

6 mm Square Thin Type SMD Light Touch Switches

Type: **EVQP0**
EVQQ2
EVQ6Q2
EVQ7Q2



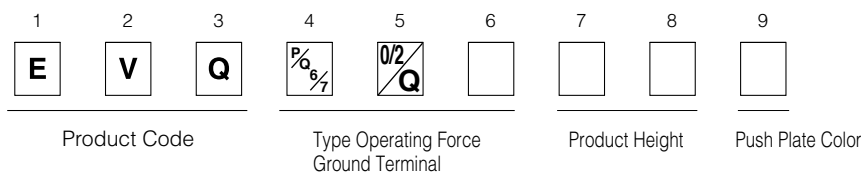
■ Features

- External dimensions : 6.5 mm×6.0 mm, Height 1.8 mm
(Excluding the push plate)
- With or without ground terminal, height, operating force
- Overstroke travel

■ Recommended Applications

- Operating switches for other electronic equipment
- Operation switches for PC mouse
- Car audio systems
- Game

■ Explanation of Part Numbers



■ Specifications

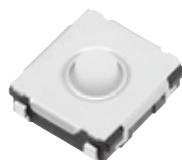
Travel Type		Short Push Travel	Overstroke Travel
Type		Snap action/Push-on type SPST	
Electrical	Rating	10 μA 2 V DC to 20 mA 15 V DC (Resistive load)	
	Contact Resistance	100 mΩ max.	
	Insulation Resistance	100 MΩ min. (at 100 V DC)	
	Dielectric Withstanding Voltage	250 V AC for 1 minute	
	Bouncing	10 ms max. (ON, OFF)	
Mechanical	Operating Force	0.5 N, 0.8 N, 1.0 N, 1.3 N, 1.6 N, 2.6 N, 3.5 N	0.6 N, 1.0 N
	Travel	0.5 N, 0.8 N, 1.0 N 0.2mm 1.3 N, 1.6 N, 2.6 N, 3.5 N 0.25mm	0.30 mm
Endurance	Operating Life	0.5 N, 0.8 N : 2,000,000 cycles min. 1.0 N, 1.3 N, 1.6 N : 1,000,000 cycles min. 2.6 N : 200,000 cycles min. 3.5 N : 100,000 cycles min.	0.6 N : 2,000,000 cycles min. 1.0 N : 1,000,000 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		H=2.0 mm	4,000 pcs. Embossed Taping (Reel Pack)
		H=2.5 mm, 3.1 mm	2,000 pcs. Embossed Taping (Reel Pack)
Quantity/Carton		H=2.0 mm	20,000 pcs.
		H=2.5 mm, 3.1 mm	10,000 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.

No. 1

Overstroke travel
With J-bent terminals
Without
Ground Terminal



The mechanical drawings show the physical dimensions of the PWB assembly. The top view is a square with a side length of 6.5. It features a central circular feature with an outer diameter of $\phi 3$ and an inner diameter of $\phi 2$. The distance from the center to the bottom edge is 4.0, and the distance from the center to the right edge is 0.8. The bottom view shows a rectangular shape with a width of 6.0 and a height of 0.8. The side view shows a profile with a total height of 1.8 and a base width of (0.8). The PWB land pattern for reference shows a rectangular area with a width of 4.0 and a height of 1 min. The land pattern is divided into three sections with widths of (3.2), (3.6), and (3.2).

Circuit Diagram

The circuit diagram shows a rectangular board with terminals A, A', B, and B'. A switch is connected between A and B, and between A' and B'.

PWB land pattern for reference

Part Numbers	Operating Force	H=Height	Push Plate Color	Ground Terminal	Operating Life
EVQP0N02B	0.6 N	2.5 mm	Blue	Without	2,000,000 cycles
EVQP0Q02Q	1.0 N	2.5 mm	Gray	Without	1,000,000 cycles

Overstroke travel
With J-bent terminals
With
Ground Terminal

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Part Numbers	Operating Force	H=Height	Push Plate Color	Ground Terminal	Operating Life
EVQP0P02B	0.6 N	2.5 mm	Blue	With	2,000,000 cycles
EVQP0S02Q	1.0 N	2.5 mm	Gray	With	1,000,000 cycles

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■ Dimensions in mm (not to scale)

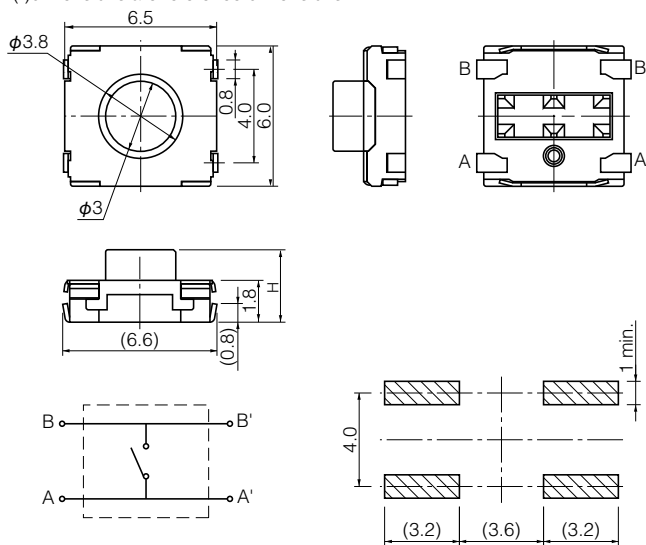
No. 3

EVQQ2/6Q2

Short travel
With J-bent terminals
Without
Ground Terminal



(General dimension tolerance : ± 0.2)
() dimensions are reference dimensions.



Top view dimensions: 6.5 mm width, 6.0 mm height, 0.8 mm terminal spacing, 4.0 mm mounting hole diameter, 3.8 mm push button diameter, 3.0 mm mounting hole diameter.

Side view dimensions: 1.8 mm height, 0.8 mm terminal thickness, 6.6 mm base width.

Circuit Diagram: Shows a single switch with terminals A, A', B, and B'.

PWB land pattern for reference: Shows a 4.0 mm wide pad with 3.2 mm and 3.6 mm segments.

Part Numbers	Operating Force	H=Height	Push Plate Color	Ground Terminal	Operating Life
EVQQ2B01W	0.5 N	2.0 mm	White	Without	2,000,000 cycles
EVQQ2B02W	0.5 N	2.5 mm	White	Without	2,000,000 cycles
EVQQ2B03W	0.5 N	3.1 mm	White	Without	2,000,000 cycles
EVQ6Q201W	0.8 N	2.0 mm	White	Without	2,000,000 cycles
EVQ6Q202W	0.8 N	2.5 mm	White	Without	2,000,000 cycles
EVQ6Q203W	0.8 N	3.1 mm	White	Without	2,000,000 cycles
EVQQ2F01W	1.0 N	2.0 mm	White	Without	1,000,000 cycles
EVQQ2F02W	1.0 N	2.5 mm	White	Without	1,000,000 cycles
EVQQ2F03W	1.0 N	3.1 mm	White	Without	1,000,000 cycles
EVQQ2K01W	1.3 N	2.0 mm	White	Without	1,000,000 cycles
EVQQ2K02W	1.3 N	2.5 mm	White	Without	1,000,000 cycles
EVQQ2K03W	1.3 N	3.1 mm	White	Without	1,000,000 cycles
EVQQ2P01W	1.6 N	2.0 mm	White	Without	1,000,000 cycles
EVQQ2P02W	1.6 N	2.5 mm	White	Without	1,000,000 cycles
EVQQ2P03W	1.6 N	3.1 mm	White	Without	1,000,000 cycles
EVQQ2U01W	2.6 N	2.0 mm	White	Without	200,000 cycles
EVQQ2U02W	2.6 N	2.5 mm	White	Without	200,000 cycles
EVQQ2U03W	2.6 N	3.1 mm	White	Without	200,000 cycles
EVQQ2Y01W	3.5 N	2.0 mm	White	Without	100,000 cycles
EVQQ2Y02W	3.5 N	2.5 mm	White	Without	100,000 cycles
EVQQ2Y03W	3.5 N	3.1 mm	White	Without	100,000 cycles

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■ Dimensions in mm (not to scale)

No. 4

EVQQ2/7Q2

Short travel
With J-bent terminals
With
Ground Terminal

(General dimension tolerance : ± 0.2)
() dimensions are reference dimensions.

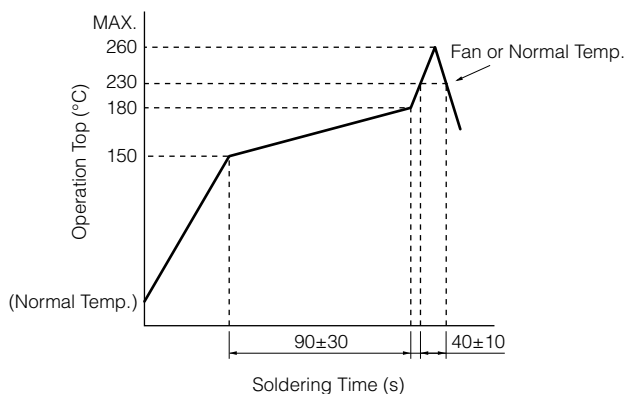
Circuit Diagram

The shape of the mounting base is either (A) or (B).

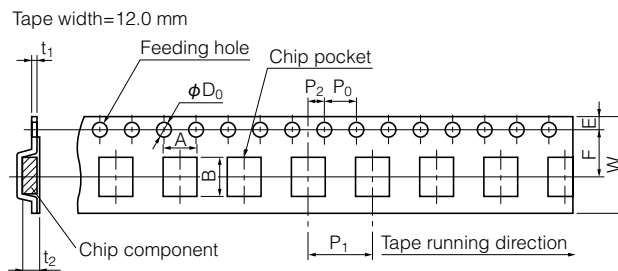
Part Numbers	Operating Force	H=Height	Push Plate Color	Ground Terminal	Operating Life
EVQQ2D01W	0.5 N	2.0 mm	White	With	2,000,000 cycles
EVQQ2D02W	0.5 N	2.5 mm	White	With	2,000,000 cycles
EVQQ2D03W	0.5 N	3.1 mm	White	With	2,000,000 cycles
EVQ7Q201W	0.8 N	2.0 mm	White	With	2,000,000 cycles
EVQ7Q202W	0.8 N	2.5 mm	White	With	2,000,000 cycles
EVQ7Q203W	0.8 N	3.1 mm	White	With	2,000,000 cycles
EVQQ2H01W	1.0 N	2.0 mm	White	With	1,000,000 cycles
EVQQ2H02W	1.0 N	2.5 mm	White	With	1,000,000 cycles
EVQQ2H03W	1.0 N	3.1 mm	White	With	1,000,000 cycles
EVQQ2M01W	1.3 N	2.0 mm	White	With	1,000,000 cycles
EVQQ2M02W	1.3 N	2.5 mm	White	With	1,000,000 cycles
EVQQ2M03W	1.3 N	3.1 mm	White	With	1,000,000 cycles
EVQQ2S01W	1.6 N	2.0 mm	White	With	1,000,000 cycles
EVQQ2S02W	1.6 N	2.5 mm	White	With	1,000,000 cycles
EVQQ2S03W	1.6 N	3.1 mm	White	With	1,000,000 cycles
EVQQ2W01W	2.6 N	2.0 mm	White	With	200,000 cycles
EVQQ2W02W	2.6 N	2.5 mm	White	With	200,000 cycles
EVQQ2W03W	2.6 N	3.1 mm	White	With	200,000 cycles
EVQQ2201W	3.5 N	2.0 mm	White	With	100,000 cycles
EVQQ2202W	3.5 N	2.5 mm	White	With	100,000 cycles
EVQQ2203W	3.5 N	3.1 mm	White	With	100,000 cycles

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■ Recommended Reflow Soldering Conditions



● Embossed Carrier Taping



Taping condition : Lack of products in the middle of taping should be one MAX, but total quantity specified in the specifications should be secured.

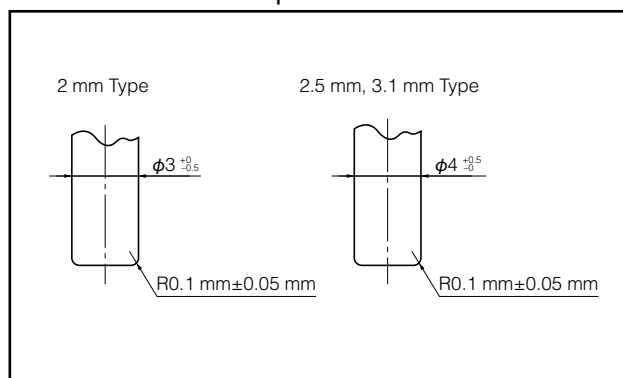
Peeling off strength of top tape : It should be within 0.2N to 1.0N at 165 degree in peeling off angle.

Joint of carrier tape : One joint per one reel may exist.

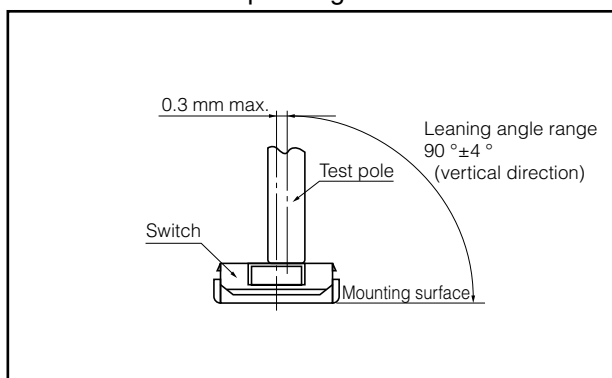
Unit: mm

Part No.	Height	A	B	W	F	E	P ₁	P ₂	P ₀	D ₀ Dia	t ₁	t ₂
EVQQ2	2.0	6.7±0.2	7.4±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	0.30±0.05	2.2±0.2
EVQ6Q2	2.5/3.1											3.2±0.2
EVQ7Q2												2.8±0.2
EVQP0	2.5											

■ Recommended Shape of Test Pole



■ Recommended Operating Conditions



Requests to customers

Please refer to "the latest product specifications" when designing your product.

Requests to customers :

<https://industrial.panasonic.com/ac/e/salespolicies/>

Safety Precautions

When using our products, no matter what sort of equipment they might be used for, be sure to confirm the applications and environmental conditions with our specifications in advance.

Please contact

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