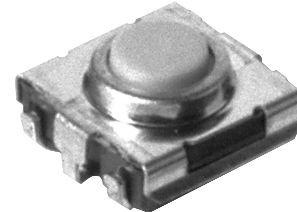


Compact Tactile Switch with Sealed Construction for Dusty or Humid Environments

- Ideal tactile switch for surface mounting
- Compact and more than 1 mm thinner than conventional tactile switches
- Available with ground terminals for protection against static electricity
- Sealed construction conforming to IP62 (IEC-529) provides high reliability in dusty or humid environments



Ordering Information

Switch height x pitch	Packaging	Part number	
		Without ground terminal	With ground terminal
3.1 x 4.6 mm	Bulk	B3SN-3012	B3SN-3112
	Embossed tape	B3SN-3012P	B3SN-3112P

Note: Switches on embossed tape must be ordered in units of 3,000.

Important note: Switches cannot be water-washed.

Specifications

■ CHARACTERISTICS

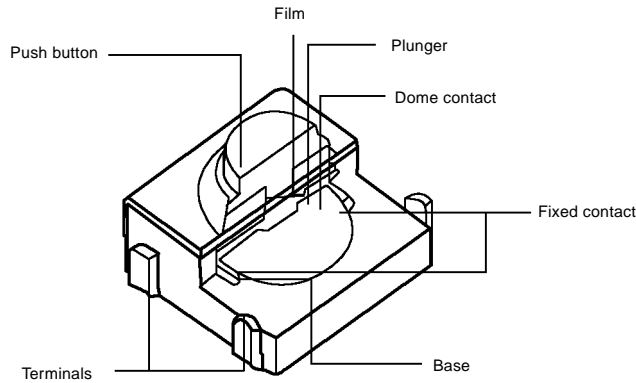
Switching capacity	1 to 30 mA, 5 to 24 VDC (resistive load)	
Contact form	SPST-NO	
Permissible load	1 mA 5 VDC min.	
Contact resistance	100 MΩ max.	
Insulation resistance	100 MΩ at 250 VDC	
Dielectric strength	250 VAC, 50/60 Hz for 1 minute between contacts of same polarity 250 VAC, 50/60 Hz for 1 minute between each terminal and ground	
Vibration	Malfunction durability	10 to 55 Hz, 1.5 mm double amplitude
Shock	Malfunction durability	1,000 m/s ² min. (approx. 100 G)
Ambient temperature	-25° to 70°C (-13° to 176°F) with no icing	
Humidity	35% to 85% RH	
Service life	Mechanical/electrical	50,000 operations min.
Weight	Approx. 0.20 g	

Note: Data shown are of initial value.

■ OPERATING CHARACTERISTICS – B3SN 3□□□ SERIES

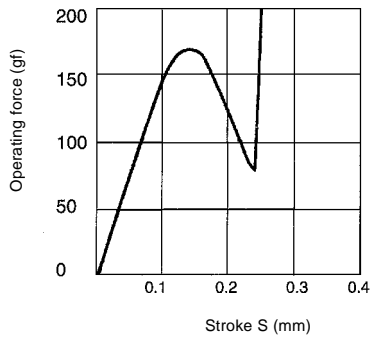
Characteristics	
Operating force (OF)	160 ± 50 g max.
Release force (RF)	30 g min.
Pretravel (PT)	0.25 ± 0.15 mm

■ CONSTRUCTION



Engineering Data

■ OPERATING FORCE VS. STROKE (typical example)

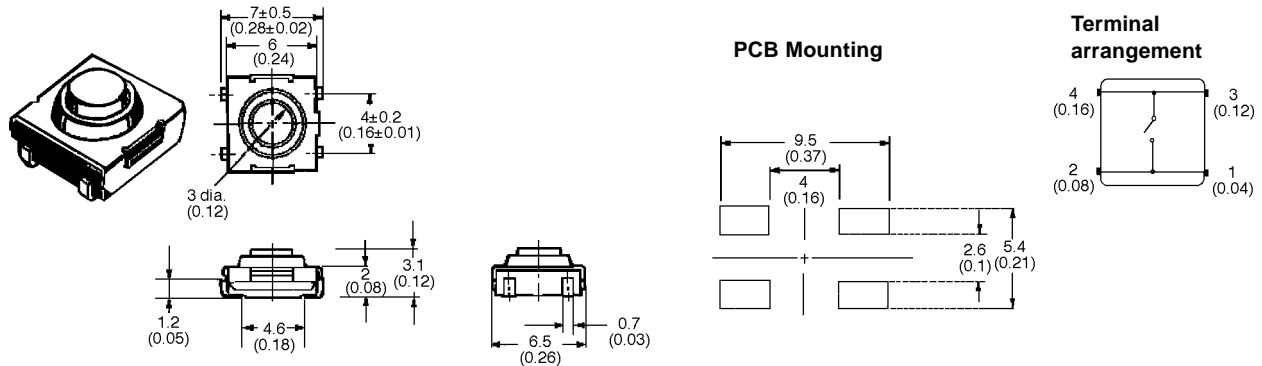


Dimensions

Unit: mm (inch)

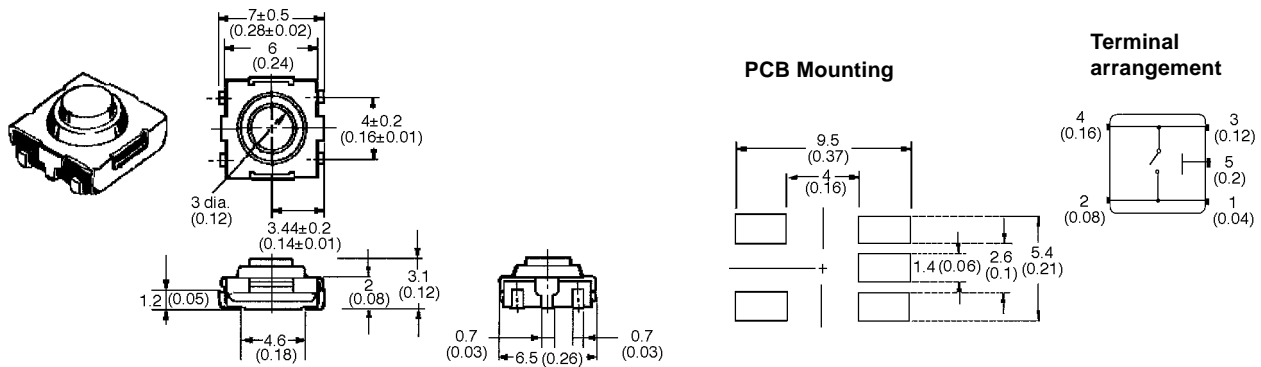
■ B3SN-3012, B3SN-3012P

Without Ground Terminal



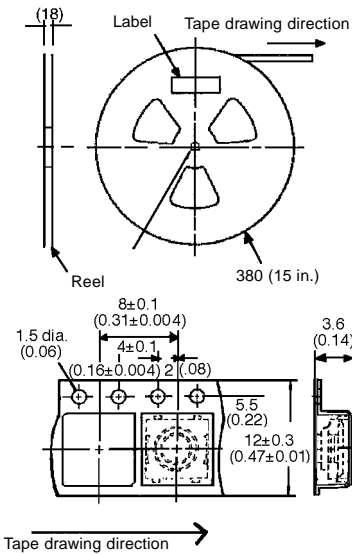
■ B3SN-3112, B3SN-3112P

With Ground Terminal



Note: Unless otherwise specified, a tolerance of ± 0.2 mm applies to all dimensions.

■ TAPE-PACKAGING DIMENSIONS



Hints on Correct Use

REFLOW SOLDERING

IR Method

Attach a thermocouple to one side of the terminal with solder having a high melting point. Then set the reflow furnace to a peak terminal temperature of 250°C. The optimum heating curve is shown at right.

VPS Method

In the case of VPS-method soldering using fluorocarbon FC-70, the heating time must not exceed 30 seconds at a temperature of more than 200°C

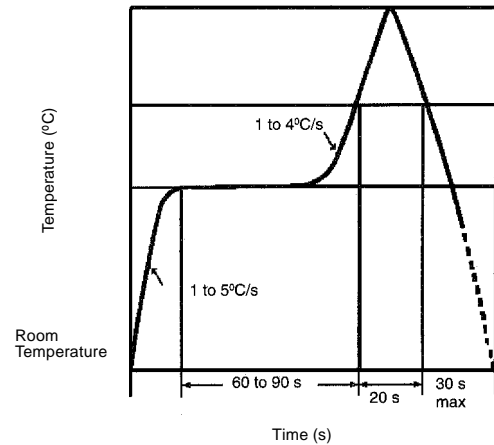
Do not apply additional force to the plunger once it has stopped moving.

Do not repeatedly press the plunger off-center or from an acute angle.

B3SN switches are designed to allow submersed washing after soldering.

When washing, follow these guidelines:

1. Clean with alcohol solvents. Do not use chlorine solvents or water.
2. When using ultrasonic cleaning in two- or three-tank systems, do not clean for more than one minute at a time or for more than three minutes.
3. Do not apply external force while washing.
4. Do not wash immediately after soldering. Allow components to stand for three minutes before washing.
5. The switch cannot be used where subject to direct contact with water.



Note: The above heating curve applies if the thickness of the circuit board is 1.6 mm.

NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

OMRON**OMRON ELECTRONICS LLC.**

One East Commerce Drive
Schaumburg, IL 60173
1-800-55-OMRON

OMRON ON-LINE

Global - <http://www.omron.com>
USA - <http://www.omron.com/oei>
Canada - <http://www.omron.com/oci>

OMRON CANADA, INC.

885 Milner Avenue
Scarborough, Ontario M1B 5V8
416-286-6465