Features
■ Size: 4 mm diameter, 4.2 mm length
■ Mini-surface mount footprint
■ Low capacitance
■ High insulation resistance
■ RoHS compliant*
■ UL Recognized

Applications
■ Telecommunications equipment
■ Industrial equipment/electronics
■ Consumer electronics

Characteristics

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

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Sparkover ± 20 % @ 100 V/s</td>
<td>2053-07, 09, 14, 23, 25</td>
</tr>
<tr>
<td>Impulse Sparkover (1)</td>
<td></td>
</tr>
<tr>
<td>100V/μs</td>
<td>&lt; 700 V</td>
</tr>
<tr>
<td>1000V/μs</td>
<td>&lt; 800 V</td>
</tr>
<tr>
<td>300 V</td>
<td>&lt; 600 V</td>
</tr>
<tr>
<td>350 V</td>
<td>&lt; 600 V</td>
</tr>
<tr>
<td>400 V</td>
<td>&lt; 800 V</td>
</tr>
<tr>
<td>470 V</td>
<td>&lt; 800 V</td>
</tr>
<tr>
<td>600 V</td>
<td>&lt; 900 V</td>
</tr>
</tbody>
</table>

Insulation Resistance (IR) (2)........................... 50/100/250 V ....................................................> 1 GΩ
Glow Voltage ................................................... 10 mA ................................................................~ 70 V
Arc Voltage ...................................................... >1 A ....................................................................< 10 V
Glow-Arc Transition Current .......................................................................................................< 1 A
Capacitance.................................................................................................................................0.5 pF typical
Maximum Impulse Discharge Current ........................ 5,000 A, 8/20 μs........................................1 operation
3,000 A, 8/20 μs.............................................10 operations
Nominal Alternating Discharge Current.................. 3 A, 50 Hz, 1 second.................................1 operation
6 A, 9 cycles..................................................1 operation
Impulse Life ...................................................... 100 A, 10/1000 μs........................................300 operations
DC Holdover Voltage (3) ........................................< 150 ms
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 E153537.
- At delivery AOL 0.65 Level II, DIN ISO 2859.
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

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

(2) DC Sparkover Voltage DC Measuring Voltage
75–90 V                                           50 V
120–400 V                                         100 V
470–600 V                                         250 V

(3) Network Applied
DC Sparkover Voltage  DC Holdover Voltage
75–145 V                                         52 V
230–250 V                                        80 V
300–600 V                                        150 V

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

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

**Recommended Pad Layout**

**Packaging Specifications**

The Model 2053-xx-SM ships standard reelpack (RP), 900 pieces per reel, 2,700 pieces per box. Reel is 330 mm in diameter and 16 mm wide.

**How to Order**

Model Number Designator

Voltage (Divided by 10)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>75 V</td>
</tr>
<tr>
<td>09</td>
<td>90 V</td>
</tr>
<tr>
<td>14</td>
<td>145 V</td>
</tr>
<tr>
<td>23</td>
<td>230 V</td>
</tr>
<tr>
<td>25</td>
<td>250 V</td>
</tr>
</tbody>
</table>

Surface Mount

Packaging

RP = Reelpack

RoHS Compliancy

LF = RoHS Compliant Product

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