BOURNS®

Features

- Size: 5 mm diameter, 7.3 mm length
- Very fast acting
- Small size
- Stable breakdown throughout life
- Designed to operate with TBU® devices
- RoHS compliant* versions available
- UL Recognized

Applications

- Telecommunications
- Industrial electronics
- Avionics

2030-xxT-SM Series - Fast Acting 3-Electrode Miniature Gas Discharge Tube

Characteristics

Characteristic	Model No.	
	2030-23T	2030-42T
Minimum DC Sparkover (100 V/s) Throughout Service Life	185 V	360 V
Maximum Impulse Sparkover (5k V 1.2/50 μs) Throughout Service Life	650 V	850 V

Insulation Resistance (IR) .....50 V / 100 V..... > 10^{10} Ω
Glow Voltage .....10 mA..... ~ 70 V
Arc Voltage .....>1 A..... ~ 10 V
Glow-Arc Transition Current ..... < 0.5 A
Capacitance.....1 MHz..... < 1 pF
DC Holdover Voltage (Network Applied per ITU-T K.12)
2030-23T .....80 V ..... < 150 ms
2030-42T .....135 V ..... < 150 ms
Impulse Service Life .....8/20 μs, 4 kA..... 1 operation[1]
1.2 μs - 500 V, 8/20 μs - 250 A ..... 150 operations[1,2]
10/1000 μs, 1 kV, 100 A..... 25 operations[1]
2/10 μs, 6 kV, 500 A..... 10 operations[1]
10/700 μs, 6 kV, 150 A..... 5 operations[1]
AC Service Life.....600 V, 1 Arms, 0.2 sec..... 5 operations

Operating and Storage Temperature ..... -40 to +90 °C
Climatic Category (IEC 60068-1) ..... 40 / 90 / 21

Notes:
1 The rated discharge current is the total current equally divided between each line to ground and operation(s) are performed in both polarities. The polarity of lightning surge tests should be reversed between consecutive surges.
2 Per IEC 61643-21.

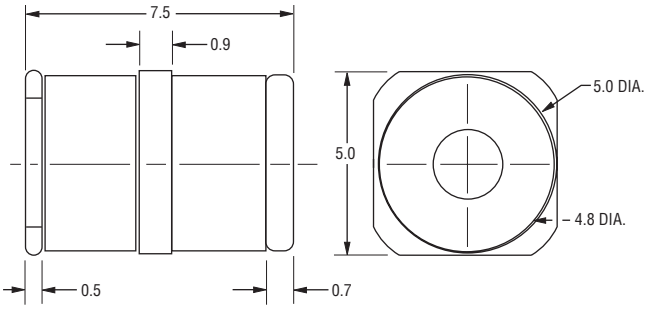
• At delivery AQL 0.65 Level II, DIN ISO 2859.

Applications

Port Protection	GDT Device P/N	TBU® Device P/N
CanBus	2030-23T-SM-RPLF	TBU-CA065-100-WH
RS232	2030-23T-SM-RPLF	TBU-CA065-200-WH
RS422	2030-23T-SM-RPLF	TBU-CA065-200-WH
RS485	2030-23T-SM-RPLF	TBU-CA065-200-WH
RS485	2030-42T-SM-RPLF	TBU-CA085-200-WH
SDI	2030-23T-SM-RPLF	TBU-CA065-100-WH

"TBU" is a registered trademark of Bourns, Inc. in the United States and other countries.
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

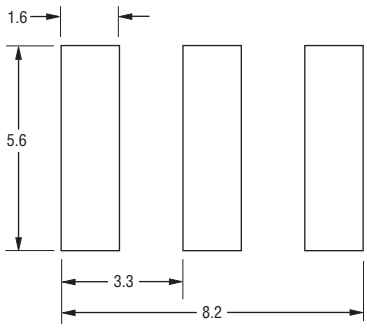
Product Dimensions



DIMENSIONS: MILLIMETERS

DIMENSION TOLERANCE: .X ± 0.20

Recommended Pad Layout



How to Order

2030 - xxT - SM - RP LF

Model Number Designator

Voltage
23 = 185 V
42 = 360 V

Surface Mount

Packaging Options
Blank = Bulk Packaging - 250 pcs./tray, 1,000 pcs./box (Standard)
RP = Reelpack - 1,000 pcs./reel (Optional)
RP2 = Reelpack - 1,000 pcs./reel (Optional)

RoHS Compliant Option
Blank = Standard Product
LF = RoHS Compliant Product

* The optional -RP & -RP2 reelpacks contain 1,000 pcs./reel.
The reels are 330 mm in diameter. The -RP reelpack is 18 mm wide.
The -RP2 reelpack is 26 mm wide.

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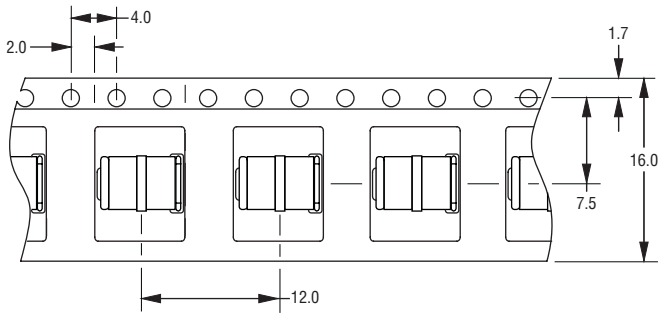
Packaging Specifications

The Model 2030-xxT-SM ships standard bulk pack, 250 pcs./tray; 1,000 pcs./box.

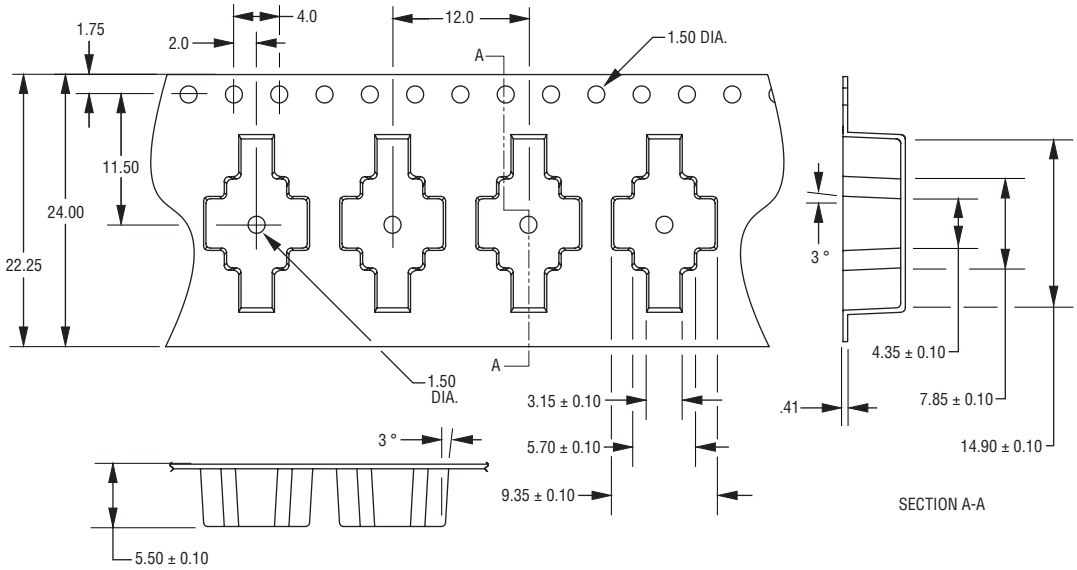
The optional -RP & -RP2 reelpacks contain 1,000 pcs./reel. The reels are 330 mm in diameter. The -RP reelpack is 18 mm wide. The -RP2 reelpack is 26 mm wide.

-RP



DIMENSIONS: MILLIMETERS
DIMENSION TOLERANCE: .X ±0.25

-RP2



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