05D471K-05D751K Series MOV 05mm Varistor 18V-750V For Overvoltage Protection

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: LIN KUN
- Certification: UL VDE CSA CQC
- Model Number: MOV Varistor Surge Absorber 05D471K
- Minimum Order Quantity: 1000PCS
- Price: Negotiation
- Packaging Details: 1000PCS/Bag
- Delivery Time: 10-15Days
- Payment Terms: L/C, Western Union, T/T
- Supply Ability: 100000pcs/month

Product Specification

- High Surge: 0.6-32J
- Product Name: MOV Varistor
- Varistor Operating Voltage: V1.0MA(V) 470V(423-517)V
- Maximum Allowable Voltage: DC 385V
- Reference Capacitance: 55 @1KHZ(pf
- Storage Temperature: -40℃~+85℃
- Power Consumption: 0.01-0.1 W)
- Inhibition Voltage @ (8/20) Us: VC 810V
- Maximum Current Capacity (8/20) Us: 400 A)
- Highlight: **750V MOV varistor**, **MOV 05mm varistor**,

Our Product Introduction

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Product Description

[Product Features] Epoxy resin insulation encapsulation, small size, large flow capacity and energy tolerance;
[Product use] Overvoltage protection, surge absorption, etc.

Features

Focus on R&D and manufacturing of NTC thermistors and temperature sensors

Overvoltage protection type varistor MYG series

- Response time: < 25ns Insulation resistance ≥ 500MΩ
- Operating environment temperature: -40℃ +85℃
- Chip diameter: 5, 7, 10, 14, 20, 25, 32, 40, 50mm
- Allowable deviation of varistor voltage: K±10%, L±15%

ZINC OXIDE VARISTOR

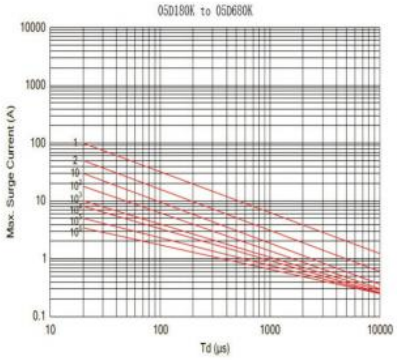
05D Specifiation
Put "J" In Free Code Stands For High Surge Series

PartNumber		Maximum Allowable Voltage 最大允许电压		Varistor Voltage 压敏电阻器动作电压	Clamping Voltage(Max) 抑制电压 @(8/20)us		Maximum Peak Current 最大电流耐量 (8/20)us		Maximum Energy 最大吸收能量 (10/1000)us		Rated Power 消耗功率	Typical Capacitance (Reference) 参考电容值
		AC.rms	DC	V1.0mA(V)	VC	IP	Standard	High Surge	Standard	High Surge	(W)	@1KHz (pF)
Standard	High Surge	(V)			(V)	(A)	(A)		(J)			
05D180K	J	11	14	18(14.4-21.6)	40	1	100 / 50×2	250 / 100×2	0.4	0.6	0.01	1400
05D220K	J	14	18	22(18.7-26)	48				0.5	0.7		1150
05D270K	J	17	22	27(23-31.1)	60				0.6	0.9		930
05D330K	J	20	26	33(29.5-36.5)	73				0.8	1.1		760
05D390K	J	25	31	39(35-43)	80				0.9	1.2		640
05D470K	J	30	38	47(42-52)	104				1.1	1.5		530
05D560K	J	35	45	56(50-62)	123				1.3	1.8		450
05D680K	J	40	56	68(61-75)	145				1.6	2.2		370
05D820K	J	50	65	82(74-90)	150	5	400 / 200×2	800 / 400×2	2.5	4.0	0.10	300
05D101K	J	60	85	100(90-110)	175				3.0	4.1		250
05D121K	J	75	110	120(108-132)	210				4.0	4.9		210
05D151K	J	95	125	150(135-165)	260				4.8	6.5		165
05D181K	J	115	150	180(162-198)	320				5.9	7.5		140
05D201K	J	130	170	200(185-225)	355				6.5	8.5		125
05D221K	J	140	180	220(198-242)	380				7.0	9.0		110
05D241K	J	150	200	240(216-264)	415				8.0	10.5		100
05D271K	J	175	225	270(243-297)	475				8.5	11.0		95
05D301K	J	190	250	300(270-330)	520				9.0	12.0		85
05D331K	J	210	275	330(297-363)	570				9.5	13.0		75
05D361K	J	230	300	360(324-396)	620				1.0	16.0		70
05D391K	J	250	320	390(351-429)	675				12.0	17.0		65
05D431K	J	275	350	430(387-473)	745				13.0	20.0		60
05D471K	J	300	385	470(423-517)	810				15.0	21.0		55
05D511K	J	320	415	510(459-561)	845				16.0	22.5		50
05D561K	J	350	460	560(504-616)	920				16.8	24.0		45
05D621K	J	385	505	620(558-682)	1025				17.7	26.6		40
05D681K	J	420	560	680(612-748)	1120				19.4	29.1		38
05D751K	J	460	615	750(675-825)	1240				22.4	32.0		30

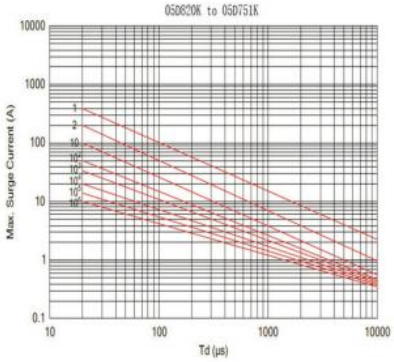
额定脉冲寿命次曲线
Impulse Life Time Rating Curves

05D Series

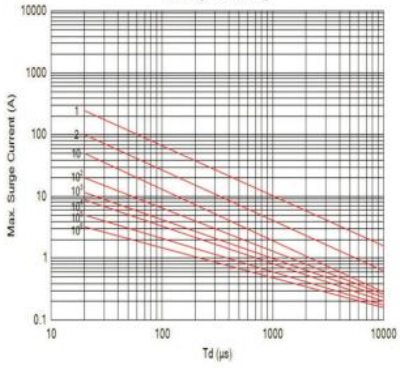
05D180K to 05D680K



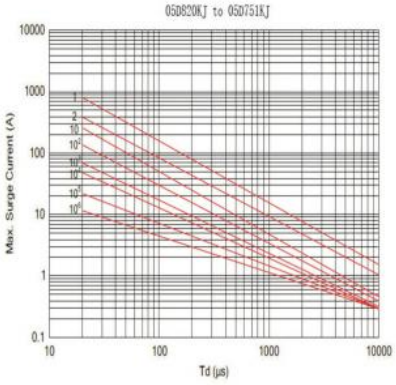
05D820K to 05D751K



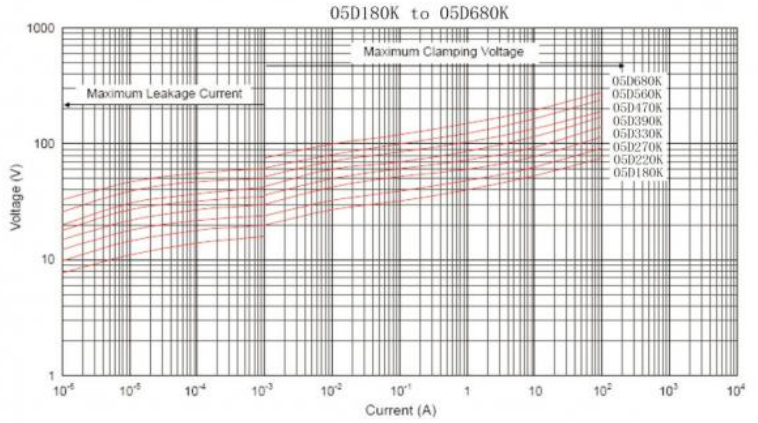
05D180KJ to 05D680KJ

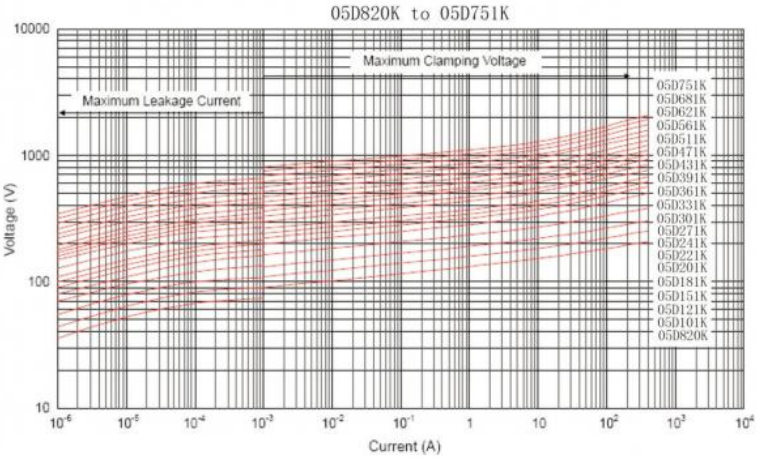


05D820KJ to 05D751KJ



Maximum Leakage Current and Maximum Clamping Voltage Curve





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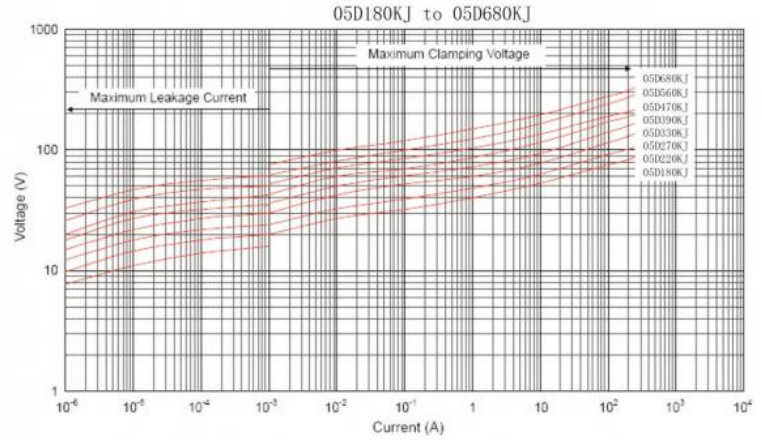
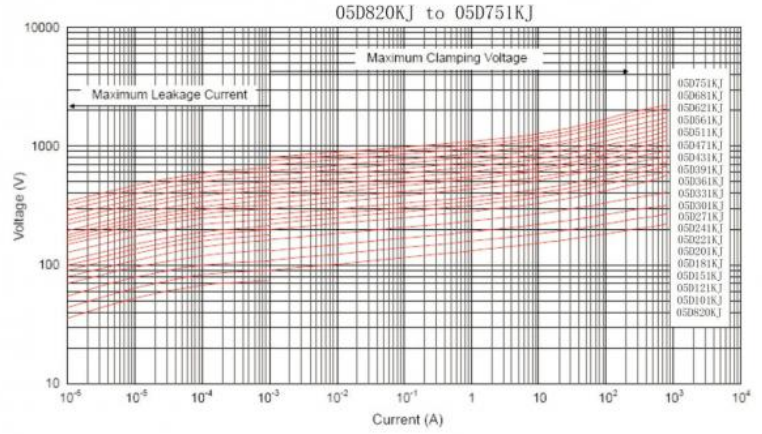
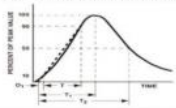




ZINC OXIDE VARISTOR

性能特性
Performance Characteristics(Electrical)

TestItem/Standard 测试项目/标准	Test Methods/Description 测试方法/说明	Specifications 规格值
Standard Test Condition 标准测试条件	Environmental conditions under which every measuring is done without doubt on themeasurin results.Unless specified.Temperature humidity are 5 to 35℃ 45 to 85%RH. 原则上以室温25℃，65%RH为实验条件，判定上有疑义时以温度:室温5-35℃、相对湿度:45-85%RH为条件不特别限定。	–
Maximum Allowable Voltage 最大容许电压	The maximum sinusoidal RMS voltage or maximum DC voltage that can be appliedcontinuously in the specified environmental Temperature range. 连续施以交流电压或直流电压之最大值	
Varistor Voltage 压敏电压	The voltage between two terminals with the specified measuring current 1 mA DC appliedis called Vc or VcmA, the measurement shall be made as fast as possible to avoid heat affection. 使用1mA DC之电流施以压敏电阻器测量两端之电压即为压敏电压或称Vc。为了避免热效应影响，测量时间尽可能快。(一般为40ms)	
Clamping Voltage 抑制电压	The maximum voltage between two terminals with the specified standard impulse curent (8/20us) illustrated below applied. 使用一标准8/20规格脉冲电流通过压敏电阻器，此时两端之最大电压。 	To meet the specified value 如规格表
Maximum Peak Current 2times 突波耐量 2次	The maximum current within the varistor voltage change of ±10% with the standard impulse current(8/20us)applied two times with an interval of 5 minutes. 以8/20之标准波形电流加于压敏电阻器两端两次，中间间隔5分钟，使压敏电压偏移量在±10以内之最大电流值。	
Withstanding Surge Current 1times 1次	The maximum current within the varistor voltage change of ±10% with the standard impulse current(8/20us)applied one time. 以8/20之标准波形电流加与压敏电阻器两端一次，压敏电压偏移量在±10以内之最大电流值。	
Maximum Energy 最大吸收能量	The maximum energy within the varistor voltage change of ±10% when one impulse of 2ms or 10/1000us is applied. 以2ms或10/1000us方波加于压敏电阻器上一次，压敏电压偏移量在±10%以内的能量。 E(能量)≈Vm·Im·T Im:最大容许的方波电流 Vm :在Im时的最大抑制电压 T :突波电流的经过时间(有效波宽)	
Rated Power 消耗功率	The power that can be applied in the specified ambient temperature. 在85±2℃的交流电连续施加于压敏电阻器上1000小时，压敏电压偏移量在±10%以内的最大电力。	
Capacitance 电容	Capacitance shall be measured at 1kHz ±10%.1Vrms max.(1 MHz below 100pF).0V bias and 20±2℃. 电容应在1KHz±10%，1Vrms max.,(> 100pF用1MHz)0V bias下测得且周围温度是20±2℃。	
Dissipation Factor 消散要素	Dissipation Factor shall be measured at 1KHz±10%.1Vrms max.(1MHz±10% below 100pF).OV blas and 20±2℃ 消散要素应在1KHz±10%，1Vrms max.,0V bias下测得且周围温度是20±2℃。	

机械特性
Mechanical

TestItem/Standard 测试项目/标准	Test Methods 测试方法	Specifications 规格值
Robustness of Terminations (Tenaile) 端子印张强度 IEC 60068-2-21	After gradually applying the force specified below and keeping the unit fixed for the seconds, the terminal shall be visually examined for any damage. 将本体固定后，施予如下之作用力于引线上十秒钟，观察是否有损伤。 Terminal diameter(mm) / Force(kg) 0.5<d≤0.8 / 1.0 0.8<d≤1.25 / 2.0 1.25<d / 4.0	No outstanding damage 无外在损伤
Robustness of Terminations (Bending) 端子弯曲强度 IEC6006802-21	The unit shall be secured with its terminal kept vertical and the force specified below be applied in the axial direction. The terminal shall gradually be bent by 90° in one direction, then 90°in the opposite direction, and again back to the original position. The damage of the terminal shall be visually examined. 将本体固定好，施与引线保持水平用如下作用力，先以一方向弯曲90°,再以反方向弯曲90°回复原状。检查铜鲜损伤情况。 Terminal diameter(mm) / Force(kg) 0.5<d≤0.8 / 0.5 0.8<d≤1.25 / 1.0 1.25<d / 2.0	No outstanding damage 无外在损伤
Vibration 耐振性 IEC60068-2-6	After repeadly applying a single harmonic vibration (amplitude: 0.75 mm) double amplitude:1 5mm with 1 minute vibration frequency cycles (10 Hz to 55 Hz to 10 Hz)to each of three perpendicular directions for 2 hours. Thereafter, the unit shall be visually exa mined 将成品置于振动机上施与一单谐振动(振幅 0.75mm)和振幅1.5mm ,振动频率周期为10Hzto 55 Hz to10Hz-分钟,对三个垂直方向各试验2小时。然后检查成品外在损伤情况。	
Soider adilty 焊接性 IEC 60068-2-20	After dipping the terminals to a depth of a pproximately 3mm from the body in a soldering bath of 250± 5°C for 2± 0.5 seconds, the terminal shall be visually examined. 将成品引线部分侵入温度为260±5°C锡炉中，侵入深度为离本体约3mm处，时间为2±0.5秒。	Approximately 95% of the terminals shall be covered with solder uni- formly 引脚约95%沾满焊锡
Capacitance 电容	After each lead shall be dipped into a solder bath having a temperature 260±5°C to a point 2.0 to 2.5 mm from the body of the unit, using shiedig board (t= 1.5mm), be held there for specified time (5D series: 5± 1s and others: 10± 1s), and then be stored at room temperature and humidity for 1 to 2 hours. The change of Vc and mechanical damages are examind. 将每一引线侵入温度为260±5°C锡炉中,侵入深度为离本体2.0-2.5mm,侵入时间5D为5±1s;其它为10±1s,试验完后置于常温常湿中1-2小时,然后测量压敏电压变化量与外观。	VcmA/VcmA≤ ±5 % No outstanding damage 无外在损伤

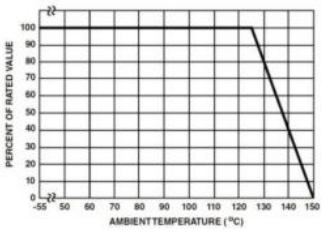
环境特性
Environmental

TestItem/Standard 测试项目/标准	Test Methods 测试方法	Specifications 规格值
High Temperature Storage/Dry Heat 高温储存 IEC 60068-2-2	The specimen shall be subjected to 125± 2℃ for 1000 hours in a thermostatic bath without load and then stored at room temperatureand humidity for 1 to 2 hours. Thereafter, the change of Vc shall be measured. 将成品置于无外加负载且温度为125 ±2℃的烤箱中1000小时，试验后置于室温中1-2小时，然后测量其压敏电压变化值。	△VcmA/VcmA≤ ±5 %
Damp Heat/ Humidity (Steady State) 耐湿性 IEC 60068-2-78	The specimen shall be subjected to 40± 2℃,90 to 95%RH for 1000 hours without load and then stored at room temperature and humidity for one to two hours. Thereafter, the change of Vc shall be measured. 将成品置于无外加负载且温度为40±2℃，相对湿度为90-95%恒温恒湿柜中1000小时，试验后置于室温中1-2小时，然后测量其压敏电压变化值。	
Temperature Cycle 温度周期 IEC 60068-2-14	The temperature cycle shown below shall be repeated five times and then stored at room temperature and humidity for one to two hours. The change ofVc and mechanical damage shall be examined. 以如下表的温度周期加于成品上五次，试验后置于室温中1-2小时，然后测量其压敏电压变化值。	
High Temperature Load/Dry Heat Load 高温加载 MIL-STD-202-Method-108	After being continuously applied the Maximum Allowable Voltageat85± 2°C for 1000 hours. The specimen shall be stored at room temperature and humidity for one to two hours Thereafter, the change of Vc shall be measured. 将成品接于外加最大容许电压且温度为85±2%℃的高温箱中1000小时，试验后置于室温中1-2小时，然后测量其压敏电压变化值。	△VcmA/VcmA≤ ±10 %
Damp Heat Load/ Humidity Load 高湿加载 IEC 60068-2-3	The specimen shall be subjected to 40± 2℃, 90 to 95%RH and the Maximum Allowable Voltage for 1000 hours and then stored at room temperature and humidity for one to two hours. Thereafter, the change of Vc shall be measured. 将成品接于外加最大容许电压且温度为40±2°C，相对湿度为90-95%恒温恒湿箱中1000小时，试验后置于室温中1-2小时，然后测量其压敏电压变化值。	△VcmA/VcmA≤ ±10 %

Step	Temperature(△)	Period(minutes)
1	−40 ± 3	30 ± 3
2	Roomtemperature	15 ± 3
3	125 ± 2	30 ± 3
4	Roomtemperature	15 ± 3

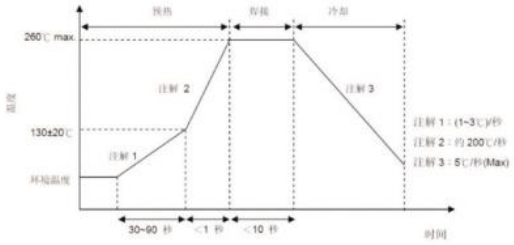
ZINC OXIDE VARISTOR

电流、能量、功率递减曲线
Current Energy and Power Derating Curve



（图1：电流、能量、功率递减曲线）

推荐焊接条件
Saldering Recommendation Profile



（图2：波峰焊曲线图）

烙铁重工焊接条件
Recommendation Reworking Conditions with Soldering Iron

项目	条件
烙铁头部温度	360℃(max.)
焊接时间	3sec(max.)
焊接位置与涂装层距离	2mm(min.)

Product Description:

MOV 25mm series varistor surge absorber is an overvoltage protection device with the surge absorbing capability. It is designed to absorb surges above the rated voltage and provide protection against transient overvoltage. It has a maximum absorbed energy of 0.4-22.4(J), a maximum allowable voltage of DC 14V-615V, a maximum current capacity of 100-400(A), and a size of 5mm. It also has a reference capacitance of 1400-30(@1KHZ(pf), making it an ideal choice for overvoltage protection. The MOV 25mm series varistor surge absorber is designed to be reliable and durable, providing reliable surge protection for a variety of industrial applications. It is suitable for all kinds of power electronic equipment that requires protection from transient overvoltage. The MOV 25mm series varistor surge absorber is an excellent choice for high-performance overvoltage protection and reliable surge absorption.

Features:

MOV varistor
Maximum absorbed energy (10/1000)us: 0.4-22.4(J)
High Surge: 0.6-32J
MOV 14mm series varistor surge absorber
MOV 5mm series varistor surge absorber
MOV 20mm series varistor surge absorber
Size: 5mm
Storage Temperature: -40℃~+105℃

Technical Parameters:

Property	Value
Size	5mm

Maximum allowable voltage	DC 14V-615V
Product name	MOV Varistor
Storage Temperature	-40℃~+105℃
Maximum absorbed energy (10/1000)us	0.4-22.4(J)
Power consumption	0.01-0.1(W)
Varistor operating voltage	18V-750V
Maximum current capacity (8/20) us	100-400(A)
Inhibition voltage (8/20) us	Vc 40-1240v
Reference capacitance	1400-30(@1KHZ(pf)

Applications:

LIN KUN MOV varistor surge absorber is a reliable and cost-effective solution for the protection of electrical and electronic equipment, which is widely used in the fields of communications, instrumentation, medical equipment, aerospace, military and other industries. It is made of zinc oxide material and has a maximum absorbing energy (10/1000)us of 0.4-22.4J, inhibition voltage (8/20) us of Vc 40-1240v, high surge of 0.6-32J, power consumption of 0.01-0.1W and maximum allowable voltage of DC 14V-615V. Its 25mm series varistor surge absorber, 14mm series varistor surge absorber and 20mm series varistor surge absorber are widely applied in AC/DC circuit, power supply, battery pack, data transmission and other systems to protect them from spike and surge. LIN KUN MOV varistor surge absorber is a great choice for your power system to ensure its safe operation.

Customization:

Support and Services:

We provide technical support and service for MOV varistors:

24/7 online technical support

Onsite installation and maintenance service

Free repair and replacement services

Regular maintenance and upgrade services

Packing and Shipping:

Packaging and Shipping for MOV Varistor:

The MOV Varistor is securely packaged in antistatic bags and then placed in a corrugated box for shipping. All shipments are insured for the full value and tracked with a traceable parcel ID number.

FAQ:

Q1: What is the brand of MOV varistor?

A1: The brand of MOV varistor is LIN KUN.

Q2: What is the model number of MOV varistor?

A2: The model number of MOV varistor is MOV varistor surge absorber.

Q3: Where is MOV varistor produced?

A3: MOV varistor is produced in China.

Q4: What is the function of MOV varistor?

A4: MOV varistor can absorb surge and protect electrical equipment.

Q5: What is the size of MOV varistor?

A5: The size of MOV varistor is determined by the specific product.

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