

Features

- Compact size
- Low capacitance
- Performance stability over life
- High insulation resistance
- RoHS compliant*
-  UL Recognized

Applications

- MDC / PCI modems
- Splitters
- Telecom CPE
- Datacom

2051 Series Gas Discharge Tube Surge Protector

Bourns® 2051 Series micro surface mount, 2-electrode GDT surge protection device is designed to meet board level protection requirements with reduced space requirements. The 2051 Series is ideal for high-speed/high-bandwidth applications with a typical capacitance of 0.6 pF. The 2051 Series product dimensions are 2.7 x 3.2 x 4.5 mm.

Characteristics

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

| Characteristic | Model No. | | | | |
|-------------------------------|-----------|---------|---------|---------|---------|
| | 2051-09 | 2051-15 | 2051-20 | 2051-23 | 2051-30 |
| DC Sparkover ± 30 % @ 100 V/s | 90 V | 150 V | 200 V | 230 V | 300 V |
| Impulse Sparkover | | | | | |
| 100V/μs | <500 V | <500 V | <500 V | <500 V | <600 V |
| 1000V/μs | <600 V | <600 V | <650 V | <650 V | <750 V |

| Characteristic | Model No. | | | | |
|-------------------------------|-----------|---------|---------|---------|---------|
| | 2051-35 | 2051-40 | 2051-42 | 2051-47 | 2051-60 |
| DC Sparkover ± 30 % @ 100 V/s | 350 V | 400 V | 420 V | 470 V | 600 V |
| Impulse Sparkover | | | | | |
| 100V/μs | <650 V | <750 V | <750 V | <800 V | <950 V |
| 1000V/μs | <800 V | <900 V | <900 V | <950 V | <1100 V |

| | | |
|---------------------------------------|--------------------------------|----------------|
| Insulation Resistance (IR) | 50 / 100 V _{dc} | > 1G Ω |
| Glow Voltage | 10 mA | ~ 70 V |
| Arc Voltage | 1 A | ~ 10 V |
| Glow-Arc Transition Current | | < 1 A |
| Capacitance | 1 MHz | < 1 pF |
| Impulse Discharge Current | 2000 A, 8/20 μs | 10 operations |
| | 100 A, 8/20 μs | 300 operations |
| | 10 A, 10/1000 μs | 100 operations |
| Alternating Discharge Current | 2 A, 50 Hz, 1 sec | 10 operations |
| Operating & Storage Temperature | | -40 to +90 °C |
| Climatic Category (IEC 60068-1) | | 40 / 90 / 21 |

Notes:

- UL Recognized component, UL File E153537.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

Europe: Tel: +41-41 768 5555 • Fax: +41-41 768 5510

The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700

www.bourns.com

*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.

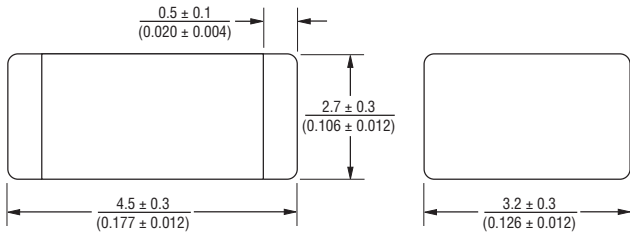
Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.

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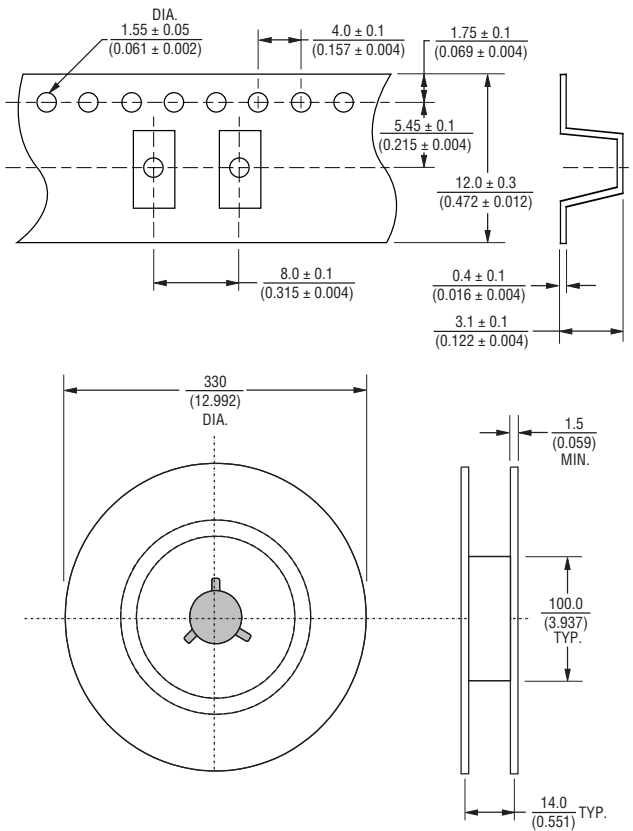
BOURNS®

Product Dimensions



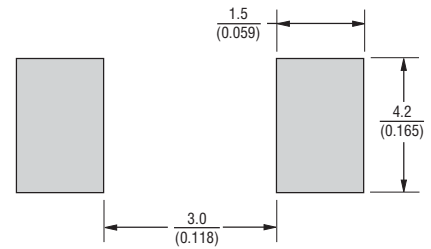
Packaging Specifications

The Model 2051-xx-SM ships standard reelpack (-RP), 2500 pieces per reel. Reel is 330 mm in diameter and 14 mm wide.



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Recommended Pad Layout



How to Order

2051 - xx - SM - RP LF

Model Number Designator

Voltage (Divided by 10)

| | |
|------------|------------|
| 09 = 90 V | 35 = 350 V |
| 15 = 150 V | 40 = 400 V |
| 20 = 200 V | 42 = 420 V |
| 23 = 230 V | 47 = 470 V |
| 30 = 300 V | 60 = 600 V |

Surface Mount

Packaging

RP = Reelpack (2,500 pieces per reel)

Lead Free

LF = Lead Free or RoHS Compliant Product