

## Surface-mounting Tactile Switch for High-density Packaging

- ROHS compliant.
- Dust-sealed construction provides high reliability in locations exposed to dust.
- SMD Tactile Switch ideal for high-density mounting.
- Sealed construction conforming to IP64 (IEC-529). Can be washed after soldering.
- Ground terminal available to protect against static electricity.



## Ordering Information

### 6 x 6 mm Type B3S-1000

Operating force (OF)		Height	Without ground terminal		With ground terminal	
			Bags (100 Switches)	Embossed tape (1,000 Switches)	Bags (100 Switches)	Embossed tape (1,000 Switches)
Standard-force	1.57 N {160 gf}	4.3 mm	B3S-1000	B3S-1000P	B3S-1100	B3S-1100P
High-force	2.25 N {230 gf}		B3S-1002	B3S-1002P	B3S-1102	B3S-1102P

**Note:** Switches in bags must be ordered in units of 100 Switches, and Switches on embossed tape must be ordered in units of 3,000 Switches.

## Specifications

### ■ Ratings/Characteristics

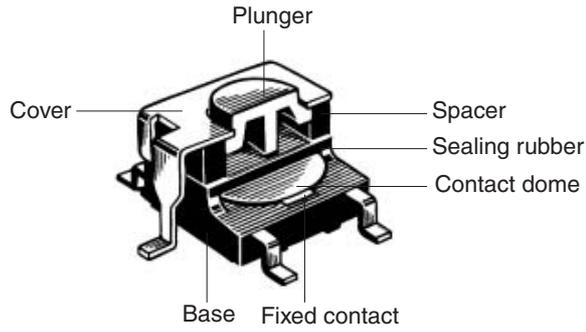
<b>Switching capacity</b>	5 to 24 VDC, 1 to 50 mA (resistive load)
<b>Insulation voltage</b>	30 VDC
<b>Ambient temperature</b>	Operating: -25°C to 70°C (with no icing)
<b>Ambient humidity</b>	Operating: 35% to 85%
<b>Contact configuration</b>	SPST-NO
<b>Contact resistance</b>	100 mΩ max. (initial value) (rated: 1 mA, 5 VDC)
<b>Insulation resistance</b>	100 MΩ min. (at 250 VDC)
<b>Dielectric strength</b>	500 VAC, 50/60 Hz for 1 min
<b>Bounce time</b>	5 ms max.
<b>Vibration resistance</b>	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
<b>Shock resistance</b>	Destruction: 1,000 m/s <sup>2</sup> {approx. 100G} max. Malfunction: 100 m/s <sup>2</sup> {approx. 10G} max.
<b>Life expectancy</b>	Standard force models (1.57 N): 500,000 operations min. High-force models (2.25 N): 300,000 operations min.
<b>Weight</b>	Approx. 0.3 g

### ■ Operating Characteristics

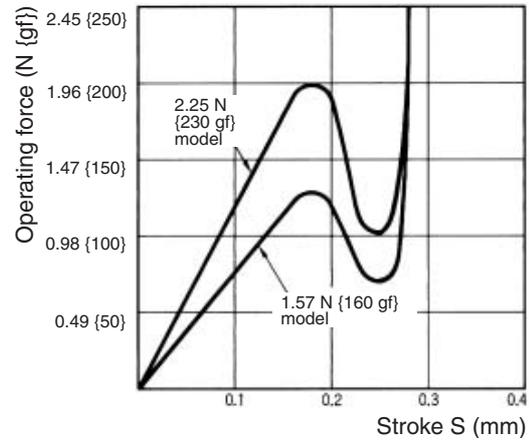
Item	B3S-1□00	B3S-1□02
<b>Operating force (OF)</b>	1.57 N {160 gf} max.	2.25 N {230 gf} max.
<b>Releasing force (RF)</b>	0.2 N {20 gf} min.	0.49 N {50 gf} min.
<b>Pretravel (PT)</b>	0.25 <sup>+0.2</sup> / <sub>-0.1</sub> mm	

Nomenclature

Engineering Data



Operating Force vs. Stroke (Typical)

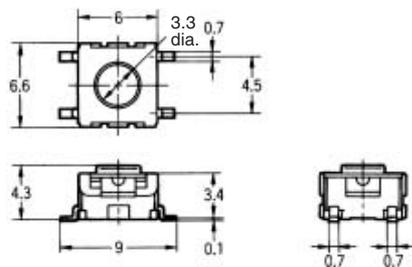


Dimensions

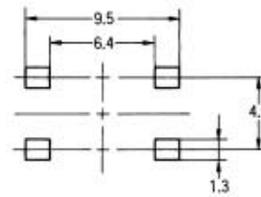
Note: All units are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.

Without Ground Terminal

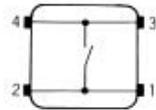
B3S-1000  
B3S-1002



PCB Mounting (Top View)

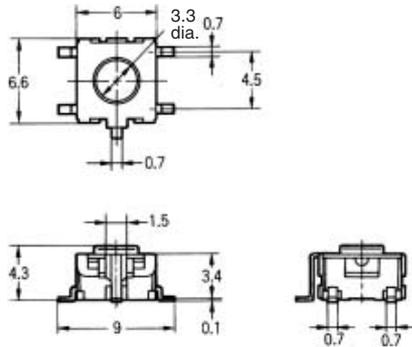


Terminal Arrangement /Internal Connections (Top View)

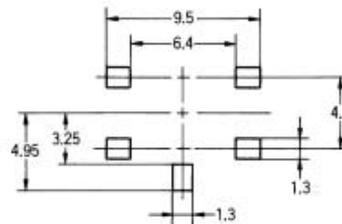


With Ground Terminal

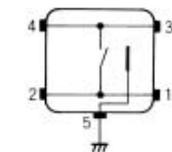
B3S-1100  
B3S-1102



PCB Mounting (Top View)



Terminal Arrangement /Internal Connections (Top View)



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.