

Tactile Switch (SMD)




B3FS

Surface-mounting Switches Ideal for High-density Mounting

- Tape packing style also available
- Allows reflow soldering
- Incorporates a snap-action contact mechanism that ensures sharp switching operations
- 3 actuator heights for design flexibility
- RoHS Compliant



Ordering Information

| Type | Item | | | Model | |
|----------------------|--|----------------|-------------------------|-------------------|---|
| | Plunger | Height x pitch | Operating force (OF) | Bag (See Note 1.) | Embossed tape (See Note 2.) (qty./reel) |
| Standard 6 x 6 mm | Flat  | 3.1 x 8.0 mm | General-purpose: 100 gf | B3FS-1000 | B3FS-1000P (3000) |
| | | | High-force: 150 gf | B3FS-1002 | B3FS-1002P (3000) |
| | Flat  | 4.3 x 8.0 mm | General-purpose: 100 gf | B3FS-1010 | B3FS-1010P (1000) |
| | | | High-force: 150 gf | B3FS-1012 | B3FS-1012P (1000) |
| | Projected  | 7.3 x 8.0 mm | General-purpose: 100 gf | B3FS-1050 | B3FS-1050P (1000) |
| | | | High-force: 150 gf | B3FS-1052 | B3FS-1052P (1000) |

Note: 1. Orders must be made in units of 100 pieces.

2. Orders must be made in units of 3,000 pieces. For the packing style, refer to *Key Switch Packing* under Precautions section.

Important Note: Switches cannot be water-washed.

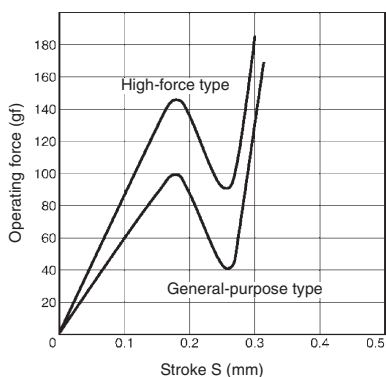
Specifications

■ Characteristics

| | | |
|------------------------------|------------------------|--|
| Switching capacity | | 50 mA, 24 VDC (resistive load) |
| Contact form | | SPST-NO |
| Contact material | | Silver plating |
| Contact resistance | | 100 mΩ max. (initial value) (rated: 1 mA, 5 VDC) |
| Insulation resistance | | 100 MΩ min. (at 100 VDC) |
| Dielectric strength | | 250 VAC, 50/60 Hz for 1 min. |
| Bounce time | | 5 ms max. |
| Vibration resistance | | Malfunction: 10 to 55 Hz, 1.5-mm double amplitude |
| Shock resistance | | Destruction: 1,000 m/s ² min. {approx. 100G min.} |
| Life expectancy | General-purpose | 1,000,000 operations min. |
| | High-force type | 300,000 operations min. |
| Ambient temperature | Operating | -25°C to +70°C |
| Ambient humidity | Operating | 35% to 85% |
| Weight | | Approx. 0.2 g |

Engineering Data

■ Operating Force vs Stroke (Typical Example)



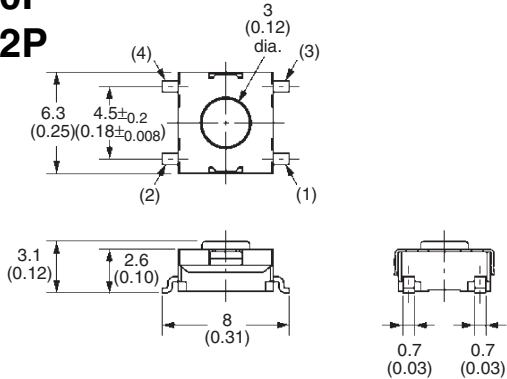
■ Operating Characteristics

| Characteristics | B3FS-1000 series | |
|----------------------------------|---|-------------|
| | General-purpose | High-force |
| Operating force (OF) max. | 100 ± 30 gf | 150 ± 50 gf |
| Releasing force (RF) min. | 20 gf | 50 gf |
| Pretravel (PT) | 0.25 ^{+0.2} _{-0.1} mm | |

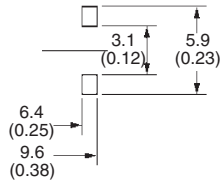
Dimensions

Unit: mm (inch)

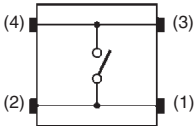
■ B3FS-1000
B3FS-1002
B3FS-1000P
B3FS-1002P



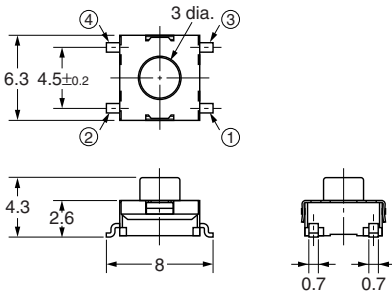
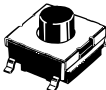
PCB Pad (Top View) (One-side PCB t= 1.6)



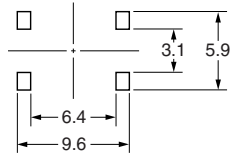
Terminal Arrangement/ Internal Connection (Top View)



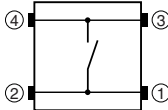
■ B3FS-1010
B3FS-1012
B3FS-1010P
B3FS-1012P



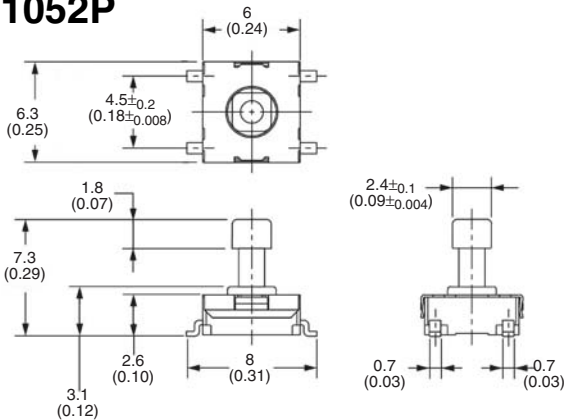
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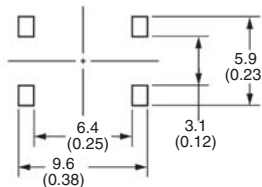
Terminal Arrangement/ Internal Connection (Top View)



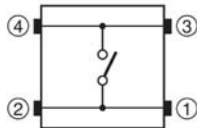
■ B3FS-1050
B3FS-1052
B3FS-1050P
B3FS-1052P



PCB Pad (Top View) (One-side PCB t= 1.6)



Terminal Arrangement/ Internal Connection (Top View)



Hints on Correct Use

See the Tactile Switch User's Guide, "Tactile Switches - Technical Information" for information regarding processing and handling.

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