

TG Legacy Series



DESCRIPTION

CP Clare's TG Legacy Series of two electrode sparkgaps excel in applications that require the efficient transfer of high voltage, high energy pulses and DC overvoltage protection for magnetrons, diodes, capacitors, etc. The TG Legacy Series also includes three electrode triggered sparkgaps (cold cathode thyratrons) for switching high levels of stored energy in fractions of a microsecond, on command, using low energy control pulses.

FEATURES

- Tight DC breakdown voltage tolerance ($\pm 10\%$)
- Long-life tungsten or molybdenum electrodes
- Rugged ceramic-to-metal or glass-to-metal construction

APPLICATIONS

- Test equipment
- Video displays
- Pulse generators
- Medical electronics

VOLTAGE RANGES

| Series | DC Breakdown Voltage | Units |
|--------------------------|----------------------|-------|
| TG Two Electrode | 0.345 - 60.0 | kV |
| TG Three Electrode | 1.0 - 27.5 | kV |

(See detailed specifications for more data. Contact CP Clare for TG and XG part numbers or for other requirements not listed.)

Two Electrode High-Energy Spark Gaps

SPECIFICATIONS

All characteristics at 25°C.

| PART NUMBER | DC BREAKDOWN VOLTAGE (KV ± 10%) | INITIAL PULSE BREAKDOWN VOLTAGE (KV) ⁽³⁾ | REPETITIVE PULSE BREAKDOWN VOLTAGE (KV) ⁽³⁾ | PACKAGE OUTLINE | DIMENSION A (INCHES) | DIMENSION B (INCHES) | DIMENSION C (INCHES) |
|----------------------|---------------------------------|---|--|-----------------|----------------------|----------------------|----------------------|
| TG-6 | 2.50 | — | — | 1 | 0.620 max | 0.455 ± 0.031 | 0.188 max |
| TG-8 ⁽¹⁾ | 2.50 | — | — | 1 | 0.620 max | 1.000 ± 0.031 | 0.125 max |
| TG-9 | 3.00 | — | — | 1 | 0.620 max | 0.460 ± 0.031 | 0.188 max |
| TG-14 | 12.50 | 19.0 - 28.0 | 17.0 - 21.0 | 2 | — | — | — |
| TG-15 | 3.00 | — | — | 1 | 0.620 max | 1.000 ± 0.031 | 0.125 max |
| TG-16 ⁽¹⁾ | 3.00 | — | — | 1 | 0.620 max | 1.000 ± 0.031 | 0.125 max |
| TG-17 | 2.60 | — | — | 1 | 0.620 max | 0.455 ± 0.031 | 0.188 max |
| TG-19 ⁽²⁾ | 2.20 ± 0.20 | — | — | 1 | 0.620 max | 0.455 ± 0.031 | 0.275 ± .07 |
| TG-20A | 21.00 | 17.0 - 24.0 | — | 7 | 2.250 ± 0.125 | — | — |
| TG-22 | 1.00 | — | — | 1 | 0.620 max | 0.435 ± .031 | 0.188 max |
| TG-24 | 15.50 | 35.5 max | — | 2 | — | — | — |
| TG-25 | 0.40 | — | — | 1 | 0.600 ± .030 | 1.100 ± .031 | 0.250 max |
| TG-26A | 0.75 | — | — | 2 | — | — | — |
| TG-27A | 1.00 | — | — | 2 | — | — | — |
| TG-28A | 1.25 | — | — | 2 | — | — | — |
| TG-29 | 1.50 | — | — | 2 | — | — | — |
| TG-30 | 2.00 | — | — | 2 | — | — | — |
| TG-31 | 2.50 | — | — | 2 | — | — | — |
| TG-32 | 3.00 | — | — | 2 | — | — | — |
| TG-33 | 4.00 | — | — | 2 | — | — | — |
| TG-34 | 5.00 | — | — | 2 | — | — | — |
| TG-35 | 6.00 | — | — | 2 | — | — | — |
| TG-36 | 8.00 | — | — | 2 | — | — | — |
| TG-37 | 10.00 | — | — | 2 | — | — | — |
| TG-38 | 12.50 | — | — | 2 | — | — | — |
| TG-39 | 15.00 | — | — | 2 | — | — | — |
| TG-40 | 17.50 | — | — | 2 | — | — | — |
| TG-41A | 0.75 | — | — | 3 | — | — | — |
| TG-42A | 1.00 | — | — | 3 | — | — | — |
| TG-43A | 1.25 | — | — | 3 | — | — | — |
| TG-44 | 1.50 | — | — | 3 | — | — | — |
| TG-45 | 2.00 | — | — | 3 | — | — | — |
| TG-46 | 2.50 | — | — | 3 | — | — | — |
| TG-47 | 3.00 | — | — | 3 | — | — | — |
| TG-48 | 4.00 | — | — | 3 | — | — | — |
| TG-49 | 5.00 | — | — | 3 | — | — | — |
| TG-50 | 6.00 | — | — | 3 | — | — | — |
| TG-51 | 8.00 | — | — | 3 | — | — | — |
| TG-52 | 10.00 | — | — | 3 | — | — | — |
| TG-53 | 12.50 | — | — | 3 | — | — | — |
| TG-54 | 15.00 | — | — | 3 | — | — | — |
| TG-55 | 17.50 | — | — | 3 | — | — | — |
| TG-56 | 20.00 | — | — | 4 | 3.750 ± .125 | — | — |
| TG-57 | 25.00 | — | — | 4 | 3.750 ± .125 | — | — |
| TG-58 | 30.00 | — | — | 4 | 4.000 ± .188 | — | — |
| TG-59 | 40.00 | — | — | 4 | 4.250 ± .188 | — | — |
| TG-60 | 50.00 | — | — | 4 | 4.500 ± .188 | — | — |

⁽¹⁾ 6-32 tapped hole in non-tubulated end.

⁽²⁾ Identical tubulation on both ends.

⁽³⁾ The voltage level at which the spark discharge occurs when a unipolarity pulse train is applied to the gap. Typically, the pulse repetition rate is 400 pps (pulses/second) with a rise time of 0.3 μs and a pulse width of 0.5 μs. The "initial" range specifies at what increasing voltage the gap begins to fire and the "rep" range specifies at what decreasing voltage the gap ceases to fire repetitively.

HIGH ENERGY SPARK GAP DEVICES

Two Electrode High-Energy Spark Gaps

SPECIFICATIONS

All characteristics at 25°C.

| PART NUMBER | DC BREAKDOWN VOLTAGE (KV ± 10%) | INITIAL PULSE BREAKDOWN VOLTAGE (KV) ⁽³⁾ | REPETITIVE PULSE BREAKDOWN VOLTAGE (KV) ⁽³⁾ | PACKAGE OUTLINE | DIMENSION A (INCHES) | DIMENSION B (INCHES) | DIMENSION C (INCHES) |
|-----------------------|---------------------------------|---|--|-----------------|----------------------|----------------------|----------------------|
| TG-61 | 0.75 | — | — | 5 | 0.770 ± .062 | 0.310 ± .020 | 0.520 ± .022 |
| TG-62 | 1.00 | — | — | 5 | 0.770 ± .062 | 0.310 ± .020 | 0.520 ± .022 |
| TG-63 | 1.25 | — | — | 5 | 0.770 ± .062 | 0.310 ± .020 | 0.520 ± .022 |
| TG-64 | 1.50 | — | — | 5 | 0.770 ± .062 | 0.310 ± .020 | 0.520 ± .022 |
| TG-65 | 2.00 | — | — | 5 | 0.770 ± .062 | 0.310 ± .020 | 0.520 ± .022 |
| TG-66 | 2.50 | — | — | 5 | 0.790 ± .062 | 0.310 ± .020 | 0.540 ± .022 |
| TG-67 | 3.00 | — | — | 5 | 0.790 ± .062 | 0.310 ± .020 | 0.540 ± .022 |
| TG-68 | 4.00 | — | — | 5 | 0.820 ± .062 | 0.340 ± .020 | 0.570 ± .022 |
| TG-69 | 5.00 | — | — | 5 | 0.820 ± .062 | 0.340 ± .020 | 0.570 ± .022 |
| TG-70 | 6.00 | — | — | 5 | 0.820 ± .062 | 0.340 ± .020 | 0.570 ± .022 |
| TG-71 | 8.00 | — | — | 5 | 0.860 ± .062 | 0.380 ± .020 | 0.610 ± .022 |
| TG-72 | 10.00 | — | — | 5 | 0.860 ± .062 | 0.380 ± .020 | 0.610 ± .022 |
| TG-73 | 12.50 | — | — | 5 | 0.965 ± .062 | 0.490 ± .020 | 0.715 ± .022 |
| TG-74 | 15.00 | — | — | 5 | 0.965 ± .062 | 0.490 ± .020 | 0.715 ± .022 |
| TG-75 | 17.50 | — | — | 5 | 0.965 ± .062 | 0.490 ± .020 | 0.715 ± .022 |
| TG-76 | 0.40 ± .05 | — | — | 1 | 0.600 ± .030 | 0.494 ± .031 | 0.250 max |
| TG-77 | - | 9.0 - 11.5 | 9.0 - 11.5 | special | — | — | — |
| TG-78 | 1.00 | — | — | 1A | 0.620 max | 0.425 ± .031 | — |
| TG-79 | 2.50 | — | — | 2 | — | — | — |
| TG-82 | 15.00 | 15.0 - 19.0 | 13.0 - 18.0 | 7A | 0.950 ± .050 | — | — |
| TG-83 | 16.50 | 16.0 - 22.0 ⁽⁴⁾ | 16.0 - 22.0 ⁽⁴⁾ | 2 | — | — | — |
| TG-84 | 30.00 | 31.0 - 43.0 ⁽⁴⁾ | 31.0 - 43.0 ⁽⁴⁾ | 4 | 4.000 ± .188 | — | — |
| TG-85 | 15.00 | 9.0 - 11.5 | 9.0 - 11.5 | special | — | — | — |
| TG-86 | 0.60 | — | — | 1A | 0.620 max | 0.537 ± .031 | — |
| TG-87 | 0.80 | — | — | 1A | 0.620 max | 0.537 ± .031 | — |
| TG-89 ⁽²⁾ | 2.90 | — | — | 1 | 0.620 max | 0.460 ± .031 | 0.188 max |
| TG-90 | 20.00 | 17.0 - 24.0 | — | special | — | — | — |
| TG-98 | 0.345 ± .045 | — | — | 3A | — | — | — |
| TG-99 | 2.75 ± 0.25 | — | — | 2 | — | — | — |
| TG-100 | 38.00 | — | — | 4 | 4.000 ± .188 | 0.440 ± .031 | 0.188 max |
| TG-102 | 1.25 | — | — | 1A | 0.620 max | 0.440 ± .031 | 0.188 max |
| TG-103 | 1.50 | — | — | 1A | 0.620 max | 0.445 ± .031 | 0.188 max |
| TG-104 | 2.00 | — | — | 1A | 0.620 max | 0.445 ± .031 | 0.188 max |
| TG-105 | 2.50 | — | — | 1A | 0.620 max | 0.445 ± .031 | 0.188 max |
| TG-106 | 3.00 | — | — | 1A | 0.620 max | 0.487 ± .031 | 0.188 max |
| TG-107 | 3.50 | — | — | 1A | 0.620 max | 0.487 ± .031 | 0.188 max |
| TG-108 | 4.00 | — | — | 1A | 0.620 max | 0.487 ± .031 | 0.188 max |
| TG-109 | 5.00 | — | — | 1A | 0.620 max | 0.487 ± .031 | 0.188 max |
| TG-110 | 0.40 ± .05 | — | — | 1A | 0.620 max | — | — |
| TG-112 | 0.20 ± .10 | — | — | 1 | 0.620 max | 0.455 ± .031 | 0.275 ± .075 |
| TG-115 | 13.00 ± 1.00 | — | — | 3 | — | — | — |
| TG-116 ⁽⁶⁾ | 25.00 | — | — | 4A | 3.750 ± .125 | — | — |
| TG-117 | 21.00 | 17.0 - 24.0 | — | 7 | 2.000 ± .125 | — | — |
| TG-118 | 21.50 | 16.0 - 22.0 | — | 5 | 0.965 ± .062 | 0.490 ± .020 | 0.715 ± .022 |
| TG-119 | 45.00 | — | — | 4 | 4.250 ± .188 | — | — |
| TG-120 | 8.00 | 7.4 - 8.7 | — | 5 | 0.860 ± .062 | 0.380 ± .020 | 0.610 ± .022 |

⁽¹⁾ 6-32 tapped hole in non-tubulated end.

⁽²⁾ Identical tubulation on both ends.

⁽³⁾ The voltage level at which the spark discharge occurs when a unipolarity pulse train is applied to the gap. Typically, the pulse repetition rate is 400 pps (pulses/second) with a rise time of 0.3 μs and a pulse width of 0.5 μs. The "initial" range specifies at what increasing voltage the gap begins to fire and the "rep" range specifies at what decreasing voltage the gap ceases to fire repetitively.

⁽⁴⁾ Pulse repetition rate is 1500pps instead of the standard 400pps.

⁽⁵⁾ Though outlines 2, 3, and 3A are identical, the electrode materials and configurations vary internally.

⁽⁶⁾ Though outlines 4 and 4A are identical, gaps with outline 4A have heavier internal construction to withstand more severe shock and vibration.

Two Electrode High-Energy Spark Gaps

SPECIFICATIONS

All characteristics at 25°C.

| PART NUMBER | DC BREAKDOWN VOLTAGE (KV ± 10%) | INITIAL PULSE BREAKDOWN VOLTAGE (KV) ⁽³⁾ | REPETITIVE PULSE BREAKDOWN VOLTAGE (KV) ⁽³⁾ | PACKAGE OUTLINE | DIMENSION A (INCHES) | DIMENSION B (INCHES) | DIMENSION C (INCHES) |
|-----------------------|---------------------------------|---|--|-----------------|----------------------|----------------------|----------------------|
| TG-131 | 30.00 | 33.0 | 25.0 | 4A | 4.000 ± .188 | — | — |
| TG-132 | 2.00 | — | — | special | — | — | — |
| TG-133 | 9.00 | 9.0 - 11.5 | 9.0 - 11.5 | 7A | 0.192 ± .010 | — | — |
| TG-135 | 2.00 | — | — | special | — | — | — |
| TG-139 | 0.50 | — | — | 1A | 0.487 ± .031 | — | — |
| TG-140 | 0.60 | — | — | 3A | — | — | — |
| TG-148 | 6.00 | 7.5 | 6.0 | special | — | — | — |
| TG-149 | 2.00 | — | — | 9 | 0.620 max | 0.219 max | — |
| TG-152 | 0.50 | — | — | special | — | — | — |
| TG-153 | 0.38 ± .02 | — | — | 1A | 0.487 ± .031 | — | — |
| TG-155 | 1.40 | — | — | 2 | — | — | — |
| TG-156 | 2.625 ± 0.125 | — | — | 1 | 0.620 max | 1.000 ± .031 | 0.188 max |
| TG-157 | 1.20 | — | — | 9 | 0.515 max | 0.125 max | — |
| TG-162 | 21.00 ± 1.00 | — | — | 4 | 3.750 ± .125 | — | — |
| TG-163 | 31.50 ± 3.00 | — | — | 4 | 4.000 ± .188 | — | — |
| TG-164 | 2.20 | — | — | 9 | 0.620 max | 0.219nom | — |
| TG-166 | 0.40 | — | — | 9 | 0.515 max | 0.125 max | — |
| TG-167 | 0.60 | — | — | 9 | 0.515 max | 0.125 max | — |
| TG-168 | 0.80 | — | — | 9 | 0.515 max | 0.125 max | — |
| TG-169 | 1.00 | — | — | 9 | 0.515 max | 0.125 max | — |
| TG-170 | 2.50 | — | — | 9 | 0.620 max | 0.219 max | — |
| TG-171 | 3.00 | — | — | 9 | 0.620 max | 0.219 max | — |
| TG-172 | 3.50 | — | — | 9 | 0.620 max | 0.219 max | — |
| TG-173 | 4.00 | — | — | 9 | 0.620 max | 0.219 max | — |
| TG-174 | 5.00 | — | — | 9 | 0.620 max | 0.219 max | — |
| TG-175 | 6.00 | 6.0 - 7.5 | 6.0 - 7.5 | 9 | 0.620 max | 0.219 max | — |
| TG-176 | 6.00 | — | — | 7 | 2.250 ± 0.125 | — | — |
| TG-183 | 35.00 | — | — | 4 | 4.000 ± .188 | — | — |
| TG-184 ⁽⁵⁾ | 7.00 | — | — | 3A | — | — | — |
| TG-186 | 20.00 | — | — | 4 | 3.750 ± .125 | — | — |
| TG-187 | 1.50 | — | — | 3 | — | — | — |
| TG-188 | 0.60 | — | — | 1 | 0.620 max | 1.000 ± .031 max | 0.188 max |
| TG-189 | 0.50 | — | — | 9 | 0.515 max | 0.125 nom | — |
| TG-191 ⁽²⁾ | 0.45 | — | — | 1 | 0.620 max | 0.455 ± 0.031 | 0.275 ± 0.075 |
| TG-192 | 31.00 ± 3.0 | — | — | 4 | 4.000 ± .188 | — | — |
| TG-193 | 2.30 | — | — | special | — | — | — |
| TG-194 | 60.00 ± 8.0 | — | — | 4 | 4.500 ± .188 | — | — |
| TG-196 | 9.00 | 9.0 - 11.5 | 9.0 - 11.5 | 7A | 0.500 ± 0.30 | — | — |
| TG-197 | 18.375 ± 0.875 | — | — | 2 | — | — | — |
| TG-198 ⁽¹⁾ | 1.60 | — | — | 1 | 0.620 max | 1.000 ± 0.031 | 0.125 max |
| TG-249 | 0.18 ± .05 | — | — | 1A | 0.450 ± .031 | — | — |
| TG-359 | 0.345 ± 0.45 | — | — | special | — | — | — |
| TG-366A | 14.00 | — | — | special | — | — | — |
| TG-373 | 21.00 | — | — | special | — | — | — |
| TG-375 | 20.5 - 24.0 | — | — | 4 | 4.000 ± .188 | — | — |
| TG-376 | 14.8 - 18.15 | — | — | 4 | 4.000 ± .188 | — | — |

⁽¹⁾ 6-32 tapped hole in non-tubulated end.

⁽²⁾ Identical tubulation on both ends.

⁽³⁾ The voltage level at which the spark discharge occurs when a unipolarity pulse train is applied to the gap. Typically, the pulse repetition rate is 400 pps (pulses/second) with a rise time of 0.3 μs and a pulse width of 0.5 μs. The "initial" range specifies at what increasing voltage the gap begins to fire and the "rep" range specifies at what decreasing voltage the gap ceases to fire repetitively.

⁽⁴⁾ Pulse repetition rate is 1500pps instead of the standard 400pps.

⁽⁵⁾ Though outlines 2, 3, and 3A are identical, the electrode materials and configurations vary internally.

⁽⁶⁾ Though outlines 4 and 4A are identical, gaps with outline 4A have heavier internal construction to withstand more severe shock and vibration.

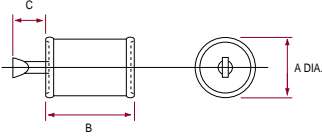
HIGH ENERGY SPARK GAP DEVICES

Two Electrode High-Energy Spark Gaps

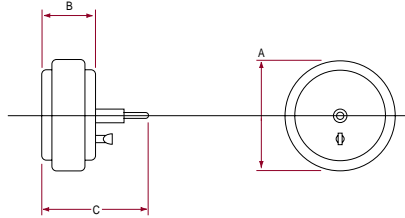
DIMENSIONS
mm
(inches)

MECHANICAL DIMENSIONS

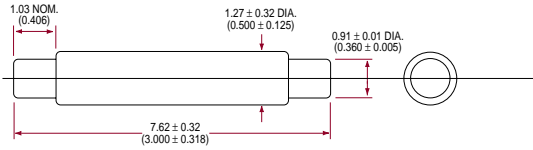
TG LEGACY - 1



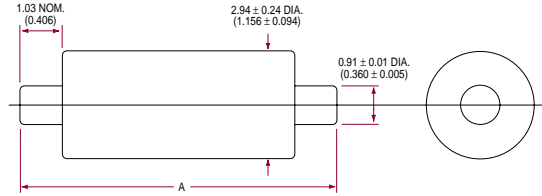
TG LEGACY 1-A



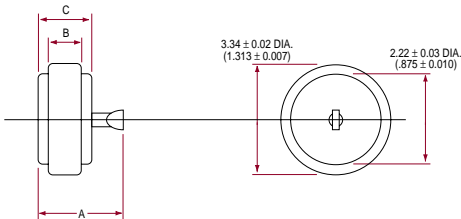
TG LEGACY - 2/3/A



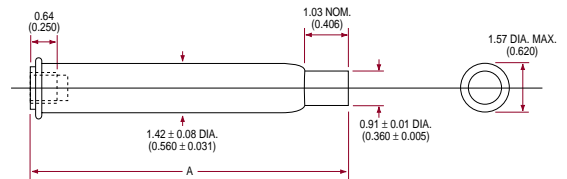
TG LEGACY - 4/A



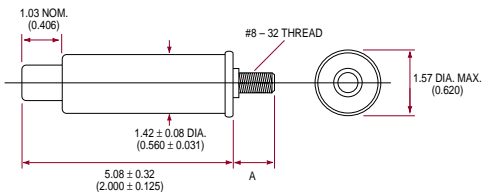
TG LEGACY - 5



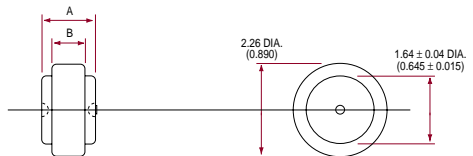
TG LEGACY - 7



TG LEGACY - 7A



TG LEGACY - 9



Three Electrode High-Energy Spark Gaps

SPECIFICATIONS

All characteristics at 25°C.

| PART NUMBER | APPLIED DC VOLTAGE RANGE | MAIN STATIC DC BREAKDOWN (kV) KV (±10%) | PEAK CURRENT (KA) ⁽⁷⁾ | DELAY TIME (μS) ⁽⁸⁾ | PACKAGE OUTLINE | DIMENSION A (INCHES) | DIMENSION B (INCHES) | DIMENSION C (INCHES) |
|-------------|--------------------------|---|----------------------------------|--------------------------------|-----------------|----------------------|----------------------|----------------------|
| TG-7 | 1.3 - 4.0 | 5.0 | 15.0 | 0.1 | I-A | 2.427 nom | 0.228 max | 1.500 max |
| TG-88 | 1.3 - 4.0 | 5.0 | 15.0 | 0.1 | I-B | 2.427 nom | 0.228 max | 2.015 max |
| TG-114 | 2.5 - 8.0 | 10.0 | 15.0 | 0.1 | I-B | 2.427 nom | 0.228 max | 2.015 max |
| TG-121 | 0.8 - 2.0 | 2.5 | 15.0 | 0.3 | I-B/I-D | 1.990 nom | 0.228 max | 1.450 max |
| TG-122 | 1.5 - 4.0 | 5.0 | 15.0 | 0.1 | I-B/I-D | 1.990 nom | 0.228 max | 1.450 max |
| TG-123 | 2.3 - 6.0 | 7.5 | 15.0 | 0.1 | I-B/I-D | 1.990 nom | 0.228 max | 1.450 max |
| TG-124 | 3.0 - 8.0 | 10.0 | 15.0 | 0.1 | I-B/I-D | 1.990 nom | 0.228 max | 1.450 max |
| TG-125 | 4.5 - 12.0 | 15.0 | 20.0 | 0.1 | I-B/I-D | 2.67 | 0.54 | 1.560 |
| TG-126 | 6.0 - 16.0 | 20.0 | 20.0 | 0.1 | I-B/I-D | 2.67 | 0.54 | 1.560 |
| TG-127 | 7.5 - 20.0 | 25.0 | 20.0 | 0.1 | I-B/I-D | 2.797 nom | 0.540 max | 2.051 max |
| TG-151 | 2.7 - 6.0 | 6.8 | 15.0 | 0.1 | special | - | - | - |
| TG-177 | 0.6 - 1.9 | 2.5 | 10.0 | 0.3 | III | 1.625 max | 0.520 ± .030 | 0.300 ± .025 |
| TG-178 | 1.5 - 3.5 | 5.0 | 10.0 | 0.2 | III | 1.625 max | 0.580 ± .030 | 0.340 ± .025 |
| TG-179 | 3.0 - 8.0 | 10.0 | 10.0 | 0.1 | III | 1.719 max | 0.620 ± .030 | 0.380 ± .025 |
| TG-180 | 4.5 - 12.0 | 15.0 | 10.0 | 0.1 | III | 1.906 max | 0.725 ± .030 | 0.490 ± .025 |
| TG-181 | 5.3 - 14.0 | 17.5 | 10.0 | 0.1 | III | 1.906 max | 0.725 ± .030 | 0.490 ± .025 |
| TG-240 | 0.4 - 0.85 | 1.0 | 10.0 | 0.1 | II | 0.750 ± .063 | - | - |
| TG-241 | 0.5 - 1.25 | 1.5 | 10.0 | 0.1 | II | 0.750 ± .063 | - | - |
| TG-242 | 0.7 - 1.7 | 2.0 | 10.0 | 0.1 | II | 0.760 ± .063 | - | - |
| TG-243 | 0.8 - 2.1 | 2.5 | 10.0 | 0.1 | II | 0.760 ± .063 | - | - |
| TG-244 | 1.2 - 4.2 | 5.0 | 10.0 | 0.1 | II | 0.760 ± .063 | - | - |
| TG-245 | 2.0 - 6.2 | 7.5 | 10.0 | 0.1 | II | 0.760 ± .063 | - | - |
| TG-246 | 3.5 - 8.5 | 10.0 | 10.0 | 0.15 | II | 0.790 ± .063 | - | - |
| TG-247 | 4.5 - 11.0 | 12.5 | 10.0 | 0.15 | II | 0.790 ± .063 | - | - |
| TG-248 | 7.0 - 12.5 | 15.0 | 10.0 | 0.15 | II | 0.830 ± .063 | - | - |
| TG-1208 | 8.3 - 22.2 | 25.0 - 30.0 | 20.0 | 0.1 | I-B | 2.797 nom | 0.515 ± .020 | 2.051 max |

⁽⁷⁾ The peak current is a conservative maximum for an approximately triangular pulse with a 50μs half-width.

⁽⁸⁾ Delay time is for Mode A operation when the applied voltage is 80% of the main static breakdown and the trigger pulse reaches 150% of the maximum trigger voltage.

ORDERING INFORMATION

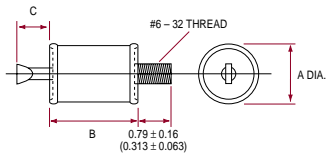
A complete part number is represented by the information in the Part Number column of the specification table.

Three Electrode High-Energy Spark Gaps

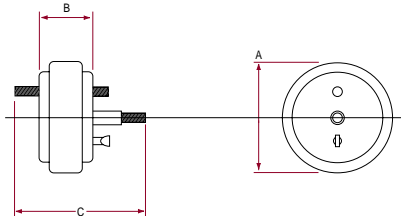
MECHANICAL DIMENSIONS

DIMENSIONS
mm
(inches)

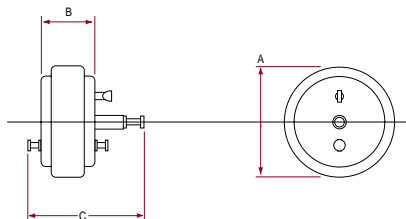
TG LEGACY - 1A



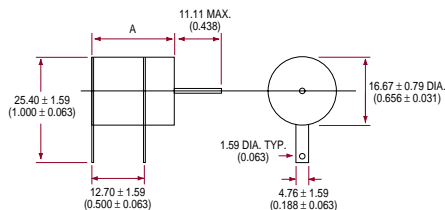
TG LEGACY 1-B



TG LEGACY 1-D



TG LEGACY II



TG LEGACY - OUTLINE III

