**Features**
- Mini-compact size: 5.5 mm diameter, 6 mm length
- Axial leaded device
- High voltage range up to 4 kV
- High insulation resistance
- RoHS compliant*
- UL Recognized

**Applications**
- Industrial equipment/electronics
- Telecommunications electronics
- Consumer electronics

**2089 Series High Voltage Mini 2-Electrode Gas Discharge Tube**

**Features**
- Mini-compact size: 5.5 mm diameter, 6 mm length
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- High voltage range up to 4 kV
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- UL Recognized

**Applications**
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- Telecommunications electronics
- Consumer electronics

**Characteristics**

Test Methods per ITU-T (CCITT) K.12 and IEC 61643-311.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2089-100</td>
</tr>
<tr>
<td>DC Sparkover ±20 % @ 100 V/s</td>
<td>1000 V</td>
</tr>
<tr>
<td>Impulse Sparkover (1)</td>
<td></td>
</tr>
<tr>
<td>100 V/μs</td>
<td>&lt; 1300 V</td>
</tr>
<tr>
<td>1000 V/μs</td>
<td>&lt; 1400 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2089-250</td>
</tr>
<tr>
<td>DC Sparkover ±20 % @ 100 V/s</td>
<td>2500 V</td>
</tr>
<tr>
<td>Impulse Sparkover (1)</td>
<td></td>
</tr>
<tr>
<td>100 V/μs</td>
<td>&lt; 3300 V</td>
</tr>
<tr>
<td>1000 V/μs</td>
<td>&lt; 3500 V</td>
</tr>
</tbody>
</table>

(1) Impulse Sparkover voltage is defined as typical values of distribution.

- Insulation Resistance (IR) (2) .................. 500/1000 Vdc ................. > 1 GΩ
- Glow Voltage .................................... 10 mA ......................... ~ 60 V
- Arc Voltage ..................................... 1 A ......................... ~ 15 V
- Capacitance .................................... 1 MHz ......................... < 1.5 pF
- Impulse Discharge Current .............. 3,000 A, 8/20 μs ..................... 1 operation
- ........................................... 1,500 A, 8/20 μs ..................... 10 operations
- Alternating Discharge Current ...... 2 Arms, 50 Hz, 1 second ............. 1 operation min.
- ........................................... 4 Arms, 50 Hz, 9 cycles ............. 1 operation min.
- Impulse Life .................................. 100 A, 10/1000 μs .................. > 300 operations
- Operating Temperature ..................... -40 to +85 °C
- Storage Temperature ......................... -40 to +115 °C
- Climatic Category (IEC 60068-1) ............... -40 / 90 / 21

**Notes:**
- UL Recognized component: UL File E313168.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

**Additional Information**

Click these links for more information:
- PRODUCT SELECTOR
- TECHNICAL LIBRARY
- INVENTORY
- SAMPLES
- CONTACT

For more information, please visit www.bourns.com/docs/legal/disclaimer.pdf
### Product Dimensions

**Minimum Dimensions:**
- Diameter: 5.5 +0.3/-0.5
- Length: 6.0 +0.3/-0.5

**Maximum Dimensions:**
- Diameter: 6.0 +1.4
- Length: 10.0 ± 0.5

### Packaging Specifications

Model 2089 ships standard bulk, 100 pcs. per tray; 5 trays per box (500 units). The optional reelpack (-BT1) contains 500 pcs. per reel; 2 reels per box (1K units).

### How to Order

**Model Number Designator**

- 2089 - xxx - B T1 LF

**Voltage (Divided by 10):**
- 100 = 1000 V
- 120 = 1200 V
- 140 = 1400 V
- 160 = 1600 V
- 200 = 2000 V

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>1000 V</td>
</tr>
<tr>
<td>120</td>
<td>1200 V</td>
</tr>
<tr>
<td>140</td>
<td>1400 V</td>
</tr>
<tr>
<td>160</td>
<td>1600 V</td>
</tr>
<tr>
<td>200</td>
<td>2000 V</td>
</tr>
</tbody>
</table>

**Leads:**
- B = 0.8 mm

**Packaging:***
- Blank = Bulk Packaging (Standard)
- T1 = Reelpack (Optional)

**RoHS Compliant:**
- LF = RoHS Compliant Product

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**Rev. D 09/19**

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.

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