



## 2-Electrode Gas Discharge Tube GDT SC2E5-90LL 90V Axial Leaded Device

Our Product Introduction

### Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: SC2E5-90LL
- Minimum Order Quantity: 3000PCS
- Price: Negotiable
- Delivery Time: 1-3week



### Product Specification

- Other Name: Arrester Tube
- Package Size:  $\phi 5.5 \times 6\text{mm}$
- DC Spark-over Voltage @100V/ $\mu\text{s}$ :  $90\text{V} \pm 20\%$
- Max. Spark-over Impulse Voltage @100V/ $\mu\text{s}$ : 500V
- Max. Spark-over Impulse Voltage @1KV/ $\mu\text{s}$ : 600V
- Min. Insulation Resistance:  $1\text{G}\Omega$  (@50V DC)
- Max. Capacitance: 1.0pF
- Arc Voltage @1A: 15V
- Nom. Max. Impulse Discharge Current Impulse Discharge Current: 5KA
- Operating Temperature:  $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$
- Storage Temperature:  $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$
- Max. Impulse Discharge: 10KA



### More Images



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## Product Description

### 2-Electrode Gas Discharge Tube (GDT) SC2E5-90LL, 90V Axial Leaded Devices

**DATASHEET:** [SC2E5\\_v91.1.pdf](#)

#### GDT Classification

Surface Mount(package size):1206,1210,1812

DIP:2-Electrode,3-Electrode

DC Voltage:75V~800V

High DC Voltage :1000V~6000V

Current:0.5KA~20KA

Response Time≤100NS,SWITH components

#### Electrical Characteristics

| Part Number               | Marking       | DC Spark-over Voltage | Maximum Impulse Spark-over Voltage |         | Minimum Insulation Resistance | Maximum Capacitance | Arc Voltage | Service Life                      |                               |                                       |                      |
|---------------------------|---------------|-----------------------|------------------------------------|---------|-------------------------------|---------------------|-------------|-----------------------------------|-------------------------------|---------------------------------------|----------------------|
|                           |               |                       | @100V/μs                           | @1KV/μs |                               |                     |             | Nominal Impulse Discharge Current | Max Impulse Discharge Current | Nominal Alternating Discharge Current | Impulse Life         |
|                           |               | @100V/S               |                                    |         |                               | @1MHz               | @1A         | @8/20μs ±5 times                  | @8/20μs 1 time                | @50Hz 1 Sec 10 times                  | @10/1000μs 300 times |
| SC2E5-75LL<br>SC2E5-75L   | SOCAY<br>75L  | 75V±20%               | <500V                              | <600V   | 1 GΩ (at 25V)                 | <1.0pF              | ~15V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-90LL<br>SC2E5-90L   | SOCAY<br>90L  | 90V±20%               | <500V                              | <600V   | 1 GΩ (at 50V)                 | <1.0pF              | ~15V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-150LL<br>SC2E5-150L | SOCAY<br>150L | 150V±20%              | <500V                              | <600V   | 1 GΩ (at 50V)                 | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-230LL<br>SC2E5-230L | SOCAY<br>230L | 230V±20%              | <600V                              | <700V   | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-250LL<br>SC2E5-250L | SOCAY<br>250L | 250V±20%              | <700V                              | <800V   | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-300LL<br>SC2E5-300L | SOCAY<br>300L | 300V±20%              | <800V                              | <900V   | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-350LL<br>SC2E5-350L | SOCAY<br>350L | 350V±20%              | <800V                              | <900V   | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-420LL<br>SC2E5-420L | SOCAY<br>420L | 420V±20%              | <900V                              | <1000V  | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-470LL<br>SC2E5-470L | SOCAY<br>470L | 470V±20%              | <900V                              | <1000V  | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-600LL<br>SC2E5-600L | SOCAY<br>600L | 600V±20%              | <1100V                             | <1200V  | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-800LL<br>SC2E5-800L | SOCAY<br>800L | 800V±20%              | <1200V                             | <1400V  | 1 GΩ (at 100V)                | <1.0pF              | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |

**Notes:**  
 1). Terms in accordance with IEC 61076-1 and GB/T 9043-2008  
 2). At delivery AQL 0.65 level II, DIN ISO 2859

| 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 Alternating 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 |
| SC2E5-75LL<br>SC2E5-75L   | SOCAY7<br>5L  | 75V±20%               | 500V                               | 600V    | 1 GΩ (at 25V)                 | 1.0pF               | ~15V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-90LL<br>SC2E5-90L   | SOCAY9<br>0L  | 90V±20%               | 500V                               | 600V    | 1 GΩ (at 50V)                 | 1.0pF               | ~15V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-150LL<br>SC2E5-150L | SOCAY1<br>50L | 150V±20%              | 500V                               | 600V    | 1 GΩ (at 50V)                 | 1.0pF               | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-230LL<br>SC2E5-230L | SOCAY2<br>30L | 230V±20%              | 600V                               | 700V    | 1 GΩ (at 100V)                | 1.0pF               | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-250LL<br>SC2E5-250L | SOCAY2<br>50L | 250V±20%              | 700V                               | 800V    | 1 GΩ (at 100V)                | 1.0pF               | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |
| SC2E5-300LL<br>SC2E5-300L | SOCAY3<br>00L | 300V±20%              | 800V                               | 900V    | 1 GΩ (at 100V)                | 1.0pF               | ~20V        | 5KA                               | 10KA                          | 5A                                    | 100A                 |

|             |        |          |       |       |                |       |      |     |      |    |      |
|-------------|--------|----------|-------|-------|----------------|-------|------|-----|------|----|------|
| SC2E5-350LL | SOCAY3 | 350V±20% | 800V  | 900V  | 1 GΩ (at 100V) | 1.0pF | ~20V | 5KA | 10KA | 5A | 100A |
| SC2E5-350L  | 50L    |          |       |       |                |       |      |     |      |    |      |
| SC2E5-420LL | SOCAY4 | 420V±20% | 900V  | 1000V | 1 GΩ (at 100V) | 1.0pF | ~20V | 5KA | 10KA | 5A | 100A |
| SC2E5-420L  | 20L    |          |       |       |                |       |      |     |      |    |      |
| SC2E5-470LL | SOCAY4 | 470V±20% | 900V  | 1000V | 1 GΩ (at 100V) | 1.0pF | ~20V | 5KA | 10KA | 5A | 100A |
| SC2E5-470L  | 70L    |          |       |       |                |       |      |     |      |    |      |
| SC2E5-600LL | SOCAY6 | 600V±20% | 1100V | 1200V | 1 GΩ (at 100V) | 1.0pF | ~20V | 5KA | 10KA | 5A | 100A |
| SC2E5-600L  | 00L    |          |       |       |                |       |      |     |      |    |      |
| SC2E5-800LL | SOCAY8 | 800V±20% | 1200V | 1400V | 1 GΩ (at 100V) | 1.0pF | ~20V | 5KA | 10KA | 5A | 100A |
| SC2E5-800L  | 00L    |          |       |       |                |       |      |     |      |    |      |

**Notes:**

- 1). Terms in accordance with ITU-T K.12 and GB/T 9043-2008
- 2). At delivery AQL 0.65 level , DIN ISO 2859



**Features:**

Non-Radioactive  
RoHS compliant  
Low insertion loss  
Excellent response to fast rising transients  
Ultra low capacitance  
5KA surge capability tested with 8/20μs pulse as defined by IEC 61000-4-5

**Applications:**

power module, isolator, inverter, medical equipment,  
485 converter, communication products  
(optical terminal machine, MODEL,  
communication base station),  
stabilizer, security products, lightning arrester.



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