

### 6 mm Square Long Travel SMD Light Touch Switches

Type: **EVQP0/EVQP1/EVQ9P**



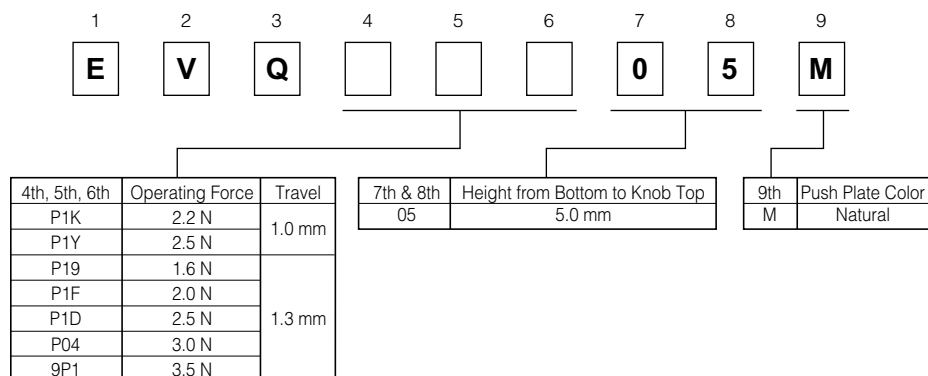
#### ■ Features

- External dimensions : 6.0 mm×6.1 mm, Height 5.0 mm  
(Including the push plate)
- Steady and low contact resistance (100 mΩ max.)
- Excellent solderability (J-bent-type terminals)

#### ■ Recommended Applications

- Car electronics equipment

#### ■ Explanation of Part Numbers



#### ■ Specifications

|                               |                                 |                                                                                              |                            |
|-------------------------------|---------------------------------|----------------------------------------------------------------------------------------------|----------------------------|
| Type                          |                                 | Snap action/Push-on type SPST                                                                |                            |
| Electrical                    | Rating                          | 10 μA 2 Vdc to 50 mA 12 Vdc (Resistive load)                                                 |                            |
|                               | Contact Resistance              | 100 mΩ max.                                                                                  |                            |
|                               | Insulation Resistance           | 100 MΩ min. (at 100 Vdc)                                                                     |                            |
|                               | Dielectric Withstanding Voltage | 250 Vac for 1 minute                                                                         |                            |
|                               | Bouncing                        | 10 ms max. (ON, OFF)                                                                         |                            |
| Mechanical                    | Operating Force                 | 1.6 N±0.5 N, 2.0 N±0.6 N<br>2.5 N±0.6 N<br>3.0 N±0.8 N<br>3.5 N±1.0 N                        | 2.2 N±0.6 N<br>2.5 N±0.6 N |
|                               | Travel                          | 1.3 mm±0.2 mm                                                                                | 1.0 mm±0.2 mm              |
| Endurance                     | Operating Life                  | 3.5 N type: 30000 cycles min.<br>1.6 N, 2.0 N, 2.2 N, 2.5 N, 3.0 N types: 100000 cycles min. |                            |
| Operating Temperature         |                                 | -40 °C to +85 °C                                                                             |                            |
| Storage Temperature           |                                 | -40 °C to +85 °C (Bulk)<br>-20 °C to +60 °C (Taping)                                         |                            |
| Minimum Quantity/Packing Unit |                                 | 2000 pcs. Embossed Taping (Reel Pack)                                                        |                            |
| Quantity/Carton               |                                 | 10000 pcs.                                                                                   |                            |

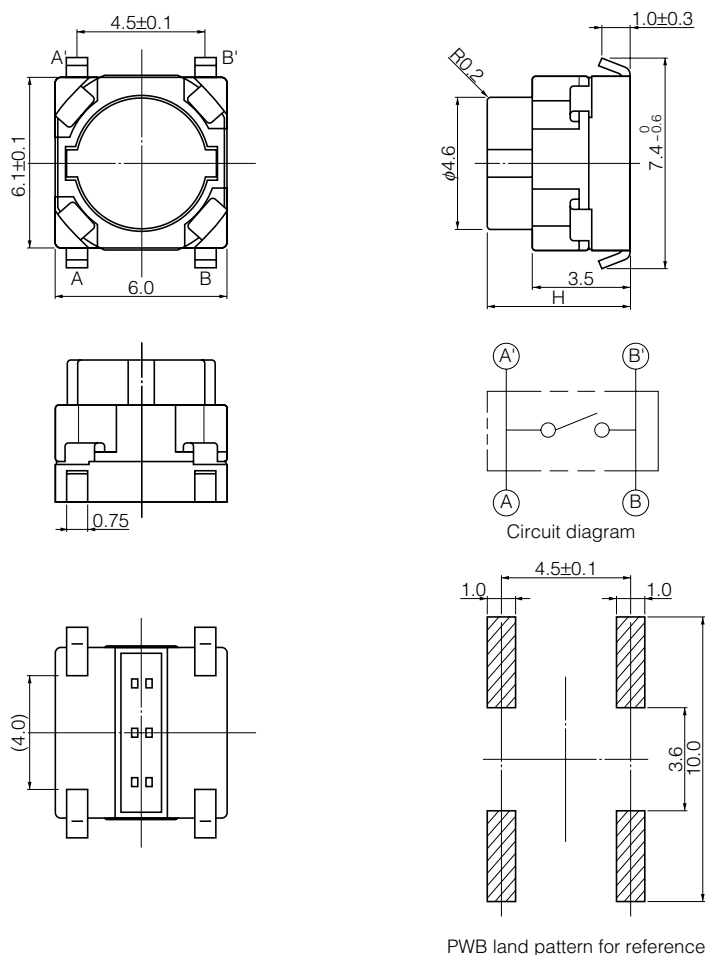
### ■ Dimensions in mm (not to scale)

EVQP0

EVQP1

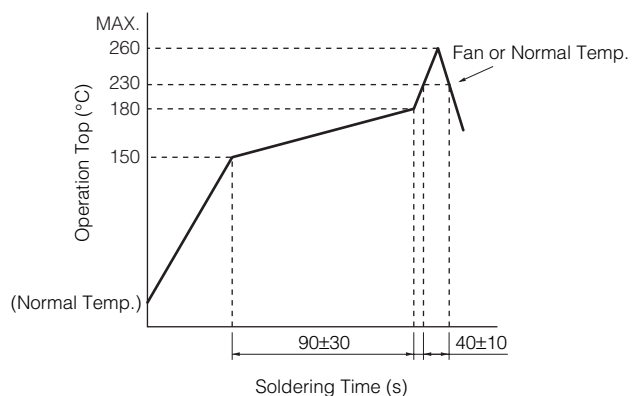
EVQ9P

(Embossed Taping)

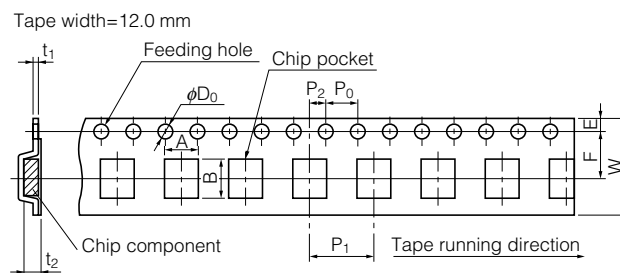


| Part Numbers | Operating Force | Travel | H=Height | Push Plate Color | Operating Life |
|--------------|-----------------|--------|----------|------------------|----------------|
| EVQP1K05M    | 2.2 N           | 1.0 mm | 5.0 mm   | Natural          | 100000 cycles  |
| EVQP1Y05M    | 2.5 N           | 1.0 mm | 5.0 mm   | Natural          | 100000 cycles  |
| EVQP1905M    | 1.6 N           | 1.3 mm | 5.0 mm   | Natural          | 100000 cycles  |
| EVQP1F05M    | 2.0 N           | 1.3 mm | 5.0 mm   | Natural          | 100000 cycles  |
| EVQP1D05M    | 2.5 N           | 1.3 mm | 5.0 mm   | Natural          | 100000 cycles  |
| EVQP0405M    | 3.0 N           | 1.3 mm | 5.0 mm   | Natural          | 100000 cycles  |
| EVQ9P105M    | 3.5 N           | 1.3 mm | 5.0 mm   | Natural          | 30000 cycles   |

### ■ Recommended Reflow Soldering Conditions



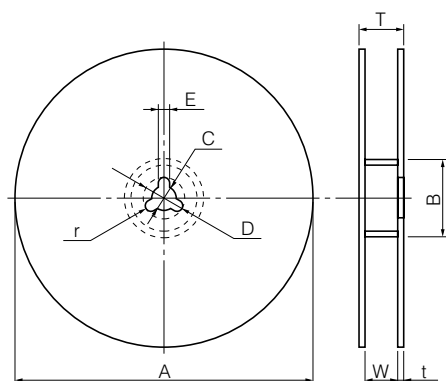
### ● Embossed Carrier Taping



Unit: mm

| Part No.                | Height | A             | B             | W              | F             | E               | $P_1$         | $P_2$         | $P_0$         | $D_0$ Dia.        | $t_1$         | $t_2$           |
|-------------------------|--------|---------------|---------------|----------------|---------------|-----------------|---------------|---------------|---------------|-------------------|---------------|-----------------|
| EVQP0<br>EVQP1<br>EVQ9P | 5.0    | $6.4 \pm 0.2$ | $7.9 \pm 0.2$ | $12.0 \pm 0.3$ | $5.5 \pm 0.1$ | $1.75 \pm 0.10$ | $8.0 \pm 0.1$ | $2.0 \pm 0.1$ | $4.0 \pm 0.1$ | $1.5^{+0.1}_{-0}$ | $0.4 \pm 0.1$ | $5.25 \pm 0.20$ |

### ● 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 | $1.0 \pm 0.5$ |