High Power Zov Varistor 07d 271k 270V Φ7mm Package Type 10A IP 230V VC

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: VDE ,UL,REACH,RoHS,ISO
- Model Number: 07d 271k
- Minimum Order Quantity: 1000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days

Product Specification

- Product Name: Metal Oxide Varistor
- Length: Φ7mm
- VAC: 140V
- VDC: 180V
- Varistor Voltage: 220(198~242)V
- IP: 10A
- VC: 230V
- Rated Power: 0.25W
- Typ. Capacitance: 100pF
- Highlight: **High Power Zov Varistor**, **Zov Varistor 270V**

More Images

Product Description

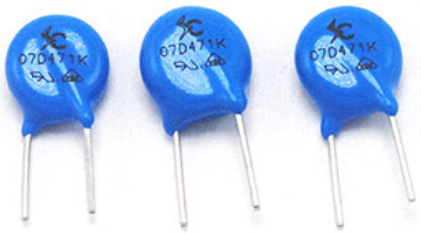
High Power Zov Varistor 07d 271k 270V Φ7mm Package Type 220(198~242)V

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%



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.

What is the function of varistor?
The response time of the varistor is ns level, which is faster than the air discharge tube and slightly slower than the TVS tube. Generally, its response speed can meet the requirements for over-voltage protection of electronic circuits. The junction capacitance of a varistor is generally in the order of hundreds to thousands of Pf. In many cases, it is not suitable to be directly used in the protection of high-frequency signal lines. When used in the protection of AC circuits, its large junction capacitance will increase leakage. Current needs to be fully considered when designing protective circuits. The flow capacity of the varistor is larger, but smaller than that of the gas discharge tube.
The biggest feature of the varistor is that when the voltage applied to it is lower than its threshold "UN", the current flowing through it is extremely small, equivalent to a closed valve. When the voltage exceeds UN, its resistance The value becomes smaller, which causes the current flowing through it to surge without much change in the impact on other circuits, thereby reducing the impact of overvoltage on subsequent sensitive circuits. Using this function, abnormal overvoltage that often occurs in the circuit can be suppressed and the circuit can be protected from overvoltage damage.
Varistors are mainly used for transient overvoltage protection, but its volt-ampere characteristics similar to those of semiconductor voltage regulators also allow it to have a variety of circuit component functions, such as:
(1) The stable voltage of DC high-voltage and low-current voltage stabilizing components can be as high as several thousand volts, which is beyond the reach of silicon voltage regulator tubes.
(2) Voltage fluctuation detection component.
(3) DC battery shift component.
(4) Voltage equalizing components.
(5) Fluorescence starting component

Features:

- u Wide operating voltage (V1mA) range from 18V to 820V
- u Fast responding to transient over-voltage
- u Large absorbing transient energy capability
- u Low clamping ratio and no following-on current
- u Meets MSL level 1, per J-STD-020

Common classifications of varistor
1. Various diameter sizes: 5mm, 7mm, 10mm, 14mm, 20mm, 25mm, 32mm, 34mm, 40mm, 53mm. According to the size, SOCAY's conventional naming is 5mm-5D; 10mm-10D, and so on...

2. Wide range of variable resistor voltage range: 18V-1800V
3. Multiple surge withstand capabilities: standard, high surge, ultra-high surge
4. Large current processing and energy absorption capabilities
5. The flow rate of a single unit can reach 70KA or even higher.
6. Fast response time
7. Low leakage current
8. Various lead forms: straight, curved and other special lead types
9. Various packaging forms: bulk, roll packaging, roll packaging

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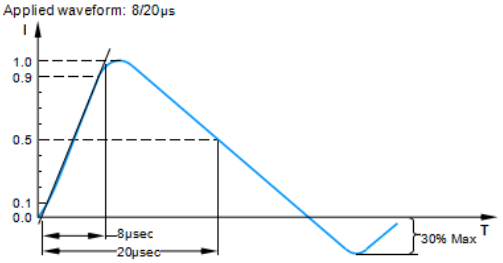
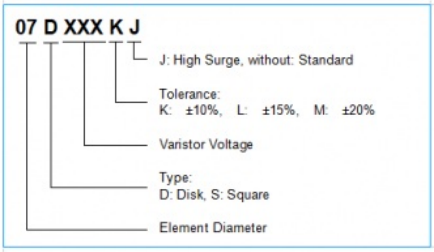
Material	No Radioactive Material
Operating Temperature	-40 ~ +85
Storage Temperature	-55 ~ +125
Body	Nickel Plated
Leads	Tin Plated
Devices with No lead	Nickel Plated

Electrical Rating

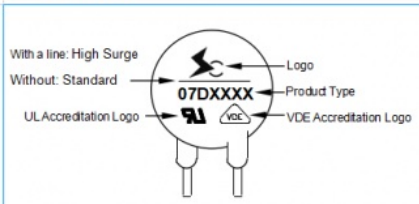
Item	Test Condition / Description	Requirement
Maximum Allowable Voltage	The recommended maximum sine wave voltage (RMS) or the maximum DC voltage can be applied continuously.	To meet the specified value
Varistor Voltage	The voltage between two terminals with the specified measuring current 1mA.DC applied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

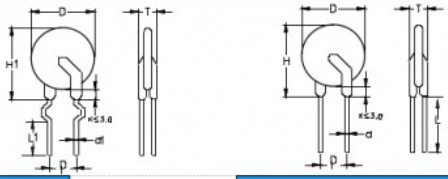


TABLE1	
Symbol	Dimensions
H(max.)	12.0
H1(max.)	12.0
L(min.)	15.0
L1(min.)	15.0
D(max.)	9.0
P(±0.8)	5.0
T(max.)	TABLE2
d(±0.05)	0.6
d1(±0.05)	0.6

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

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