



Features

- Leadless, surface mount for economical assembly
- Compact mini-size
- High surge current rating
- Low capacitance and insertion loss
- Stable breakdown throughout life

-  UL Recognized
- RoHS compliant* version available

2035-xx-SM Precision Gas Discharge Tube Surge Protector

Bourns now offers a surface mount (SM) 2-electrode GDT surge protection device. The industry-leading quality and features of the Bourns® miniature 2035 Series GDT continue in this new SM version. Compatible with “pick and place” assembly systems, the SM is ideal for high-density applications such as PCBs for telecommunications, commercial and industrial applications.

Characteristics

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

Characteristic	Model No.					
	2035-09	2035-15	2035-20	2035-23	2035-25	2035-30
DC Sparkover $\pm 15\%$ ($\pm 20\%$ for Model 2035-09) @ 100 V/s	90 V	150 V	200 V	230 V	250 V	300 V
Impulse Sparkover 100 V/ μ s 1000 V/ μ s	350 V 525 V	400 V 550 V	425 V 575 V	450 V 600 V	475 V 625 V	525 V 650 V

Characteristic	Model No.				
	2035-35	2035-40	2035-42	2035-47	2035-60
DC Sparkover $\pm 15\%$ @ 100 V/s (-12 %, +15 % for Model 2035-60) @ 100 V/s	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover 100 V/ μ s 1000 V/ μ s	600 V 750 V	650 V 800 V	675 V 850 V	750 V 950 V	950 V 1100 V

Insulation Resistance (IR).....	100 V (50 V for Model 2035-09)	$> 10^{10} \Omega$
Glow Voltage.....	10 mA.....	$\sim 70 \text{ V}$
Arc Voltage.....	$> 1 \text{ A}$	$\sim 10 \text{ V}$
Glow-Arc Transition Current		$< 0.5 \text{ A}$
Capacitance.....	1 MHz.....	$< 1 \text{ pF}$
DC Holdover Voltage ¹	$> 135 \text{ V}$, (52 V for Model 2035-09,	$< 150 \text{ ms}$
	80 V for Model 2035-15)	
Impulse Discharge Current	10000 A, 8/20 μ s ²	1 operation minimum
	5000 A, 8/20 μ s.....	> 10 operations
	100 A, 10/1000 μ s	> 300 operations
	100 A, 10/700 μ s	> 500 operations
Alternating Discharge Current.....	20 Arms, 11 cycles ²	1 operation minimum
	5 Arms, 1 s.....	> 10 operations
Operating Temperature.....		-55 to +85 °C

Notes:

UL Recognized component, UL File E153537

Sparkover limits after life $\pm 20\%$ (-25 %, +30 % for Model 2035-09, 2035-60), IR $> 10^8 \Omega$.

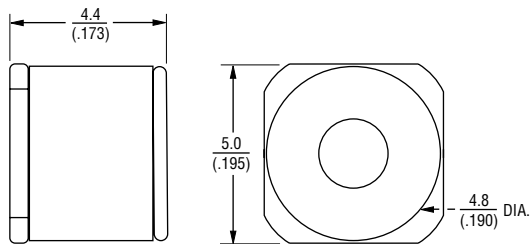
¹ Network applied.

² Tube may exceed $\pm 20\%$ but will continue to protect without venting.

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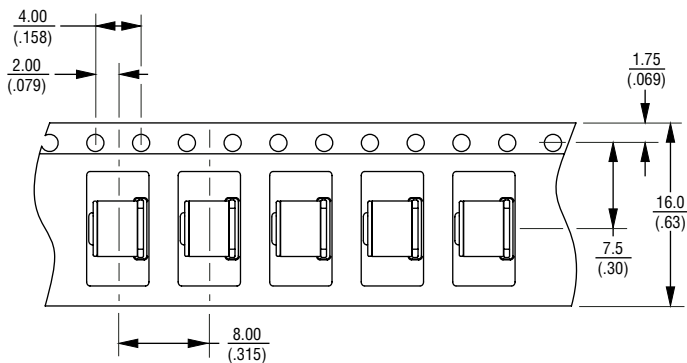
Product Dimensions



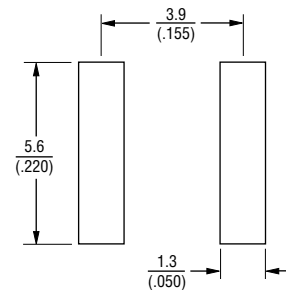
Packaging Specifications

The Model 2035-xx-SM ships standard bulk pack, 100 pieces per bag.

The optional reelpack (-RP) contains 1,500 pieces per reel. Reel is 13 " in diameter and 3/4 " wide.



Recommended Pad Layout



DIMENSIONS = $\frac{\text{MILLIMETERS}}{\text{(INCHES)}}$

How To Order

2035 - xx - SM - RP LF

Model Number Designator _____

Voltage _____

Surface Mount _____

Packaging Options _____

Blank = Bulk Packaging (Standard)
RP = Reelpack (Optional)

Lead Free Option _____

Blank = Standard Product
LF = Lead Free / RoHS Compliant Product