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

2003 Series Gas Discharge Tube Surge Protector

Bourns offers a low-cost surface mount (SM) 2-electrode GDT surge protection device. The 2003 Series is ideal for broadband protection due to its ultra-low capacitance. The 2003 Series offers superior protection characteristics suitable for telecommunications, commercial and industrial applications.

Characteristics

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

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<tr>
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<tbody>
<tr>
<td>DC Sparkover ± 20 % @ 100 V/s</td>
<td>75 V</td>
<td>90 V</td>
<td>120 V</td>
<td>150 V</td>
<td>200 V</td>
</tr>
<tr>
<td>Maximum Impulse Breakdown Voltage</td>
<td>600 V</td>
<td>600 V</td>
<td>600 V</td>
<td>600 V</td>
<td>600 V</td>
</tr>
<tr>
<td>100V/μs</td>
<td>700 V</td>
<td>700 V</td>
<td>700 V</td>
<td>700 V</td>
<td>700 V</td>
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<tr>
<td>DC Holdover Voltage &lt;150 ms</td>
<td>52 V</td>
<td>52 V</td>
<td>80 V</td>
<td>80 V</td>
<td>135 V</td>
</tr>
</tbody>
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<tbody>
<tr>
<td>DC Sparkover ± 20 % @ 100 V/s</td>
<td>230 V</td>
<td>250 V</td>
<td>350 V</td>
<td>400 V</td>
<td>470 V</td>
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<tr>
<td>Maximum Impulse Breakdown Voltage</td>
<td>600 V</td>
<td>600 V</td>
<td>600 V</td>
<td>700 V</td>
<td>900 V</td>
</tr>
<tr>
<td>100V/μs</td>
<td>700 V</td>
<td>700 V</td>
<td>800 V</td>
<td>800 V</td>
<td>1100 V</td>
</tr>
<tr>
<td>DC Holdover Voltage &lt;150 ms</td>
<td>135 V</td>
<td>135 V</td>
<td>135 V</td>
<td>135 V</td>
<td>135 V</td>
</tr>
</tbody>
</table>

Glow Voltage ................................................... 10 mA .................................................................~ 70 V
Arc Voltage .............................................................. 1 A ........................................................................~ 10 V
Glow-Arc Transition Current ........................................< 1 A
Maximum Impulse Discharge Current .............................. 2000 A
8/20 μs, 1 Time ........................................................... 1000 A
8/20 μs, 10 Times ...................................................... 300 operations
Alternating Discharge Current ...................................... 1 A
50 Hz, 1 Sec ............................................................. 1 gigaohm
DC Holdover Voltage ............................................. <150 ms
Minimum Insulation Resistance ................................... 0.5 pF
Operating Temperature .................................................. -40 °C to +90 °C
Moisture Sensitivity Level ................................................. 1
ESD Classification (HBM) .................................................. 6

Notes:
• UL Recognized component, UL File E153537.

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WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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**2003 Series Gas Discharge Tube Surge Protector**

### Product Dimensions

![Dimensions: Millimeters](image)

### Recommended Pad Layout

![Dimensions: Millimeters](image)

### How to Order

Model Number Designator: 2003-xx-SM-RP LF

- **Model Number**
- **xx**: Voltage (Divided by 10)
- **SM**: Surface Mount
- **RP**: Reelpack
- **LF**: RoHS Compliant Product

### Typical Part Marking

<table>
<thead>
<tr>
<th>Model Number Designator</th>
<th>Typical Part Marking</th>
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<tr>
<td>2003-07-SM-RPLF</td>
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<tr>
<td>2003-09-SM-RPLF</td>
<td>...................................................... B09</td>
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<tr>
<td>2003-12-SM-RPLF</td>
<td>...................................................... B12</td>
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<td>2003-40-SM-RPLF</td>
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<tr>
<td>2003-47-SM-RPLF</td>
<td>...................................................... B47</td>
</tr>
</tbody>
</table>

### Packaging Specifications

The Model 2003-xx-SM ships standard reelpack (-RP), 2,500 pieces per reel, 7,500 pieces per box. Reel is 330 mm in diameter and 12 mm wide.

![Dimensions: Millimeters](image)

### REV. A 09/19

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