MOV Metal Oxide Varistor 7D 10D 14D 20D 301K 331K 361K 511 621 751 911 102K

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: VDE ,UL,REACH,RoHS,ISO
- Model Number: 07d 471k
- Minimum Order Quantity: 1000PCS
- Price: Negotiable
- Packaging Details: AMMO packing
- Delivery Time: 5-8 work days

Product Specification

- Description: Metal Oxide Varistor
- Package Type: Φ7mm
- VAC: 300V
- VDC: 385V
- Varistor Voltage: 470(423~517)V
- IP: 10A
- VC: 775V
- Rated Power: 0.25W
- Typ. Capacitance: 100pF
- Material: Zinc Oxide
- Highlight: **Metal Oxide Varistor 14D**, **Metal Oxide Varistor 301K**

More Images

Product Description

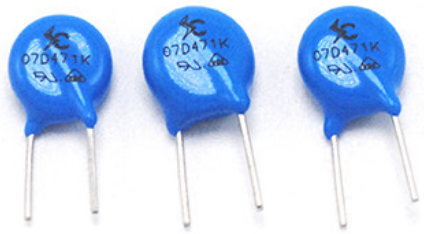
Socay Factory MOV Varistor 7d 10d 14d 20d 301k 331k 361k 511 621 751 911 102K

DATASHEET: 07D 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)	V1mA (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				
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
07D621K	07D621KJ	385	505	620(558~682)	10	1025	1200	600	1750	1250	33.0	55.0	0.25	80
07D681K	07D681KJ	420	560	680(612~748)	10	1120	1200	600	1750	1250	33.0	60.0	0.25	75
07D751K	07D751KJ	460	615	750(675~825)	10	1240	1200	600	1750	1250	67.2	65.0	0.25	70
07D781K	07D781KJ	485	640	780(702~858)	10	1290	1200	600	1750	1250	67.2	65.0	0.25	70

07D821K	07D821KJ	510	670	820(738~902)	10	1355	1200	600	1750	1250	67.2	70.0	0.25	60

Remark: Voltage>33V, K is ±10%



About MOV Varistor

The resistor material of the varistor is a semiconductor, so it is one type of resistor. At present, most zinc oxide varistors are used. Its main raw materials are composed of divalent elements and hexavalent element O. Therefore, from the perspective of raw materials, zinc oxide varistor is a compound semiconductor material oxide semiconductor.
The relationship between the lightning protection effect of MOV multilayer varistor and the working voltage
The function of the varistor in the circuit is for relay protection and resistance to electric shock.
The relay protection function of the varistor in the circuit can usually be combined with the current fuse to protect against electric shock or other relays. When selecting a type, what is the relationship between the lightning protection effect of the varistor and the voltage?

The voltage and current intensity of a varistor do not follow the Euclidean law but exhibit a nonlinear dependence. When the voltage applied on both sides is less than the nominal voltage, the resistance of the varistor is close to infinite, and there is almost no current passing through it.

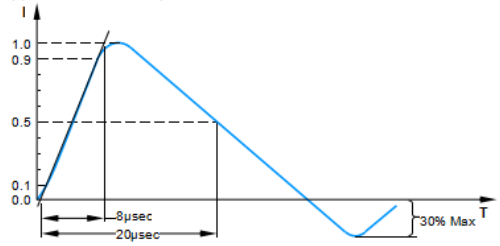
When the voltage applied on both sides is slightly higher than the nominal voltage value, the varistor will quickly break down and conduct, and change from a high resistance state to a low resistance state, and the operating current will also increase rapidly. When the voltage applied on both sides is lower than the nominal voltage value, the varistor returns to its high resistance state. When the voltage applied on both sides exceeds the specified voltage value, the varistor will all break down and be destroyed, and will no longer be able to recover on its own.

Therefore, the relationship between the voltage of the varistor and the lightning protection effect is not that the higher the voltage, the better the lightning protection effect. The larger the voltage of the varistor, it will only make its overlapping function better. Quality is the lifeline of an enterprise and one of the magic weapons that establishes its competitiveness. Capacitor is one of the essential components in our closely related electronic equipment.

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 μs pulse) to protect against high peak surges, including indirect lightning strike interference, system switching transients and abnormal fast transients from the power source.

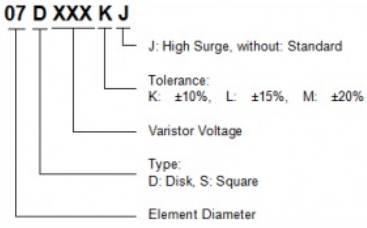
Material	No Radioactive Material
Operating Temperature	-40 ~ +85
Storage Temperature	-55 ~ +125
Body	Nickel Plated
Leads	Tin Plated
Devices with No lead	Nickel Plated

Electrical Rating

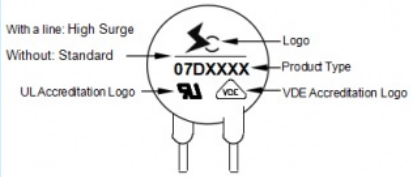
Item	Test Condition / Description	Requirement
Maximum Allowable Voltage	The recommended maximum sine wave voltage (RMS) or the maximum DC voltage can be applied continuously.	To meet the specified value
Varistor Voltage	The voltage between two terminals with the specified measuring current 1mA.DC applied 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 (8/20μsec.) applied one time	
Varistor Voltage Temp. Coefficient	$\frac{Vb\ at\ 20℃ - Vb\ at\ 70℃}{Vb\ at\ 20℃} \times \frac{1}{50} \times 100(\%\ /\ ℃)$	0.05% / ℃ 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.	△Vb / 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



Packaging Information

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

Package Dimensions **Unit: mm**

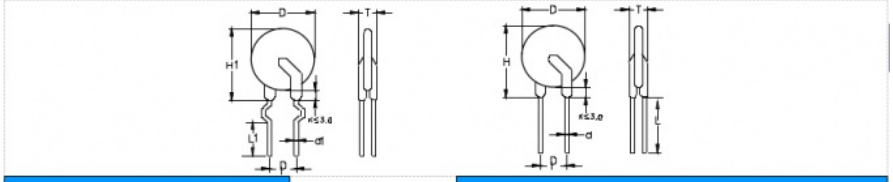


TABLE1	
Symbol	Dimensions
H(max.)	12.0
H1(max.)	12.0
L(min.)	15.0
L1(min.)	15.0
D(max.)	9.0
P(±0.8)	5.0
T(max.)	TABLE2
d(±0.05)	0.6
d1(±0.05)	0.6

TABLE2			
Model	T(max.)	Model	T(max.)
180K	4.50	241K	4.60
220K	4.60	271K	4.90
270K	4.70	301K	5.00
330K	4.90	331K	5.10
390K	4.80	361K	5.20
470K	4.90	391K	5.40
560K	5.00	431K	5.70
680K	5.20	471K	6.00
820K	4.10	511K	6.20
101K	4.30	561K	6.50
121K	4.50	621K	7.10
151K	4.80	681K	7.30
181K	4.30	751K	7.06
201K	4.40	781K	7.24
221K	4.50	821K	7.28

If you need full datasheet or more details ,please contact us freely .

SOCAY The main products involve various types of GDTs,Themperature NTc,Mosfets ,IC. diodes,capacitors, resistors and inductors etc components. At present, there are four production bases in China, which are located in Jiangxi, SHENZHEN,Anghui and shijiazhuang. In terms of products research and development, we have obtained a series of product patents under SOCAY's continuous technological innovation. Based on independent research and development capabilities, SOCAY can meet the needs of various customized products

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