



# PRODUCT EXTENSION RELEASE

## GAS DISCHARGE TUBES



## Bourns Expands its Next-Generation Gas Discharge Tube Offering

### Model GDT25 Series

Riverside, California – June 29, 2023 – Bourns is pleased to announce four additional [GDT25](#) next-generation 2-electrode Gas Discharge Tube (GDT) models with new voltages. The Model GDT25 Series continues Bourns' legacy of quality, innovation and design in GDT overvoltage surge arrestors and sets a new standard in speed and robustness.

Bourns Part No.	Device Specifications <sup>(1)</sup>								
	DC Sparkover Voltage ±20 % (2) (3) (4)	Impulse Sparkover Voltage (2) (5)		Insulation Resistance (IR) (6)	Glow Voltage	Arc Voltage	Glow to Arc Transition Current	Capacitance	DC Holdover Voltage (8)
	100 V/s	100 V/μs	1 kV/μs	(7)	10 mA	> 1 A		1 MHz	< 150 ms
GDT25-07	75 V	350 V	600 V	> 2 GΩ	~ 70 V	~ 5 V	< 1 A	< 0.6 pF	52 V
GDT25-09	90 V	350 V	500 V						135 V
<b>NEW!</b> GDT25-15	150 V	427 V	500 V						135 V
<b>NEW!</b> GDT25-23	230 V	527 V	600 V						135 V
GDT25-35	350 V	650 V	800 V						135 V
<b>NEW!</b> GDT25-42	420 V	765 V	820 V						135 V
<b>NEW!</b> GDT25-47	470 V	825 V	860 V						135 V
GDT25-60	600 V	1000 V	1100 V						135 V

Notes:

(1) At delivery AQL 0.65 Level II, DIN ISO 2859.

(2) DC and Impulse Sparkover values are in ionized mode @ 25 °C.

(3) Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev. D.

(4) Surface mount GDTs may exhibit a temporary increase in the DC Sparkover Voltage after the solder reflow process. The DC Sparkover Voltage will recover within 24 hours. There is no quality defect nor change in protection levels during the temporary increase in DC Sparkover Voltage.

(5) Impulse Sparkover voltage is expressed as a maximum value, with a 99 % probability of measured values within limit.

(6) IR limits after Life Ratings > 100 MΩ.

(7) IR Test Voltage: 50 V for GDT25-07 and GDT25-09, 100 V for GDT25-35 and GDT25-60.

(8) Network applied (per ITU-T K.12 Edition 9.0, Section 7).

(9) DC Sparkover Voltage limits after Life Ratings may exceed +20 % but will continue to protect without venting (per ITU-T K.12 Edition 9.0, Section 6, where applicable).

This latest-generation GDT provides significant improvements in protection from voltage transients caused by lightning or accidental contact with AC power lines. With improvements driven by computer modeling simulations, the Model GDT25 next-generation series provides an enhanced level of voltage limiting during fast rising events, resulting in reduced stress on downstream components. In addition, this series has superior current handling capabilities and a wide operating temperature range.


GDT2302

The low capacitance and low insertion loss make the series an ideal solution for the protection of industrial communications, and high speed information and communication technology (ICT) equipment. The series is RoHS compliant\* and UL recognized.

Bourns is also pleased to announce the release of a new [GDT25 Design Kit](#) - part number DK-GDT25-02. This new design kit contains five pieces of each GDT25 model to provide design engineers with protection solutions for quick-turn prototype testing.

Please visit the Bourns website at [www.bourns.com/products/circuit-protection/gas-discharge-tube-\(gdt\)-surge-arrestors/2-electrode-gdts](http://www.bourns.com/products/circuit-protection/gas-discharge-tube-(gdt)-surge-arrestors/2-electrode-gdts) for details on Bourns® 2-Electrode GDTs. If you have any questions, please contact [Bourns Customer Service/Inside Sales](#).

### Features

- 75 V - 600 V breakdown voltages
- -55 °C to +125 °C operating temperature
- Fast response time
- High surge current rating
- Low capacitance and insertion loss
- Stable performance throughout life
- Design kit available for quick-turn prototype testing
- UL recognized 
- RoHS compliant\*

### Applications

- Set top boxes
- Industrial communications
- HVAC controls
- xDSL, POTS, G.Fast
- Antennae

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