



07D Series MOV Metal Oxide Varistor 07D820K / 07D820KJ Φ 7mm 82V Voltage 1200A

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: 07D820K/07D820KJ
- Minimum Order Quantity: 1000PCS
- Price: Negotiable
- Packaging Details: tape reel, bulk
- Delivery Time: 1-3weeks



Product Specification

- Name: Varistor 07D
- Package Type: Φ 7mm
- VAC: 50V
- VDC: 65V
- Varistor Voltage: 82(74~90)V
- IP: 10A
- VC: 135V
- Rated Power: 0.25W
- Typ. Capacitance: 600pF
- Highlight: 07D Metal Oxide Varistor,
Metal Oxide Varistor 1200A, 07D820K



More Images



Product Description

07D Series Metal Oxide Varistor 07D820K/07D820KJ, Φ 7mm 82V Varistor Voltage MOV 1200A

DATASHEET: [07D Series_v2306.1.pdf](#)

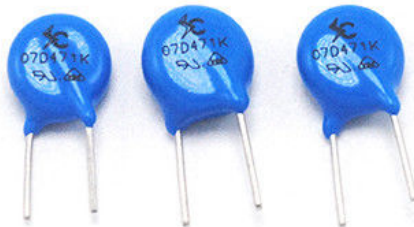
MOV Varistor Slection Method

- 1, To know the customer's product, operating voltage, application port, protection level.
- 2, DC (operating voltage) > 1.5 times the operating voltage in the circuit when used in high voltage products
- 3, Select the size, voltage and flow rate of the device according to the application port and protection class.

Type Number		Maximum Allowable voltage		Varistor Voltage	Maximum Clamping Voltage		Withstanding Surge Current				Maximum Energy (10/1000 μ s)		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 Time	1 Time	2 Time				
07D180K	07D180KJ	11	14	18(15~21.6)	2.5	36	250	125	500	250	0.9	2.0	0.02	2800
07D220K	07D220KJ	14	18	22(19.5~26)	2.5	43	250	125	500	250	1.1	2.4	0.02	2300
07D270K	07D270KJ	17	22	27(24~30)	2.5	53	250	125	500	250	1.4	3.0	0.02	1800
07D330K	07D330KJ	20	26	33(29.5~36.5)	2.5	66	250	125	500	250	1.7	3.5	0.02	1500
07D390K	07D390KJ	25	31	39(35~43)	2.5	77	250	125	500	250	2.1	4.0	0.02	1300
07D470K	07D470KJ	30	38	47(42~54)	2.5	93	250	125	500	250	2.5	5.0	0.02	1100
07D560K	07D560KJ	35	45	56(50~62)	2.5	110	250	125	500	250	3.1	6.0	0.02	900
07D680K	07D680KJ	40	56	68(61~75)	2.5	135	250	125	500	250	3.6	7.0	0.02	740
07D820K	07D820KJ	50	65	82(74~90)	10	135	1200	600	1750	1250	5.5	10.0	0.25	600
07D101K	07D101KJ	60	85	100(90~110)	10	165	1200	600	1750	1250	6.5	12.0	0.25	500
07D121K	07D121KJ	75	100	120(108~132)	10	200	1200	600	1750	1250	7.8	13.0	0.25	420
07D151K	07D151KJ	95	125	150(135~165)	10	250	1200	600	1750	1250	9.7	13.0	0.25	330
07D181K	07D181KJ	115	150	180(162~198)	10	300	1200	600	1750	1250	11.7	16.0	0.25	280
07D201K	07D201KJ	130	170	200(180~220)	10	340	1200	600	1750	1250	13.0	17.0	0.25	250
07D221K	07D221KJ	140	180	220(198~242)	10	360	1200	600	1750	1250	14.0	19.0	0.25	230
07D241K	07D241KJ	150	200	240(216~264)	10	395	1200	600	1750	1250	15.0	21.0	0.25	210
07D271K	07D271KJ	175	225	270(243~297)	10	455	1200	600	1750	1250	18.0	24.0	0.25	185
07D301K	07D301KJ	190	250	300(270~330)	10	500	1200	600	1750	1250	20.0	26.0	0.25	165
07D331K	07D331KJ	210	275	330(297~363)	10	550	1200	600	1750	1250	23.0	28.0	0.25	150
07D361K	07D361KJ	230	300	360(324~396)	10	595	1200	600	1750	1250	25.0	32.0	0.25	140
07D391K	07D391KJ	250	320	390(351~429)	10	650	1200	600	1750	1250	25.0	35.0	0.25	130
07D431K	07D431KJ	275	350	430(387~473)	10	710	1200	600	1750	1250	28.0	40.0	0.25	115
07D471K	07D471KJ	300	385	470(423~517)	10	775	1200	600	1750	1250	30.0	42.0	0.25	105
07D511K	07D511KJ	320	415	510(459~561)	10	845	1200	600	1750	1250	30.0	45.0	0.25	100
07D561K	07D561KJ	350	460	560(504~616)	10	925	1200	600	1750	1250	30.0	49.0	0.25	90

07D62 1K	07D62 1KJ	385	505	620(558 ~682)	10	102 5	1200	600	1750	1250	33.0	55.0	0.25	80
07D68 1K	07D68 1KJ	420	560	680(612 ~748)	10	112 0	1200	600	1750	1250	33.0	60.0	0.25	75
07D75 1K	07D75 1KJ	460	615	750(675 ~825)	10	124 0	1200	600	1750	1250	67.2	65.0	0.25	70
07D78 1K	07D78 1KJ	485	640	780(702 ~858)	10	129 0	1200	600	1750	1250	67.2	65.0	0.25	70
07D82 1K	07D82 1KJ	510	670	820(738 ~902)	10	135 5	1200	600	1750	1250	67.2	70.0	0.25	60

Remark: Voltage>33V, K is $\pm 10\%$

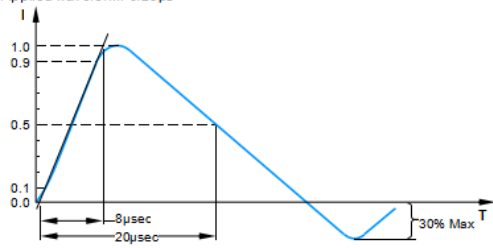


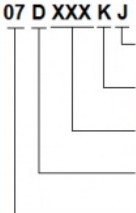
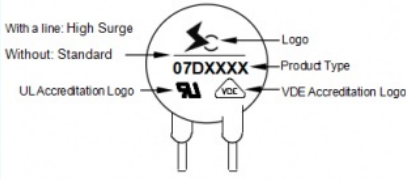
Description:

The 07D 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 1.75KA (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.

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

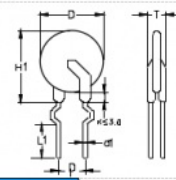
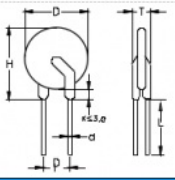
Electrical Rating																											
Item	Test Condition / Description		Requirement																								
Maximum Allowable Voltage	The recommended maximum sine wave voltage (RMS) or the maximum DC voltage can be applied continuously.		To meet the specified value																								
Varistor 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.																										
Withstanding Surge Current	The maximum current within the varistor voltage change of ±10% with the standard impulse current (8/20μs) applied one time		0.05% / °C max																								
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><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
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Part Numbering	Part Marking
07 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

Packaging Information

Part Number	Quantity	Packaging Option	Packaging Specification
07DXXXXX	1000	Plastic bag	Bulk Pack

Package Dimensions Unit: mm

			
TABLE1		TABLE2	
Symbol	Dimensions	Model	T(max.)
H(max.)	12.0	180K	4.50
H1(max.)	12.0	220K	4.60
L(min.)	15.0	270K	4.70
L1(min.)	15.0	330K	4.90
D(max.)	9.0	390K	4.80
P(±0.8)	5.0	470K	4.90
T(max.)	TABLE2	560K	5.00
d(±0.05)	0.6	680K	5.20
d1(±0.05)	0.6	820K	4.10
		101K	4.30
		121K	4.50
		151K	4.80
		181K	4.30
		201K	4.40
		221K	4.50
		241K	4.60
		271K	4.90
		301K	5.00
		331K	5.10
		361K	5.20
		391K	5.40
		431K	5.70
		471K	6.00
		511K	6.20
		561K	6.50
		621K	7.10
		681K	7.30
		751K	7.06
		781K	7.24
		821K	7.28

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 $\leq$ 10NS



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