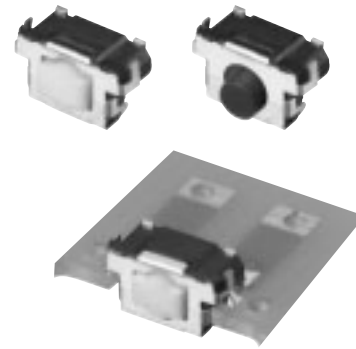


6.2 mm×2.5 mm Side-operational Edge Mount

Light Touch Switches

Type: **EVQP4**



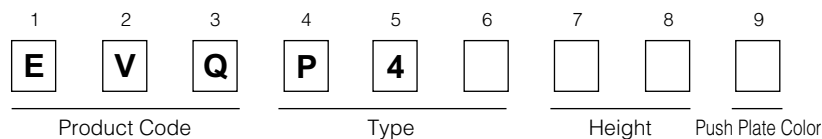
■ Features

- External dimensions : 6.2 mm×2.55 mm (Excluding the push plate), Height 3.5 mm (EVQP4 Type : Printed circuit board being as low as 1.35 mm)
- Side-operational middle stroke type (0.7 mm) with a high operating force (5.0 N)
- Improved soldering strength in the operating direction when mounted on PC board edge

■ Recommended Applications

- Keyless entry (car electronics)
- Car audio equipment


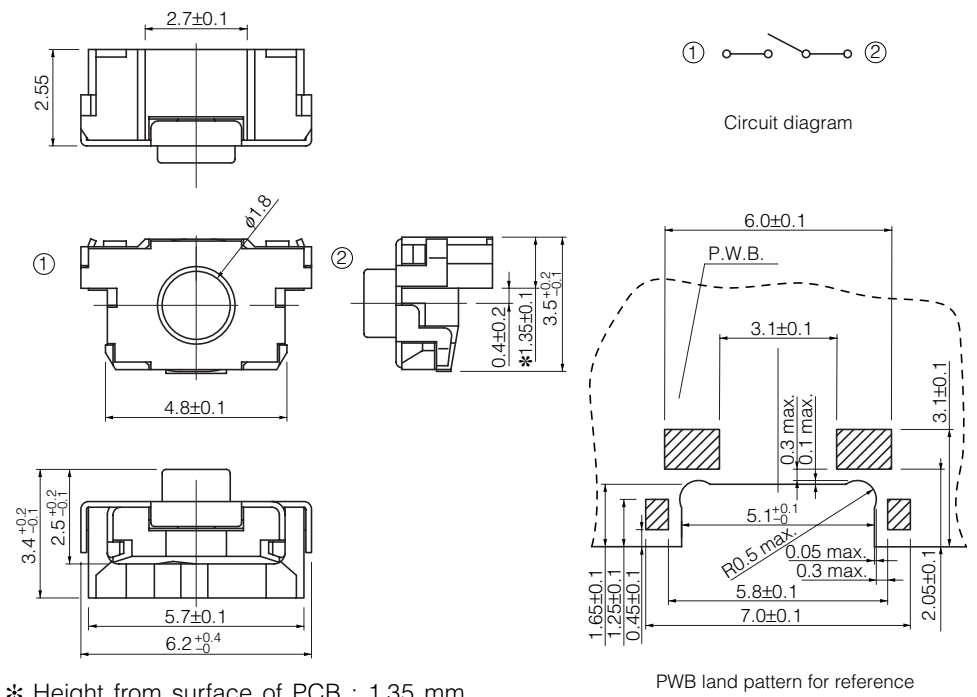

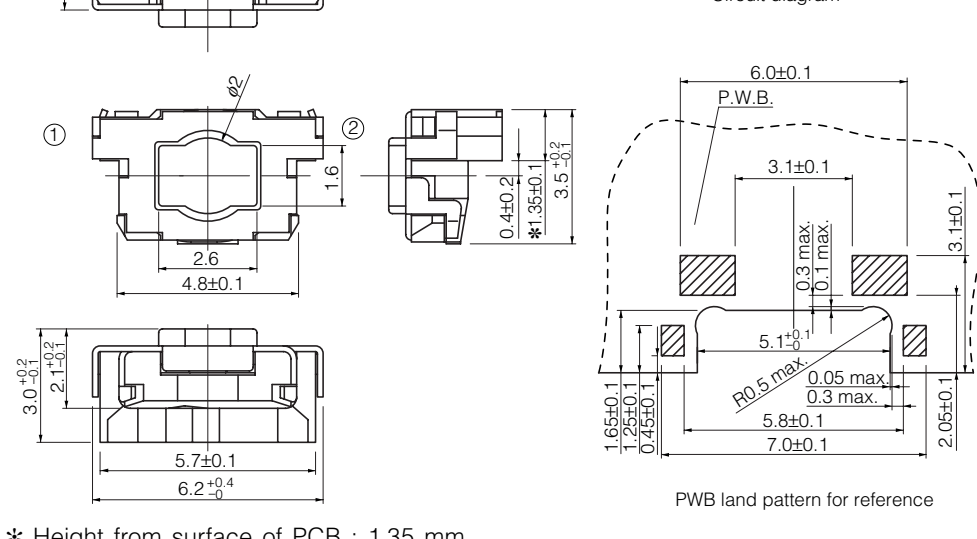
■ Explanation of Part Numbers



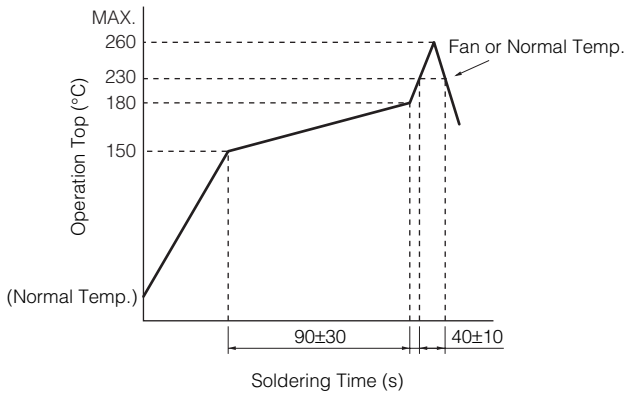
■ Specifications

| Travel Type | | Middle Push Travel | Short Push Travel |
|-------------------------------|---------------------------------|--|-----------------------------------|
| Type | | Snap action / Push-on type SPST | |
| Electrical | Rating | 10 μ A 2 Vdc to 20 mA 15 Vdc (Resistive load) | |
| | Contact Resistance | 100 m Ω max. | |
| | Insulation Resistance | 100 M Ω min. (at 100 Vdc) | |
| | Dielectric Withstanding Voltage | 250 Vac (1 minute) | |
| | Bouncing | 10 ms max. (ON, OFF) | |
| Mechanical | Operating Force | 2.5 N, 3.5 N, 5.0 N | 1.0 N, 1.6 N, 2.4 N, 3.5 N |
| | Travel | 0.70 mm \pm 0.2 mm | 0.25 mm $^{+0.05}_{-0.15}$ mm |
| | Push Strength | 50 N (1 minute) | |
| Endurance | Operating Life | 2.5 N: 1000000 cycles min. | 1.0 N, 1.6 N: 1000000 cycles min. |
| | | 3.5 N: 500000 cycles min. | 2.4 N: 500000 cycles min. |
| | | 5.0 N: 200000 cycles min. | 3.5 N: 200000 cycles min. |
| | | | |
| Operating Temperature | | -40 °C to +85 °C | |
| Storage Temperature | | -40 °C to +85 °C (Bulk) -20 °C to +60 °C (Taping) | |
| Minimum Quantity/Packing Unit | | 2500 pcs. Embossed Taping (Reel Pack) | |
| Quantity/Carton | | 12500 pcs. | |

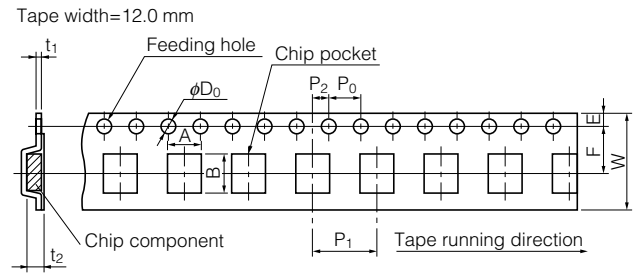
■ Dimensions in mm (not to scale)

| | | | | |
|--|--|---------------|-------------------------|-----------------------|
| <p>No. 1</p> <p>EVQP4</p> <p>Middle push travel</p>  |  <p>* Height from surface of PCB : 1.35 mm</p> | | | |
| <p>Part Numbers</p> | <p>Operating Force</p> | <p>Height</p> | <p>Push Plate Color</p> | <p>Operating Life</p> |
| <p>EVQP4HB3B</p> | <p>2.5 N</p> | <p>3.5 mm</p> | <p>Blue</p> | <p>1000000 cycles</p> |
| <p>EVQP4KB3Q</p> | <p>3.5 N</p> | <p>3.5 mm</p> | <p>Grey</p> | <p>500000 cycles</p> |
| <p>EVQP4MB3K</p> | <p>5.0 N</p> | <p>3.5 mm</p> | <p>Black</p> | <p>200000 cycles</p> |
| <p>No. 2</p> <p>EVQP4</p> <p>Short push travel</p>  |  <p>* Height from surface of PCB : 1.35 mm</p> | | | |
| <p>Part Numbers</p> | <p>Operating Force</p> | <p>Height</p> | <p>Push Plate Color</p> | <p>Operating Life</p> |
| <p>EVQP40B3M</p> | <p>1.0 N</p> | <p>3.5 mm</p> | <p>Natural</p> | <p>1000000 cycles</p> |
| <p>EVQP42B3M</p> | <p>1.6 N</p> | <p>3.5 mm</p> | <p>Natural</p> | <p>1000000 cycles</p> |
| <p>EVQP44B3M</p> | <p>2.4 N</p> | <p>3.5 mm</p> | <p>Natural</p> | <p>500000 cycles</p> |
| <p>EVQP46B3M</p> | <p>3.5 N</p> | <p>3.5 mm</p> | <p>Natural</p> | <p>200000 cycles</p> |

■ Recommended Reflow Soldering Conditions



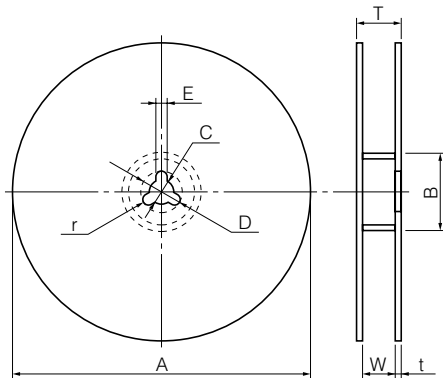
● Embossed Carrier Taping



Unit: mm

| Part No. | Height | A | B | W | F | E | P_1 | P_2 | P_0 | D_0 Dia. | t_1 | t_2 |
|----------|--------|---------|---------|----------|---------|-----------|---------|---------|---------|-----------------------------------|---------|-----------|
| EVQP4 | 3.5 | 6.5±0.2 | 3.9±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 ^{+0.1} ₋₀ | 0.4±0.1 | 3.75±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±0.5 |

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