

## 6 mm Square Long Travel SMD Light Touch Switches

Type: **EVQP1/EVQ9P**



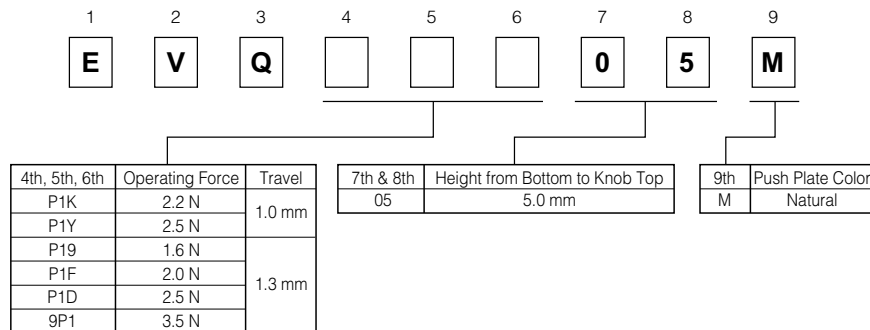
### ■ Features

- 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

- Operating switches for car electronic equipment.
- Input on operating switches for telephones, electronic musical instruments, etc.

### ■ 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>3.5 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 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.  |                            |

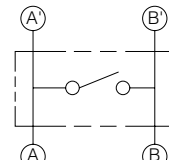
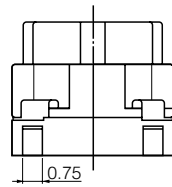
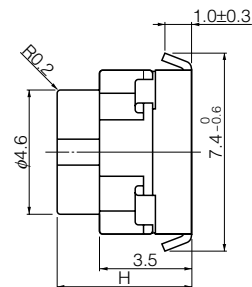
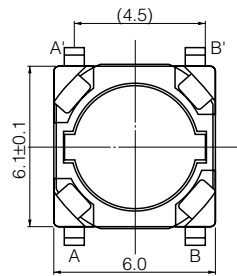
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Dimensions in mm (not to scale)

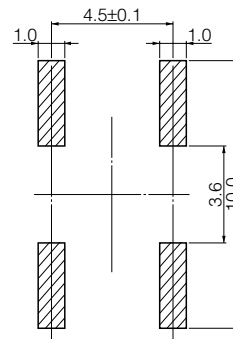
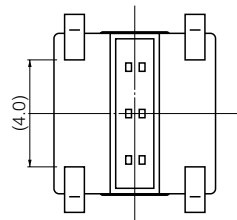
EVQP1

EVQ9P

(Embossed Taping)



Circuit diagram



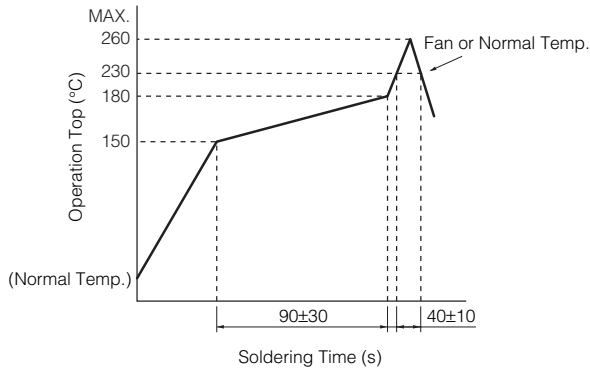
PWB land pattern for reference

| 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  |
| EVQ9P105M    | 3.5 N           | 1.3 mm | 5.0 mm   | Natural          | 30000 cycles   |

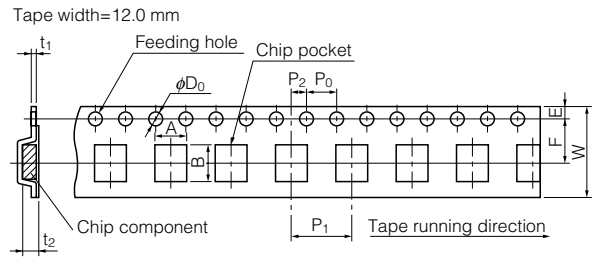
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Apr. 2008

### Recommended Reflow Soldering Conditions



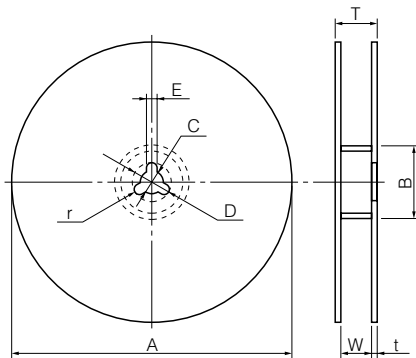
### Embossed Carrier Taping



Unit: mm

| Part No.       | Height | A       | B       | W        | F       | E         | $P_1$   | $P_2$   | $P_0$   | $D_0$ Dia.                        | $t_1$   | $t_2$     |
|----------------|--------|---------|---------|----------|---------|-----------|---------|---------|---------|-----------------------------------|---------|-----------|
| EVQP1<br>EVQ9P | 5.0    | 6.4±0.2 | 7.9±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> | 0.5±0.1 | 5.25±0.20 |

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



| Item      | A          | B          | C         | D         | E       |
|-----------|------------|------------|-----------|-----------|---------|
| Rate (mm) | φ370.0±2.0 | φ50.0 min. | φ13.0±0.5 | φ21.0±1.0 | 2.0±0.5 |

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