Features
- Size: 5 mm diameter, 7.2 mm length
- Surface mount design
- Symmetrical breakdown voltage (L-L, L-G)
- Low capacitance and insertion loss
- UL Recognized
- RoHS compliant*

2052 Series Light Duty 3-Electrode Symmetrical Gas Discharge Tube

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

Characteristics
Test Methods per ITU-T K.12 and IEC 61643-311.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2052-23</th>
<th>2052-25</th>
<th>2052-35</th>
<th>2052-40</th>
<th>2052-42</th>
<th>2052-47</th>
<th>2052-60</th>
<th>2052-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Sparkover ±20 % @ 100 V/s (L-L, L-G)</td>
<td>230 V</td>
<td>250 V</td>
<td>350 V</td>
<td>400 V</td>
<td>420 V</td>
<td>470 V</td>
<td>600 V</td>
<td>800 V</td>
</tr>
<tr>
<td>Impulse Sparkover (L-L, L-G) (1)</td>
<td>&lt;600 V</td>
<td>&lt;600 V</td>
<td>&lt;650 V</td>
<td>&lt;700 V</td>
<td>&lt;700 V</td>
<td>&lt;800 V</td>
<td>&lt;800 V</td>
<td>&lt;900 V</td>
</tr>
<tr>
<td>100 V/μs</td>
<td></td>
<td></td>
<td></td>
<td>&lt;700 V</td>
<td>&lt;700 V</td>
<td>&lt;750 V</td>
<td>&lt;800 V</td>
<td>&lt;900 V</td>
</tr>
<tr>
<td>1000 V/μs</td>
<td></td>
<td></td>
<td></td>
<td>&lt;770 V</td>
<td>&lt;770 V</td>
<td>&lt;850 V</td>
<td>&lt;880 V</td>
<td>&lt;900 V</td>
</tr>
</tbody>
</table>
| (1) Impulse Sparkover voltage is defined as typical values of distribution.

Insulation Resistance (IR) (2) ........................................ 100/250 Vdc .............................................. >1 GΩ
Glow Voltage .............................................................................................................................. >70 V
Arc Voltage ............................................................................................................................... <10 V
Glow-Arc Transition Current ......................................................................................................... <1 A
Maximum Capacitance .................................................................................................................. <2 pF
Maximum Impulse Discharge Current ......... 10,000 A, 8/20 μs .............................................. 1 operation
........................................ 5,000 A, 8/20 μs .................................................. 10 operations
Nominal Alternating Discharge Current ....... 5 A, 50 Hz, 1 sec. .............................................. 1 operation
........................................ 20 A, 9 cycles .......................................................... 1 operation
Impulse Life ................................................................................................................................. 200 A, 10/1000 μs ........................................ 150 operations
........................................ DC Holdover Voltage (3) .............................................. >135 V ....................................... <150 ms
Operating Temperature ............................................................................................................... -30 to +85 °C
Storage Temperature ................................................................................................................... -40 to +115 °C
Climatic Category (IEC 60668-1) .................. .......................................................... 40/90/21

Notes:
- UL Recognized component, UL File E153537.
- At delivery AQL 0.65 AQL Level II, DIN ISO 2859.
- The rated discharge current is the total current equally divided between each line to ground (ELTG).
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

(2) DC Sparkover Voltage IR Measuring Voltage
145-400 V ........................................ 100 V
420–800 V ........................................ 250 V

(3) Network Applied.

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov
Applications
- Telecommunications equipment
- Industrial equipment/electronics
- Consumer electronics

2052 Series Light Duty 3-Electrode Symmetrical Gas Discharge Tube

Product Dimensions

<table>
<thead>
<tr>
<th>DIMENSIONS:</th>
<th>MM</th>
<th>INCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0 ± 0.1</td>
<td>(197 ± 0.04)</td>
<td></td>
</tr>
<tr>
<td>7.2 ± 0.3</td>
<td>(283 ± 0.012)</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Pad Layout

Packaging Specifications

Model 2052-xx-SM-RPLF (Reel Pack) contains 900 pieces per reel, 2,700 pieces per box. The reel is 330 mm in diameter and 18 mm wide.

How to Order

2052 - xx - SM - RP LF

Model Number Designator
Voltage (Divided by 10)
- 23 = 230 V
- 25 = 250 V
- 35 = 350 V
- 40 = 400 V
- 42 = 420 V
- 47 = 470 V
- 60 = 600 V
- 80 = 800 V

Surface Mount
Packaging
- RP = Reel Pack
RoHS Compliance
- LF = RoHS Compliant Product
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