

B3FS



Surface Mount Switch

- Tape packing style available
- Allows for reflow soldering, designed for no-clean process
- Incorporates a snap-action contact mechanism that ensures crisp switching operations
- Add P to the end of the part number for Tape/Reel packaging

Part	Rated Resistive Load - Switch	Actuator types	Contact form	Operating Force	Seal type	Termination Style	Service Life - Electrical (Min. @ Rated Loads)
B3FS-1000	50mA @ 24 VDC	Top Actuated	SPST-NO	100g	Unsealed	SMT	1,000,000 ops
B3FS-1000P	50mA @ 24 VDC	Top Actuated	SPST-NO	100g	Unsealed	SMT	1,000,000 ops
B3FS-1002	50mA @ 24 VDC	Top Actuated	SPST-NO	150g	Unsealed	SMT	300,000 ops
B3FS-1002P	50mA @ 24 VDC	Top Actuated	SPST-NO	150g	Unsealed	SMT	300,000 ops
B3FS-1010	50mA @ 24 VDC	Top slide, raised	SPST-NO	100g	Unsealed	SMT	1,000,000 ops
B3FS-1010P	50mA @ 24 VDC	Top slide, raised	SPST-NO	100g	Unsealed	SMT	1,000,000 ops
B3FS-1012	50mA @ 24 VDC	Top slide, raised	SPST-NO	150g	Unsealed	SMT	300,000 ops
B3FS-1012P	50mA @ 24 VDC	Top slide, raised	SPST-NO	150g	Unsealed	SMT	300,000 ops
B3FS-1050	50mA @ 24 VDC	Top Actuated, projected plunger (for B32 Keycap)	SPST-NO	100g	Unsealed	SMT	1,000,000 ops
B3FS-1050P	50mA @ 24 VDC	Top Actuated, projected plunger (for B32 Keycap)	SPST-NO	100g	Unsealed	SMT	1,000,000 ops

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.

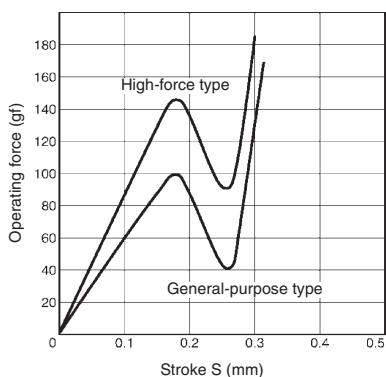
Specifications

■ 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)



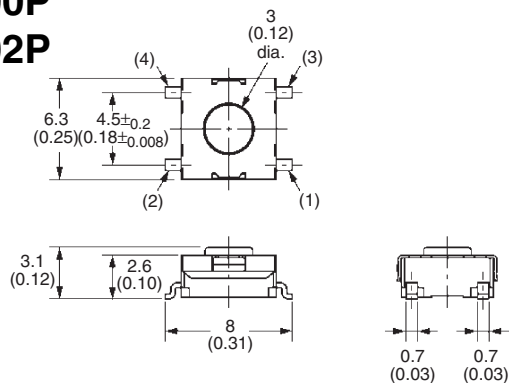
■ Operating Characteristics

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	

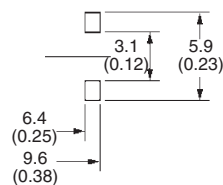
Dimensions

Unit: mm (inch)

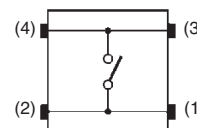
■ B3FS-1000
B3FS-1002
B3FS-1000P
B3FS-1002P



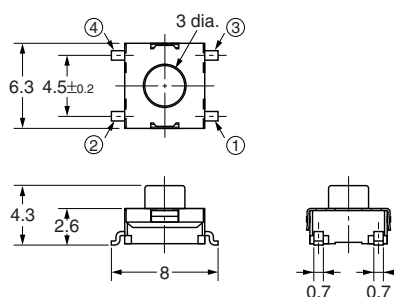
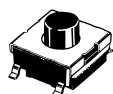
PCB Pad
(Top View)
(One-side PCB t= 1.6)



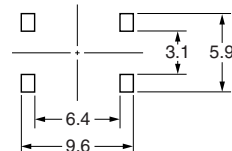
Terminal Arrangement/
Internal Connection
(Top View)



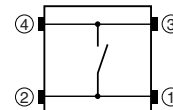
■ B3FS-1010
B3FS-1012
B3FS-1010P
B3FS-1012P



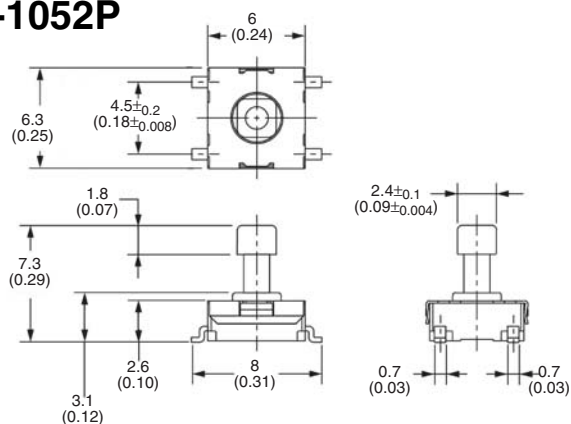
PCB Pad
(Top View)
(One-side PCB t= 1.6)



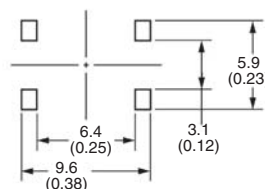
Terminal Arrangement/
Internal Connection
(Top View)



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



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



Terminal Arrangement/
Internal Connection
(Top View)

