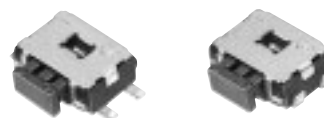


### Small-sized Side-operational SMD Light Touch Switches

Type: **EVQPU**



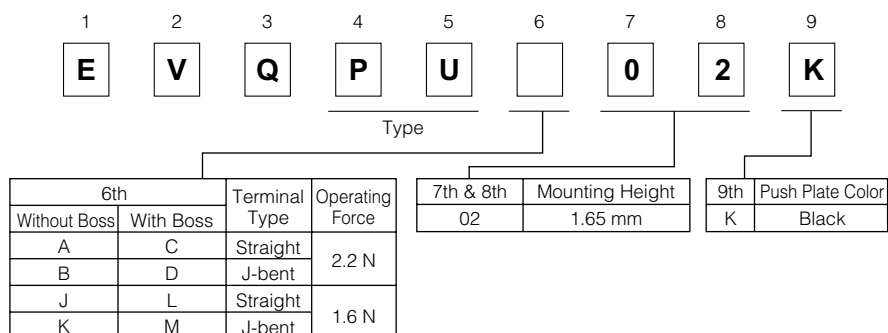
#### ■ Features

- External dimensions : 4.7 mm×3.5 mm, Height 1.65 mm
- A wide range of terminal type : J-bent, Straight

#### ■ Recommended Applications

- Car navigation, Car audio

#### ■ Explanation of Part Numbers

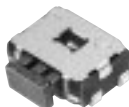
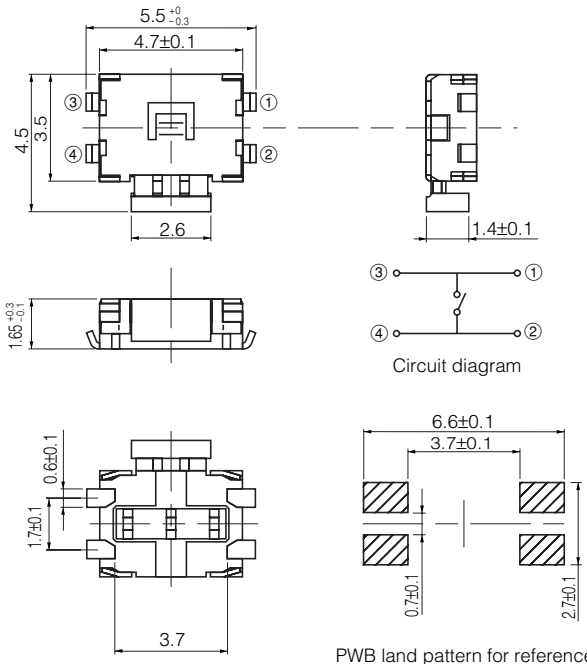
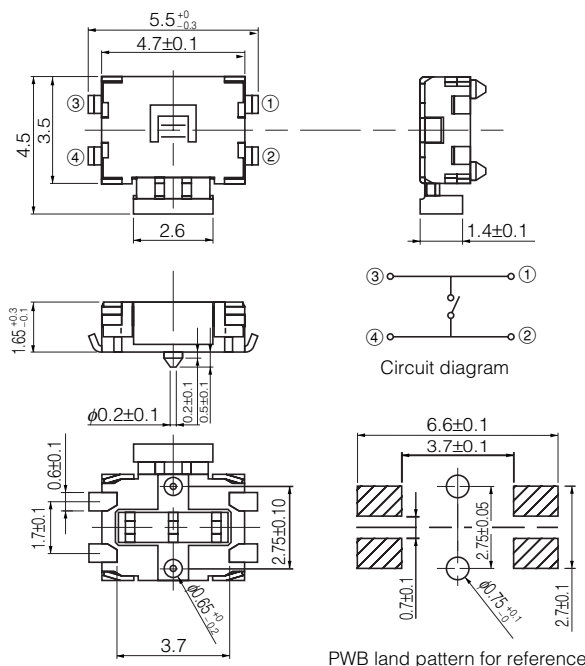


#### ■ Specifications

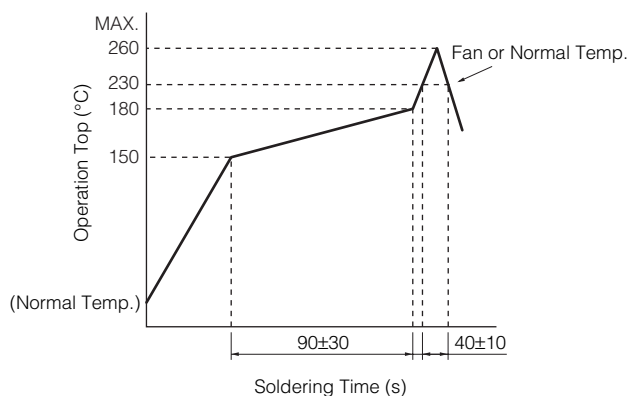
| Type                          |                                 | Snap action / Push-on type SPST                   |                                         |
|-------------------------------|---------------------------------|---------------------------------------------------|-----------------------------------------|
| 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 for 1 minute                              |                                         |
|                               | Bouncing                        | 10 ms max. (ON, OFF)                              |                                         |
| Mechanical                    | Operating Force                 | 1.6 N <sup>+0.7</sup> <sub>-0.4</sub> N           | 2.2 N <sup>+0.8</sup> <sub>-0.7</sub> N |
|                               | Travel                          | 0.3 mm <sup>+0.1</sup> <sub>-0.2</sub> 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 |                                 | 4000 pcs. Embossed Taping (Reel Pack)             |                                         |
| Quantity/Cartron              |                                 | 20000 pcs.                                        |                                         |

|                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="142 226 293 253" data-label="Section-Header"> <p>No. 1</p> </div> <div data-bbox="142 271 260 336" data-label="Text"> <p>EVQPUJ<br/>EVQPUA</p> </div> <div data-bbox="142 344 442 454" data-label="Text"> <p>(Embossed Taping)<br/>With straight terminals<br/>Without boss</p> </div> <div data-bbox="213 638 359 768" data-label="Image"> </div>      | <div data-bbox="622 244 1200 916" data-label="Diagram"> <p>Technical drawings for EVQPUJ and EVQPUA components. The top view shows a square package with dimensions: overall width 6.4±0.3, inner width 4.7±0.1, height 4.5, and terminal width 2.6. The side view shows a height of 1.65±0.30. The cross-section shows a height of 1.4±0.1. The circuit diagram shows a switch with terminals ①, ②, ③, and ④. The PWB land pattern shows a square pad with dimensions: overall width 6.8±0.1, inner width 3.7±0.1, and terminal width 2.7±0.1.</p> </div>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <div data-bbox="207 1016 371 1043" data-label="Text"> <p>Part Numbers</p> </div> <div data-bbox="213 1052 365 1081" data-label="Text"> <p>EVQPUJ02K</p> </div> <div data-bbox="213 1090 365 1117" data-label="Text"> <p>EVQPUA02K</p> </div>                                                                                                                            | <div data-bbox="470 1016 660 1043" data-label="Text"> <p>Operating Force</p> </div> <div data-bbox="529 1052 601 1081" data-label="Text"> <p>1.6 N</p> </div> <div data-bbox="529 1090 601 1117" data-label="Text"> <p>2.2 N</p> </div> <div data-bbox="772 1016 858 1043" data-label="Text"> <p>Height</p> </div> <div data-bbox="772 1052 871 1081" data-label="Text"> <p>1.65 mm</p> </div> <div data-bbox="772 1090 871 1117" data-label="Text"> <p>1.65 mm</p> </div> <div data-bbox="970 1016 1173 1043" data-label="Text"> <p>Push Plate Color</p> </div> <div data-bbox="1035 1052 1107 1081" data-label="Text"> <p>Black</p> </div> <div data-bbox="1035 1090 1107 1117" data-label="Text"> <p>Black</p> </div> <div data-bbox="1240 1016 1410 1043" data-label="Text"> <p>Operating Life</p> </div> <div data-bbox="1240 1052 1410 1081" data-label="Text"> <p>100000 cycles</p> </div> <div data-bbox="1240 1090 1410 1117" data-label="Text"> <p>100000 cycles</p> </div> |
| <div data-bbox="142 1135 293 1173" data-label="Section-Header"> <p>No. 2</p> </div> <div data-bbox="142 1191 260 1256" data-label="Text"> <p>EVQPUL<br/>EVQPUC</p> </div> <div data-bbox="142 1265 442 1375" data-label="Text"> <p>(Embossed Taping)<br/>With straight terminals<br/>With boss</p> </div> <div data-bbox="213 1559 359 1688" data-label="Image"> </div> | <div data-bbox="622 1164 1200 1836" data-label="Diagram"> <p>Technical drawings for EVQPUL and EVQPUC components. The top view shows a square package with dimensions: overall width 6.4±0.3, inner width 4.7±0.1, height 4.5, and terminal width 2.6. The side view shows a height of 1.65±0.3. The cross-section shows a height of 1.4±0.1. The circuit diagram shows a switch with terminals ①, ②, ③, and ④. The PWB land pattern shows a square pad with dimensions: overall width 6.8±0.1, inner width 3.7±0.1, and terminal width 2.7±0.1. The PWB land pattern also includes a circular pad with diameter 0.2±0.1 and a circular pad with diameter 0.65±0.05.</p> </div>                                                                                                                                                                                                                                                                                                       |
| <div data-bbox="207 1937 371 1964" data-label="Text"> <p>Part Numbers</p> </div> <div data-bbox="213 1973 365 2002" data-label="Text"> <p>EVQPUL02K</p> </div> <div data-bbox="213 2011 365 2038" data-label="Text"> <p>EVQPUC02K</p> </div>                                                                                                                            | <div data-bbox="470 1937 660 1964" data-label="Text"> <p>Operating Force</p> </div> <div data-bbox="529 1973 601 2002" data-label="Text"> <p>1.6 N</p> </div> <div data-bbox="529 2011 601 2038" data-label="Text"> <p>2.2 N</p> </div> <div data-bbox="772 1937 858 1964" data-label="Text"> <p>Height</p> </div> <div data-bbox="772 1973 871 2002" data-label="Text"> <p>1.65 mm</p> </div> <div data-bbox="772 2011 871 2038" data-label="Text"> <p>1.65 mm</p> </div> <div data-bbox="970 1937 1173 1964" data-label="Text"> <p>Push Plate Color</p> </div> <div data-bbox="1035 1973 1107 2002" data-label="Text"> <p>Black</p> </div> <div data-bbox="1035 2011 1107 2038" data-label="Text"> <p>Black</p> </div> <div data-bbox="1240 1937 1410 1964" data-label="Text"> <p>Operating Life</p> </div> <div data-bbox="1240 1973 1410 2002" data-label="Text"> <p>100000 cycles</p> </div> <div data-bbox="1240 2011 1410 2038" data-label="Text"> <p>100000 cycles</p> </div> |

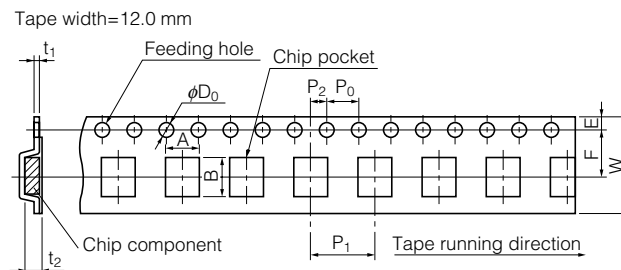
### ■ Dimensions in mm (not to scale)

|                                                                                                                                                                                                                           |                 |                                                                                                                                           |                  |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| <div>No. 3</div> <div>EVQPUK<br/>EVQPUB</div> <div>(Embossed Taping)</div> <div>With J-bent terminals<br/>Without boss</div> <div></div> |                 | <div></div> <div>PWB land pattern for reference</div>   |                  |                |
| Part Numbers                                                                                                                                                                                                              | Operating Force | Height                                                                                                                                    | Push Plate Color | Operating Life |
| EVQPUK02K                                                                                                                                                                                                                 | 1.6 N           | 1.65 mm                                                                                                                                   | Black            | 100000 cycles  |
| EVQPUB02K                                                                                                                                                                                                                 | 2.2 N           | 1.65 mm                                                                                                                                   | Black            | 100000 cycles  |
| <div>No. 4</div> <div>EVQPUM<br/>EVQPUD</div> <div>(Embossed Taping)</div> <div>With J-bent terminals<br/>With boss</div> <div></div>  |                 | <div></div> <div>PWB land pattern for reference</div> |                  |                |
| Part Numbers                                                                                                                                                                                                              | Operating Force | Height                                                                                                                                    | Push Plate Color | Operating Life |
| EVQPUM02K                                                                                                                                                                                                                 | 1.6 N           | 1.65 mm                                                                                                                                   | Black            | 100000 cycles  |
| EVQPUD02K                                                                                                                                                                                                                 | 2.2 N           | 1.65 mm                                                                                                                                   | Black            | 100000 cycles  |

### ■ Recommended Reflow Soldering Conditions



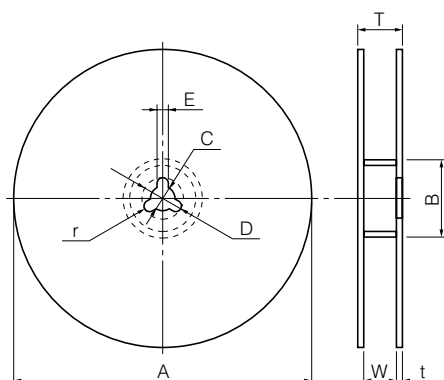
### ● Embossed Carrier Taping



Unit: mm

| Part No. | Height | A             | B               | W              | F               | E               | $P_1$         | $P_2$         | $P_0$         | $D_0$ Dia.        | $t_1$           | $t_2$         |
|----------|--------|---------------|-----------------|----------------|-----------------|-----------------|---------------|---------------|---------------|-------------------|-----------------|---------------|
| EVQPU    | 1.65   | $7.0 \pm 0.2$ | $5.75 \pm 0.20$ | $12.0 \pm 0.3$ | $5.78 \pm 0.20$ | $1.75 \pm 0.10$ | $8.0 \pm 0.1$ | $2.0 \pm 0.1$ | $4.0 \pm 0.1$ | $1.5^{+0.1}_{-0}$ | $0.35 \pm 0.05$ | $2.4 \pm 0.2$ |

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



| Item      | A                    | B                | C                   | D                   | E             |
|-----------|----------------------|------------------|---------------------|---------------------|---------------|
| Rate (mm) | $\phi 370.0 \pm 2.0$ | $\phi 50.0$ min. | $\phi 13.0 \pm 0.5$ | $\phi 21.0 \pm 1.0$ | $2.0 \pm 0.5$ |

| Item      | W              | T | t          | r             |
|-----------|----------------|---|------------|---------------|
| Rate (mm) | $14.0 \pm 1.5$ | — | 1.0 to 3.0 | $1.0 \pm 0.5$ |