

### Surface Mount Light Touch Switches with Knob for Reflow Soldering

Japan


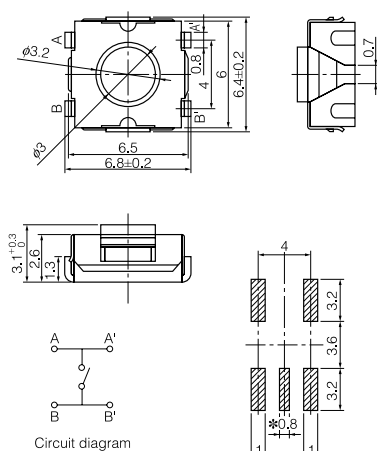


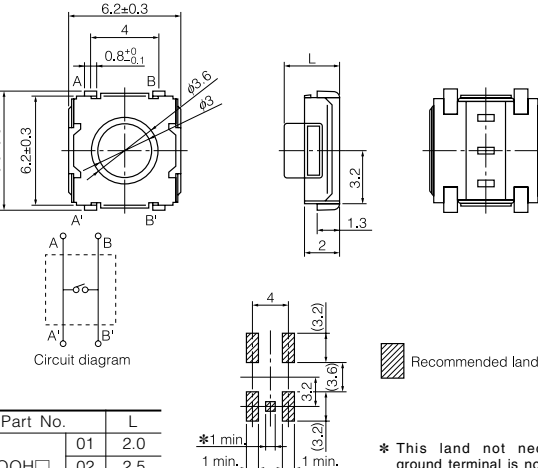

Type: **EVQPH/EVQQH/EVQQG**



#### ■ Features

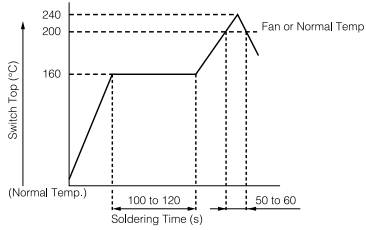
- Easy operation type with knob
- Reflow soldering applicable
- Wide product variety: With or without ground terminal, Height, Operation force

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

<p><b>No. 1</b></p> <p>Japan</p> <p>With knob</p> <p>Surface mount</p> <p>For reflow soldering</p> <p>Without ground terminal</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. Non-washable in solvents</li> <li>2. Types with ground terminal available</li> </ol> <div style="text-align: center;">  </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 30%;">Part No.</th> <th>Operating Force</th> </tr> </thead> <tbody> <tr> <td>EVQPHC, PHP</td> <td>1.3 N (130 gf)</td> </tr> <tr> <td>EVQPHF, PHV</td> <td>1.6 N (160 gf)</td> </tr> <tr> <td>EVQPHQ, PHU</td> <td>2.6 N (260 gf)</td> </tr> </tbody> </table>	Part No.	Operating Force	EVQPHC, PHP	1.3 N (130 gf)	EVQPHF, PHV	1.6 N (160 gf)	EVQPHQ, PHU	2.6 N (260 gf)	<p>Registered by EIAJ-SMD Outline Registration System</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Circuit diagram</p> <div style="text-align: right; margin-top: 10px;">  <p>Recommended land pattern</p> <p>* This land not necessary when a ground terminal is not used.</p> </div>
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### Recommended Reflow Soldering Conditions

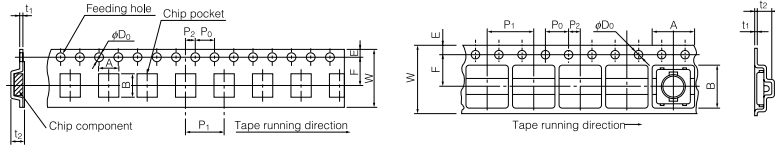
Item	Conditions
Preheat	Set the surface of PWB at 180 °C in 2.5±0.3 minutes after put into the preheat or chamber oven.
Soldering	Set the surface of switches at 240 °C in 10±0.5 seconds after put into soldering oven.



Recommended Reflow Temperature Profile

### Embossed Carrier Taping

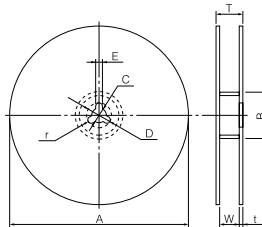
Tape width=12 mm



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>
EVQFO	0.55	7.0±0.2	7.5±0.2	12.0±0.30	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>	0.30±0.05	0.65±0.20
EVQFL	0.8/1.5											1.01/1.7±0.2
EVQFV	2.0											2.2±0.2
EVQFH	2.0											2.2±0.2
EVQHH	2.5/3.1	4.45±0.20	7.25±0.20									2.2±0.2
EVQPH	3.1											3.2±0.2
EVQPJ	4.3/5.0											4.55±0.2

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

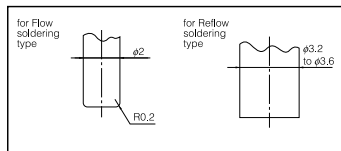


Item	A	B	C	D	E
(mm)	φ370±2	50 min.	13.0±0.5	φ21±1	2.0±0.5

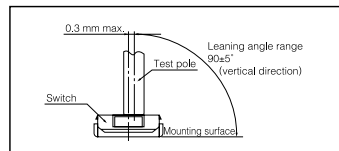
  

Item	W	T	t	r
(mm)	14.0±1.5	—	1.0 to 2.0±0.5	1.0±0.5

### Recommended Shape of Test Pole



### Recommended Operating Conditions



### Recommended Flow Soldering Conditions (Applied to EVQFV and EVQFY)

Item	Soldering Conditions	
Soldering process	K322V (by Tamura)	
	Application	Specific gravity : 0.84
	flux	Time : 2±0.5 s
		Temperature : normal temperature
		Flux method : Foam flux
		Preheat
	Soldering	Temperature : 250±5 °C
		Time : 5 s max.