

BOURNS®

SDT Series – Tact Switch

Features

- Available sharp click feel with a positive tactile feedback
- Ultra-miniature and lightweight structure suitable for high density mounting
- Economical with high reliability
- Insert molding in the contact with special treatment prevents flux buildup during soldering and permits autodipping
- RoHS compliant*

Electrical Characteristics

Electrical Life
500,000 cycles min. for 260 g
 1,000,000 cycles min. for 100 g, 160g
 RatingDC 12 V 50 mA
 Contact Resistance100 milliohms max.
 Insulation Resistance
100 megohms, DC 500 V min.
 Dielectric Strength...250 V AC for 1 minute
 Contact Arrangement.....1 pole 1 position

Environmental Characteristics

Operation Force.....260 g ±50 g,
 160 g ±50 g, 100 g ±50 g
 Stop StrengthPlace the switch such
 that vertical, a static load of 3 kg shall
 be applied in the direction of actuator
 operation for a period of 15 sec.
 Stroke
 6mm type0.25 +0.2/-0.1 mm
 12mm type0.35 ±0.1 mm
 Temperature Range.....-20 °C to +70 °C
 Vibration Test.....Mil-STD-202F,
 Method 201A
 Frequency10-55-10 Hz/1 minute
 DirectionsX,Y,Z, three mutually
 perpendicular directions
 Time.....2 hours each direction.
 High reliability
 Shock TestMIL-STD-202F,
 Method 213B, Condition A
 Gravity50 G (peak value), 11 msec
 Direction & Times6 sides and
 3 times in each direction.
 High reliability

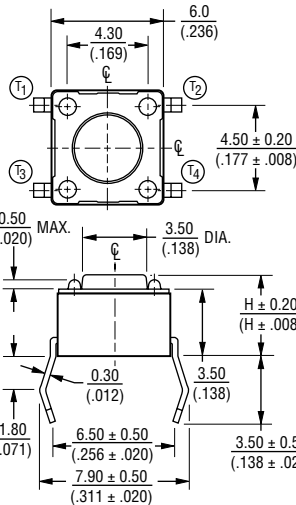
Physical Characteristics

Cover Materials.....Steel
 Base MaterialsUL94V-0 PBT plus glass
 fiber reinforced
 Cover/Base Color.....Black
 Actuator MaterialsDulacron POM
 plus glass fiber reinforced
 Actuator ColorBlack, brown, red
 Contact Disc Materials....Phosphor bronze
 with silver cladding
 Terminal Materials
Brass with silver cladding
 Wave Soldering Process
Recommended solder temperature
 at 260 °C (500 °F) max., 5 seconds
 Hand Soldering Process
Use a soldering iron of 30 watts
 or less, controlled at 320 °C (608 °F)
 for approximately 2 seconds while
 applying solder
 Packaging1,000 pieces per bag

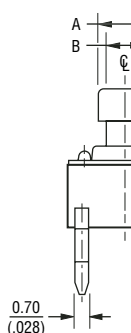
Specifications are subject to change without notice.
 *RoHS Directive 2002/95/EC Jan 27 2003 including Annex.
 Customers should verify actual device performance in
 their specific applications. REV 09/04

Product Dimensions

SDTX-610/620/630/650/660



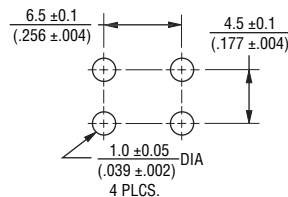
SDTX-644/648



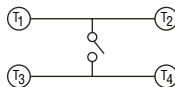
SDTX-644	
Dim.	mm/(in)
A	$\frac{2.4 +1/-0}{(.094 +.004/-0)}$
B	$\frac{1.6 +1/-0}{(.063 +.004/-0)}$

SDTX-648	
Dim.	mm/(in)
A	$\frac{2.8 +1/-0}{(.110 +.004/-0)}$
B	$\frac{2.0 +1/-0}{(.079 +.004/-0)}$

RECOMMENDED PCB LAYOUT

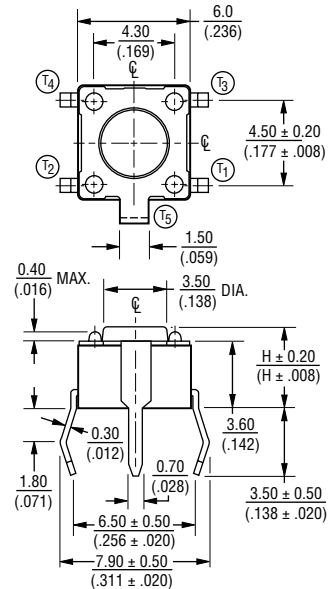


CIRCUIT DIAGRAM

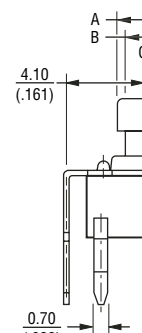


DIMENSIONS: MM/(INCHES)

SDTG-610/620/630/650/660



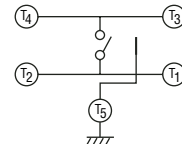
SDTG-644/648



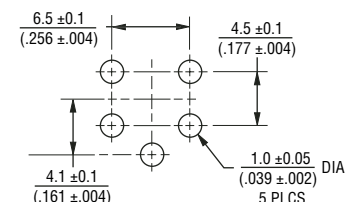
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Dim.	mm/(in)
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SDTG-648	
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CIRCUIT DIAGRAM

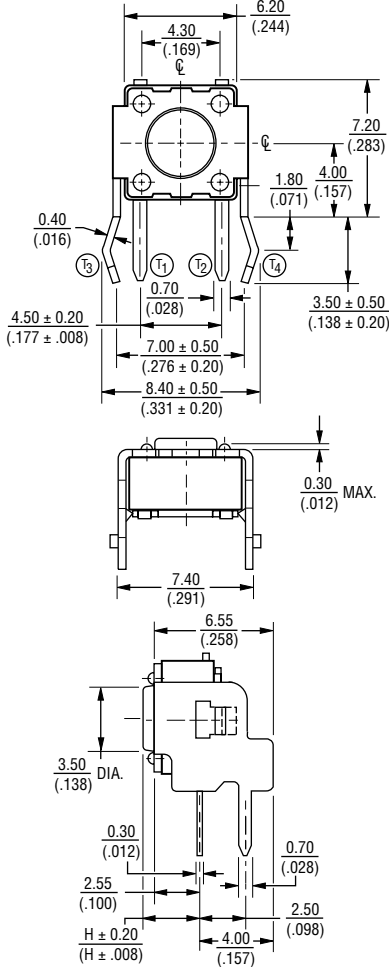


RECOMMENDED PCB LAYOUT

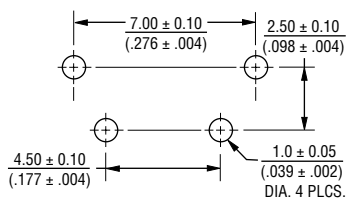


SDT Series – Product Dimensions

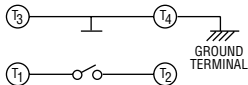
SDTA-610/620/630/650/660



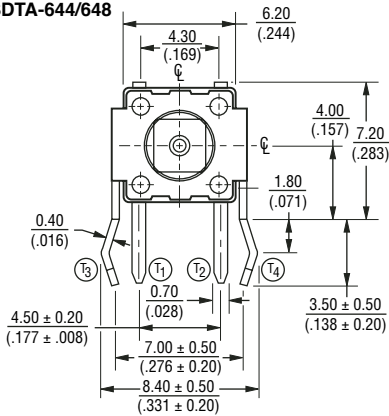
RECOMMENDED PCB LAYOUT



CIRCUIT DIAGRAM

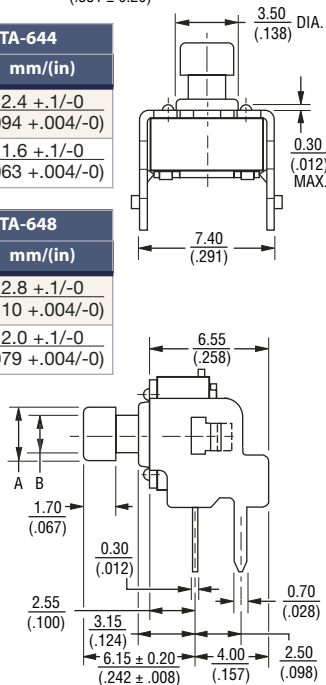


SDTA-644/648

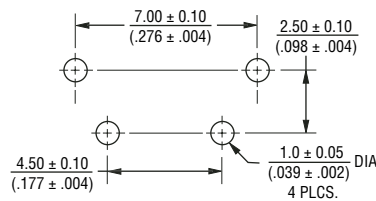


SDTA-644	
Dim.	mm/(in)
A	2.4 +.1/-0 (.094 +.004/-0)
B	1.6 +.1/-0 (.063 +.004/-0)

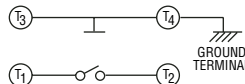
SDTA-648	
Dim.	mm/(in)
A	2.8 +.1/-0 (.110 +.004/-0)
B	2.0 +.1/-0 (.079 +.004/-0)



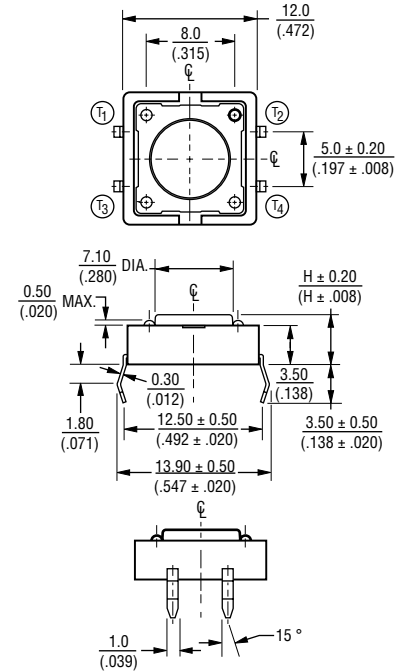
RECOMMENDED PCB LAYOUT



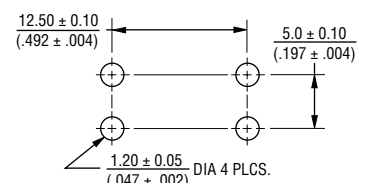
CIRCUIT DIAGRAM



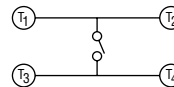
SDTX-210



RECOMMENDED PCB LAYOUT



CIRCUIT DIAGRAM



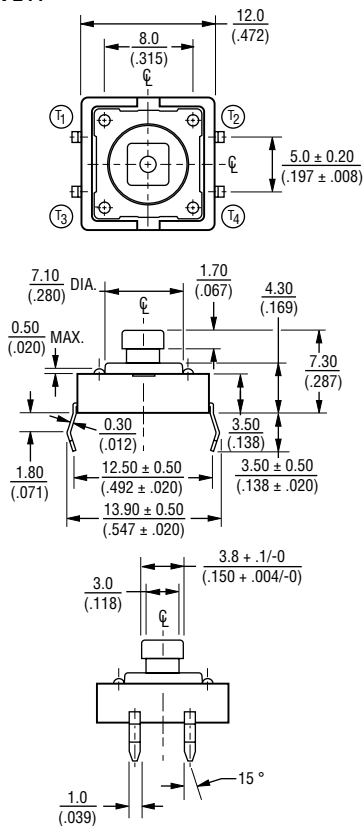
DIMENSIONS: MM/(INCHES)

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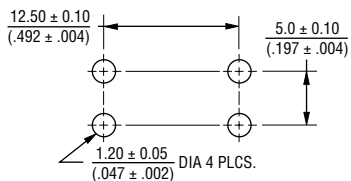
SDT Series – Product Dimensions, Packaging Specifications and Ordering Information

Product Dimensions

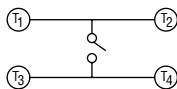
SDTX-244



RECOMMENDED PCB LAYOUT



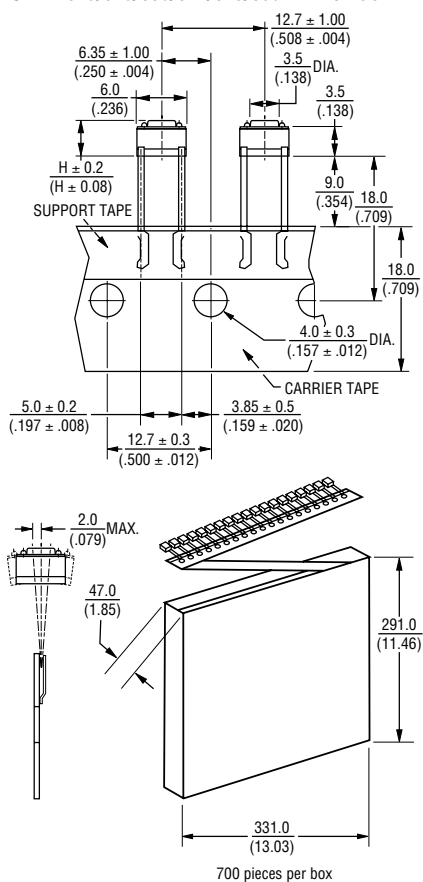
CIRCUIT DIAGRAM



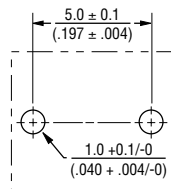
DIMENSIONS: MM/(INCHES)

Packaging Specifications

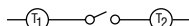
SDTX-610/620/630/644/648/650 Ammo Pack



RECOMMENDED PCB LAYOUT



CIRCUIT DIAGRAM



How To Order

SDT G - 6 10 - K AP

Model _____

Product Series _____
 X = Standard
 G = Ground Terminal
 A = Right Angle Type

Body Size _____
 6 = 6 mm
 2 = 12 mm*

Distance from First Pin to Top of Head (Right Angle Type) _____
 10 = 3.15 mm
 20 = 3.85 mm
 30 = 5.85 mm
 44 = 6.15 mm (square head)
 48 = 6.15 mm (square head)
 50 = 8.35 mm
 60 = 11.85 mm

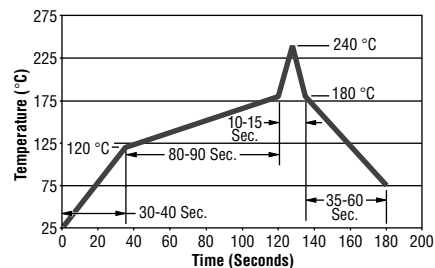
Height (Standard Type) _____
 10 = 4.3 mm
 20 = 5.0 mm
 30 = 7.0 mm
 44 = 7.3 x 2.4 mm (square head)
 48 = 7.3 x 2.8 mm (square head)
 50 = 9.5 mm
 60 = 13 mm

Actuating Force _____
 K = 100 g (black head – 6 mm only)
 N = 160 g (brown head)
 R = 260 g (red head)

Packaging Option _____ (SDTX only)
 AP = Ammo Pak

*Options available:
 SDTX-210
 SDTX-244

Reflow Soldering Profile



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