

## 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 <sub>dc</sub> .....	> 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®

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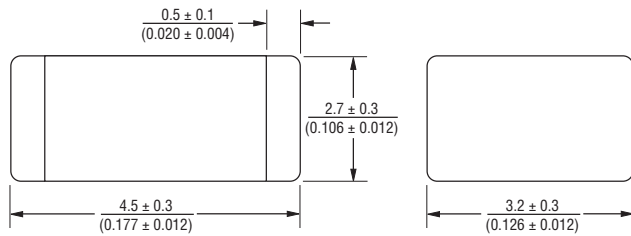
\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.  
Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.

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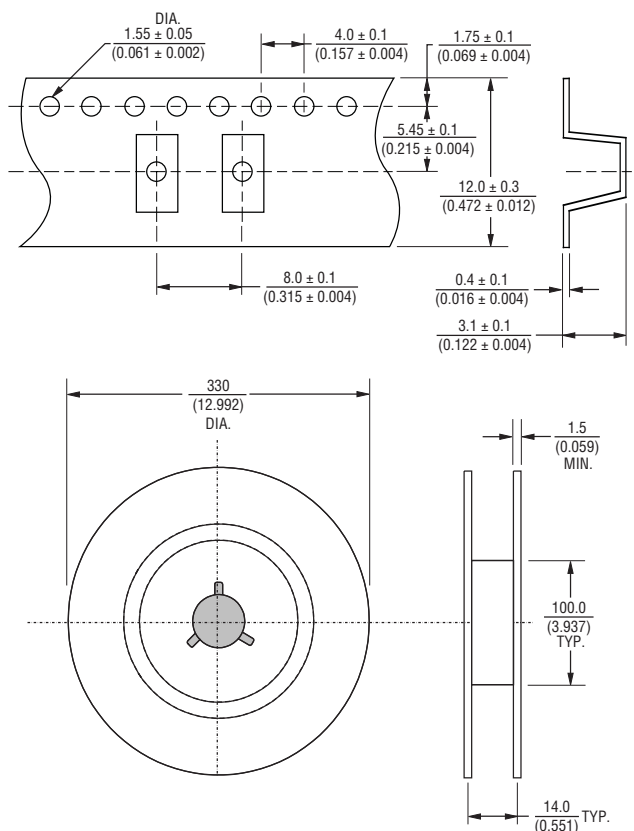
**BOURNS®**

## Product Dimensions



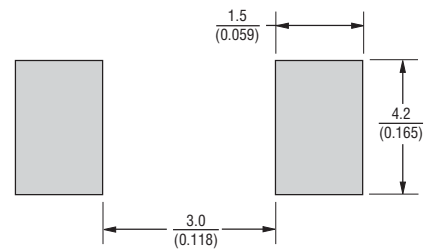
## Packaging Specifications

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

REV. A 03/11

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