Bourns offers a low-cost surface mount (SM) 2-electrode GDT surge protection device. The 2055 Series is ideal for broadband protection due to its ultra-low capacitance. The 2055 Series offers superior protection characteristics suitable for telecommunications, commercial and industrial applications.

### Features
- Leadless, surface mount for economical assembly
- Compact mini-size
- Low capacitance and insertion loss
- RoHS compliant*
- UL Recognized

### Characteristics

#### Test Methods per ITU-T (CCITT) K.12 and IEEE C62.31

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Model No.</th>
<th>2055-07</th>
<th>2055-09</th>
<th>2055-23</th>
<th>2055-25</th>
<th>2055-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Sparkover ± 20 % @ 100 V/s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulse Sparkover (1)</td>
<td></td>
<td>75 V</td>
<td>90 V</td>
<td>230 V</td>
<td>250 V</td>
<td>300 V</td>
</tr>
<tr>
<td>100V/µs</td>
<td></td>
<td>600 V</td>
<td>600 V</td>
<td>450 V</td>
<td>450 V</td>
<td>500 V</td>
</tr>
<tr>
<td>1000V/µs</td>
<td></td>
<td>700 V</td>
<td>700 V</td>
<td>550 V</td>
<td>550 V</td>
<td>600 V</td>
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</tbody>
</table>

<table>
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<tr>
<th>Characteristic</th>
<th>Model No.</th>
<th>2055-35</th>
<th>2055-40</th>
<th>2055-60</th>
<th>2055-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Sparkover ± 20 % @ 100 V/s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulse Sparkover (1)</td>
<td></td>
<td>350 V</td>
<td>400 V</td>
<td>600 V</td>
<td>800 V</td>
</tr>
<tr>
<td>100V/µs</td>
<td></td>
<td>600 V</td>
<td>600 V</td>
<td>800 V</td>
<td>1000 V</td>
</tr>
<tr>
<td>1000V/µs</td>
<td></td>
<td>750 V</td>
<td>700 V</td>
<td>900 V</td>
<td>1200 V</td>
</tr>
</tbody>
</table>

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

- **Insulation Resistance (IR)**: 50V / 100 V (2) ≥ 10¹⁰ Ω
- **Glow Voltage**: 10 mA
- **Arc Voltage**: >2 A
- **Glow-Arc Transition Current**: < 1 A
- **Capacitance**: 1 MHz
- **DC Holdover Voltage (3)**: >150 V, < 15 ms
- **Impulse Discharge Current**: 5000 A, 8/20 µs
- **Alternating Discharge Current**: 10 Arms, 9 cycles
- **Operating Temperature**: -40 to +85 °C
- **Moisture Sensitivity Level**: 1
- **ESD Classification (HBM)**: 6

### Notes:
- UL Recognized component, UL File E153537.
- At delivery AQL 0.65 Level II, DIN ISO 2859.
- Surface Mount (SM) parts may show a temporary increase in DCBD after the solder reflow process. Most devices will recover within 24 hours time. It should be noted that there is no quality defect nor change in protection levels during the temporary change in DCBD.
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

(2) Insulation Resistance test conditions:

- DC Sparkover: DC Measuring Voltage: 75 - 150 V, 50 V
- ≥151 V, 100 V

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

**WARNING**
Cancer and Reproductive Harm
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)
2055 Series Gas Discharge Tube Surge Protector

**Product Dimensions**

**Recommended Pad Layout**

**Packaging Specifications**

The Model 2055-xx-SM ships standard reelpack (-RP), 800 pieces per reel, 2,400 pieces per box. Reel is 330 mm in diameter and 16 mm wide.

**How to Order**

The models are designated as follows:

- **Model Number Designator**: 2055
- **Voltage (Divided by 10)**
- **Surface Mount**
- **Packaging**
  - RP = Reelpack
- **RoHS Compliancy**
  - LF = RoHS Compliant Product

**How to Order**

2055 - xx - SM - RP LF

**Specifications**

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