

Features

- Balanced Mini-TRIGARD™
- 5 mm diameter, 7.5 mm long
- UL Recognized
- RoHS compliant* versions available

Applications

- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics

2036 Series - Miniature 3-Pole Gas Discharge Tube

Characteristics

Test Methods per ITU-T K.12, IEEE C62.31 and IEC 61643-311 GDT standards.

Characteristic	Model No.					
	2036-07	2036-09	2036-15	2036-20	2036-23	2036-25
DC Sparkover ±20 % @ 100 V/s	75 V	90 V	150 V	200 V	230 V	250V
Impulse Sparkover (1) 100 V/µs 1000 V/µs	 250 V 525 V	 250 V 550 V	 350 V 500 V	 425 V 575 V	 450 V 600 V	 475 V 625 V

Characteristic	Model No.					
	2036-30	2036-35	2036-40	2036-42	2036-47	2036-60
DC Sparkover ±20 % @ 100 V/s	300 V	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover (1) 100 V/µs 1000 V/µs	 500 V 650 V	 600 V 750 V	 650 V 825 V	 675 V 850 V	 750 V 950 V	 850 V 1100 V

(1) Impulse Sparkover voltage is defined as typical values of distribution.

Impulse Transverse Delay	1000 V/µs		<75 ns
Insulation Resistance	100 V (50 V for Model 2036–07 & 2036-09)		>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		<2 pF
DC Holdover Voltage(2)	135 V, (52 V for Model 2036-07 & 2036-09, 80 V for Model 2036-15)		<150 ms
Impulse Discharge Current	20000 A, 8/20 µs (3)		1 operation minimum
	10000 A, 8/20 µs		>10 operations
	2000 A, 10/350 µs		1 operation
	200 A, 10/1000 µs		>300 operations
	200 A, 10/700 µs		>500 operations
Alternating Discharge Current	20 Arms, 11 cycles (3)		1 operation
	10 Arms, 1 s		>10 operations
Storage Temperature			-55 to +105 °C
Operating Temperature			-55 to +105 °C
Climatic Category (IEC 60068-1)			55/105/21
Moisture Sensitivity Level			1
ESD Classification (HBM)			6

An optional Switch-Grade Fail-Short device is available. The optional Fail-Short assembly will activate at a temperature of 215 °C – 217 °C to provide a high conductive path to ground in case of a thermal overload. GDTs equipped with the optional Fail-Short device should be soldered either manually at a temperature that is below the activation temperature of the Fail-Short mechanism, or using a selective soldering process that does not exceed 210 °C.

Notes:

- **UL recognized component, UL File E153537.**
- No model number marking on tube; date code and voltage only: month year digits, xxxV (e.g. 0209 400V).
- The rated discharge current for Mini-TRIGARD™ Gas Discharge Tubes is the total current equally divided between each line to ground.
- Sparkover limits after life ±25 %, IR >10^8Ω (-25 %,+30 % for Model 2036-07, 2036-09 and 2036-60).
- Operating characteristics per RUS PE-80 and Telcordia GR 1361 available, contact factory.
- Line to Line voltage is approximately 1.8 to 2 times the stated Line to Ground breakdown voltage.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

(2) Network applied.
(3) DC Sparkover may exceed ±25 % after discharge, but will continue to protect without venting.

Additional Information

Click these links for more information:

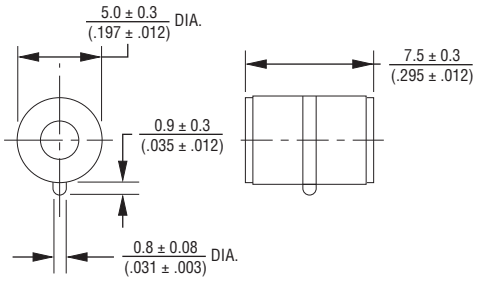
PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

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

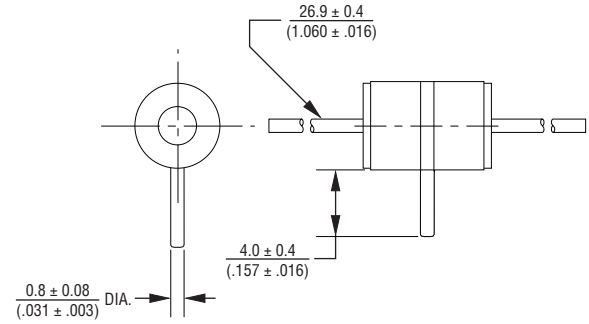
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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Product Dimensions

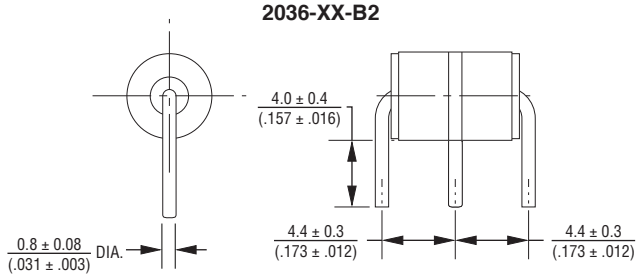
2036-XX-A



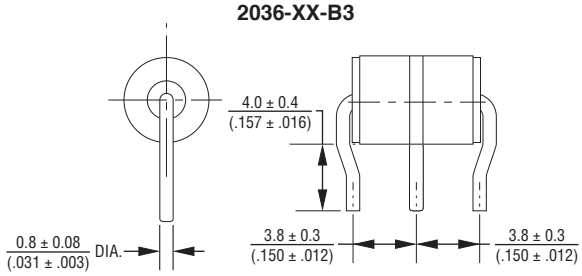
2036-XX-B



2036-XX-B2

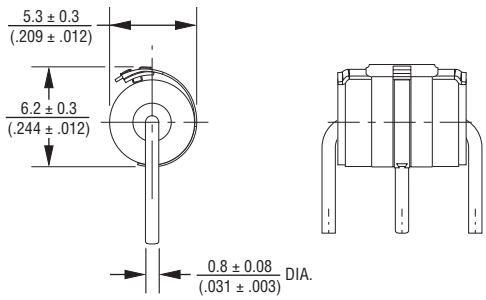


2036-XX-B3



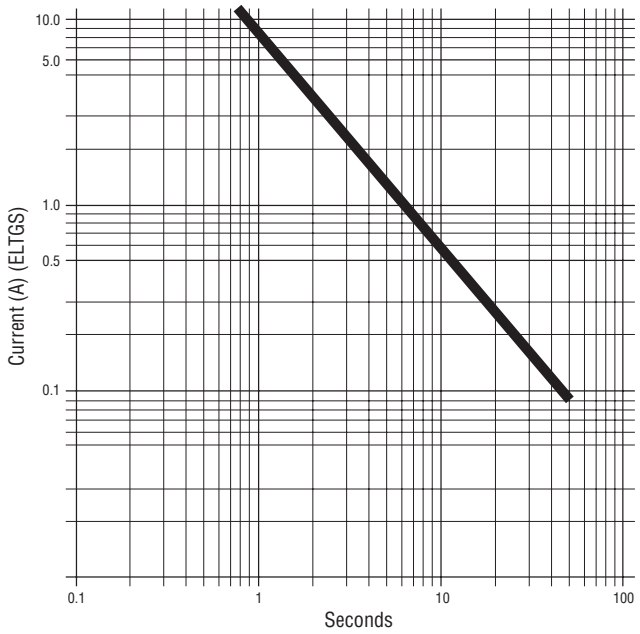
DIMENSIONS: MM / (INCHES)

FAIL-SHORT CONFIGURATION
2036-XX-B2F SHOWN



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Switch-Grade Fail-Short Device Shorting Curve 2036-XX-XF



ELTGS = Each Line to Ground Simultaneously

NOTE: When using a GDT failsafe device, it is imperative that all components associated and connected to the GDT with failsafe be tested in their respective completely integrated environment (finished product) to assure proper operation.

How to Order

2036 - xx - x (n) F LF

Model Number Designator

Voltage (Divided by 10)

07 = 75 V	30 = 300 V
09 = 90 V	35 = 350 V
15 = 150 V	40 = 400 V
20 = 200 V	42 = 420 V
23 = 230 V	47 = 470 V
25 = 250 V	60 = 600 V

Leads
- A = None
- B = 0.8 mm

Lead Shape
(See Product Dimension Drawings)

Fail-Short Option
- Blank = Standard Product
- F = With Fail-Short Mechanism

RoHS Compliant Option
- Blank = Standard Product
- LF = RoHS Compliant Product

Packaging Specifications

Model	Standard Packaging Quantity		
	Bulk (Bag)	Tray	Box
2036-XX-A	250		1000
2036-XX-B	100		700
2036-XX-B2		100	1000
2036-XX-B3		100	1000
2036-XX-B2F		100	1000

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