



Features

- Tight main static 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

Description

High Energy Devices' TG Legacy Series of three electrode triggered sparkgaps (cold cathode thyratrons) are designed for switching high levels of stored energy in fractions of a microsecond, on command, using low energy control pulses.

Voltage Range

Series	Main Static Breakdown Voltage	Units
TG Three Electrode	1.0-30.0	kV

Devices in the TG Three Electrode Legacy Series with other main static breakdown voltages other than the standard voltages listed (in the 1.0-30kV range) are available upon request. Also refer to the TA/TB/TG221-226 Series Triggered Spark Gaps for additional product availability.

Ordering Information

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

Specifications (@25°C)

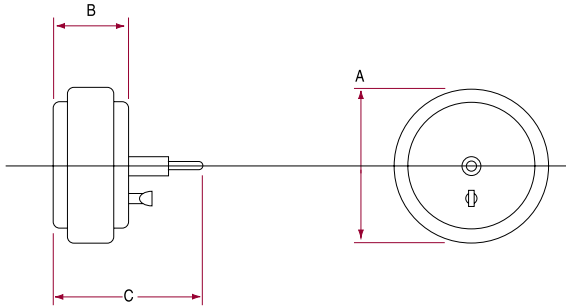
Part Number	Applied DC Voltage Range	Main Static Breakdown (kV ± 10%)	Peak Current (kA) ⁽¹⁾	Delay Time (µs) ⁽²⁾	Package Outline	Dimension A (Inches)	Dimension B (Inches)	Dimension C (Inches)
TG7	1.3 - 4.0	5.0	15.0	0.1	I-A	2.427 nom	0.228 max	1.500 max
TG88	1.3 - 4.0	5.0	15.0	0.1	I-B	2.427 nom	0.228 max	2.015 max
TG114	2.5 - 8.0	10.0	15.0	0.1	I-B	2.427 nom	0.228 max	2.015 max
TG121	0.8 - 2.0	2.5	15.0	0.3	I-B/I-D	1.990 nom	0.228 max	1.450 max
TG122	1.5 - 4.0	5.0	15.0	0.1	I-B/I-D	1.990 nom	0.228 max	1.450 max
TG123	2.3 - 6.0	7.5	15.0	0.1	I-B/I-D	1.990 nom	0.228 max	1.450 max
TG124	3.0 - 8.0	10.0	15.0	0.1	I-B/I-D	1.990 nom	0.228 max	1.450 max
TG125	4.5 - 12.0	15.0	20.0	0.1	I-B/I-D	2.670	.540	1.560
TG126	6.0 - 16.0	20.0	20.0	0.1	I-B/I-D	2.670	.540	1.560
TG127	7.5 - 20.0	25.0	20.0	0.1	I-B/I-D	2.797 nom	0.540 max	2.051 max
TG151	2.7 - 6.0	6.8	15.0	0.1	special	-	-	-
TG177	0.6 - 1.9	2.5	10.0	0.3	III	1.625 max	0.520 ± .030	0.300 ± .025
TG178	1.5 - 3.5	5.0	10.0	0.2	III	1.625 max	0.580 ± .030	0.340 ± .025
TG179	3.0 - 8.0	10.0	10.0	0.1	III	1.719 max	0.620 ± .030	0.380 ± .025
TG180	4.5 - 12.0	15.0	10.0	0.1	III	1.906 max	0.725 ± .030	0.490 ± .025
TG181	5.3 - 14.0	17.5	10.0	0.1	III	1.906 max	0.725 ± .030	0.490 ± .025
TG240	0.4 - 0.85	1.0	10.0	0.1	II	0.750 ± .063	-	-
TG241	0.5 - 1.25	1.5	10.0	0.1	II	0.750 ± .063	-	-
TG242	0.7 - 1.7	2.0	10.0	0.1	II	0.760 ± .063	-	-
TG243	0.8 - 2.1	2.5	10.0	0.1	II	0.760 ± .063	-	-
TG244	1.2 - 4.2	5.0	10.0	0.1	II	0.760 ± .063	-	-
TG245	2.0 - 6.2	7.5	10.0	0.1	II	0.760 ± .063	-	-
TG246	3.5 - 8.5	10.0	10.0	0.15	II	0.790 ± .063	-	-
TG247	4.5 - 11.0	12.0	10.0	0.15	II	0.790 ± .063	-	-
TG248	7.0 - 12.0	15.0	10.0	0.15	II	0.830 ± .063	-	-
TG1208	8.3 - 22.2	25.0 - 30.0	20.0	0.1	I-B	2.797 nom	0.515 ± .020	2.051 max

⁽¹⁾ The peak current is a conservative maximum for an approximately triangular pulse with a 50µs half-width.

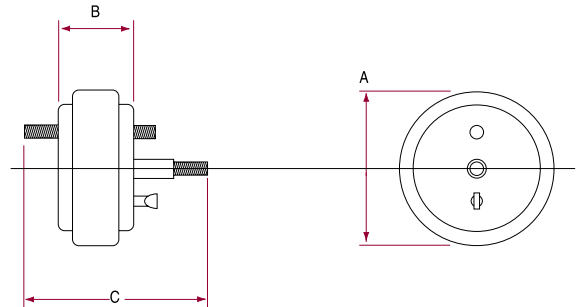
⁽²⁾ Delay time is for Mode A operation when the applied voltage is 80% of the main static breakdown and the trigger pulse reaches 150% of the maximum trigger voltage.

MECHANICAL DIMENSIONS
mm/(inches)

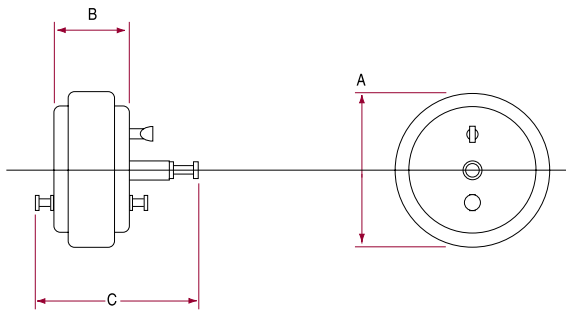
TG Legacy I-A



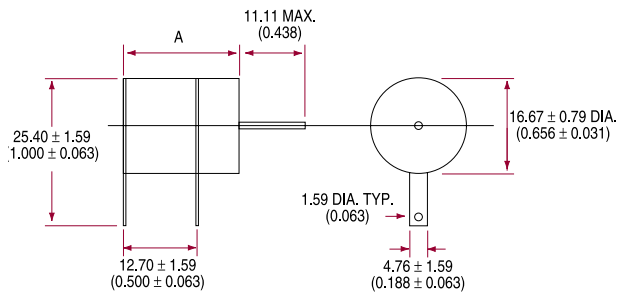
TG Legacy I-B



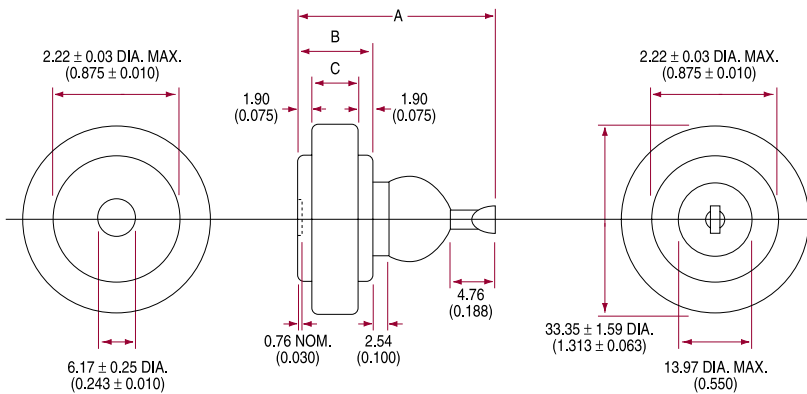
TG Legacy I-D



TG Legacy II



TG Legacy III



Contact Information:

High Energy Devices, LLC
26 Hollenberg Court
Bridgeton, MO 63044
Phone: 314.291.0030
Fax: 314.291.8184
E-mail: info@highenergydevices.com
www.highenergydevices.com

HIGH ENERGY DEVICES, LLC MAKES NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS PUBLICATION AND RESERVES THE RIGHT TO MAKE CHANGES TO SPECIFICATIONS AND PRODUCT DESCRIPTIONS AT ANY TIME WITHOUT NOTICE. NEITHER CIRCUIT PATENT LICENSES NOR INDEMNITY ARE EXPRESSED OR IMPLIED. EXCEPT AS SET FORTH IN HIGH ENERGY DEVICES' STANDARD TERMS AND CONDITIONS OF SALE, HIGH ENERGY DEVICES, LLC ASSUMES NO LIABILITY WHATSOEVER, AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT.

THE PRODUCTS DESCRIBED IN THIS DOCUMENT ARE NOT DESIGNED, INTENDED, AUTHORIZED OR WARRANTED FOR USE AS COMPONENTS IN SYSTEMS INTENDED FOR SURGICAL IMPLANT INTO THE BODY, OR IN OTHER APPLICATIONS INTENDED TO SUPPORT OR SUSTAIN LIFE, OR WHERE MALFUNCTION OF HIGH ENERGY DEVICES' PRODUCT MAY RESULT IN DIRECT PHYSICAL HARM, INJURY, OR DEATH TO A PERSON OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. HIGH ENERGY DEVICES, LLC RESERVES THE RIGHT TO DISCONTINUE OR MAKE CHANGES TO ITS PRODUCTS AT ANY TIME WITHOUT NOTICE.

Specification: TG Three Electrode Legacy Series
©Copyright 2002, High Energy Devices, LLC
All rights reserved. Printed in USA
March 2008.