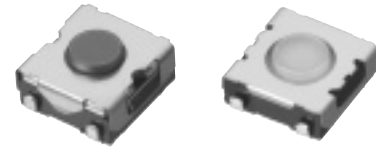


2 mm Thick SMD Light Touch Switches for Reflow Soldering (With Push Plate)

Japan

Type: **EVQPH/EVQQW**



Surface-mount type with a push plate

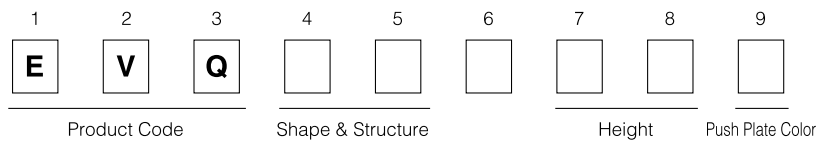
### ■ Features

- Easy operation with push plate
- Reflow soldering
- Wide product variety

### ■ Recommended Applications

- Car electronics equipment

### ■ Explanation of Part Numbers



### ■ Product Chart

Type with Push plate	Soldering	Reflow soldering				
		Without sealing film		With sealing film		
	Packageing	Taping L=2.0, 2.5, 3.1 mm		Taping L=3.1 mm		
Ground terminal	Without	With	Without	With		
Profile 	Operating Force	1.3 N	EVQQWP	EVQQWM	EVQPHP	EVQPHL
		1.6 N	EVQQWS	EVQQWN	EVQPHV	EVQPHN
		2.6 N	EVQQWT	EVQQWK	EVQPHU	EVQPHK


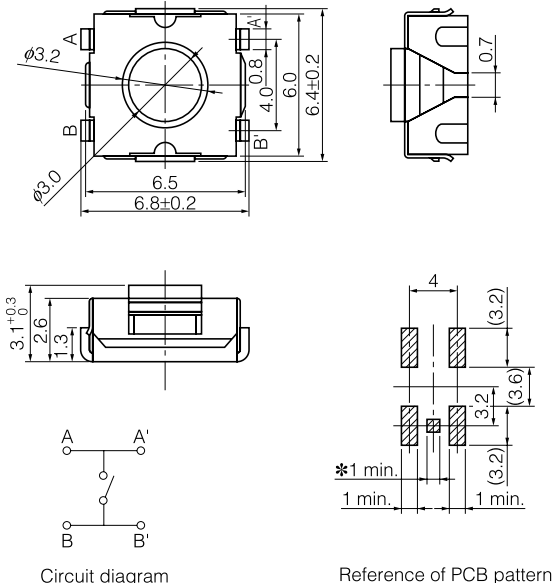
### ■ Major Specifications

Type	Snap action / Push-on type SPST	
Electrical	Rating	20 mA 15 Vdc max.
	Contact Resistance	50 mΩ max.
	Insulation Resistance	50 MΩ min. (at 100Vdc)
	Dielectric Withstanding Voltage	250 Vac for 1 minute
	Bouncing	3 ms max. (ON) 8 ms max. (OFF)
Mechanical	Operating Force	1.3 N±0.4 N 1.6 N±0.5 N
	Travel	0.25 mm±0.10 mm
Endurance	Operating Life	EVQPH: 100000 cycles min.
		EVQQW: 1000000 cycles min.
	Operating Temperature	-20 °C to +70 °C (45 % to 85 % RH)
	Storage Temperature	-40 °C to +85 °C (Bulk) -20 °C to +60 °C (Taping)
Minimum Quantity/Packing Unit	H=2.0 mm	4000 pcs. (Reel Pack)
	H=2.5 mm, 3.1 mm	2000 pcs. (Reel Pack)
Quantity/Carton	H=2.0 mm	20000 pcs.
	H=2.5 mm, 3.1 mm	10000 pcs.

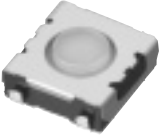
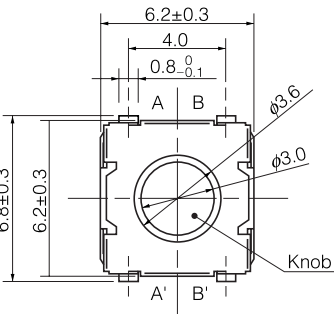
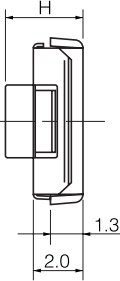
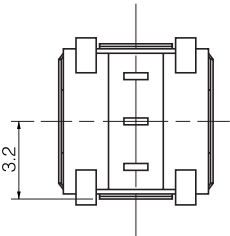
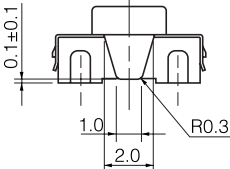
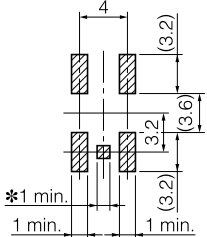
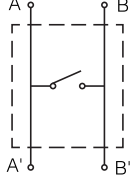
Note: Non washable

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>EVQPH</b></p> <p>(Embossed Taping)</p> <p>With push plate</p> <p>Surface mount</p> <p>For reflow soldering</p> <p>With ground terminal</p> <p>Without ground terminal</p> <p>Notes:</p> <p>1. Non-washable in solvents</p> <p>2. Types with ground terminal available</p> 	 <p style="text-align: center;">Circuit diagram</p> <p style="text-align: center;">Reference of PCB pattern</p> <p style="text-align: right;">* This land not necessary when a ground terminal is not used.</p>				
Part Numbers	Operating Force	Height	Push Plate Color	Ground Terminal	Operating Life
EVQPHP03T	1.3 N	3.1 mm	Brown	Without	100000 cycles
EVQPHV03T	1.6 N	3.1 mm	Brown	Without	100000 cycles
EVQPHU03T	2.6 N	3.1 mm	Brown	Without	50000 cycles
EVQPHL03T	1.3 N	3.1 mm	Brown	With	100000 cycles
EVQPHN03T	1.6 N	3.1 mm	Brown	With	100000 cycles
EVQPHK03T	2.6 N	3.1 mm	Brown	With	50000 cycles

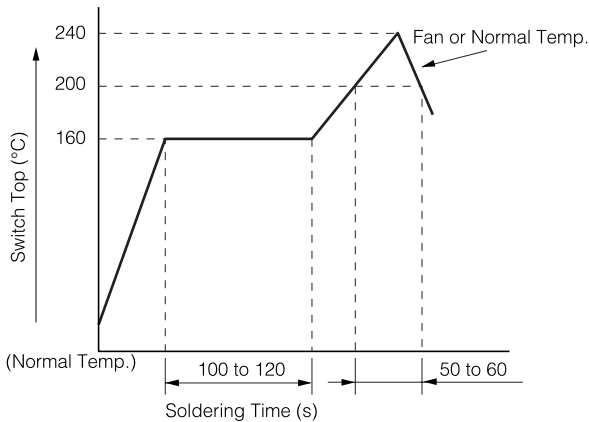
■ Dimensions in mm (not to scale)

No. 2	<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"> <p><b>EVQQW</b> (Embossed Taping)</p> <p>With push plate Surface mount For reflow soldering With ground terminal Without ground terminal</p> <p><b>Notes:</b> 1. Non-washable in solvents 2. Types with ground terminal available</p>  </div> <div style="width: 50%; text-align: center;">       </div> <div style="width: 20%; text-align: right;"> <table border="1" style="margin-left: auto;"> <thead> <tr><th>Height</th></tr> </thead> <tbody> <tr><td>H</td></tr> <tr><td>2.0±0.2</td></tr> <tr><td>2.5±0.2</td></tr> <tr><td>3.1<sup>+0.3</sup><sub>-0.1</sub></td></tr> </tbody> </table> </div> </div> <p style="text-align: center;">Reference of PCB pattern      Circuit Diagram</p> <p style="text-align: center;">* This land not necessary when a ground terminal is not used.</p>					Height	H	2.0±0.2	2.5±0.2	3.1 <sup>+0.3</sup> <sub>-0.1</sub>
Height										
H										
2.0±0.2										
2.5±0.2										
3.1 <sup>+0.3</sup> <sub>-0.1</sub>										
Part Numbers	Operating Force	H=Height	Push Plate Color	Ground Terminal	Operating Life					
EVQQWP01W	1.3 N	2.0 mm	White	Without	1000000 cycles					
EVQQWP02W	1.3 N	2.5 mm	White	Without	1000000 cycles					
EVQQWP03W	1.3 N	3.1 mm	White	Without	1000000 cycles					
EVQQWS01W	1.6 N	2.0 mm	White	Without	1000000 cycles					
EVQQWS02W	1.6 N	2.5 mm	White	Without	1000000 cycles					
EVQQWS03W	1.6 N	3.1 mm	White	Without	1000000 cycles					
EVQQWT01W	2.6 N	2.0 mm	White	Without	100000 cycles					
EVQQWT02W	2.6 N	2.5 mm	White	Without	100000 cycles					
EVQQWT03W	2.6 N	3.1 mm	White	Without	100000 cycles					
EVQQWM01W	1.3 N	2.0 mm	White	With	1000000 cycles					
EVQQWM02W	1.3 N	2.5 mm	White	With	1000000 cycles					
EVQQWM03W	1.3 N	3.1 mm	White	With	1000000 cycles					
EVQQWN01W	1.6 N	2.0 mm	White	With	1000000 cycles					
EVQQWN02W	1.6 N	2.5 mm	White	With	1000000 cycles					
EVQQWN03W	1.6 N	3.1 mm	White	With	1000000 cycles					
EVQQWK01W	2.6 N	2.0 mm	White	With	100000 cycles					
EVQQWK02W	2.6 N	2.5 mm	White	With	100000 cycles					
EVQQWK03W	2.6 N	3.1 mm	White	With	100000 cycles					

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.

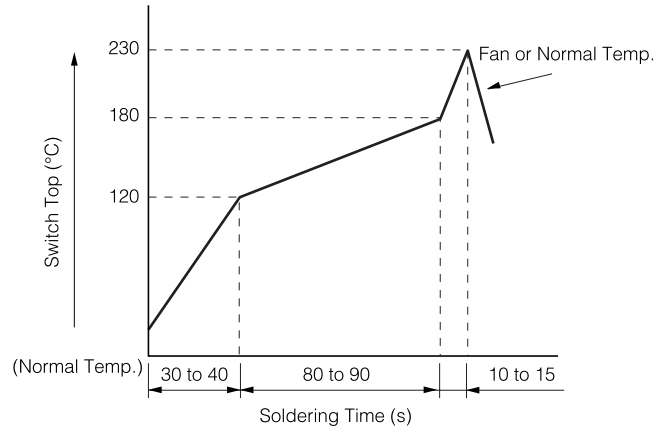
### Recommended Reflow Soldering Conditions

#### ● Type EVQPH



Recommended Reflow Temperature Profile

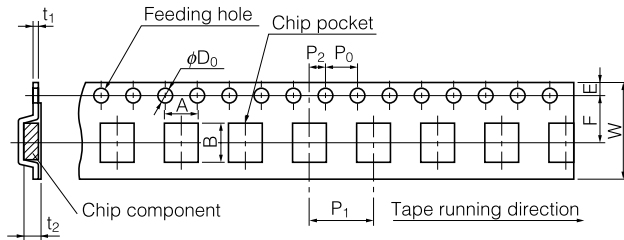
#### ● Type EVQQW



Recommended Reflow Temperature Profile

### ● Embossed Carrier Taping

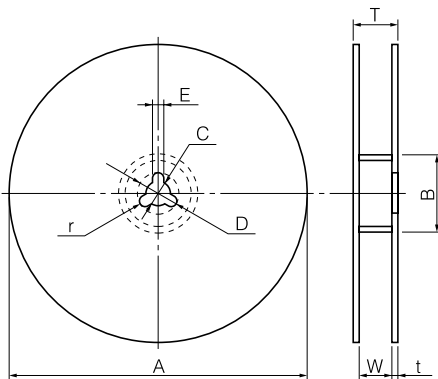
Tape width=12.0 mm



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>
EVQPH	3.1	7.0±0.2	7.5±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</sub>	0.30±0.05	3.2±0.2
EVQQW	2.0 2.5/3.1											2.2±0.2 3.2±0.2

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

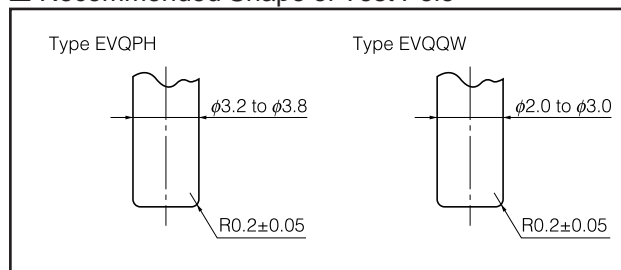


Item	A	B	C	D	E
Rate (mm)	φ370.0±2.0	φ50.0 min.	φ13.0±0.5	φ21.0±1.0	2.0±0.5

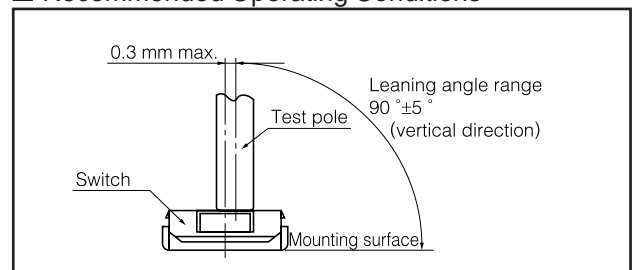
  

Item	W	T	t	r
Rate (mm)	14.0±1.5	—	1.0 to 3.0	1.0±0.5

### Recommended Shape of Test Pole



### Recommended Operating Conditions



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.