

Axial Leaded Ceramic Gas Discharge Tube SC2E8-90ML RoHS Compliant

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: SC2E8-90ML
- Minimum Order Quantity: 1000PCS
- Price: Negotiable
- Delivery Time: 7-12 work days



Product Specification

- Key Words: Lightning Arrester
- Footprint: $\phi 8 \times 6 \text{mm}$
- DC Spark-over Voltage @100V/ μs : $90 \text{V} \pm 20\%$
- Max. Spark-over Impulse Voltage @100V/ μs : 500V
- Max. Spark-over Impulse Voltage @1KV/ μs : 600V
- Min. Insulation Resistance: $1 \text{G}\Omega$ (@50V)
- Nom. Impulse Discharge Current: 10KA
- Max. Impulse Discharge Current: 20KA
- Usage: Lightning Protection
- Highlight: **RoHS Gas Discharge Tube, Gas Discharge Tube SC2E8-90ML, Axial Leaded Ceramic Discharge Tube**



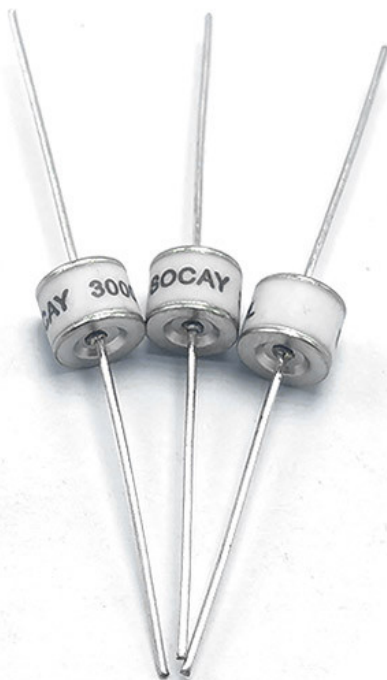
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90V±20% Axial Leaded Ceramic Gas Discharge Tube SC2E8-90ML, RoHS Compliant

Selection principles for ceramic gas discharge tubes

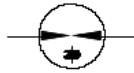
1. The prerequisite for the addition of ceramic gas discharge tubes is that the lower limit of the DC breakdown voltage of the ceramic gas discharge tube must be higher than the maximum normal operating voltage in the circuit, so that it cannot affect the normal operation of the circuit.
2. The overholding voltage of the ceramic gas discharge tube should be as high as possible to ensure that the working voltage in the circuit will not cause continuous conduction. When the overvoltage in the circuit disappears, ensure that the ceramic gas discharge tube is extinguished in time, otherwise it will affect the normal operation of the circuit.
3. Ensure that the impact breakdown voltage of the ceramic gas discharge tube must be lower than the highest instantaneous voltage that the circuit can withstand.
4. According to the intensity of the impulse current that may enter the line, determine the impulse current resistance capability that the selected discharge tube must achieve.
5. When necessary, the ceramic gas discharge tube should be equipped with an appropriate short-circuit device, FS device, also called a failure protection device.



Part Number	Marking	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage		Minimum Insulation Resistance	Maximum Capacitance	Arc Voltage	Service Life			
								Nominal Impulse Discharge Current	Max Impulse Discharge Current	Nominal Impulse Discharge Current	Impulse Life
		@100V/S	@100V/μs	@1KV/μs		@1MHz	@1A	@8/20μs ±5 times	@8/20μs 1 time	@50Hz 1 Sec 10 times	@10/1000μs 300 times
SC2E8-75M SC2E8-75ML SC2E8-75MSMD	SOCAY 75M	75V±20%	500V	600V	1 GΩ (at 25V)	1.5pF	~15V	10KA	20KA	10A	100A
SC2E8-90M SC2E8-90ML SC2E8-90MSMD	SOCAY 90M	90V±20%	500V	600V	1 GΩ (at 50V)	1.5pF	~15V	10KA	20KA	10A	100A
SC2E8-150M SC2E8-150ML SC2E8-150MSMD	SOCAY 150M	150V±20%	500V	600V	1 GΩ (at 50V)	1.5pF	~20V	10KA	20KA	10A	100A
SC2E8-230M SC2E8-230ML SC2E8-230MSMD	SOCAY 230M	230V±20%	600V	700V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A

SC2E8-250M SC2E8-250ML SC2E8-250MSMD	SOCAY 250M	250V±20%	700V	800V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A
SC2E8-300M SC2E8-300ML SC2E8-300MSMD	SOCAY 300M	300V±20%	800V	900V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A
SC2E8-350M SC2E8-350ML SC2E8-350MSMD	SOCAY 350M	350V±20%	800V	900V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A

Schematic Symbol



Product Characteristics

Materials	Leaded Device: Nickel-plated with Tinplated wires Surface Mount: Dull Tin-plated	
Product Marking	SOCAY XXXM/H XXX -Nominal voltage M - 10KA H - 20KA	
Glow to Arc Transition Current	< 0.5 Amps	
Glow Voltage	~60 Volts	
Storage and Operational Temperature	-40 to +90 °C	
Weight	SC2E8-XXXML	~1.5g
	SC2E8-XXXHL	~1.6g
	SC2E8-XXXM/H	~1.35g
	SC2E8-XXXM/HSMD	~1.5g
Climatic category (IEC 60068-1)	40/ 90/ 21	

About GDT

Gas discharge tubes work according to the gas physics principle of high-efficiency arc discharge. From an electrical perspective, a gas discharge tube is equivalent to a pressure-sensitive switch. Once the voltage applied to the discharge tube exceeds the breakdown voltage, an arc will form in the sealed discharge area within nanoseconds. High surge current handling capabilities and an arc voltage that is almost independent of current short circuit overvoltages. When the discharge ends and the discharge tube goes out, the internal resistance immediately returns to several 100 MΩ. Therefore, gas discharge tubes meet almost all the requirements of the protected components. It can reliably limit overvoltage within the allowable value range, and under normal operating conditions, due to its high insulation resistance and low capacitance characteristics, the discharge tube will essentially have no impact on the protected system.

Classification of ceramic gas discharge tubes

1. According to the number of electrodes, commonly used gas discharge tubes are divided into diode discharge tubes and triode discharge tubes. Most of their packaging materials are ceramics, so they are called ceramic discharge tubes.
2. According to the appearance size, commonly used gas discharge tubes are divided into chip discharge tubes and plug-in discharge tubes.
3. According to the product pulse voltage, commonly used gas discharge tubes are divided into conventional pulse discharge tubes and low pulse discharge tubes.



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