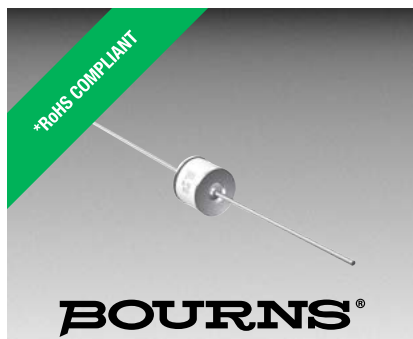




Features

- High current rating
- High insulation resistance
- Quick response, long service life
- Wide operating temperature range
- RoHS compliant*

Applications

- Power supplies
- Medical devices**
- Air conditioning
- Lighting
- IEC 62368-1 equipment

GDT28H Series - High Voltage Gas Discharge Tube

Description

Bourns® GDT28H Series two-electrode High Voltage Gas Discharge Tube offers high insulation resistance over a wide temperature range and is available with a DC Sparkover Voltage range from 1 kV to 3.3 kV. Other customized voltages in this range are available upon request.

Agency Recognition

Agency	Category	Agency File
UL	1449 – 4th Ed.	E313168

Additional Information

Click these links for more information:



Electrical Characteristics @ 25 °C

Bourns Part No.	Device Specifications										
	DC Sparkover Voltage @ 100 V/s (V)			Impulse Sparkover Voltage (V)		AC Withstand Voltage	Insulation Resistance @ 100 V	Capacitance @ 1 MHz	Glow to Arc Transition Current	Glow Voltage	Arc Voltage @ 1 A min.
	Min.	Typ.	Max.	100 V/μs	1 kV/μs	3 Min.	Min.	Max.			Typ.
GDT28H-100	800	1000	1200	1400	1500	510	10 GΩ	< 1.5 pF	< 0.5 A	~140 V	~25 V
GDT28H-110	880	1100	1320	1600	1700	560					
GDT28H-120	960	1200	1440	1700	1800	610					
GDT28H-130	1040	1300	1560	1800	1900	660					
GDT28H-150	1200	1500	1800	1800	2000	760					
GDT28H-200	1600	2000	2400	2500	2750	1015					
GDT28H-250	2000	2500	3000	3200	3500	1270					
GDT28H-270	2160	2700	3240	3600	4000	1370					
GDT28H-300	2400	3000	3600	4000	4200	1525					
GDT28H-330	2640	3300	3960	4600	4700	1680					

Bourns Part No.	Life Ratings ³				
	Maximum Follow On Current ¹	Nominal AC Discharge Current	AC Discharge Current	Nominal Impulse Discharge Current ²	Max. Surge Current ³
	A	10 x 1 s @ 50-60 Hz	1 x 50-60 Hz, 9 cycles	8/20 μs	8/20 μs
GDT28H-100	200	N/A	N/A	5 kA 10 operations	10 kA 2 operations
GDT28H-110					
GDT28H-120					
GDT28H-130					
GDT28H-150					
GDT28H-200					
GDT28H-250					
GDT28H-270					
GDT28H-300					
GDT28H-330					

Notes:

- (1) Test conducted in series with suitable MOV per UL1449 Edition 4.
- (2) 2 x [1(+)] and 1(-) operation 10 kA @ 80/20 μs.
- (3) DC and Impulse Sparkover after Life Ratings may exceed the upper limits shown but will continue to protect without venting (in compliance with ITU-T K.12 Edition 9.0, Section 6, as applicable).



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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

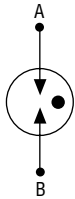
**Bourns® products have not been designed for and are not intended for use in "lifesaving," "life-critical" or "life-sustaining" applications nor any other applications where failure or malfunction of the Bourns® product may result in personal injury or death.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

GDT28H Series - High Voltage Gas Discharge Tube

BOURNS®

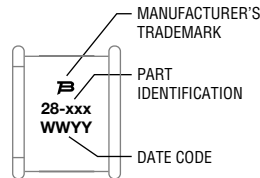
Circuit Diagram



Note:
Gas discharge tubes are bidirectional.

Typical Part Marking

Represents total content. Layout may vary.



Environmental Characteristics

Storage Temperature Range -40 °C to +125 °C
Operating Temperature Range -40 °C to +125 °C
Climatic Category (IEC 60068-1)..... 40/125/21
Moisture Sensitivity Level 1
ESD Classification (HBM)..... N/A

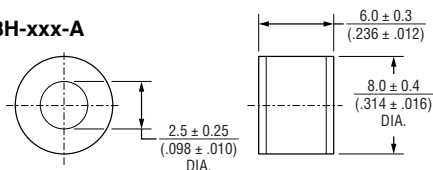
How To Order

GDT28H - xxx - B RP

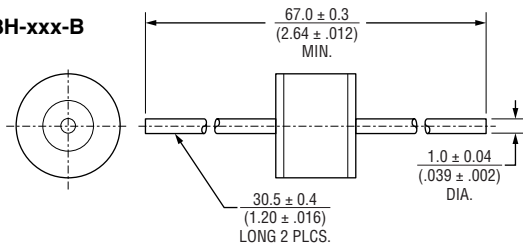
Series Designator _____
DC Sparkover Voltage _____
100 = 1000 V 200 = 2000 V
110 = 1100 V 250 = 2500 V
120 = 1200 V 270 = 2700 V
130 = 1300 V 300 = 3000 V
150 = 1500 V 330 = 3300 V
Leads _____
A = No Leads
B = Straight Lead 0.8 mm
Packaging _____
Blank = Bulk
RP = Reel Pack

Product Dimensions

GDT28H-xxx-A



GDT28H-xxx-B

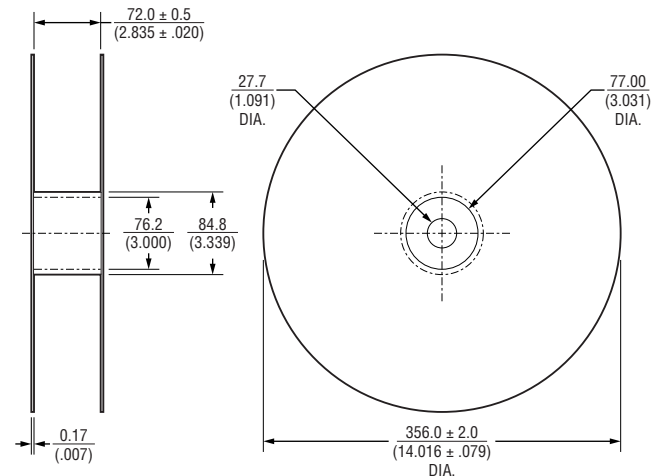


DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

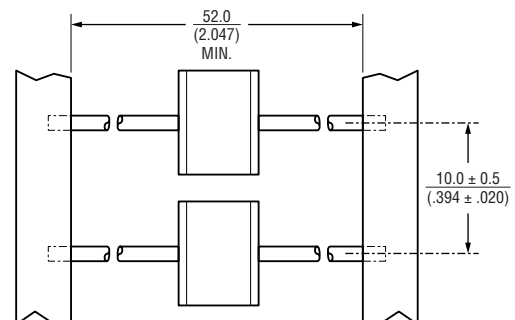
Packaging Specifications

Model	Standard Packaging Quantity		
	Bulk (bag)	Box	Reel
GDT28H-xxx-A	250	1000	—
GDT28H-xxx-B	100	500	—
GDT28H-xxx-BRP	—	—	1000

Reel Pack



DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$



REV. A 07/23

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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