



800V Axial Leaded Ceramic GDT Tube SC2E8-800ML Classical Components

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: SC2E8-800ML
- Minimum Order Quantity: 1000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Other Name: Gas Arrester
- Size: $\phi 8 \times 6 \text{mm}$
- DC Spark-over Voltage @100V/ μs : $800\text{V} \pm 20\%$
- Max. Spark-over Impulse Voltage @100V/ μs : 1200V
- Max. Spark-over Impulse Voltage @1KV/ μs : 1400V
- Min. Insulation Resistance: $1\text{G}\Omega$ (@100V)
- Nom. Impulse Discharge Current: 10KA
- Max. Impulse Discharge Current: 20KA
- Storage Temperature: $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$
- Highlight: Ceramic GDT Tube, Axial Leaded GDT Tube



Product Description

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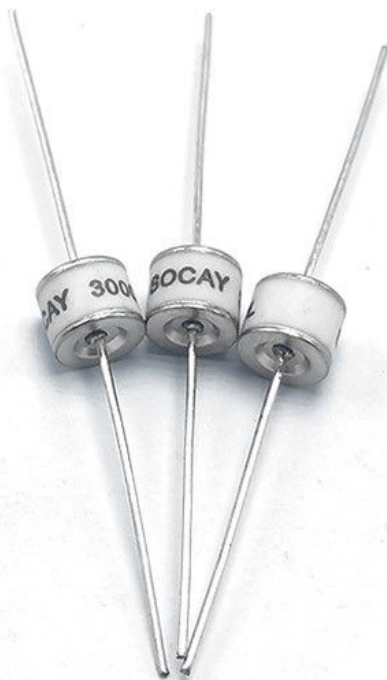
DATASHEET: [SC2E8_v91.1.pdf](#)

Gas discharge tube (GDT) typical application circuit

Ceramic gas discharge tubes (GDT) are widely used in communication lines and power line protection of electronic products such as communications, security, and industry. When used in power line protection, ceramic gas discharge tubes (GDT) should

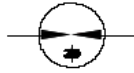
Applied in series with MOV or TVS, as shown in Figure 2. Figure 3 shows the RJ45 interface protection, Figure 4 and Figure 5 show the RS485 interface and BNC respectively.

Two-level interface protection scheme, the first level uses ceramic gas discharge tube.



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	@10/1000 μs 300 times
SC2E8-420M SC2E8-420ML SC2E8-420MSMD	SOCAY 420M	420V±20%	900V	1000V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A
SC2E8-470M SC2E8-470ML SC2E8-470MSMD	SOCAY 470M	470V±20%	900V	1000V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A
SC2E8-600M SC2E8-600ML SC2E8-600MSMD	SOCAY 600M	600V±20%	1100V	1200V	1 GΩ (at 100V)	1.5pF	~20V	10KA	20KA	10A	100A
SC2E8-800M SC2E8-800ML SC2E8-800MSMD	SOCAY 800M	800V±20%	1200V	1400V	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	

Main characteristics of gas discharge tube

- >DC breakdown voltage: 70~7500 V
- >Impact discharge current (8/20 μ s): maximum 100 kA
- >Impact discharge current (10/350 μ s): maximum 100 kA
- >Power frequency discharge current (1 s): maximum 20 A
- >Power frequency discharge current (0.2 s): maximum 300 A
- >Arc voltage: 10~35 V
- >Insulation resistance: minimum 1 G Ω
- >Capacitance: 0.2 pF minimum

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	The maximum current applying a waveform of 8/20 μs 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 $\pm 30\%$ of the nominal DC spark-over voltage. Dwell time between pulses is 3 minutes. 	
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 Ω ms.	

Characteristics of Ceramic Gas Discharge Tube (GDT)

- > The junction capacitance is low, the junction capacitance of most series products does not exceed 2pF, and the junction capacitance of extra-large flow products is in the tens to tens of picofarads;
- > Large flow rate, our ceramic gas discharge tube (GDT) single unit has a flow rate range of 8/20 μs from 500A to 100kA;
- > High insulation resistance, generally above 1G Ω , not easy to age and has high reliability;
- > DC breakdown voltage range is 75V~6000V, pulse breakdown voltage range is 600V~7800V;
- > Various packages, including SMD devices and plug-in devices, two-terminal devices and three-terminal devices, to meet different application needs;
- > Easy to install;

About SOCAY

we are manufacturer and supplier of NTC ,DIODES ect passive components more than 20 years from China .if you have any request please contact us freely .



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