

# BOURNS Gas Discharge Tubes



Reliable Electronic Solutions



## 2035 SERIES PRECISION GAS DISCHARGE TUBE SURGE PROTECTOR

Bourns now offers a surface mount (SM) 2-electrode GDT surge protection device. The industry-leading quality and features of the Bourns® miniature 2035 Series GDT continue in this new SM version. Compatible with "pick and place" assembly systems, the SM is ideal for high-density applications such as PCBs for telecommunications, commercial and industrial applications.

### Specifications :

- Insulation Resistance: 100V (50V for 2035-09); >10<sup>10</sup>Ω
- Glow Voltage: 10mA; -70V
- Arc Voltage: >1A; -10V
- Glow-Arc Transition Current: <0.5A
- Capacitance: 1MHz; <1pF
- DC Holdover Voltage: >135V, (52V for 2035-09, 80V for 2035-15); <150ms

- Impulse Discharge Current:
  - 20000A, 8/20μs<sup>2</sup>; 1 operation min.
  - 5000A, 8/20μs; >10 operations
  - 100A, 10/1000μs; >300 operations
  - 100A, 10/700μs; >500 operations
- Alternating Discharge Current:
  - 20Arms, 11 cycles<sup>2</sup>; 1 operation min.
  - 5Arms, 1s; >10 operations
- Operating Temperature: -55 to 80°C

### Features:

- Leadless, surface mount for economical assembly
- Compact mini-size
- High surge current rating
- Low capacitance and insertion loss
- Stable breakdown throughout life
- UL recognition pending

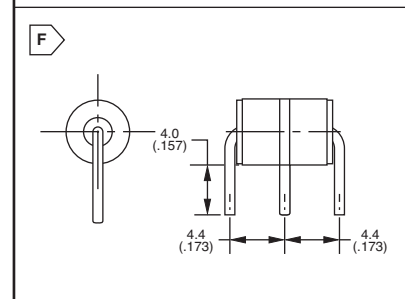
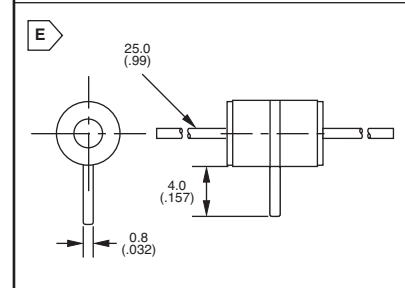
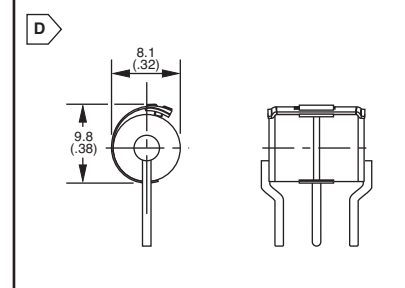
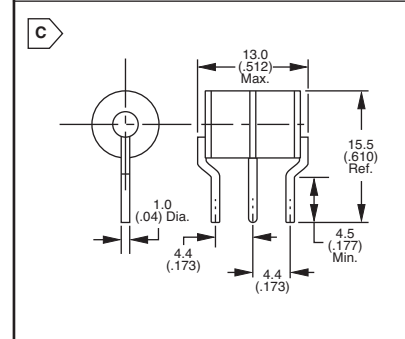
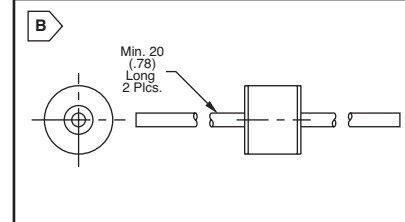
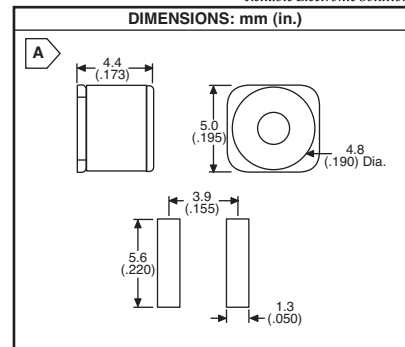
Sparkover limits after life ±20% (-25%, +30% for 2035-09, 2035-60, 1F>10<sup>10</sup>Ω

1-Network applied

2-Tube may exceed ±0% but will continue to protect without venting

For quantities greater than 1000, call for quote.

MOUSER STOCK NO.	Bourns Part No.	Fig.	DC Sparkover @100V/s	Impulse Sparkover 100V/us	Price Each				
					1	25	50	100	500
652-2035-09-SM	2035-09-SM	A	90	350	1.24	1.09	1.01	.93	.78
652-2035-15-SM	2035-15-SM	A	150	400	1.24	1.09	1.01	.93	.78
652-2035-20-SM	2035-20-SM	A	200	425	1.24	1.09	1.01	.93	.78
652-2035-23-SM	2035-23-SM	A	230	450	1.24	1.09	1.01	.93	.78
652-2035-25-SM	2035-25-SM	A	250	475	1.24	1.09	1.01	.93	.78
652-2035-30-SM	2035-30-SM	A	300	525	1.24	1.09	1.01	.93	.78
652-2035-35-SM	2035-35-SM	A	350	600	1.24	1.09	1.01	.93	.78
652-2035-40-SM	2035-40-SM	A	400	650	1.24	1.09	1.01	.93	.78
652-2035-42-SM	2035-42-SM	A	420	675	1.24	1.09	1.01	.93	.78
652-2035-47-SM	2035-47-SM	A	470	750	1.24	1.09	1.01	.93	.78
652-2035-60-SM	2035-60-SM	A	600	950	1.24	1.09	1.01	.93	.78



CDTs

Bourns



## 2035/2037 SERIES MINIATURE 2-POLE GAS DISCHARGE TUBE

### Specifications:

- Single Impulse AC Discharge Current (A): 20Arms
- AC follow current (Apeak): 5Arms
- Impulse Life (No. of Pulses): 100 A, 10/1000μs >300 operations
- Impulse Life (No. of Pulses): 100 A, 10/700μs >600 operations

### Features:

- 5mm diameter, 4mm long (2035 series)
- 5mm diameter, 5mm long (2037 series)
- UL recognized
- High surge current rating
- Stable breakdown throughout life

### Applications:

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

For quantities greater than 1000, call for quote.

MOUSER STOCK NO.	Bourns Part No.	Fig.	DC Sparkover ±X% @ 100V/s	Diameter x Length (mm)	Single Impulse Discharge Current (kA) 8/20μs	Impulse Breakdown Voltage Volts @ 100 V/μs	Impulse Breakdown Voltage Volts @ 1000 V/μs	DC Holdover Voltage (V)3	Price Each				
									1	25	50	100	500
652-2035-09-B	2035-09-B	B	90V ±20%	5 x 4.0	20kA	300	550	52	1.32	1.16	1.07	.99	.83
652-2035-15-B	2035-15-B	B	150V ±15%	5 x 4.0	20kA	350	550	80	1.32	1.16	1.07	.99	.83
652-2035-35-B	2035-35-B	B	350V ±15%	5 x 4.0	20kA	600	750	135	1.32	1.16	1.07	.99	.83
652-2037-15-B	2037-15-B	B	150V ±15%	5 x 4.0	20kA	350	550	80	1.36	1.19	1.11	1.02	.85
652-2037-35-B	2037-35-B	B	350V ±15%	5 x 4.0	20kA	600	750	135	1.36	1.19	1.11	1.02	.85



## 2026 SERIES 3-POLE GAS DISCHARGE TUBE

### Characteristics:

- Single Impulse AC Discharge Current (A): 130Arms
- AC follow current (Apeak): 20Arms
- Impulse Life (No. of Pulses): 20 kA, 8/20μs >10 operations
- Impulse Life (No. of Pulses): 1 kA, 10/1000μs >400 operations

### Features:

- Balanced TRIGARD®
- 8mm diameter, 11mm long
- UL recognized
- Custom configurations available
- High surge current rating
- Stable breakdown throughout life

### Applications:

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

For quantities greater than 1000, call for quote.

MOUSER STOCK NO.	Bourns Part No.	Fig.	DC Sparkover ±X% @ 100V/s	Diameter x Length (mm)	Single Impulse Discharge Current (kA) 8/20μs	Impulse Breakdown Voltage Volts @ 100V/μs	Impulse Breakdown Voltage Volts @ 1000V/μs	DC Holdover Voltage (V)3	Price Each				
									1	25	50	100	500
652-2026-15-C2	2026-15-C2	C	150V ±20%	8 x 11.0	40kA	350	575	80	2.76	2.42	2.24	2.07	1.55
652-2026-35-C2	2026-35-C2	C	350V ±20%	8 x 11.0	40kA	625	875	135	2.76	2.42	2.24	2.07	1.55
652-2026-15-C2F	2026-15-C2F	D	150V ±20%	8 x 11.0	40kA	350	575	80	3.56	3.12	2.89	2.67	2.00
652-2026-35-C2F	2026-35-C2F	D	350V ±20%	8 x 11.0	40kA	625	875	135	3.56	3.12	2.89	2.67	2.00



## 2036 SERIES MINIATURE 3-POLE GAS DISCHARGE TUBE

### Features:

- 8mm diameter, 6mm long
- UL recognized
- Custom configurations available
- High surge current rating
- Stable breakdown throughout life

### Applications:

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

For quantities greater than 1000, call for quote.

MOUSER STOCK NO.	Bourns Part No.	Fig.	DC Sparkover ±X% @ 100 V/s	Diameter x Length (mm)	Single Impulse Discharge Current (kA) 8/20μs	Impulse Breakdown Voltage Volts @ 100V/μs	Impulse Breakdown Voltage Volts @ 1000V/μs	DC Holdover Voltage (V)3	Price Each				
									1	25	50	100	500
652-2036-09-B	2036-09-B	E	90V ±20%	5 x 7.5	20kA	250	550	52	2.60	2.28	2.11	1.95	1.63
652-2036-15-B	2036-15-B	E	150V ±20%	5 x 7.5	20kA	350	500	80	2.60	2.28	2.11	1.95	1.63
652-2036-23-B	2036-23-B	E	230V ±20%	5 x 7.5	20kA	450	600	135	2.60	2.28	2.11	1.95	1.63
652-2036-35-C2	2036-35-C2	F	350V ±20%	5 x 8.8	20kA	600	750	135	2.76	2.42	2.24	2.07	1.73

