



## Power Module Gas Discharge Tube SC2E8-90MSMD with Max. Spark-over Impulse Voltage 100V/μs 600V

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: SC2E8-90MSMD
- Minimum Order Quantity: 1000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days
- Supply Ability: 1000000



### Product Specification

- Disadvantages:
  1. Since Gas Ionization Requires A Certain Amount Of Time, The Response Speed Is Slow. The Response Time Is Generally 0.2~0.3μs (200~300ns), And The Fastest Is About 0.1μs (100ns). Before It Is Turned On, There Will Be A Sharp Pulses With Larger Amplitudes
- Max. Spark-over Impulse Voltage @100V/μs: 500V
- Advantages:
  1. Before Breakdown (conduction), It Is Equivalent To An Open Circuit, With A Large Resistance And No Or Very Small Leakage Current; 2. After Breakdown (conduction), It Is Equivalent To A Short Circuit, Which Can Pass A Large Current With A Very Small Volt

Max. Spark-over 600V

## Product Description

### Product Description:

Our Ceramic Discharge Tube boasts a maximum spark-over impulse voltage of 600V at 100V/ $\mu$ s, ensuring that your devices are safe from any harmful voltage surges. Measuring at a compact length of  $\phi 8 \times 6$ mm, this product is designed to be easily installed in any electronic device without taking up too much space.

The Ceramic Discharge Tube is a Through-Hole Technology (THT) product, making it easy to mount onto any circuit board. Additionally, this product comes with a datasheet - SC2E8\_v91.1.pdf - which provides all the necessary technical information for easy installation and usage.

Don't wait until it's too late - protect your valuable electronic devices with our Ceramic Discharge Tube. Order now to take advantage of its superior surge protection capabilities and ensure the safety of your devices.

### Features:

Product Name: Gas Discharge Tube

Product Category: Gas Discharge Tube

Disadvantages:

Since gas ionization requires a certain amount of time, the response speed is slow. The response time is generally 0.2~0.3 $\mu$ s (200~300ns), and the fastest is about 0.1 $\mu$ s (100ns). Before it is turned on, there will be a Sharp pulses with larger amplitudes leak through and have no protective effect;

The breakdown voltage has poor consistency and large dispersion, generally  $\pm 20\%$ ;

The breakdown voltage has only a few specific values;

Storage Temperature: -40°C~+90°C

Min. Insulation Resistance: 1G $\Omega$  (@100V)

Max. Impulse Discharge Current: 20KA

Gas Discharge Tube is a hydrogen gas discharge tube that can be used for circuit board protection.

### Technical Parameters:

Product Category:	Gas Discharge Tube
Nom. Impulse Discharge Current:	10KA
Min. Insulation Resistance:	1G $\Omega$ (@100V)
Max. Spark-over Impulse Voltage @100V/ $\mu$ s:	500V
Max. Spark-over Impulse Voltage @1KV/ $\mu$ s:	600V
Advantages:	1. Before breakdown (conduction), it is equivalent to an open circuit, with a large resistance and no or very small leakage current; 2. After breakdown (conduction), it is equivalent to a short circuit, which can pass a large current with a very small voltage drop; 3. The pulse current capacity (peak current) is very large; 2.5kA~100kA; 4. It has two-way symmetry characteristics. 5. The capacitance value is very small, less than 3pF.

Disadvantages:	1. Since gas ionization requires a certain amount of time, the response speed is slow. The response time is generally 0.2~0.3μs (200~300ns), and the fastest is about 0.1μs (100ns). Before it is turned on, there will be a Sharp pulses with larger amplitudes leak through and have no protective effect; 2. The breakdown voltage has poor consistency and large dispersion, generally ±20%; 3. The breakdown voltage has only a few specific values;
Application:	Industrial power supply, communication power supply, inverter power supply, UPS uninterrupt power supply, regulated power supply, driving power supply, switching power supply, power module, isolator, inverter, medical equipment
Length:	φ8*6mm
Datasheet:	SC2E8_v91.1.pdf

## Applications:

Certification: UL, REACH, RoHS, ISO

Place of Origin: Shenzhen, Guangdong, China

Minimum Order Quantity: 1000PCS

Delivery Time: 5-8 work days

Price: Negotiable

Supply Ability: 1000000

Advantages:

Before breakdown (conduction), it is equivalent to an open circuit, with a large resistance and no or very small leakage current;

After breakdown (conduction), it is equivalent to a short circuit, which can pass a large current with a very small voltage drop;

The pulse current capacity (peak current) is very large - 2.5kA~100kA;

It has two-way symmetry characteristics;

The capacitance value is very small, less than 3pF.

Disadvantages:

Since gas ionization requires a certain amount of time, the response speed is slow. The response time is generally 0.2~0.3μs (200~300ns), and the fastest is about 0.1μs (100ns). Before it is turned on, there will be Sharp pulses with larger amplitudes leak through and have no protective effect;

The breakdown voltage has poor consistency and large dispersion, generally ±20%;

The breakdown voltage has only a few specific values.

Max. Spark-over Impulse Voltage @100V/μs: 1100V

Storage Temperature: -40°C~+90°C

Application:

Industrial power supply;

Communication power supply;

Inverter power supply;

UPS uninterrupt power supply;

Regulated power supply;

Driving power supply;

Switching power supply;

Power module;

Isolator;

Inverter;

Medical equipment.

This hydrogen gas discharge tube is a gas discharge tube surge protector that is ideal for protecting electrical equipment from surges and other electrical disturbances. With its high pulse current capacity and low capacitance value, it is an excellent choice for industrial power supply, communication power supply, inverter power supply, UPS uninterrupt power supply, regulated power supply, driving power supply, switching power supply, power module, isolator, inverter, and medical equipment applications. With its UL, REACH, RoHS, and ISO certifications, you can be sure that you are getting a high-quality product that meets all industry standards. Contact us today to learn more!

## Support and Services:

Our Gas Discharge Tube product comes with technical support and services to ensure that our customers have the best experience and performance from our product. Our technical support includes:

Product installation guidance

Troubleshooting assistance

Product performance optimization

Product customization support

In addition, we offer the following services related to our Gas Discharge Tube product:

Custom product design and manufacturing

Product testing and certification

Product maintenance and repair

Product warranty and replacement

We are committed to providing our customers with the highest level of support and service for our Gas Discharge Tube product.


Packing and Shipping:

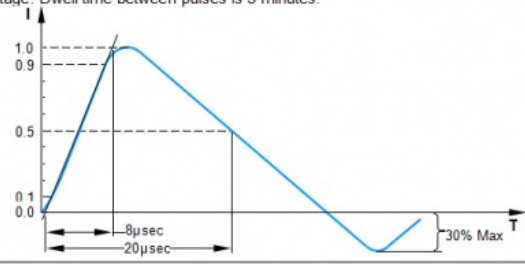
Product Packaging:  
The Gas Discharge Tube product will be packed securely in a cardboard box.  
The product will be wrapped in bubble wrap to prevent any damage during shipping.  
The box will be labeled with the product name, quantity, and any necessary handling instructions.

Shipping:  
The Gas Discharge Tube product will be shipped via a reputable courier service.  
The shipping cost will be calculated based on the weight and destination of the package.  
The estimated delivery time will depend on the shipping method selected at checkout.

FAQ:

- Q1: What is the brand name of this gas discharge tube?**  
A1: The brand name of this gas discharge tube is SOCAY.
- Q2: What is the model number of this gas discharge tube?**  
A2: The model number of this gas discharge tube is SC2E8-90MSMD.
- Q3: What certifications does this product have?**  
A3: This product is certified by UL, REACH, RoHS, and ISO.
- Q4: What is the minimum order quantity for this product?**  
A4: The minimum order quantity for this product is 1000PCS.
- Q5: What is the delivery time for this product?**  
A5: The delivery time for this product is 5-8 work days.
- Q6: Is the price of this product negotiable?**  
A6: Yes, the price of this product is negotiable.
- Q7: What is the supply ability of this product?**  
A7: The supply ability of this product is 1000000.

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	

Electrical Rating		
Item	Test Condition / Description	Requirement
DC Spark-over Voltage	The voltage is measured with a slowly rate of rise $dv/dt=100V/s$	To meet the specified value
Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with a rise time of $dv/dt=100V/\mu s$ or $1KV/\mu s$	
Insulation Resistance	The resistance of gas tube shall be measured each terminal each other terminal, please see above spec.	
Capacitance	The capacitance of gas tube shall be measured each terminal to each other terminal. Test frequency :1MHz	
Nominal Impulse Discharge Current	<p>The maximum current applying a waveform of 8/20<math>\mu s</math> that can be applied across the terminals of the gas tube. One hour after the test is completed, re-testing of the DC spark-over voltage does not exceed <math>\pm 30\%</math> of the nominal DC spark-over voltage. Dwell time between pulses is 3 minutes.</p> 	
Nominal Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. 10 times. Intervals: 3min. The DC spark-over voltage does not exceed $\pm 30\%$ of the nominal DC spark-over voltage. $IR > 10^6 ohms$ .	

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