The Bourns® Model 2036 High Temperature Rated TRIGARD® Series is a 3-electrode Gas Discharge Tube (GDT) Surge Protection device. The surface mount device provides robust performance and balanced protection in a small 5 mm diameter package. The Model 2036 High Temperature Series provides stable and long term performance over a wide temperature range, making it ideal for applications and equipment exposed to harsh environments.

**Features**
- Wide operating temperature range (-55 °C to +125 °C)
- Stable performance over temperature range
- Long life design
- Low capacitance
- Small size

**UL Recognized**

**RoHS compliant**

This series is currently available but not recommended for new designs. See Product Obsolescence Memo for recommended replacement products.

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### 2036-xx-SM-H High Temperature Rated GDT Surge Protector

### Characteristics

**Notes:**
- In ionized mode
- At delivery AQL 0.65 Level II, DIN ISO 2859
- Impulse sparkover value is defined as typical values of distribution
- Network applied per ITU K.12
- Total current through center electrode, half value each end electrode to center electrode
- DC Sparkover limit may exceed +25%; GDT will continue to protect as designed

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

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<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2036-09</td>
</tr>
<tr>
<td>DC Sparkover ±25 % @ 100 V/s (1) (2)</td>
<td>90 V</td>
</tr>
<tr>
<td>Impulse Sparkover (3)</td>
<td></td>
</tr>
<tr>
<td>100 V/μs</td>
<td>250 V</td>
</tr>
<tr>
<td>1000 V/μs</td>
<td>550 V</td>
</tr>
<tr>
<td>Impulse Transverse Delay</td>
<td></td>
</tr>
<tr>
<td>Nominal Insulation Resistance (IR)</td>
<td></td>
</tr>
<tr>
<td>Glow Voltage</td>
<td>10 mA</td>
</tr>
<tr>
<td>Arc Voltage</td>
<td>1 A</td>
</tr>
<tr>
<td>Capacitance</td>
<td>1 MHz</td>
</tr>
<tr>
<td>DC Holdover Voltage</td>
<td></td>
</tr>
<tr>
<td>Nominal Impulse Discharge Current (5)</td>
<td>20000 A, 8/20 μs (6)</td>
</tr>
<tr>
<td></td>
<td>10000 A, 8/20 μs</td>
</tr>
<tr>
<td></td>
<td>200 A, 10/1000 μs</td>
</tr>
<tr>
<td></td>
<td>2000 A, 10/350 μs</td>
</tr>
<tr>
<td>Alternating Discharge Current</td>
<td>20 Arms, 1 s²</td>
</tr>
<tr>
<td></td>
<td>10 Arms, 1 s</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td></td>
</tr>
<tr>
<td>Climatic Category (IEC 60068-1)</td>
<td></td>
</tr>
<tr>
<td>Moisture Sensitivity Level</td>
<td></td>
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<tr>
<td>ESD Classification (HBM)</td>
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</tr>
</tbody>
</table>

**Click these links for more information:**
- 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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**WARNING** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
Applications

- Outdoor communications equipment
- Equipment exposed to harsh environments

2036-xx-SM-H High Temperature Rated GDT Surge Protector

Product Dimensions

<table>
<thead>
<tr>
<th>DIMENSIONS: MILLIMETERS/(INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3 ± 0.26 (0.287 ± 0.010)</td>
</tr>
<tr>
<td>0.9 ± 0.2 (0.035 ± 0.008)</td>
</tr>
<tr>
<td>3.3 ± 0.2 (0.130 ± 0.008)</td>
</tr>
<tr>
<td>0.7 ± 0.2 (0.028 ± 0.008)</td>
</tr>
<tr>
<td>0.5 ± 0.2 (0.020 ± 0.008)</td>
</tr>
</tbody>
</table>

Recommended Pad Layout

How to Order

2036 - xx - SM - RP  LF - H

Model Number Designator
Voltage (Divided by 10)
Surface Mount
Packaging Options*  
Blank = Bulk Packaging (Standard)
RP = Reelpack - 1000 pcs./reel (Optional)
RP2 = Reelpack - 1000 pcs./reel (Optional)
RoHS Compliancy  
LF = RoHS Compliant Product
Suffix  
H = High Temperature Component

* The optional -RP & -RP2 reelpacks contain 1000 pcs./reel. The reels are 330 mm in diameter. The -RP reelpack is 16 mm wide; the -RP2 reelpack is 24 mm wide.

Typical Part Marking

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2036-xx-SM-H High Temperature Rated GDT Surge Protector

Packaging Specifications

The Model 2036-xx-SM-H ships standard bulk pack, 250 pieces per bag, 4 bags per box.

The optional -RP & -RP2 reelpacks contain 1,000 pcs./reel. The reels are 330 mm in diameter. The -RP reelpack is 16 mm wide. The -RP2 reelpack is 24 mm wide.

-RP

-RP2

TOLERANCES: 0.13 UNLESS OTHERWISE NOTED

DIMENSIONS: MILLIMETERS

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REV. C 12/23

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