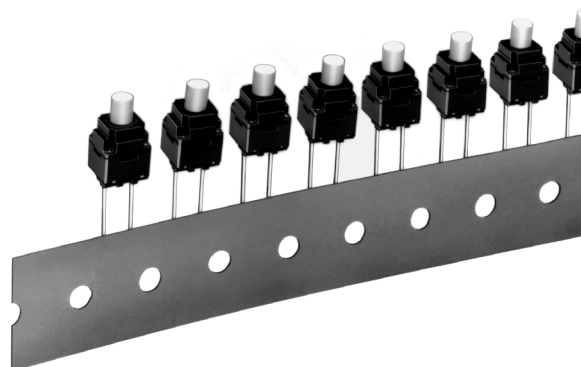


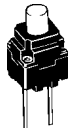
# Tactile Switch B3WN

## Double-sealing Construction Assures Water-tight/Dust-tight Protection

- 8 x 8 mm compact size
- Allows the use of radial-taping part insertion machines
- Conforms to IEC529 IP67
- RoHS Compliant



## Ordering Information

Size	Switch height x pitch	Operating force (OF)	Model
8 x 8 mm 	13 x 5 mm	200 gf	<b>B3WN-6002</b>

**Note:** Orders must be made in units of 1,000 pieces.

**Important note:** Switch cannot be water-washed.

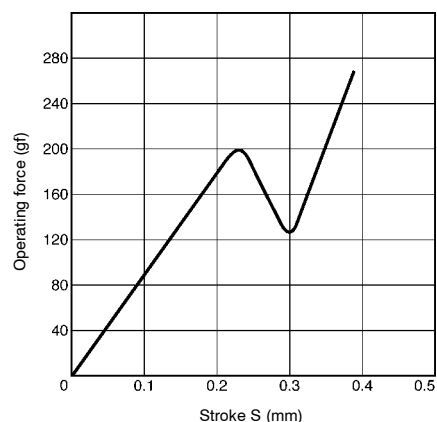
## Specifications

### ■ CHARACTERISTICS

<b>Switching capacity</b>		50 mA, 12 VDC (resistive load)
<b>Contact form</b>		SPST-NO
<b>Insulation voltage</b>		30 VDC
<b>Contact material</b>		Silver plating
<b>Contact resistance</b>		100 mΩ max. (initial value) (rated: 1 mA, 5 VDC)
<b>Insulation resistance</b>		100 MΩ min. (at 100 VDC)
<b>Dielectric strength</b>		250 VAC, 50/60Hz for 1 min
<b>Bounce time</b>		10 ms max.
<b>Vibration resistance</b>		Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
<b>Shock resistance</b>		Destruction: 784 m/s <sup>2</sup> min. {approx. 80G min.} Malfunction: 100 m/s <sup>2</sup> min. {approx. 10G min.}
<b>Life expectancy</b>		100,000 operations min.
<b>Ambient temperature</b>	<b>Operating</b>	-25°C to 85°C (-13°F to 185°F) with no icing
<b>Ambient humidity</b>	<b>Operating</b>	35% to 85%
<b>Weight</b>		Approx. 0.7 g

# Engineering Data

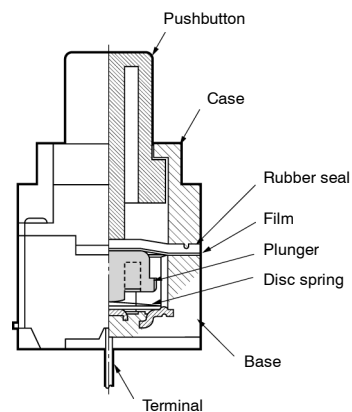
## ■ OPERATING FORCE VS STROKE (TYPICAL EXAMPLE)



## ■ OPERATING CHARACTERISTICS

Characteristics	
Operating force (OF)	200±70 gf
Releasing force (RF)	50 gf min.
Pretravel (PT)	0.3 <sup>+0.2</sup> <sub>-0.1</sub> mm

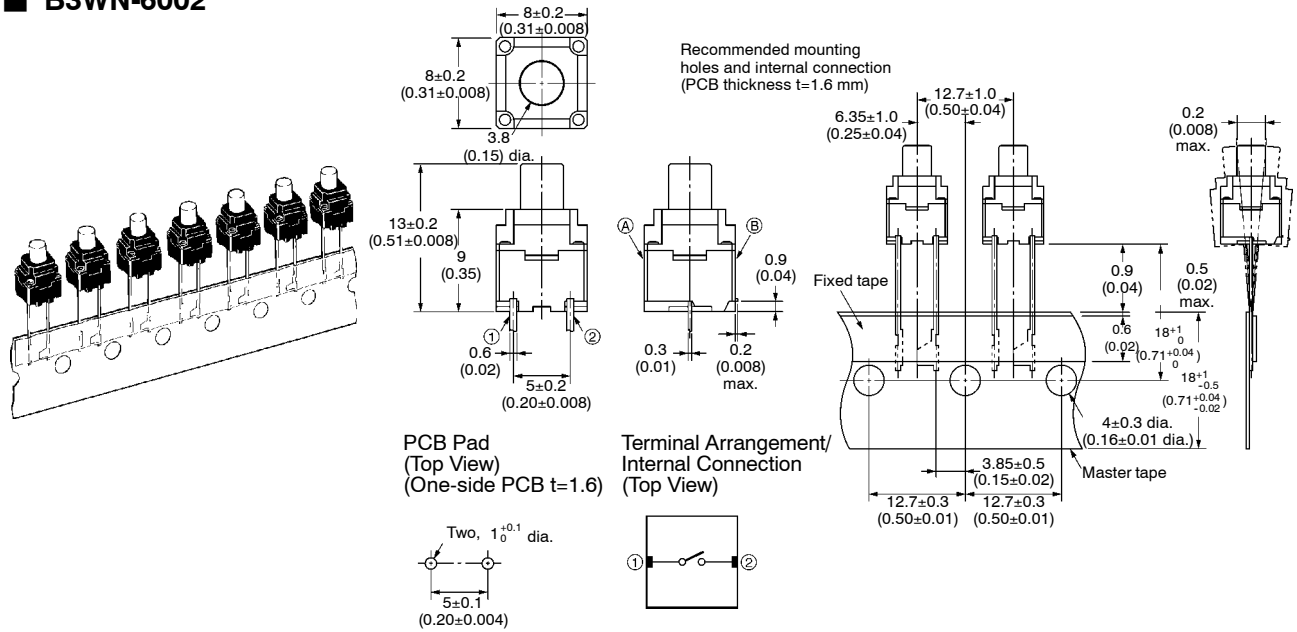
## ■ CONSTRUCTION



# Dimensions

Unit: mm (inch)

## ■ B3WN-6002



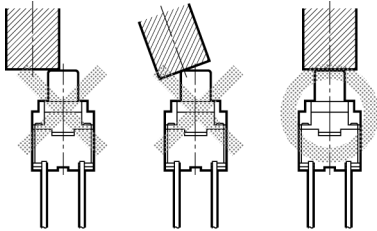
- Note 1.** In accordance with EIAJ RC-1008, unless otherwise specified.  
**2.** Switch fixing direction (A and B) on the tape may change.

# Precautions

## ■ OPERATION

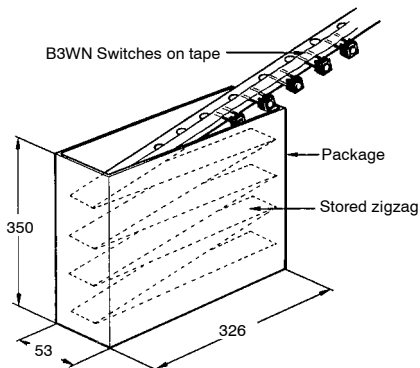
Do not repeatedly operate the Switch with high force, apply additional force to the pushbutton once it has stopped moving, or operate the Switch with excessive force, otherwise the disc spring of the Switch may deform and the Switch may malfunction.

Be sure to set the Switch so that the pushbutton will be pressed straight. A decrease in the life of the Switch may result if the pushbutton is pressed off-center or from an acute angle.



## ■ PACKAGE

B3WN Switches are packed on tape as shown below.



Do not press strongly, vibrate, or drop the package, otherwise the terminals of the Switches may deform.

Pull out the tape slowly. Make sure that the tape is not entangled while pulling it out, otherwise the terminals of the Switches may deform.

Do not store the package in locations with high temperature or high humidity. Use the Switches as soon as possible. The package made of paper is not tightly sealed. Storing the package in locations with high temperature or high humidity for a long time may result in the discoloration of the Switch terminals.

## ■ OTHER PRECAUTIONS

When using the Switch in a very humid environment or where condensation may occur: mount switch first, then completely cover the terminals with coating in order to prevent current leakage from terminals.

Do not use coating materials that contain toluene or xylene.

## ■ PCB

The Switch is designed for a 1.6-mm-thick, single-sided PCB as a standard PCB. The Switch may not be mounted to any other type of PCB, such as a double-sided, through-hole PCB, or any other one that is different in thickness. Furthermore, the Switch may not operate properly or withstand the soldering heat if it is mounted to such a PCB. Be sure to test the PCB before use.

## ■ SOLDERING

The Switch can be soldered automatically or manually.

The automatic soldering of the Switch on a 1.6-mm-thick, single-sided PCB must be completed within five seconds at a soldering temperature of 260°C maximum.

The manual soldering of the Switch on a 1.6-mm-thick, single-sided PCB must be completed within three seconds at a soldering iron tip temperature of 350°C maximum.

When using a multi-layer PCB, test the PCB in advance because the Switch mounted to the PCB may be deformed by heat if the pattern or land design is improper.

Soldering may be repeated only once at a minimum interval of five minutes if the Switch is not soldered properly.

Make sure that no flux will rise on the mounting surface of the PCB.

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