

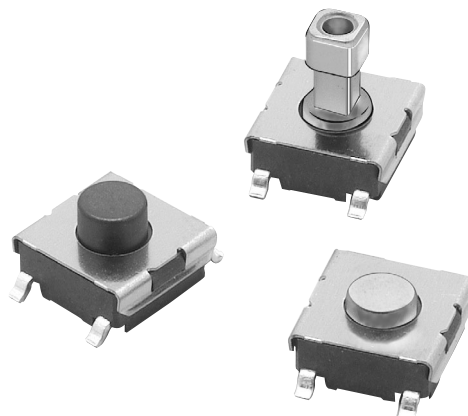
Tactile Switch (SMD Type)

B3FS

SMD Tactile 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.

RoHS Compliant (Refer to page 8 for details.)



Ordering Information

■ List of Models

Type	Plunger type	Height	Operating force (OF)	Bag		Embossed tape	
				Model	Minimum order unit	Model	Minimum order unit
6 x 6 mm B3FS-1000 models	 (Flat type)	3.1 mm	0.98 N {100 gf}	B3FS-1000	100	B3FS-1000P	3,000
			1.47 N {150 gf}	B3FS-1002		B3FS-1002P	
	 (Flat type)	4.3 mm	0.98 N {100 gf}	B3FS-1010	1,000	B3FS-1010P	
			1.47 N {150 gf}	B3FS-1012		B3FS-1012P	
	 (Projected type)	7.3 mm	0.98 N {100 gf}	B3FS-1050 (See note.)	1,000	B3FS-1050P (See note.)	
			1.47 N {150 gf}	B3FS-1052 (See note.)		B3FS-1052P (See note.)	

Note: Orders must be made in multiples of the minimum order unit. Switches are not sold individually.

Specifications

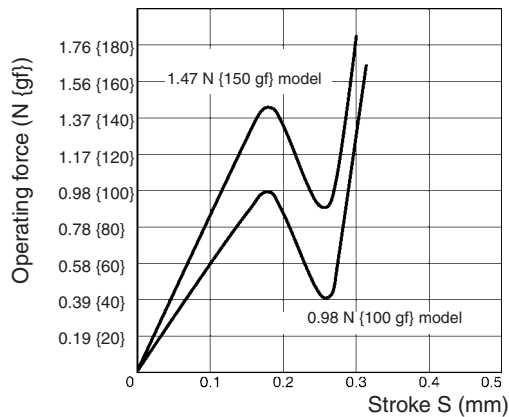
■ Ratings/Characteristics

Switching capacity	50 mA, 24 VDC (resistive load)
Ambient temperature	Operating: -25°C to 70°C (with no icing)
Ambient humidity	Operating: 35% to 85%
Contact configuration	SPST-NO
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 {approx. 100G} max. Malfunction: 100 m/s ² {approx. 10G} max.
Life expectancy	Standard models (0.98 N {100 gf}): 1,000,000 operations min. High-force models (1.47 N {150 gf}): 300,000 operations min.
Weight	B3F-1000: Approx. 0.2 g

Engineering Data

Operating Force vs. Stroke Characteristics

B3F-1000



■ Operating Characteristics

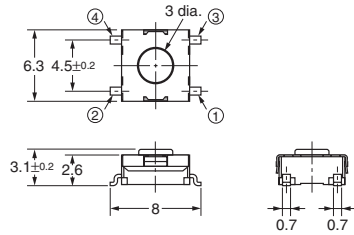
Item	B3FS-1000	
	0.98 N	1.47 N
Operating force (OF)	0.98±0.29 N {100±30 gf}	1.47±0.49 N {150±50 gf}
Releasing force (RF)	0.2 N {20 gf} min.	0.49 N {50 gf} min.
Pretravel (PT)	0.25 ^{+0.2} / _{-0.1} mm	

Dimensions

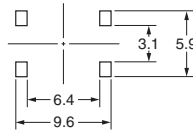
Note: All units are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

Flat Type

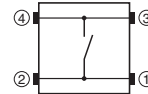
B3FS-1000
B3FS-1002
B3FS-1000P
B3FS-1002P



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

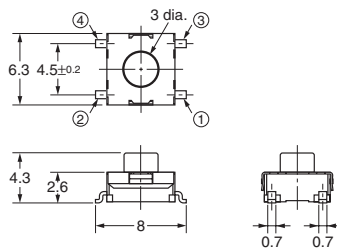


Terminal Arrangement/ Internal Connection (Top View)

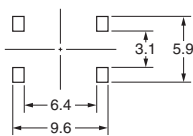


Flat Type

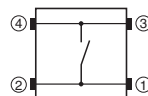
B3FS-1010
B3FS-1012
B3FS-1010P
B3FS-1012P



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

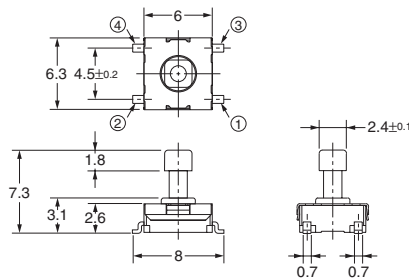


Terminal Arrangement/ Internal Connection (Top View)

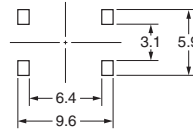


Projected Type

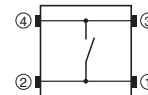
B3FS-1050
B3FS-1052
B3FS-1050P
B3FS-1052P



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



Terminal Arrangement/ Internal Connection (Top View)



Key Tops

B32-series Special Key Tops are available for projected plunger models. Refer to page 42 for details.

Precautions

Be sure to read the precautions common to all Tactile Switches on pages 5 to 7 for correct use.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.