


## Features

- Size: 8 mm diameter, 8 mm length
- Axial leaded device
- High voltage range up to 6 kV
- High insulation resistance
- RoHS compliant\*
-  UL Recognized

## Applications

- Industrial equipment/electronics
- Telecommunications electronics
- Consumer electronics

# 2095 Series High Voltage 2-Electrode Gas Discharge Tube

## Characteristics

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

| Characteristic                    | Model No. |          |          |          |          |
|-----------------------------------|-----------|----------|----------|----------|----------|
|                                   | 2095-80   | 2095-100 | 2095-140 | 2095-160 | 2095-200 |
| DC Sparkover $\pm 20\%$ @ 100 V/s | 800 V     | 1000 V   | 1400 V   | 1600 V   | 2000 V   |
| Impulse Sparkover <sup>(1)</sup>  |           |          |          |          |          |
| 100 V/ $\mu$ s                    | < 1100 V  | < 1300 V | < 2100 V | < 2300 V | < 2700 V |
| 1000 V/ $\mu$ s                   | < 1200 V  | < 1400 V | < 2200 V | < 2400 V | < 2800 V |

| Characteristic                    | Model No. |          |          |          |          |
|-----------------------------------|-----------|----------|----------|----------|----------|
|                                   | 2095-250  | 2095-270 | 2095-300 | 2095-350 | 2095-400 |
| DC Sparkover $\pm 20\%$ @ 100 V/s | 2500 V    | 2700 V   | 3000 V   | 3500 V   | 4000 V   |
| Impulse Sparkover <sup>(1)</sup>  |           |          |          |          |          |
| 100 V/ $\mu$ s                    | < 3500 V  | < 3600 V | < 4100 V | < 4900 V | < 5300 V |
| 1000 V/ $\mu$ s                   | < 3600 V  | < 3800 V | < 4200 V | < 5000 V | < 5500 V |

| Characteristic                    | Model No. |          |          |
|-----------------------------------|-----------|----------|----------|
|                                   | 2095-450  | 2095-500 | 2095-600 |
| DC Sparkover $\pm 20\%$ @ 100 V/s | 4500 V    | 5000 V   | 6000 V   |
| Impulse Sparkover <sup>(1)</sup>  |           |          |          |
| 100 V/ $\mu$ s                    | < 5800 V  | < 6000 V | < 7000 V |
| 1000 V/ $\mu$ s                   | < 6000 V  | < 6400 V | < 7800 V |

<sup>(1)</sup> Impulse Sparkover voltage is defined as typical values of distribution.

|   |                                |                                 |
|---|--------------------------------|---------------------------------|
| Insulation Resistance (IR) <sup>(2)</sup> ..... | 250/500/1000 Vdc.....          | > 1 G $\Omega$                  |
| Glow Voltage .....                              | 10 mA.....                     | ~ 60 V                          |
| Arc Voltage .....                               | 1 A.....                       | ~ 15 V                          |
| Capacitance.....                                | 1 MHz .....                    | < 1.5 pF                        |
| Impulse Discharge Current                       |                                |                                 |
| 2095-80 through 2095-250 .....                  | 8,000 A, 8/20 $\mu$ s.....     | 1 operation                     |
| 2095-270 through 2095-600 .....                 | 5,000 A, 8/20 $\mu$ s.....     | 10 operations                   |
| 2095-270 through 2095-600 .....                 | 5,000 A, 8/20 $\mu$ s.....     | 1 operation                     |
| 2095-270 through 2095-600 .....                 | 3,000 A, 8/20 $\mu$ s.....     | 10 operations                   |
| Alternating Discharge Current                   |                                |                                 |
| 2095-80 through 2095-250 .....                  | 2 Arms, 50 Hz, 1 second.....   | 1 operation min.                |
| 2095-80 through 2095-250 .....                  | 10 Arms, 50 Hz, 9 cycles ..... | 1 operation min.                |
| 2095-270 through 2095-300 .....                 | 3 Arms, 50 Hz, 1 second.....   | 1 operation min.                |
| 2095-270 through 2095-300 .....                 | 5 Arms, 50 Hz, 9 cycles .....  | 1 operation min.                |
| 2095-350 through 2095-600 .....                 | 2.5 Arms, 50 Hz, 1 second..... | 1 operation min.                |
| 2095-350 through 2095-600 .....                 | 5 Arms, 50 Hz, 9 cycles .....  | 1 operation min.                |
| Impulse Life .....                              | 100 A, 10/1000 $\mu$ s.....    | > 100 operations <sup>(3)</sup> |
| Operating Temperature.....                      |                                | -30 to +90 °C                   |
| Storage Temperature.....                        |                                | -40 to +115 °C                  |
| Climatic Category (IEC 60068-1).....            |                                | 40 / 90 / 21                    |

### Notes:

- UL Recognized component: UL File E313168.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

|                             |                      |
|-----------------------------|----------------------|
| <sup>(2)</sup> DC Breakdown | IR Measuring Voltage |
| 800-1000 V                  | 250 V                |
| 1400-2000 V                 | 500 V                |
| 2500-6000 V                 | 1000 V               |

<sup>(3)</sup> Model 2095-270 and 2095-300 meet >300 operations at 100 A, 10/1000  $\mu$ s.

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

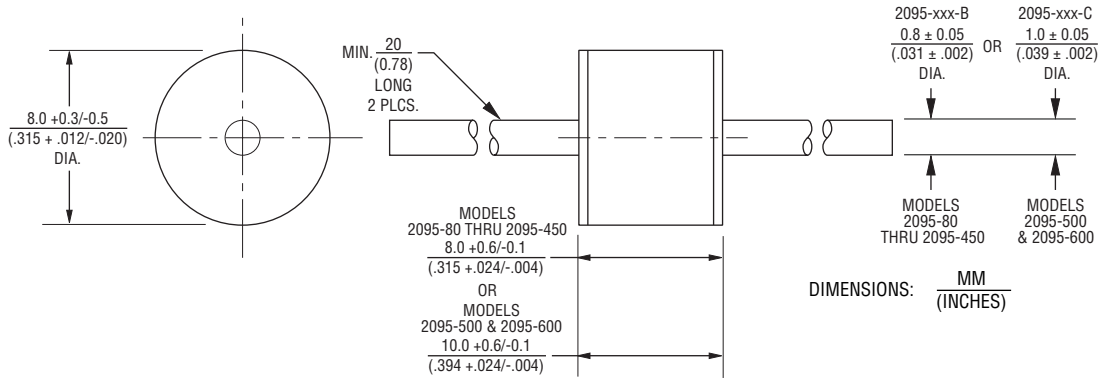
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

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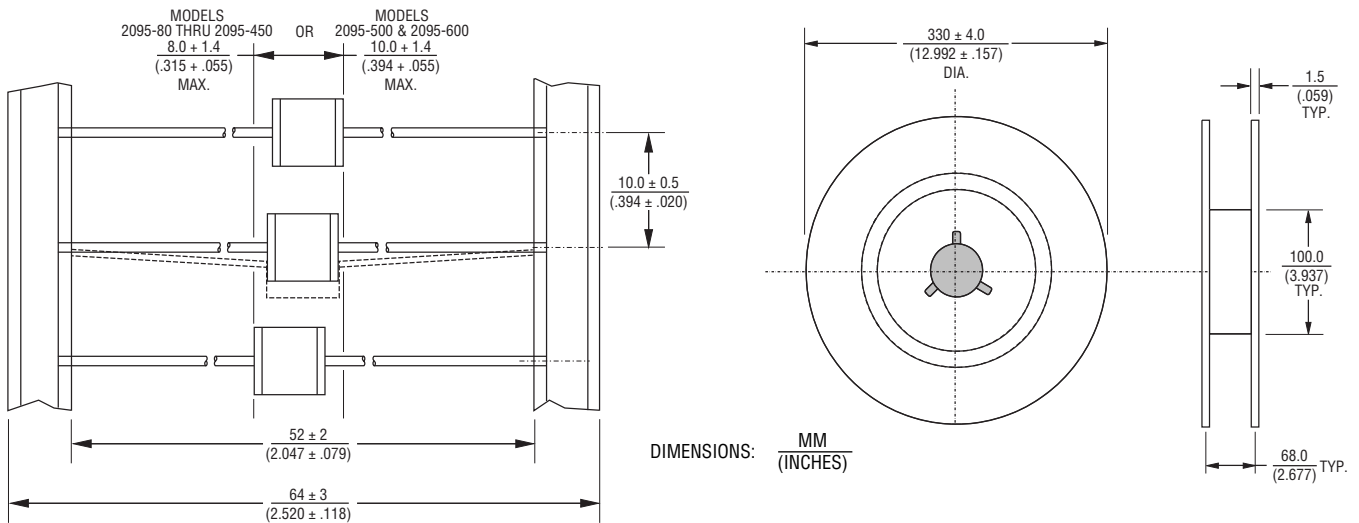
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## Product Dimensions



## Packaging Specifications

Model 2095 ships standard bulk, 100 pcs. per tray; 5 trays per box (500 units). The optional reelpack (-BT1) contains 500 pcs. per reel; 2 reels per box (1K units).



## How to Order

2095 - xxx - B T1 LF

Model Number Designator \_\_\_\_\_  
 Voltage (Divided by 10) \_\_\_\_\_  
 80 = 800 V    250 = 2500 V    450 = 4500 V  
 100 = 1000 V    270 = 2700 V    500 = 5000 V  
 140 = 1400 V    300 = 3000 V    600 = 6000 V  
 160 = 1600 V    350 = 3500 V  
 200 = 2000 V    400 = 4000 V  
 Leads \_\_\_\_\_  
 B = 0.8 mm (Available only for Models 2095-80 thru 2095-450)  
 C = 1.0 mm (Available only for Models 2095-500 & 2095-600)  
 Packaging \_\_\_\_\_  
 (Blank) = Bulk Packaging (Standard)  
 T1 = Reelpack (Optional)  
 RoHS Compliancy \_\_\_\_\_  
 LF = RoHS Compliant Product

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