

Features

- Balanced Mini-TRIGARD™
- 5 mm diameter, 7.5 mm long
- UL recognized

Applications

- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics
- Automotive, aircraft, military electronics

2036 Series - Miniature 3-Pole Gas Discharge Tube

Characteristics

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

| Characteristic | Model No. | | | | | |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|
| | 2036-07 | 2036-09 | 2036-15 | 2036-20 | 2036-23 | 2036-25 |
| DC Sparkover $\pm 20\%$ @ 100 V/s | 75 V | 90 V | 150 V | 200 V | 230 V | 250 V |
| Impulse Sparkover | | | | | | |
| 100 V/ μ s | 250 V | 250 V | 350 V | 425 V | 450 V | 475 V |
| 1000 V/ μ s | 525 V | 550 V | 500 V | 575 V | 600 V | 625 V |

| | Model No. | | | | | |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|
| | 2036-30 | 2036-35 | 2036-40 | 2036-42 | 2036-47 | 2036-60 |
| DC Sparkover $\pm 20\%$ @ 100 V/s | 300 V | 350 V | 400 V | 420 V | 470 V | 600 V |
| Impulse Sparkover | | | | | | |
| 100 V/ μ s | 500 V | 600 V | 650 V | 675 V | 750 V | 850 V |
| 1000 V/ μ s | 650 V | 750 V | 825 V | 850 V | 950 V | 1100 V |

| | | |
|----------------------------------|---|----------------------|
| Impulse Transverse Delay | 100 V/ μ s | < 75 ns |
| Insulation Resistance (IR) | 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 ¹ | 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 μ s ² | 1 operation min |
| | 10000 A, 8/20 μ s | > 10 operations |
| | 200 A, 10/1000 μ s | > 300 operations |
| | 200 A, 10/700 μ s | > 500 operations |
| Alternating Discharge Current | 20 Arms, 1 s ² | 1 operation min |
| | 10 Arms, 1 s | > 10 operations |
| Operating Temperature | | -55 to +85°C |

Optional Switch-Grade Failsafe device available.

Notes:

- **UL recognized components, UL File E153537.**
- Model number marking on tube: xxxV.
- 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 $\pm 25\%$, IR > 10⁸Ω (-25 %, +30 % for Model 2036-07, 2036-09 and 2036-60).
- Operating characteristics per RUS PE-80 and Telcordia GR 1361 available, contact factory.

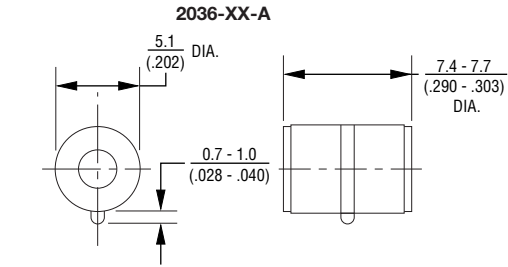
¹ Network applied.

² DC Sparkover may exceed $\pm 25\%$ but will continue to protect without venting.

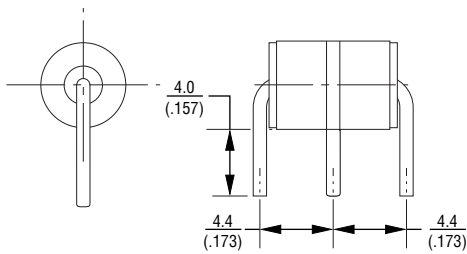
2036 Series - Miniature 3-Pole Gas Discharge Tube

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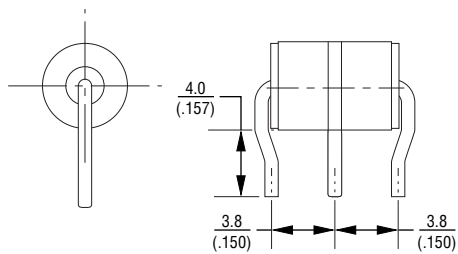
Product Dimensions



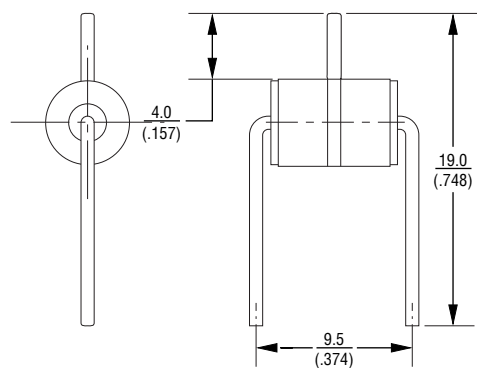
2036-XX-B2 — 0.8 mm (0.032 in.) dia. lead wire
2036-XX-C2 — 1.0 mm (0.040 in.) dia. lead wire*



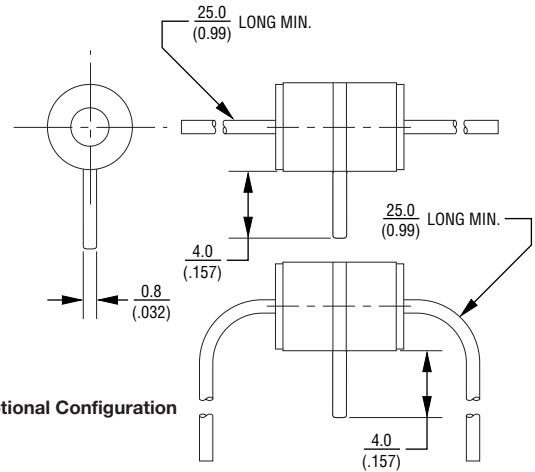
2036-XX-B3 — 0.8 mm (0.032 in.) dia. lead wire
2036-XX-C3 — 1.0 mm (0.040 in.) dia. lead wire*



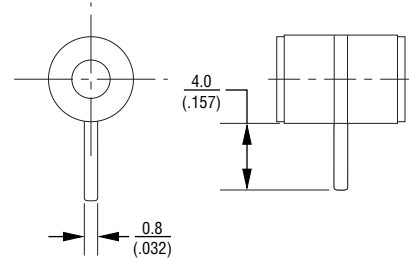
2036-XX-B9 — 0.8 mm (0.032 in.) dia. lead wire
2036-XX-C9 — 1.0 mm (0.040 in.) dia. lead wire*



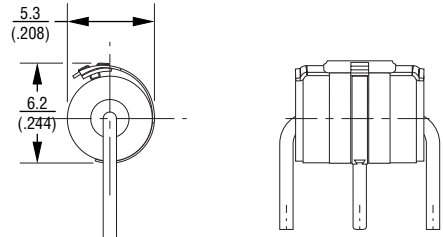
2036-XX-B — 0.8 mm (0.032 in.) dia. lead wire
2036-XX-C — 1.0 mm (0.040 in.) dia. lead wire*



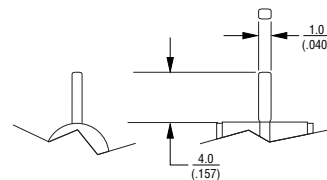
2036-XX-B8 — 0.8 mm (0.032 in.) dia. lead wire
2036-XX-C8 — 1.0 mm (0.040 in.) dia. lead wire*



FAILSAFE CONFIGURATION
2036-XX-B2F SHOWN



CENTER ELECTRODE LEAD: C-CONFIGURATION



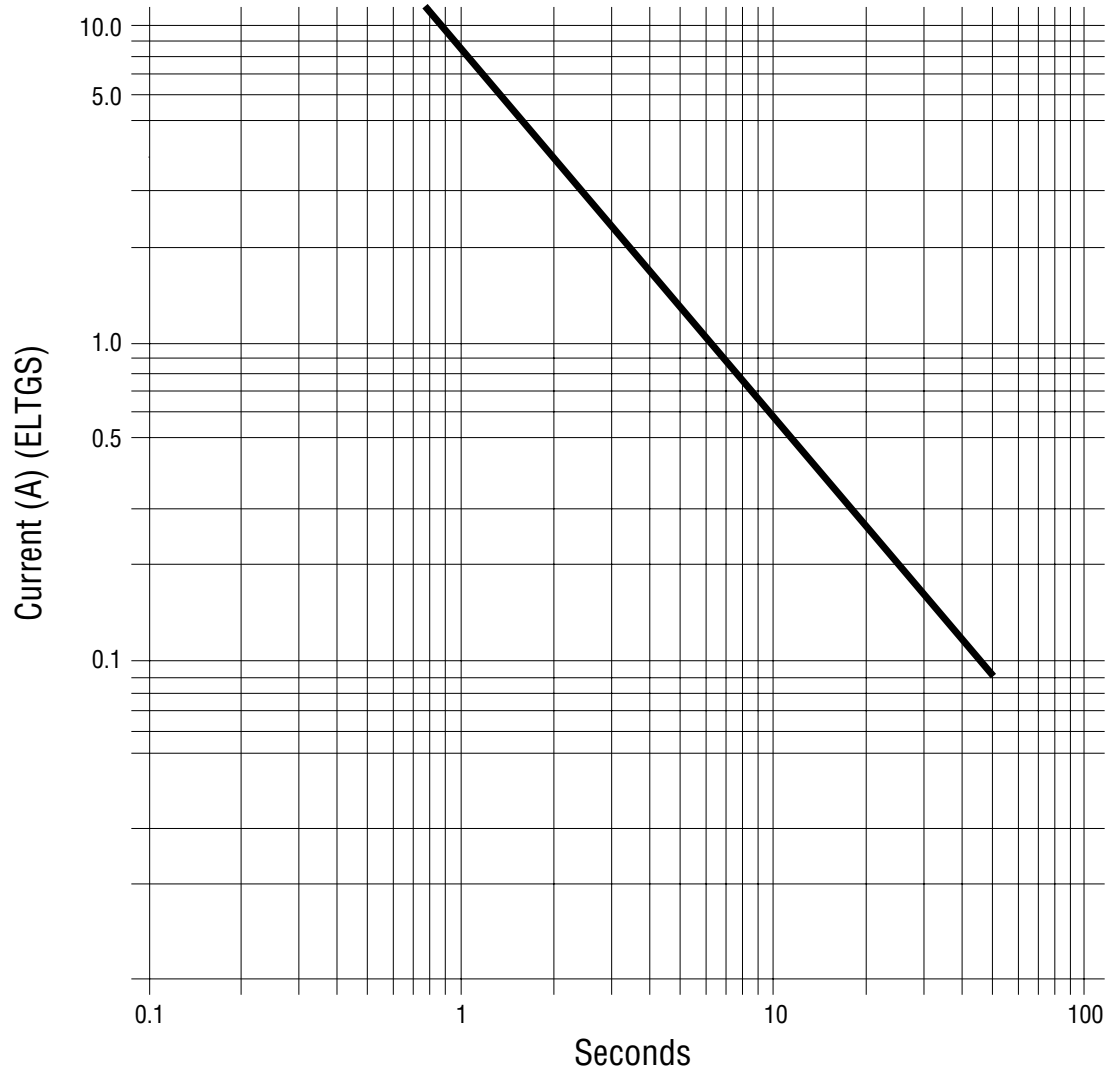
DIMENSIONS = MILLIMETERS
(INCHES)

*Center Electrode Lead: See Center Lead C-Configuration detail.
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

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Switch-Grade Failsafe 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.