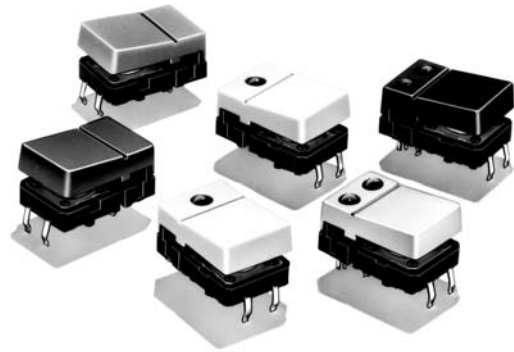


## Hinged Tactile Switch

## B3J

### Through-hole-mounting Switches with Hinges for a Sharp Snap Action

- Quick, superior snap action through hook-type hinge construction.
- Available with 1 or 2 LEDs or without LEDs.
- The hinge button is available in a wide variety of colors (five standard colors).



### ■ List of Models

| Operation type                  | Contact material | Operating force (OF) | Color of hinged button | Box      |                      |
|---------------------------------|------------------|----------------------|------------------------|----------|----------------------|
|                                 |                  |                      |                        | Model    | Minimum packing unit |
| Non-lighted:<br>B3J-1000 Series | Silver plated    | 1.27 N {130 gf}      | Ivory                  | B3J-1000 | 300 pcs              |
|                                 |                  |                      | Black                  | B3J-1100 |                      |
|                                 |                  |                      | Orange                 | B3J-1200 |                      |
|                                 |                  |                      | Yellow                 | B3J-1300 |                      |
|                                 |                  |                      | Blue                   | B3J-1400 |                      |

| Operation type                                                    | Contact material | Operating force (OF) | Color of hinged button | Box       |          |          |                      |
|-------------------------------------------------------------------|------------------|----------------------|------------------------|-----------|----------|----------|----------------------|
|                                                                   |                  |                      |                        | LED color |          |          | Minimum packing unit |
|                                                                   |                  |                      |                        | Red       | Yellow   | Green    |                      |
| One LED:<br>B3J-2000 Series<br>B3J-3000 Series<br>B3J-4000 Series | Silver plated    | 1.27 N {130 gf}      | Ivory                  | B3J-2000  | B3J-3000 | B3J-4000 | 300 pcs              |
|                                                                   |                  |                      | Black                  | B3J-2100  | B3J-3100 | B3J-4100 |                      |
|                                                                   |                  |                      | Orange                 | B3J-2200  | B3J-3200 | B3J-4200 |                      |
|                                                                   |                  |                      | Yellow                 | B3J-2300  | B3J-3300 | B3J-4300 |                      |
|                                                                   |                  |                      | Blue                   | B3J-2400  | B3J-3400 | B3J-4400 |                      |

| Operation type                                                     | Contact material | Operating force (OF) | Color of hinged button | Box        |           |              | Minimum packing unit |
|--------------------------------------------------------------------|------------------|----------------------|------------------------|------------|-----------|--------------|----------------------|
|                                                                    |                  |                      |                        | LED color  |           |              |                      |
|                                                                    |                  |                      |                        | Red/Yellow | Red/Green | Yellow/Green |                      |
| Two LEDs:<br>B3J-5000 Series<br>B3J-6000 Series<br>B3J-7000 Series | Silver plated    | 1.27 N {130 gf}      | Ivory                  | B3J-5000   | B3J-6000  | B3J-7000     | 300 pcs              |
|                                                                    |                  |                      | Black                  | B3J-5100   | B3J-6100  | B3J-7100     |                      |
|                                                                    |                  |                      | Orange                 | B3J-5200   | B3J-6200  | B3J-7200     |                      |
|                                                                    |                  |                      | Yellow                 | B3J-5300   | B3J-6300  | B3J-7300     |                      |
|                                                                    |                  |                      | Blue                   | B3J-5400   | B3J-6400  | B3J-7400     |                      |

## ■ Ratings/Characteristics

|                                           |                                                                                                                 |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Rating (resistive load)                   | 1 to 50 mA, 3 to 24 VDC                                                                                         |
| Minimum applicable load (reference value) | 10 $\mu$ A at 1 VDC (resistive load)                                                                            |
| Ambient operating temperature             | -25°C to +70°C at 60%RH max. (with no icing or condensation)                                                    |
| Ambient operating humidity                | 35% to 85% (at +5 to +35°C)                                                                                     |
| Contact form                              | SPST-NO                                                                                                         |
| Contact resistance (initial value)        | 100 m $\Omega$ max.                                                                                             |
| Insulation resistance                     | 100 M $\Omega$ min. (at 250 VDC with insulation tester)                                                         |
| Dielectric strength                       | 500 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 <sup>2</sup> {approx. 100G} max.<br>Malfunction: 100 m/s <sup>2</sup> {approx. 10G} max. |
| Durability                                | 3,000,000 operations min.                                                                                       |
| Weight                                    | Approx. 1.5 to 1.7 g                                                                                            |
| Degree of protection                      | IEC IP00                                                                                                        |
| Washing                                   | Not possible                                                                                                    |

## ■ Operating Characteristics

|                      |                                          |
|----------------------|------------------------------------------|
| Operating force (OF) | 1.27 $\pm$ 0.49 N {130 $\pm$ 50 gf}      |
| Releasing force (RF) | 0.29 N {30 gf} min.                      |
| Pretravel (PT)       | 0.3 <sup>+0.2</sup> / <sub>-0.1</sub> mm |

## ■ LED Specifications

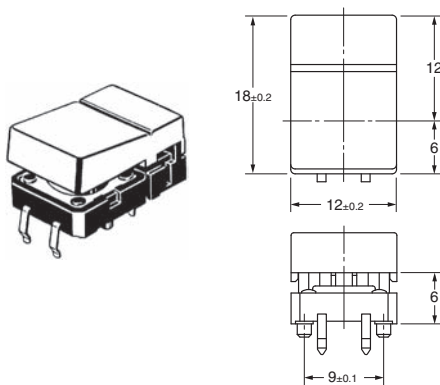
| Item               |                             | Red | Yellow | Green |
|--------------------|-----------------------------|-----|--------|-------|
| Forward voltage VF | Standard value (V)          | 2.0 | 2.0    | 2.1   |
| Forward current IF | Standard value (mA)         | 20  | 20     | 20    |
| Permissible loss P | Absolute maximum value (mW) | 84  | 84     | 84    |
| Reverse voltage VR | Absolute maximum value (V)  | 5   | 5      | 5     |

**Note:** Since the built-in LED does not contain any limiting resistors, externally connect limiting resistors within the limits shown in the above table.

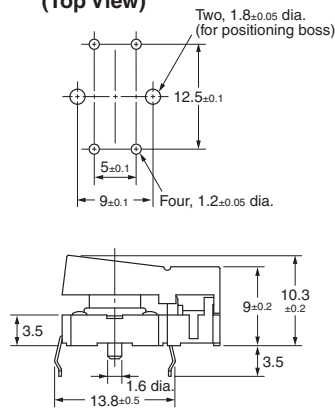
## ■ Dimensions (Unit: mm)

### Types with no LED

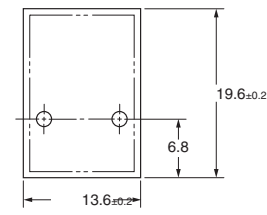
B3J-1□00



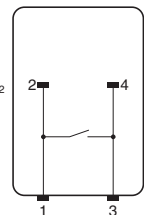
### PCB Processing Dimensions (Reference Only) (Top View)



### Panel Cutout



### Terminal Arrangement /Internal Connections (Top View)

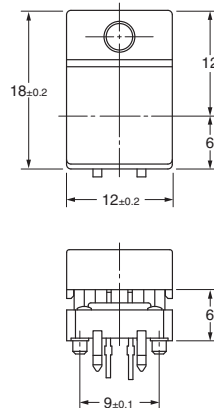
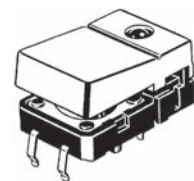


### 1 LED Types

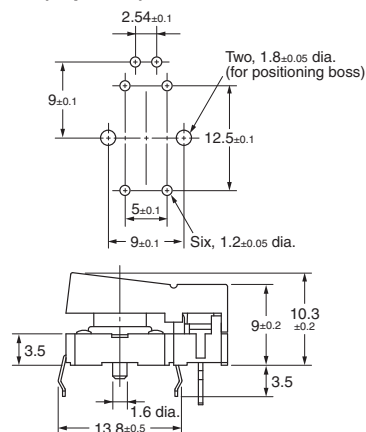
B3J-2□00

B3J-3□00

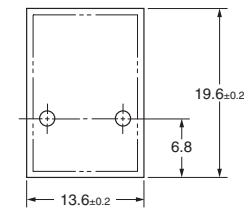
B3J-4□00



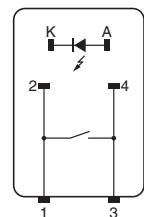
### PCB Processing Dimensions (Reference Only) (Top View)



### Panel Cutout



### Terminal Arrangement /Internal Connections (Top View)

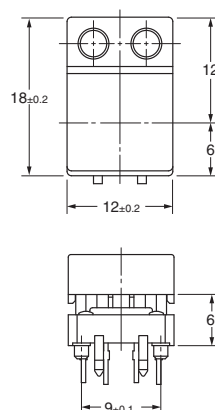
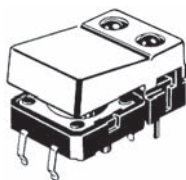


### 2 LED Types

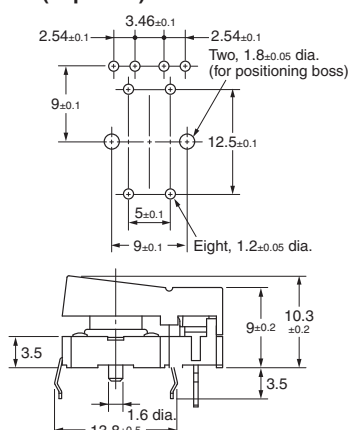
B3J-5□00

B3J-6□00

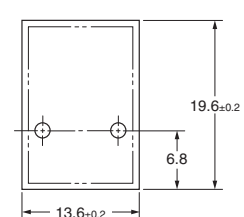
B3J-7□00



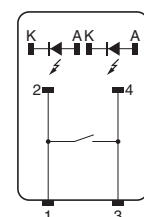
### PCB Processing Dimensions (Reference Only) (Top View)



### Panel Cutout



### Terminal Arrangement /Internal Connections (Top View)



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

## ■ Precautions

Be sure to read the safety precautions common to all Tactile Switches for correct use.

Please check each region's Terms & Conditions by region website.

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Device & Module Solutions Company

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