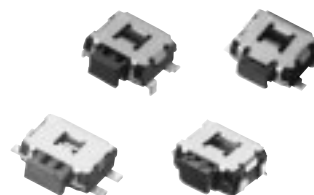


3.5 mm×2.9 mm Side-operational SMD

Light Touch Switches

Type: **EVQP7/EVQP3/EVQ9P7**



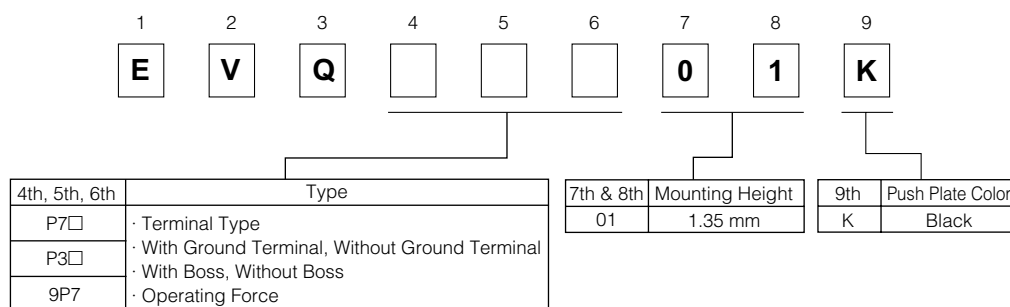
### ■ Features

- External dimensions : 3.5 mm×2.9 mm, Height 1.35 mm
- A wide range of terminal type : L-shape, J-bent, Straight
- High mount ability
- Push plate strength enhanced type

### ■ Recommended Applications

- Car navigation, Car audio

### ■ Explanation of Part Numbers



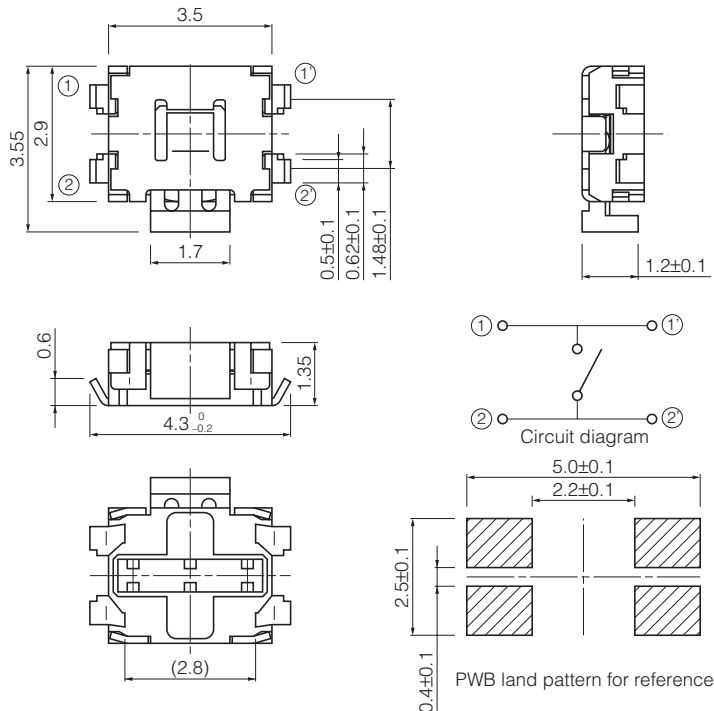
### ■ Specifications

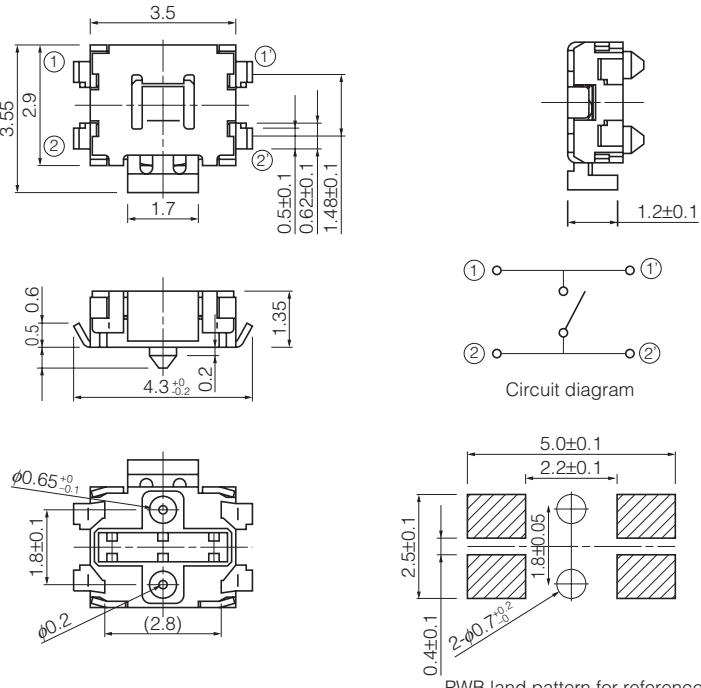
| Type                          |                                 | Snap action / Push-on type SPST                   |
|-------------------------------|---------------------------------|---------------------------------------------------|
| Electrical                    | Rating                          | 10 $\mu$ A 2 Vdc to 50 mA 12 Vdc (Resistive load) |
|                               | Contact Resistance              | 500 m $\Omega$ max.                               |
|                               | Insulation Resistance           | 100 M $\Omega$ min. (at 100 Vdc)                  |
|                               | Dielectric Withstanding Voltage | 250 Vac (1 minute)                                |
|                               | Bouncing                        | 10 ms max. (ON, OFF)                              |
| Mechanical                    | Operating Force                 | 1.6 N, 2.2 N                                      |
|                               | Push Travel                     | 0.2 mm                                            |
|                               | Push Strength                   | 30 N (1 minute)                                   |
| Endurance                     | Operating Life                  | 100000 cycles min.                                |
| Operating Temperature         |                                 | -20 °C to +70 °C                                  |
| Storage Temperature           |                                 | -40 °C to +85 °C (Bulk)                           |
|                               |                                 | -20 °C to +60 °C (Taping)                         |
| Minimum Quantity/Packing Unit |                                 | 5000 pcs. Embossed Taping (Reel Pack)             |
| Quantity/Carton               |                                 | 25000 pcs.                                        |

### ■ Dimensions in mm (not to scale)

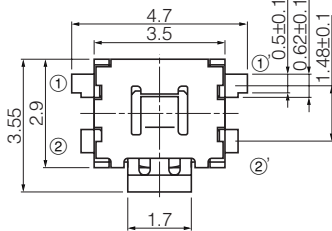
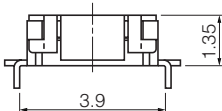
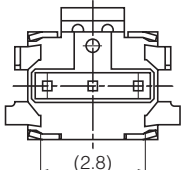
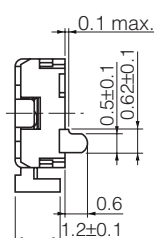
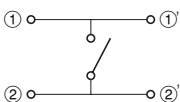
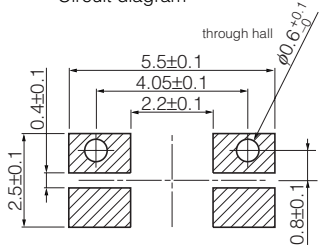
|                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="183 219 247 246" data-label="Text">No. 1</div> <div data-bbox="151 280 252 331" data-label="Text">EVQP7A<br/>EVQP7J</div> <div data-bbox="151 358 322 383" data-label="Text">(Embossed Taping)</div> <div data-bbox="151 403 400 459" data-label="Text">With straight terminals<br/>Without boss</div> <div data-bbox="220 674 336 763" data-label="Image"> </div> | <div data-bbox="608 248 1270 943" data-label="Figure"> </div> <div data-bbox="1018 539 1222 680" data-label="Diagram"> <p>Circuit diagram</p> </div> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|

### ■ Dimensions in mm (not to scale)

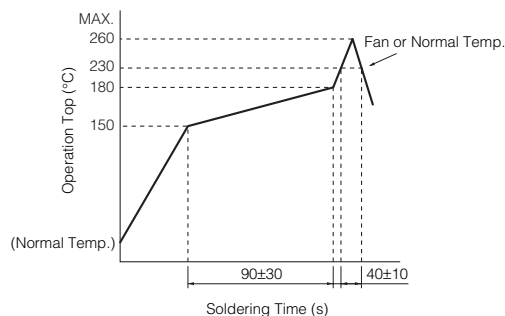
|                                                                                                                                                                                                                                  |  |                                                                                               |         |                  |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------|---------|------------------|----------------|
| <div>No. 3</div> <div>EVQP7B<br/>EVQP7K</div> <div>(Embossed Taping)</div> <div>With J-bent terminals</div> <div>Without boss</div> <div></div> |  | <div></div> |         |                  |                |
| Part Numbers                                                                                                                                                                                                                     |  | Operating Force                                                                               | Height  | Push Plate Color | Operating Life |
| EVQP7B01K                                                                                                                                                                                                                        |  | 2.2 N                                                                                         | 1.35 mm | Black            | 100000 cycles  |
| EVQP7K01K                                                                                                                                                                                                                        |  | 1.6 N                                                                                         | 1.35 mm | Black            | 100000 cycles  |

|                                                                                                                                                                                                                                 |  |                                                                                                 |         |                  |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------|---------|------------------|----------------|
| <div>No. 4</div> <div>EVQP7D<br/>EVQP7M</div> <div>(Embossed Taping)</div> <div>With J-bent terminals</div> <div>With boss</div> <div></div> |  | <div></div> |         |                  |                |
| Part Numbers                                                                                                                                                                                                                    |  | Operating Force                                                                                 | Height  | Push Plate Color | Operating Life |
| EVQP7D01K                                                                                                                                                                                                                       |  | 2.2 N                                                                                           | 1.35 mm | Black            | 100000 cycles  |
| EVQP7M01K                                                                                                                                                                                                                       |  | 1.6 N                                                                                           | 1.35 mm | Black            | 100000 cycles  |

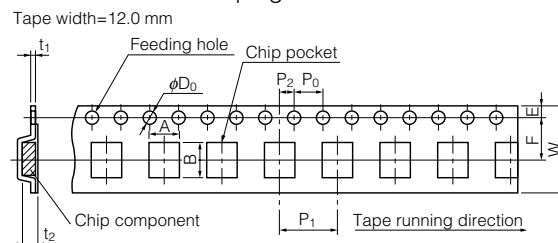
## ■ Dimensions in mm (not to scale)

|                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                   |                  |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| <div>No. 5</div> <div>EVQP3<br/>EVQ9P</div> <div>(Embossed Taping)</div> <div>With L-shape terminals<br/>Without boss</div> <div></div> | <div></div> <div></div> <div></div> | <div></div> <div><div><p>Circuit diagram</p></div><div><p>PWB land pattern for reference</p></div></div> |                  |                |
| Part Numbers                                                                                                                                                                                                             | Operating Force                                                                                                                                                                                                                                                                        | Height                                                                                                                                                                                                                                                                                                                                                            | Push Plate Color | Operating Life |
| EVQP3401K                                                                                                                                                                                                                | 2.2 N                                                                                                                                                                                                                                                                                  | 1.35 mm                                                                                                                                                                                                                                                                                                                                                           | Black            | 100000 cycles  |
| EVQ9P701K                                                                                                                                                                                                                | 1.6 N                                                                                                                                                                                                                                                                                  | 1.35 mm                                                                                                                                                                                                                                                                                                                                                           | Black            | 100000 cycles  |

## ■ Recommended Reflow Soldering Conditions



## ● Embossed Carrier Taping



## ● Straight terminals, L-shape terminals type

Unit: mm

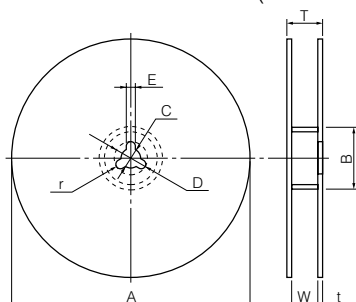
| Part No.               | Height | A       | B       | W        | F       | E         | P <sub>1</sub> | P <sub>2</sub> | P <sub>0</sub> | D <sub>0</sub> Dia.               | t <sub>1</sub> | t <sub>2</sub> |
|------------------------|--------|---------|---------|----------|---------|-----------|----------------|----------------|----------------|-----------------------------------|----------------|----------------|
| EVQP7, EVQP3<br>EVQ9P7 | 1.35   | 5.2±0.2 | 4.5±0.2 | 12.0±0.3 | 5.5±0.1 | 1.75±0.10 | 8.0±0.1        | 2.0±0.1        | 4.0±0.1        | 1.5 <sup>+0.1</sup> <sub>-0</sub> | 0.3±0.1        | 1.5±0.2        |

## ● J-bent type

Unit: mm

| Part No.     | Height | A       | B       | W        | F       | E         | P <sub>1</sub> | P <sub>2</sub> | P <sub>0</sub> | D <sub>0</sub> Dia.               | t <sub>1</sub> | t <sub>2</sub> |
|--------------|--------|---------|---------|----------|---------|-----------|----------------|----------------|----------------|-----------------------------------|----------------|----------------|
| EVQP7, EVQP3 | 1.35   | 4.5±0.2 | 4.5±0.2 | 12.0±0.3 | 5.5±0.1 | 1.75±0.10 | 8.0±0.1        | 2.0±0.1        | 4.0±0.1        | 1.5 <sup>+0.1</sup> <sub>-0</sub> | 0.3±0.1        | 1.5±0.2        |

## ● Standard Reel Dimensions in mm (not to scale)



| Item      | A          | B         | C          | D         | E       |
|-----------|------------|-----------|------------|-----------|---------|
| Rate (mm) | φ380.0±2.0 | φ80.0±1.0 | φ13.0±0.5  | φ21.0±1.0 | 2.0±0.5 |
| Item      | W          | T         | t          | r         |         |
| Rate (mm) | 13.5±1.0   | 17.5±1.0  | 1.0 to 3.0 | 1.0±0.5   |         |