



10D Series Metal Oxide Varistor 10D820K / 10D820KJ Φ 10mm 135VC Rated Power 0.4W

Our Product Introduction

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Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: 10D820K/10D820KJ
- Minimum Order Quantity: 500PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Product Name: Metal Oxide Varistor
- Package Type: Φ 10mm
- VAC: 50V
- VDC: 65V
- Varistor Voltage: 82(74~90)V
- IP: 25A
- VC: 135V
- Rated Power: 0.4W
- Typ. Capacitance: 1200pF
- Withstanding Surge Current: 2.5KA (1 Time)
- Highlight: 10D Metal Oxide Varistor, Metal Oxide Varistor 0.4W, 10D820K



More Images



Product Description

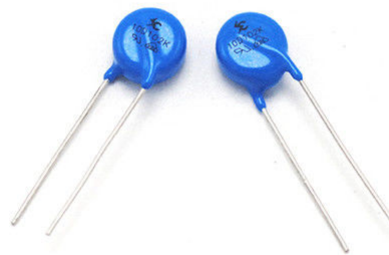
10D820K/10D820KJ 10D Series Metal Oxide Varistor Φ 10mm 135VC Rated Power 0.4W

DATASHEET: [10D Series_v2306.1.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				
10D180K	10D180KJ	11	14	18(15~21.6)	5	36	500	250	2000	1000	2.1	3.0	0.05	5600
10D220K	10D220KJ	14	18	22(19.5~26)	5	43	500	250	2000	1000	2.5	5.0	0.05	4500
10D270K	10D270KJ	17	22	27(24~30)	5	53	500	250	2000	1000	3.0	6.0	0.05	3700

Our Product Introduction

10D33 0K	10D33 0KJ	20	26	33(29.5~36.5)	5	66	500	250	200 0	100 0	4.0	7.0	0.05	3000
10D39 0K	10D39 0KJ	25	31	39(35~43)	5	77	500	250	200 0	100 0	4.6	9.0	0.05	2400
10D47 0K	10D47 0KJ	30	38	47(42~54)	5	93	500	250	200 0	100 0	5.5	11.0	0.05	2100
10D56 0K	10D56 0KJ	35	45	56(50~62)	5	100	500	250	200 0	100 0	7.0	13.0	0.05	1800
10D68 0K	10D68 0KJ	40	56	68(61~75)	5	135	500	250	200 0	100 0	8.2	15.0	0.05	1500
10D82 0K	10D82 0KJ	50	65	82(74~90)	25	135	250 0	125 0	350 0	250 0	12.0	17.0	0.4	1200
10D10 1K	10D10 1KJ	60	85	100(90~110)	25	165	250 0	125 0	350 0	250 0	15.0	18.0	0.4	1000
10D12 1K	10D12 1KJ	75	100	120(108~132)	25	200	250 0	125 0	350 0	250 0	18.0	21.0	0.4	830
10D15 1K	10D15 1KJ	95	125	150(135~165)	25	250	250 0	125 0	350 0	250 0	22.0	25.0	0.4	670
10D18 1K	10D18 1KJ	115	150	180(162~198)	25	300	250 0	125 0	350 0	250 0	27.0	30.0	0.4	560
10D20 1K	10D20 1KJ	130	170	200(185~215)	25	340	250 0	125 0	350 0	250 0	30.0	35.0	0.4	500
10D22 1K	10D22 1KJ	140	180	220(198~242)	25	360	250 0	125 0	350 0	250 0	32.0	39.0	0.4	450
10D24 1K	10D24 1KJ	150	200	240(216~264)	25	395	250 0	125 0	350 0	250 0	35.0	42.0	0.4	420
10D27 1K	10D27 1KJ	175	225	270(243~297)	25	455	250 0	125 0	350 0	250 0	40.0	49.0	0.4	370
10D30 1K	10D30 1KJ	190	250	300(270~330)	25	500	250 0	125 0	350 0	250 0	40.0	54.0	0.4	330
10D33 1K	10D33 1KJ	210	275	330(297~363)	25	550	250 0	125 0	350 0	250 0	40.0	58.0	0.4	300
10D36 1K	10D36 1KJ	230	300	360(324~396)	25	595	250 0	125 0	350 0	250 0	43.0	65.0	0.4	280
10D39 1K	10D39 1KJ	250	320	390(351~429)	25	650	250 0	125 0	350 0	250 0	47.0	70.0	0.4	260
10D43 1K	10D43 1KJ	275	350	430(387~473)	25	710	250 0	125 0	350 0	250 0	60.0	80.0	0.4	230
10D47 1K	10D47 1KJ	300	385	470(423~517)	25	775	250 0	125 0	350 0	250 0	65.0	85.0	0.4	210
10D51 1K	10D51 1KJ	320	415	510(459~561)	25	845	250 0	125 0	350 0	250 0	70.0	90.0	0.4	200
10D56 1K	10D56 1KJ	350	460	560(504~616)	25	925	250 0	125 0	350 0	250 0	70.0	92.0	0.4	180
10D62 1K	10D62 1KJ	385	505	620(558~682)	25	1025	250 0	125 0	350 0	250 0	70.0	95.0	0.4	160
10D68 1K	10D68 1KJ	420	560	680(612~748)	25	1125	250 0	125 0	350 0	250 0	70.0	98.0	0.4	150
10D75 1K	10D75 1KJ	460	615	750(675~825)	25	1245	250 0	125 0	350 0	250 0	70.0	100.0	0.4	130
10D78 1K	10D78 1KJ	485	640	780(702~858)	25	1295	250 0	125 0	350 0	250 0	80.0	105.0	0.4	130
10D82 1K	10D82 1KJ	510	670	820(738~902)	25	1355	250 0	125 0	350 0	250 0	85.0	110.0	0.4	120
10D91 1K	10D91 1KJ	550	745	910(819~1001)	25	1505	250 0	125 0	350 0	250 0	93.0	130.0	0.4	110
10D10 2K	10D10 2KJ	625	825	1000(900~1100)	25	1655	250 0	125 0	350 0	250 0	102.0	140.0	0.4	100
10D11 2K	10D11 2KJ	680	895	1100(990~1210)	25	1814	250 0	125 0	350 0	250 0	115.0	155.0	0.4	90



Description:

The 10D 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 3.5KA (8/20 μ s pulse) to protect against high peak surges, including indirect lightning strike interference, system switching transients and abnormal fast transients from the power source.

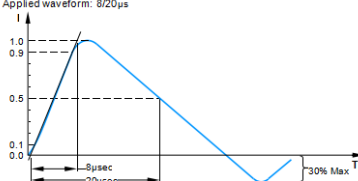
Applications:

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

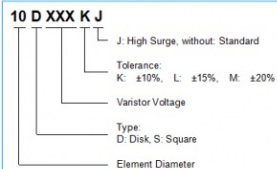
Material	No Radioactive Material
Operating Temperature	-40 ~ +85
Storage Temperature	-55 ~ +125
Body	Nickel Plated
Leads	Tin Plated
Devices with No lead	Nickel Plated

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

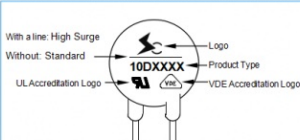
Electrical Rating

Item	Test Condition / Description	Requirement																											
Maximum Allowable Voltage	The recommended maximum sine wave voltage (RMS) or the maximum DC voltage can be applied continuously.	To meet the specified value																											
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 																												
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.	0.05% / °C max																											
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	$\frac{V_b \text{ at } 20^\circ\text{C} - V_b \text{ at } 70^\circ\text{C}}{V_b \text{ at } 20^\circ\text{C}} \times \frac{1}{50} \times 100 (\% / ^\circ\text{C})$																												
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 border="1" data-bbox="526 1008 885 1198"> <thead> <tr> <th>Series</th><th>Resistance Range</th><th>Impulse Current (8/20µs)</th></tr> </thead> <tbody> <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> </tbody> </table>		Series	Resistance Range	Impulse Current (8/20µs)	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
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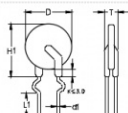
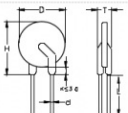
Part Numbering



Part Marking



Package Dimensions Unit: mm

					
Symbol	Dimensions	Model	T(max.)	Model	T(max.)
H(max.)	16.0	180K	4.6	301K	5.5
H1(max.)	16.0	220K	4.7	331K	5.8
L(min.)	15.0	270K	4.8	361K	6.0
L1(min.)	15.0	330K	5.0	391K	6.2
D(max.)	13.0	390K	5.3	431K	6.5
P(±0.8)	7.5	470K	5.4	471K	6.7
T(max.)	TABLE2	560K	5.5	511K	6.8
d(±0.05)	0.8	680K	5.6	561K	7.0
d1(±0.05)	0.8	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		

FAQ

Q1. Can I have a sample order ?

A: Yes, we welcome sample order to test and check quality. Mixed samples are acceptable.

Q2. What about the lead time?

A: Sample needs 1 days, mass production time needs 1-2 weeks for order quantity more than

Q3. Do you have any MOQ ?

A: MOQ depend on the type of product, 1pc for sample checking is available

Q4. How do you ship the goods and how long does it take to arrive?

A: We usually ship by DHL, UPS, FedEx or TNT. It usually takes 3-5 days to arrive. Airline and sea shipping also optional.

Q5. How to proceed an order ?

A: Firstly let us know your requirements or application.

Secondly We quote according to your requirements or our suggestions.

Thirdly customer confirms the samples and places deposit for formal order.
Fourthly We arrange the production.
Q6: Do you offer guarantee for the products?
A: Yes, we offer 2-5 years warranty to our products.



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