	5100
14D47 OK	14D47 OKJ	30	38	47(42~54)	10	93	100 0	500	200 0	100 0	10.0	17.0	0.1	4300
14D56 OK	14D56 OKJ	35	45	56(50~62)	10	100	100 0	500	200 0	100 0	11.0	20.0	0.1	3600
14D68 OK	14D68 OKJ	40	56	68(61~75)	10	135	100 0	500	200 0	100 0	14.0	24.0	0.1	2900
14D82 OK	14D82 OKJ	50	65	82(74~90)	50	135	450 0	250 0	600 0	500 0	22.0	27.0	0.6	2400
14D10 1K	14D10 1KJ	60	85	100(90~110)	50	165	450 0	250 0	600 0	500 0	28.0	33.0	0.6	2000
14D12 1K	14D12 1KJ	75	100	120(108~132)	50	200	450 0	250 0	600 0	500 0	32.0	40.0	0.6	1700
14D15 1K	14D15 1KJ	95	125	150(135~165)	50	250	450 0	250 0	600 0	500 0	40.0	53.0	0.6	1300
14D18 1K	14D18 1KJ	115	150	180(162~198)	50	300	450 0	250 0	600 0	500 0	50.0	60.0	0.6	1100
14D20 1K	14D20 1KJ	130	170	200(180~220)	50	340	450 0	250 0	600 0	500 0	57.0	70.0	0.6	1000
14D22 1K	14D22 1KJ	140	180	220(198~242)	50	360	450 0	250 0	600 0	500 0	60.0	78.0	0.6	900
14D24 1K	14D24 1KJ	150	200	240(216~264)	50	395	450 0	250 0	600 0	500 0	63.0	84.0	0.6	830
14D27 1K	14D27 1KJ	175	225	270(243~297)	50	455	450 0	250 0	600 0	500 0	70.0	99.0	0.6	740
14D30 1K	14D30 1KJ	190	250	300(270~330)	50	500	450 0	250 0	600 0	500 0	77.0	108	0.6	670
14D33 1K	14D33 1KJ	210	275	330(297~363)	50	550	450 0	250 0	600 0	500 0	85.0	115	0.6	610
14D36 1K	14D36 1KJ	230	300	360(324~396)	50	595	450 0	250 0	600 0	500 0	93.0	130	0.6	560
14D39 1K	14D39 1KJ	250	320	390(351~429)	50	650	450 0	250 0	600 0	500 0	100	140	0.6	510
14D43 1K	14D43 1KJ	275	350	430(387~473)	50	710	450 0	250 0	600 0	500 0	115	155	0.6	460
14D47 1K	14D47 1KJ	300	385	470(423~517)	50	775	450 0	250 0	600 0	500 0	125	175	0.6	430
14D51 1K	14D51 1KJ	320	415	510(459~561)	50	845	450 0	250 0	600 0	500 0	125	180	0.6	390
14D56 1K	14D56 1KJ	350	460	560(504~616)	50	925	450 0	250 0	600 0	500 0	125	185	0.6	360
14D62 1K	14D62 1KJ	385	505	620(558~682)	50	1025	450 0	250 0	600 0	500 0	125	190	0.6	320
14D68 1K	14D68 1KJ	420	560	680(612~748)	50	112	450 0	250 0	600 0	500 0	130	200	0.6	290
14D75 1K	14D75 1KJ	460	615	750(675~825)	50	124	450 0	250 0	600 0	500 0	143	210	0.6	270
14D78 1K	14D78 1KJ	485	640	780(702~858)	50	129	450 0	250 0	600 0	500 0	148	220	0.6	260
14D82 1K	14D82 1KJ	510	670	820(738~902)	50	135	450 0	250 0	600 0	500 0	157	235	0.6	240
14D91 1K	14D91 1KJ	550	745	910(819~1001)	50	150	450 0	250 0	600 0	500 0	175	255	0.6	220
14D10 2K	14D10 2KJ	625	825	1000(900~1100)	50	165	450 0	250 0	600 0	500 0	190	280	0.6	200
14D11 2K	14D11 2KJ	680	895	1100(990~1210)	50	181	450 0	250 0	600 0	500 0	213	310	0.6	180
14D12 2K	14D12 2KJ	750	990	1200(1080~1320)	50	198	450 0	250 0	600 0	500 0	213	310	0.6	150
14D14 2K	14D14 2KJ	880	1140	1400(1260~1540)	50	231	450 0	250 0	600 0	500 0	238	327	0.6	150
14D16 2K	14D16 2KJ	1000	1280	1600(1400~1760)	50	264	450 0	250 0	600 0	500 0	243	331	0.6	140
14D18 2K	14D18 2KJ	1000	1465	1800(1620~1980)	50	297	450 0	250 0	600 0	500 0	250	335	0.6	130



Description:

The 14D 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 6kA (8/20 μs pulse) to protect against high peak surges, including indirect lightning strike interference, system switching transients and abnormal fast transients from the power source.

Classification:

SMD:0402,0603,0805,1206,1210,1812,2220

DIP:5D,7D,10D,14D,20D,25D,32D

Current:1A~15KA

The smaller the size, the lower the price,

The lower the throughput, the larger the size,

The higher the throughput, the more expensive,

The higher the voltage, the thicker the tube.

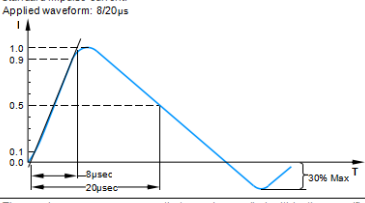
Response time≤10NS

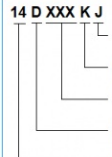
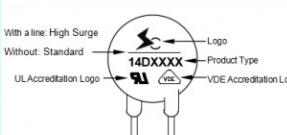
Applications:

Power protection, Switches, POS machines, Lightning arresters, Building intercoms, Monitoring systems, Parking cards, Transmission systems, Instrumentation,Meters, Communication products, Control panels.

Material	No Radioactive Material
Operating Temperature	-40 ~ +85
Storage Temperature	-55 ~ +125
Body	Nickel Plated
Leads	Tin Plated
Devices with No lead	Nickel Plated

Part Number	Quantity	Packaging Option	Packaging Specification
14DXXXXX	500	Plastic bag	Bulk Pack

Electrical Rating																											
Item	Test Condition / Description	Requirement																									
Maximum Allowable Voltage	The recommended maximum sine wave voltage (RMS) or the maximum DC voltage can be applied continuously.																										
Varistor Voltage	The voltage between two terminals with the specified measuring current 1mA DC applied is call Vb																										
Maximum Clamping Voltage	The maximum voltage between two terminals with the specification standard impulse current. Applied waveform: 8/20μs 	To meet the specified value																									
Rated Wattage	The maximum average power that can be applied within the specified ambient temperature.																										
Energy	The maximum energy within the varistor voltage change of ±10% when one impulse of 10/1000μs, or 2 msec. is applied.																										
Withstanding Surge Current	The maximum current within the varistor voltage change of ±10% with the standard impulse current (8/20μs) applied one time																										
Varistor Voltage Temp. Coefficient	$\frac{V_b \text{ at } 70^{\circ}\text{C} - V_b \text{ at } 20^{\circ}\text{C}}{V_b \text{ at } 20^{\circ}\text{C}} \times \frac{1}{50} \times 100(\% / ^{\circ}\text{C})$	0.05% / °C max																									
Surge Life	The change of Vb shall be measured after the impulse listed below is applied 10,000 times continuously with the interval of ten seconds at room temperature. <table><tr><td rowspan="2">5D Series</td><td>180K to 680K</td><td>10A (8/20μs)</td></tr><tr><td>820K to 751K</td><td>20A (8/20μs)</td></tr><tr><td rowspan="2">7D Series</td><td>180K to 680K</td><td>25A (8/20μs)</td></tr><tr><td>820K to 821K</td><td>50A (8/20μs)</td></tr><tr><td rowspan="2">10D Series</td><td>180K to 680K</td><td>50A (8/20μs)</td></tr><tr><td>820K to 112K</td><td>100A (8/20μs)</td></tr><tr><td rowspan="2">14D Series</td><td>180K to 680K</td><td>75A (8/20μs)</td></tr><tr><td>820K to 182K</td><td>150A (8/20μs)</td></tr><tr><td rowspan="2">20D Series</td><td>180K to 680K</td><td>100A (8/20μs)</td></tr><tr><td>820K to 182K</td><td>200A (8/20μs)</td></tr></table>	5D Series	180K to 680K	10A (8/20μs)	820K to 751K	20A (8/20μs)	7D Series	180K to 680K	25A (8/20μs)	820K to 821K	50A (8/20μs)	10D Series	180K to 680K	50A (8/20μs)	820K to 112K	100A (8/20μs)	14D Series	180K to 680K	75A (8/20μs)	820K to 182K	150A (8/20μs)	20D Series	180K to 680K	100A (8/20μs)	820K to 182K	200A (8/20μs)	ΔVb / Vb ≤ ±10%
5D Series	180K to 680K		10A (8/20μs)																								
	820K to 751K	20A (8/20μs)																									
7D Series	180K to 680K	25A (8/20μs)																									
	820K to 821K	50A (8/20μs)																									
10D Series	180K to 680K	50A (8/20μs)																									
	820K to 112K	100A (8/20μs)																									
14D Series	180K to 680K	75A (8/20μs)																									
	820K to 182K	150A (8/20μs)																									
20D Series	180K to 680K	100A (8/20μs)																									
	820K to 182K	200A (8/20μs)																									

Part Numbering	Part Marking
14 D XXX K J  J: High Surge, without: Standard Tolerance: K: ±10%, L: ±15%, M: ±20% Varistor Voltage Type: D: Disk, S: Square Element Diameter	With a line: High Surge Without: Standard  Logo Product Type UL Accreditation Logo VDE Accreditation Logo

Package Dimensions (Unit: mm)

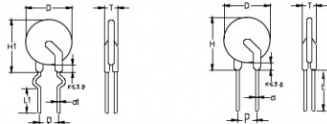


TABLE1	
Symbol	Dimensions
H(max.)	20.0
H1(max.)	20.0
L(min.)	15.0
L1(min.)	15.0
D1(max.)	17.0
P1(±0.0)	7.5
T(max.)	TABLE2
d(±0.05)	0.8
d1(±0.05)	0.8

TABLE2			
Model	T(max.)	Model	T(max.)
180K	4.6	361K	6.0
220K	4.7	391K	6.2
270K	4.8	431K	6.5
330K	5.0	471K	6.7
390K	5.3	511K	6.8
470K	5.4	561K	7.0
560K	5.5	621K	7.3
680K	5.6	681K	7.6
820K	4.7	751K	8.0
101K	4.9	781K	8.1
121K	5.1	821K	8.3
151K	5.4	911K	8.8
181K	4.8	102K	9.3
201K	5.0	112K	9.9
221K	5.1	122K	10.4
241K	5.2	142K	10.5
271K	5.4	162K	11.0
301K	5.5	182K	13.0
331K	5.8	--	--

We are manufacturer and supplier with over 20 years experience for passive components as below

- 1- ESD
- 2- TVS Diodes
- 3- PPTC Resettable Fuse
- 4- Gas Discharge Tube
- 5- NTC Thermistor
- 6- Varistor,etc.

 **Shenzhen Socay Electronics Co., Ltd.**

+8618126201429

sylvia@socay.com

socaydiode.com

4/F, Block C, HeHengXing Science & Technology Park, 19 MinQing Road, LongHua District, Shenzhen City, Guangdong Province, China