



Features

- Bourns® FLAT® GDT technology
- Flexible mounting options
- Volume- and space-saving design
- Improved impulse performance
- 10 kA 8/20 μ s rated
- Recognized per UL 497B (File: E153537)

- RoHS compliant*

Applications

- Telecom CPE
- Industrial Communications
- Surge Protective Devices
- High density PCB assemblies

2017 Series Gas Discharge Tube Surge Arrestor with FLAT® Technology

Description

Bourns sets a new industry standard by offering this 2-electrode Gas Discharge Tube (GDT) in an innovative flat package design. The Model 2017 Series with FLAT® Technology provides a volume and space-saving solution for high density and space-restricted PCB applications. Surface mount versions are available in vertical and horizontal mounting configurations.

Characteristics

Test Methods per ITU-T (CCITT) K.12 Class 3 and IEC 61643-311

| Characteristic | Model No. | | | | | |
|---|--------------|--------------|--------------|---------------|---------------|---------------|
| | 2017-09 | 2017-15 | 2017-23 | 2017-35 | 2017-42 | 2017-50 |
| DC Sparkover $\pm 20\%$ @ 100 V/s (1) | 90 V | 150 V | 230 V | 350 V | 420 V | 500 V |
| DC Sparkover End-of-Life Values (2) | | | | | | |
| Maximum (99 % of values) | <120 V | <195 V | <300 V | <455 V | <550 V | <650 V |
| Minimum (99 % of values) | >65 V | >110 V | >170 V | >260 V | >360 V | >400 V |
| Impulse Sparkover Voltage (3) | | | | | | |
| 100 V/ μ s Typical / For 99 % of Values | 350 / <450 V | 400 / <550 V | 450 / <600 V | 600 / <750 V | 700 / <850 V | 750 / <950 V |
| 1 kV/ μ s Typical / For 99 % of Values | 600 / <800 V | 600 / <850 V | 700 / <950 V | 800 / <1000 V | 900 / <1050 V | 950 / <1200 V |

| | | |
|---------------------------------------|--------------------------------------|-----------------|
| Insulation Resistance (IR) | 100 V (50 V for Model 2017-09) | >1 G Ω |
| Glow Voltage | 10 mA | ~70 V |
| Arc Voltage | >1 A | ~10 V |
| Capacitance | 1 MHz | <3 pF |
| Impulse Discharge Current | 12000 A, 8/20 μ s | 1 operation |
| | 10000 A, 8/20 μ s | 10 operations |
| | 2500 A, 10/350 μ s | 1 operation |
| | 100 A, 10/1000 μ s | 300 operations |
| | 10 A, 10/1000 μ s | 1500 operations |
| Alternating Discharge Current | 10 Arms, 1 s | 10 operations |
| Operating Temperature | | -55 to +105 °C |
| Storage Temperature | | -55 to +105 °C |
| Climatic Category (IEC 60068-1) | | 55/105/21 |
| Pushover Strength (4) | | 5 kg |
| Moisture Sensitivity Level | | 1 |
| ESD Classification (HBM) | | N/A |

Notes:

UL Recognized component, UL File E153537

- (1) In ionized mode.
- (2) IR after life $>10^8 \Omega$.
- (3) At delivery AQL 0.65 Level II, DIN ISO 2859.
- (4) Pushover Strength test performed on a board-mounted Model 2017-xx-SMC (Vertical Mount).



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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How to Order

2017 - xx - xxx - RP LF

Series Designator _____
 2017 = 2-electrode GDT with FLAT® Technology, 10 kA 8/20 μ s rated

Voltage (Divided by 10) _____
 09 = 90 V 23 = 230 V 42 = 420 V
 15 = 150 V 35 = 350 V 50 = 500 V

Configuration _____
 SMH = Horizontal Mount SMD
 SMC = Vertical Mount SMD

Packaging _____
 RP = Reelpack (Standard)

RoHS Compliancy _____
 LF = RoHS Compliant Product

Product Dimensions

2017-xx--SMH-RPLF



2017-xx-SMC-RPLF



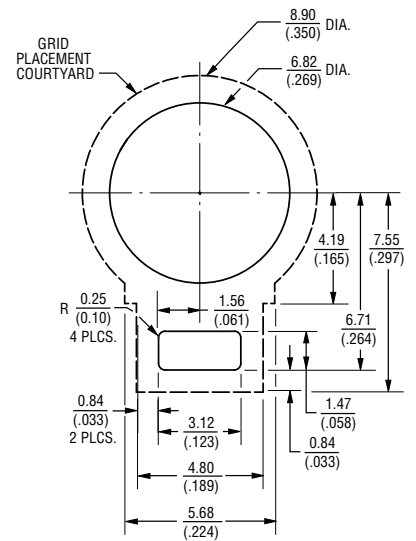
Typical Part Marking



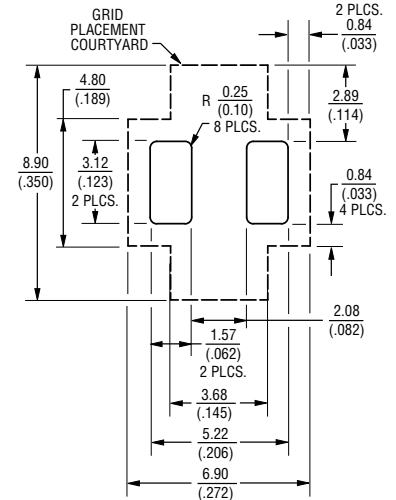
Information may be placed vertically or horizontally on the various models.

Pad Layouts

2017-xx--SMH-RPLF



2017-xx-SMC-RPLF



DIMENSIONS: MM (INCHES)

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2017 Series Gas Discharge Tube Surge Arrestor with FLAT® Technology



Packaging Specifications

Model 2017-xx-SMC-RPLF: The standard tape and reel packaging contains 500 pieces per 13-inch reel.

Model 2017-xx-SMH-RPLF: The standard tape and reel packaging contains 2,000 pieces per 13-inch reel.

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



2017-xx-SMC-RPLF



2017-xx-SMH-RPLF



REV. A 09/19

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