

### 3.5 mm×2.9 mm Side-operational SMD Light Touch Switches

Type: **EVQP7/EVQP3/EVQ9P7**



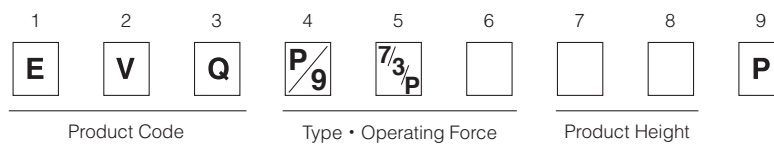
#### ■ Features

- 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

- Operation switches for portable electronic equipment (Mobile phones, Digital still cameras, Camcorders, Portable audio players, etc.)

#### ■ Explanation of Part Numbers


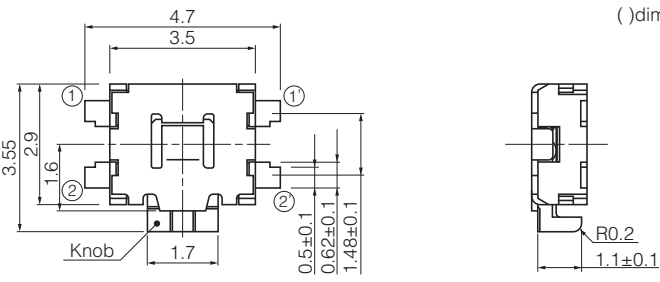
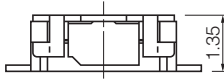
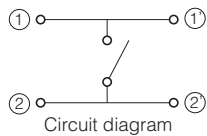
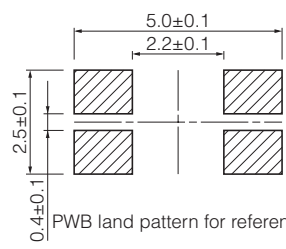

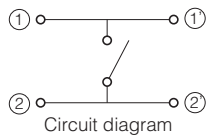
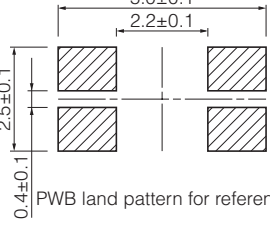
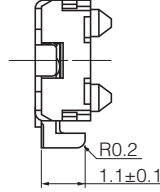
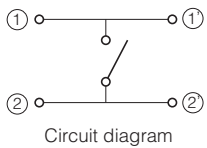


#### ■ Specifications

Type		Snap action / Push-on type SPST
Electrical	Rating	10 μA 2 V DC to 50 mA 12 V DC (Resistive load)
	Contact Resistance	500 mΩ max.
	Insulation Resistance	100 MΩ min. (at 100 V DC)
	Dielectric Withstanding Voltage	250 V AC for 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	100,000 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		5,000 pcs. Embossed Taping (Reel Pack)
Quantity/Carton		25,000 pcs.


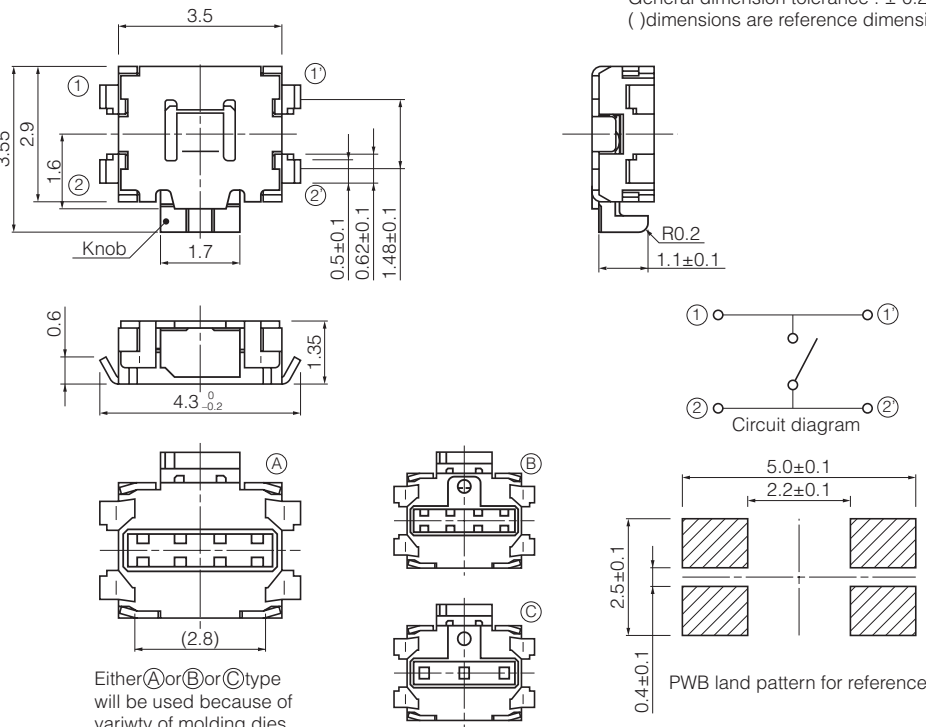

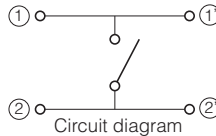
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
Should a safety concern arise regarding this product, please be sure to contact us immediately.

### ■ Dimensions in mm (not to scale)

<p>No. 1</p> <p><b>EVQP7A EVQP7J</b></p> <p>(Embossed Taping)</p> <p>With straight terminals Without boss</p> 	<p>General dimension tolerance : <math>\pm 0.2</math> ( ) dimensions are reference dimensions.</p>     <p>Either (A) or (B) or (C) type will be used because of variety of molding dies.</p> <p>PWB land pattern for reference</p>			
<p>Part Numbers</p>	<p>Operating Force</p>	<p>Height</p>	<p>Push Plate Color</p>	<p>Operating Life</p>
<p>EVQP7A01P</p>	<p>2.2 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>
<p>EVQP7J01P</p>	<p>1.6 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>
<p>No. 2</p> <p><b>EVQP7C EVQP7L</b></p> <p>(Embossed Taping)</p> <p>With straight terminals With boss</p> 	<p>General dimension tolerance : <math>\pm 0.2</math> ( ) dimensions are reference dimensions.</p>     <p>Either (A) or (B) type will be used because of variety of molding dies.</p> <p>PWB land pattern for reference</p>			
<p>Part Numbers</p>	<p>Operating Force</p>	<p>Height</p>	<p>Push Plate Color</p>	<p>Operating Life</p>
<p>EVQP7C01P</p>	<p>2.2 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>
<p>EVQP7L01P</p>	<p>1.6 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>


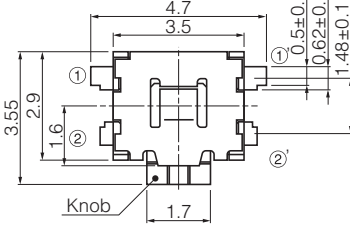
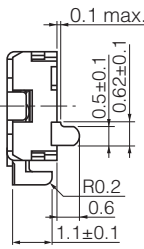

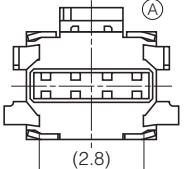
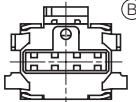
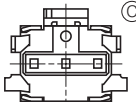
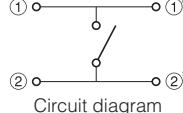
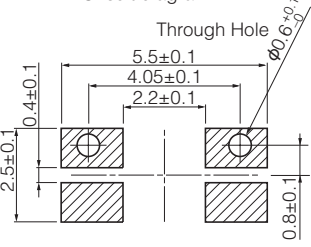
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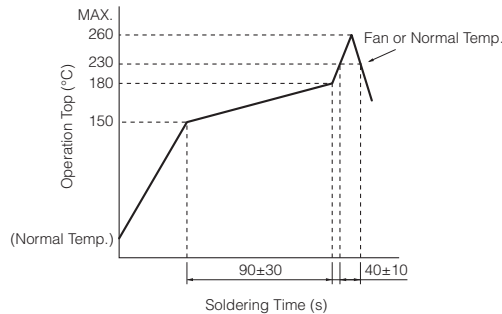
<p>No. 3</p> <p><b>EVQP7B</b> <b>EVQP7K</b></p> <p>(Embossed Taping)</p> <p>With J-bent terminals</p> <p>Without boss</p> 	<p>General dimension tolerance : <math>\pm 0.2</math> ( ) dimensions are reference dimensions.</p>  <p>Knob</p> <p>Either (A) or (B) or (C) type will be used because of variety of molding dies.</p>			
<p>Part Numbers</p>	<p>Operating Force</p>	<p>Height</p>	<p>Push Plate Color</p>	<p>Operating Life</p>
<p>EVQP7B01P</p>	<p>2.2 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>
<p>EVQP7K01P</p>	<p>1.6 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>
<p>No. 4</p> <p><b>EVQP7D</b> <b>EVQP7M</b></p> <p>(Embossed Taping)</p> <p>With J-bent terminals</p> <p>With boss</p> 	<p>General dimension tolerance : <math>\pm 0.2</math> ( ) dimensions are reference dimensions.</p>  <p>Knob</p> <p>Either (A) or (B) type will be used because of variety of molding dies.</p>			
<p>Part Numbers</p>	<p>Operating Force</p>	<p>Height</p>	<p>Push Plate Color</p>	<p>Operating Life</p>
<p>EVQP7D01P</p>	<p>2.2 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>
<p>EVQP7M01P</p>	<p>1.6 N</p>	<p>1.35 mm</p>	<p>Black</p>	<p>100,000 cycles</p>

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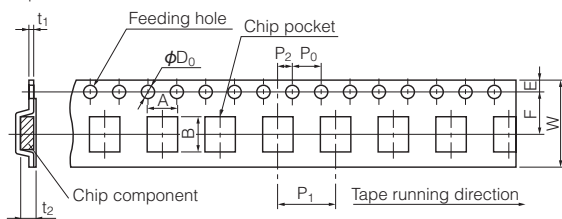
<p><b>No. 5</b></p> <p><b>EVQP3 EVQ9P</b></p> <p>(Embossed Taping)</p> <p>With L-shape terminals Without boss</p> 	      <p>Either(A)or(B)or(C)type will be used because of variety of molding dies.</p>	<p>General dimension tolerance : ± 0.2 ( ) dimensions are reference dimensions.</p>  <p>Circuit diagram</p>  <p>Through Hole PWB land pattern for reference</p>																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 25%;">Part Numbers</th> <th style="width: 25%;">Operating Force</th> <th style="width: 25%;">Height</th> <th style="width: 25%;">Push Plate Color</th> <th style="width: 25%;">Operating Life</th> </tr> <tr> <td>EVQP3401P</td> <td>2.2 N</td> <td>1.35 mm</td> <td>Black</td> <td>100,000 cycles</td> </tr> <tr> <td>EVQ9P701P</td> <td>1.6 N</td> <td>1.35 mm</td> <td>Black</td> <td>100,000 cycles</td> </tr> </table>	Part Numbers	Operating Force	Height	Push Plate Color	Operating Life	EVQP3401P	2.2 N	1.35 mm	Black	100,000 cycles	EVQ9P701P	1.6 N	1.35 mm	Black	100,000 cycles				
Part Numbers	Operating Force	Height	Push Plate Color	Operating Life															
EVQP3401P	2.2 N	1.35 mm	Black	100,000 cycles															
EVQ9P701P	1.6 N	1.35 mm	Black	100,000 cycles															

### ■ Recommended Reflow Soldering Conditions



### ● Embossed Carrier Taping

Tape width=12.0 mm



Taping condition : Lack of products in the middle of taping should be one MAX, but total quantity specified in the specifications should be secured.  
 Peeling off strength of top tape : It should be within 0.2N to 1.0N at 165 degree in peeling off angle.  
 Joint of carrier tape : One joint per one reel may exist.

### ● 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 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>-0.1</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>-0.1</sub>	0.3±0.1	1.5±0.2

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