




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 ±15 % (±20 % for Model 2035-09) @ 100 V/s	90 V	150 V	200 V	230 V	250 V	300V
Impulse Sparkover						
100 V/μs	350 V	400 V	425 V	450 V	475 V	525 V
1000 V/μs	525 V	550 V	575 V	600 V	625 V	650 V

Characteristic	Model No.				
	2035-35	2035-40	2035-42	2035-47	2035-60
DC Sparkover ±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/μs	600 V	650 V	675 V	750 V	950 V
1000 V/μs	750 V	800 V	850 V	950 V	1100 V

Insulation Resistance (IR)	100 V (50 V for Model 2035-09)	> 10 ¹⁰ Ω
Glow Voltage	10 mA	~ 70 V
Arc Voltage	>1 A	~ 10 V
Glow-Arc Transition Current	< 0.5 A
Capacitance	1 MHz	< 1 pF
DC Holdover Voltage ¹	>135 V, (52 V for Model 2035-09), 80 V for Model 2035-15)	< 150 ms
Impulse Discharge Current.....	10000 A, 8/20 μs ²	1 operation minimum
	5000 A, 8/20 μs	> 10 operations
	100 A, 10/1000 μs	> 300 operations
	100 A, 10/700 μs	> 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**
- Surface Mount (SM) parts may show an increase in DCBD after the solder reflow process. There is no quality defect nor a change in the protection level, even if the DCBD is outside the original tolerance.
- Sparkover limits after life ±20 % (-25 %, +30 % for Model 2035-09, 2035-60), IR >10⁹.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

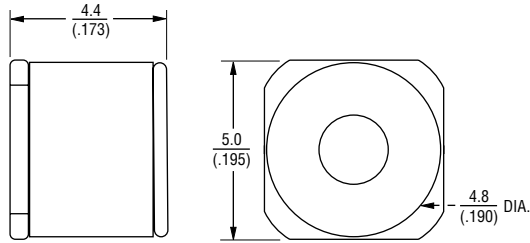
¹ Network applied.

² Tube may exceed ±20 % but will continue to protect without venting.

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BOURNS®

Product Dimensions

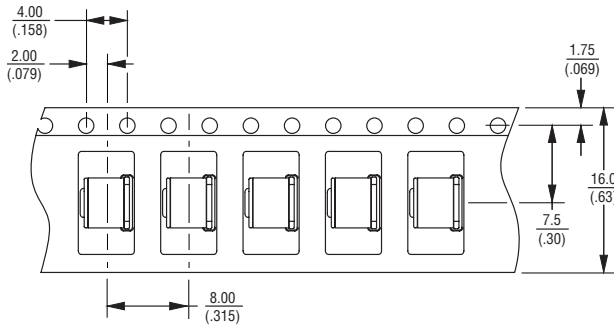


Packaging Specifications

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

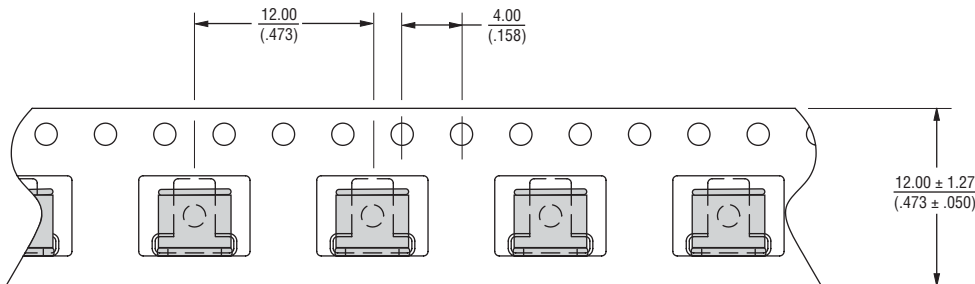
-RP

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



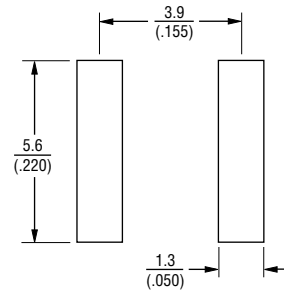
-RP3

The optional -RP3 reelpack contains 1,000 pieces per reel. Reel is 13 inches in diameter and 11/16 inch wide.



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

Recommended Pad Layout



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

How to Order

