Metal Oxide Varistors (MOV)

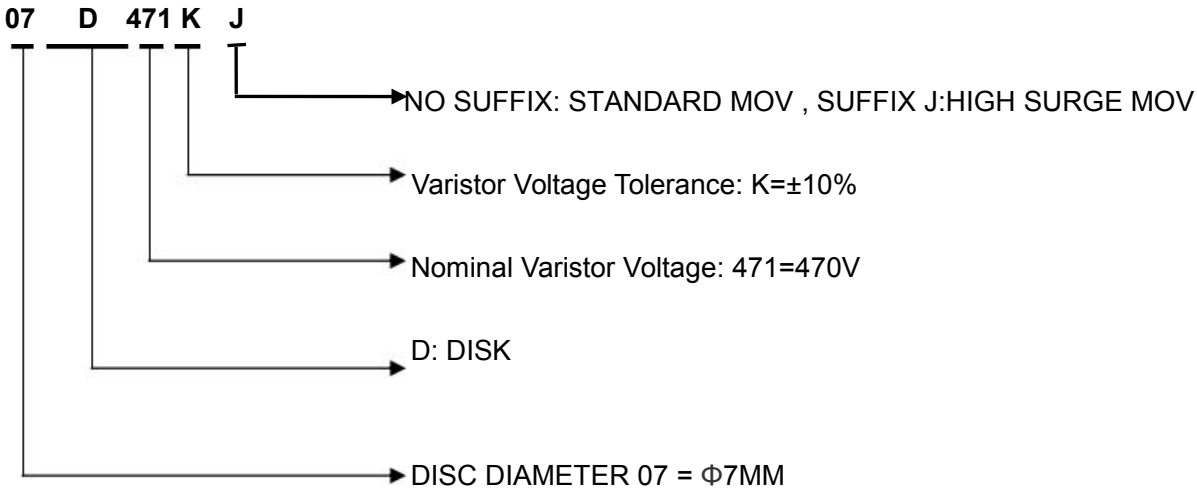
Features

·Wide operating voltage (V1mA) range from 18V to 820V
·Fast responding to transient over-voltage
·Large absorbing transient energy capability
·Low clamping ratio and no follow-on current
·Meets MSL level 1, per J-STD-020
·Operating Temperature：-40℃ ~ +85℃
·Storage Temperature：-40℃ ~ +125℃
·Safety certification:

Applications

·Transistor, diode, IC, thyristor or triac semiconductor protection
·Surge protection in consumer electronics
·Surge protection in industrial electronics
·Surge protection in electronic home appliances, gas and petroleum appliances
·Relay and electromagnetic valve surge absorption

Description of Part Number



Delivery Time

Standard MOV	Delivery Time	High Surge MOV	Delivery Time
07D180K~ 07D821K	13days	07D180KJ ~ 07D821KJ	14days

ShenZhen HuaXingAn Electronics CO.,LTD 07D Straight Leads Series

Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage	Max Surge Current 8/20μs	Maximum Energy (10/1000μs)	Typical Capacitance (Reference)	Safety Certification	
Standard MOV	V_{AC}(V)	V_{DC}(V)	V_{1mA}(V)	V_C(V)AT 10A	Imax	(J)	1KHz(pf)	UL / CUL	VDE
07D180K	11	14	18(15.3~20.7)	36	250A	0.9	2800	√	√
07D220K	14	18	22(19.8~24.2)	43	250A	1.1	2300	√	√
07D270K	17	22	27(24.3~29.7)	53	250A	1.4	1800	√	√
07D330K	20	26	33(29.7~36.3)	66	250A	1.7	1500	√	√
07D390K	25	31	39(35.1~42.9)	77	250A	2.1	1300	√	√
07D470K	30	38	47(42.3~51.7)	93	250A	2.5	1100	√	√
07D560K	35	45	56(50.4~61.6)	100	250A	3.1	890	√	√
07D680K	40	56	68(61.2~74.8)	135	250A	3.6	740	√	√
07D820K	50	65	82(73.8~90.2)	135	1200A	5.0	600	√	√
07D101K	60	85	100(90~110)	165	1200A	6.5	500	√	√
07D121K	75	100	120(108~132)	200	1200A	7.8	420	√	√
07D151K	95	125	150(135~165)	250	1200A	9.7	330	√	√
07D181K	115	150	180(162~198)	300	1200A	11.7	280	√	√
07D201K	130	170	200(180~220)	340	1200A	13.0	250	√	√
07D221K	140	180	220(198~242)	360	1200A	14.0	230	√	√
07D241K	150	200	240(216~264)	395	1200A	15.0	210	√	√
07D271K	175	225	270(243~297)	455	1200A	18.0	185	√	√
07D301K	190	250	300(270~330)	500	1200A	20.0	165	√	√
07D331K	210	275	330(297~363)	550	1200A	23.0	150	√	√
07D361K	230	300	360(324~396)	595	1200A	25.0	140	√	√
07D391K	250	320	390(351~429)	650	1200A	25.0	130	√	√
07D431K	275	350	430(387~473)	710	1200A	28.0	115	√	√
07D471K	300	385	470(423~517)	775	1200A	30.0	105	√	√
07D511K	320	415	510(459~561)	845	1200A	30.0	100	√	√
07D561K	350	460	560(504~616)	925	1200A	30.0	90	√	√
07D621K	385	505	620(558~682)	1025	1200A	33.0	80	√	-
07D681K	420	560	680(612~748)	1120	1200A	33.0	75	√	-
07D751K	460	615	750(675~825)	1240	1200A	65.0	70	√	-
07D781K	485	640	780(702~858)	1290	1200A	65.0	70	√	-
07D821K	510	670	820(738~902)	1355	1200A	65.0	60	√	-

Electrical Characteristics

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage	Max Surge Current 8/20μs	Maximum Energy (10/1000μs)	Typical Capacitance (Reference)	Safety Certification	
High Surge MOV	V_{AC}(V)	V_{DC}(V)	V_{1mA}(V)	V_C(V)AT 10A	Imax	(J)	1KHz(pf)	UL / CUL	VDE
07D180LJ	11	14	18(15.3~20.7)	36	500A	2.0	2800	_	_
07D220KJ	14	18	22(19.8~24.2)	43	500A	2.4	2300	_	_
07D270KJ	17	22	27(24.3~29.7)	53	500A	3.0	1800	_	_
07D330KJ	20	26	33(29.7~36.3)	66	500A	3.5	1500	_	_
07D390KJ	25	31	39(35.1~42.9)	77	500A	4.0	1300	_	_
07D470KJ	30	38	47(42.3~51.7)	93	500A	5.0	1100	_	_
07D560KJ	35	45	56(50.4~61.6)	100	500A	6.0	890	_	_
07D680KJ	40	56	68(61.2~74.8)	135	500A	7.0	740	_	_
07D820KJ	50	65	82(73.8~90.2)	135	1750A	10.0	600	_	_
07D101KJ	60	85	100(90~110)	165	1750A	12.0	500	_	_
07D121KJ	75	100	120(108~132)	200	1750A	13.0	420	_	_
07D151KJ	95	125	150(135~165)	250	1750A	13.0	330	_	_
07D181KJ	115	150	180(162~198)	300	1750A	16.0	280	_	_
07D201KJ	130	170	200(180~220)	340	1750A	17.0	250	_	_
07D221KJ	140	180	220(198~242)	360	1750A	19.0	230	_	_
07D241KJ	150	200	240(216~264)	395	1750A	21.0	210	_	_
07D271KJ	175	225	270(243~297)	455	1750A	24.0	185	_	_
07D301KJ	190	250	300(270~330)	500	1750A	26.0	165	_	_
07D331KJ	210	275	330(297~363)	550	1750A	28.0	150	_	_
07D361KJ	230	300	360(324~396)	595	1750A	32.0	140	_	_
07D391KJ	250	320	390(351~429)	650	1750A	35.0	130	_	_
07D431KJ	275	350	430(387~473)	710	1750A	40.0	115	_	_
07D471KJ	300	385	470(423~517)	775	1750A	42.0	105	_	_
07D511KJ	320	415	510(459~561)	845	1750A	45.0	100	_	_
07D561KJ	350	460	560(504~616)	925	1750A	49.0	90	_	_
07D621KJ	385	505	620(558~682)	1025	1750A	58.0	80	_	_
07D681KJ	420	560	680(612~748)	1120	1750A	60.0	75	_	_
07D751KJ	460	615	750(675~825)	1240	1750A	67.0	70	_	_
07D781KJ	485	640	780(702~858)	1290	1750A	67.0	70	_	_
07D821KJ	510	670	820(738~902)	1355	1750A	70.0	60	_	_

Dimension(mm) Straight Leads

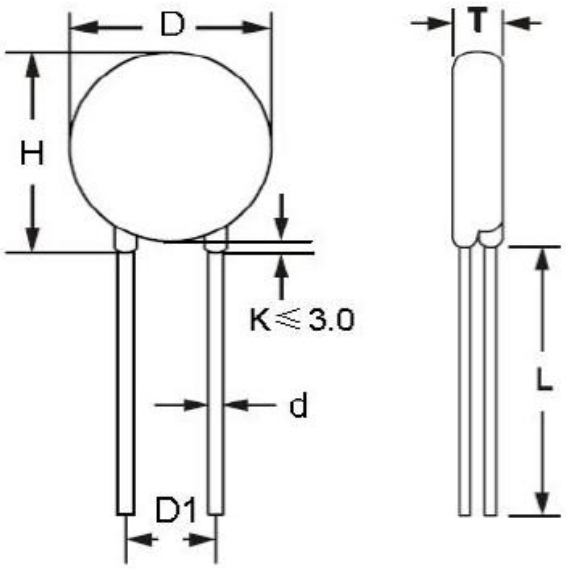


TABLE1		TABLE2			
Symbol	Dimensions	Part number	T(±1.0mm)	Part number	T(±1.0mm)
H(Max)	11.0mm	07D180L	2.5mm	07D241K	2.6mm
L(Min)	22.0mm	07D220K	2.6mm	07D271K	2.9mm
D(Max)	9.0mm	07D270K	2.7mm	07D301K	3.0mm
D1(±0.8)	4.5mm	07D330K	2.9mm	07D331K	3.1mm
T	TABLE2	07D390K	2.8mm	07D361K	3.2mm
d(±0.05)	0.6mm	07D470K	2.9mm	07D391K	3.4mm
		07D560K	3.0mm	07D431K	3.7mm
		07D680K	3.2mm	07D471K	4.0mm
		07D820K	2.1mm	07D511K	4.2mm
		07D101K	2.3mm	07D561K	4.5mm
		07D121K	2.5mm	07D621K	5.1mm
		07D151K	2.8mm	07D681K	5.3mm
		07D181K	2.3mm	07D751K	5.03mm
		07D201K	2.4mm	07D781K	5.24mm
		07D221K	2.5mm	07D821K	5.48mm

Packing Information

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

Notice for use

To avoid damage to other equipment due to fire or deterioration caused by varistor, please refer to and observe the following principles:

1) When a high current or high voltage flows into the varistor, the varistor itself may be damaged, heated, smoke, catch fire and burst.

To avoid this, fuses or circuit breakers can be installed at both ends of the varistor or power supply;

The fuses of the following specifications are for reference only:

Diameter	05D	07D	10D	14D	20D
Rated current of fuse	1-2A	2-3A	3-5A	3-10A	5-15A

2) Do not allow the current and energy flowing into the varistor to exceed its rated value.

3) The Varistor brand names and marks are all patent applications of the company.Customers who use or sell our Varistors hat are not specifically designated for such applications are at their own risk.

4) All Varistors product specifications and data are subject to change without notice, please improve. For any data sheet Or any other data sheet. Any errors included. Inaccurate or incomplete shall not be liable.

5) Regarding the suitability of products for specific applications. It is the customer's responsibility to confirm that products with the characteristics described in the product specifications application. The data provided in the parameter data sheets and / or specifications may vary for different applications and performance may vary over time Variety. All operating parameters, including typical parameters, must be provided by the customer ’s technical experts. Product specifications will not expand or Modify the procurement terms and conditions in other ways, including but not limited to the guarantees described therein.

6) Do not place flammable substances near the varistor.

7) The varistor can only emit a small amount of heat energy, so it is not suitable for use in equipment that often generates sudden heat.

In addition, the higher the working environment of the varistor, the smaller the proportion of heat dissipated.

Varistors can only dissipate a small amount of heat energy, so they are not suitable for use in equipment that often generates sudden heat.

If a large amount of heat acts on the varistor in an instant, it is possible that the heat energy cannot be dissipated within the pulse time And the varistor is damaged.

8) When welding, please be careful not to melt the welding points of the varistor and the resin coating.

Material category policy

All our Varistor products hereby certify that RoHS-compliant products are in accordance with the definitions and

Restrictions on June 8, 2011 regarding restrictions on the use of certain hazardous substances (Reach) in electrical and electronic equipment. We confirm All our Varistor products comply with the IEC 61249-2-21 JEDEC JS709A standard.