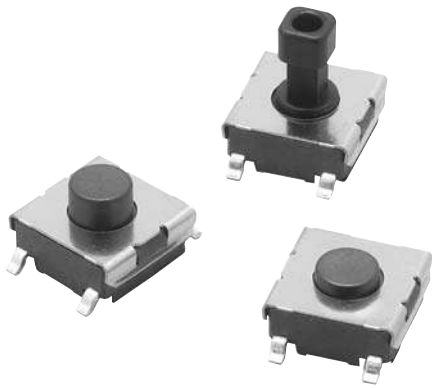
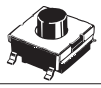
Surface-mounting Switches Ideal for High-density Mounting

- ROHS compliant.
- Tape packing style also available.
- Allows reflow soldering.
- Incorporates a snap-action contact mechanism that ensures sharp switching operations.



Ordering Information

■ List of Models

Type	Plunger	Height	Operating Force (OF)	Bag		Embossed tape	
				Model	Minimum order unit	Model	Minimum order unit
6 x 6 mm B3FS-1000 models	Flat 	3.1 mm	0.98 N {100 gf}	B3FS-1000	100	B3FS-1000P	3,000
			1.47 N {150 gf}	B3FS-1002		B3FS-1002P	
			2.55N (260gf)	B3FS-1005		B3FS-1005P	
	Flat 	4.3 mm	0.98 N {100 gf}	B3FS-1010		B3FS-1010P	1,000
			1.47 N {150 gf}	B3FS-1012		B3FS-1012P	
			2.55N (260gf)	B3FS-1015		B3FS-1015P	
	Projected 	7.3 mm	0.98 N {100 gf}	B3FS-1050		B3FS-1050P	
			1.47 N {150 gf}	B3FS-1052		B3FS-1052P	

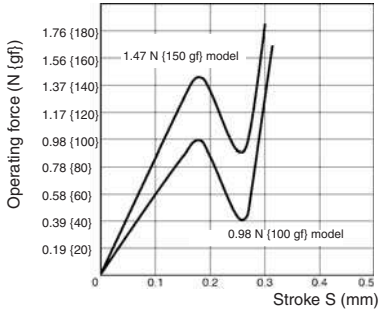
Specifications

■ Ratings/Characteristics

Switching capacity	1 to 50 mA, 5 to 24 VDC (resistive load)
Ambient temperature	Operating: -25°C to 70°C, at 60% maximum (with no icing)
Ambient humidity	Operating: 35% to 85% (for +5°C to 35°C)
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, 1.5mm double amplitude
Shock resistance	Destruction: 1,000 m/s² {approx. 100G} max. Malfunction: 100 m/s² {approx. 10G} max.
Life expectancy	1,000,000 operations min. (0.98 N) 300,000 operations min. (1.47 N) 100,000 operations min. (2.55N)
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**	1.55 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.	0.49N (50gf) min
Pretravel (PT)	$0.25^{+0.2}_{-0.1}$ mm		

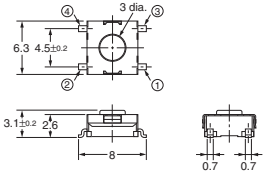
Dimensions

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

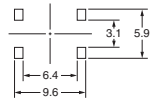
Flat Type

B3FS-1000
B3FS-1002
B3FS-1005
B3FS-1000P
B3FS-1002P
B3FS-1005P

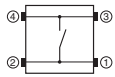




PCB Pad
(Top View)
(One-side PCB t= 1.6)



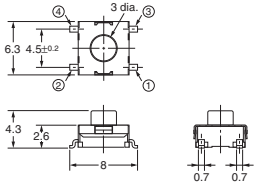
Terminal Arrangement/ Internal Connection
(Top View)



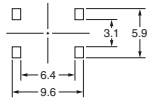
Flat Type

B3FS-1010
B3FS-1012
B3FS-1015
B3FS-1010P
B3FS-1012P
B3FS-1015P

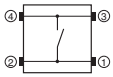




PCB Pad
(Top View)
(One-side PCB t= 1.6)



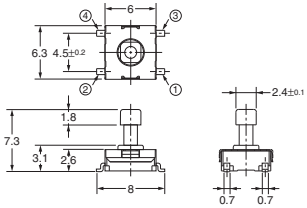
Terminal Arrangement/ Internal Connection
(Top View)



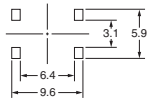
Projected Type

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

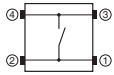




PCB Pad
(Top View)
(One-side PCB t= 1.6)



Terminal Arrangement/ Internal Connection
(Top View)



Key Tops

B32-series Special Key Tops are available for projected plunger models.

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