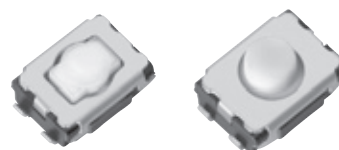


4.7 mm×3.5 mm SMD Light Touch Switches

Type: **EVQP2/EVQP9/EVQ3P2**



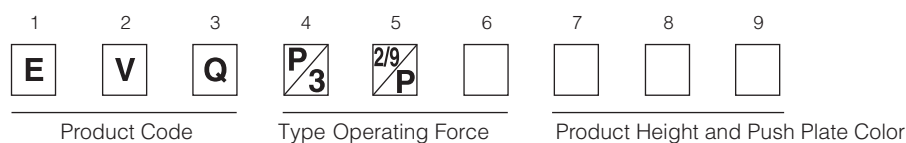
■ Features

- External dimensions : 4.7 mm×3.5 mm,
Height : Middle Push Travel 2.5 mm
Short Push Travel 2.1 mm, 2.5 mm
- High operating force and long operational life
- High mountability with J-bent (4 terminals)

■ Recommended Applications

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

■ Explanation of Part Numbers


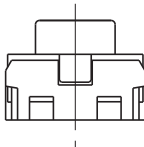
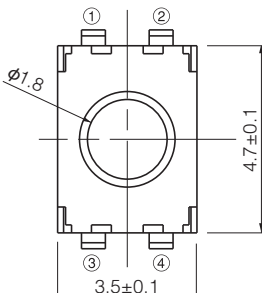
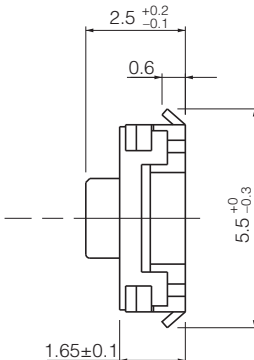
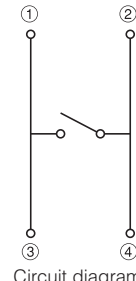
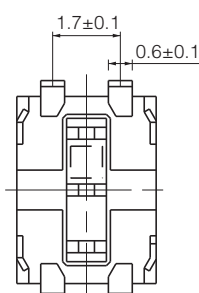
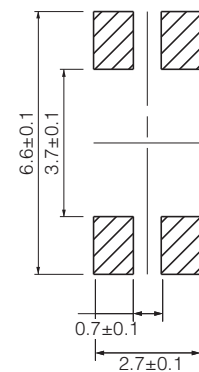


■ Specifications

Travel Type		Middle Push Travel	Short Push Travel
Type		Snap action / Push-on V DC type SPST	
Electrical	Rating	10 μ A 2 V DC to 20 mA 15 V DC (Resistive load)	
	Contact Resistance	100 m Ω max.	
	Insulation Resistance	100 M Ω min. (at 100 V DC)	
	Dielectric Withstanding Voltage	250 V AC (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, 4.0 N, 5.0 N
	Travel	0.70 mm \pm 0.20 mm	0.25 mm ^{+0.05} _{-0.15} mm
Endurance	Operating Life	2.5 N: 1,000,000 cycles min. 3.5 N: 500,000 cycles min. 5.0 N: 200,000 cycles min.	1.0 N, 1.6 N: 1,000,000 cycles min. 2.4 N: 500,000 cycles min. 3.5 N: 200,000 cycles min. 4.0 N: 200,000 cycles min. 5.0 N: 200,000 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		4,000 pcs. Embossed Taping (Reel Pack)	
Quantity/Cartron		20,000 pcs.	


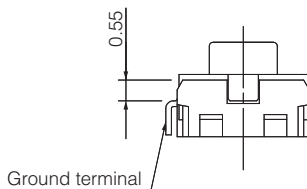
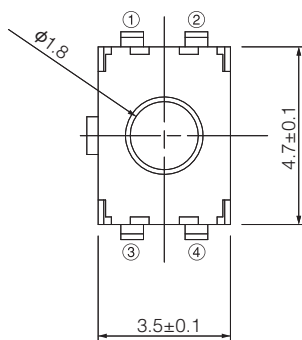
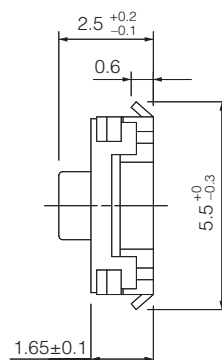
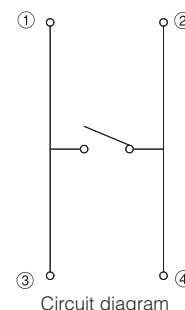
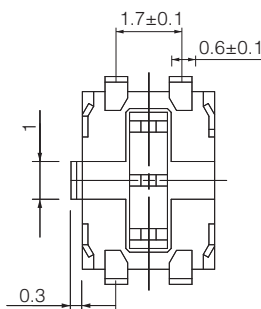
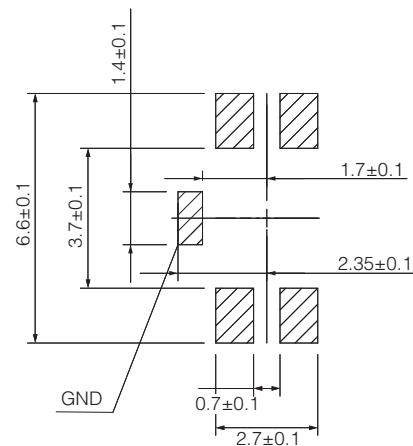
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Dimensions in mm (not to scale)

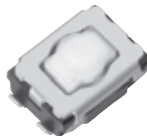
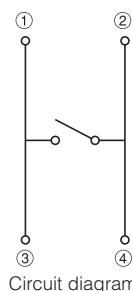
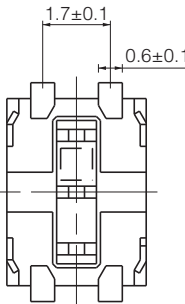
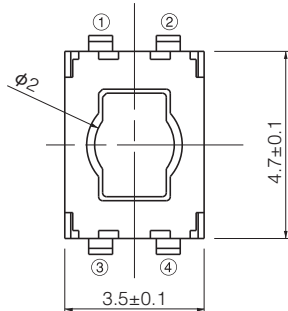
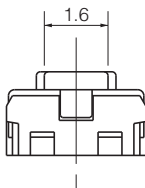
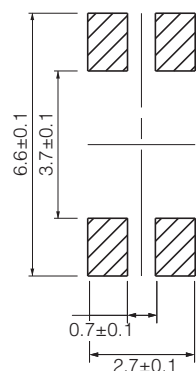
No. 1					
EVQP2 EVQ3P2					
Middle push travel With J-bent terminals Without Ground Terminal					
					
	<p>(General dimension tolerance±0.2)</p> <div></div> <div></div> <div></div> <div><p>Circuit diagram</p></div> <div></div> <div><p>PWB land pattern for reference</p></div>				
Part Numbers	Ground Terminal	Operating Force	Height	Push Plate Color	Operating Life
EVQP2H02B	Without	2.5 N	2.5 mm	Blue	1,000,000 cycles
EVQP2K02Q	Without	3.5 N	2.5 mm	Gray	500,000 cycles
EVQ3P202K	Without	5.0 N	2.5 mm	Black	200,000 cycles

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■ Dimensions in mm (not to scale)

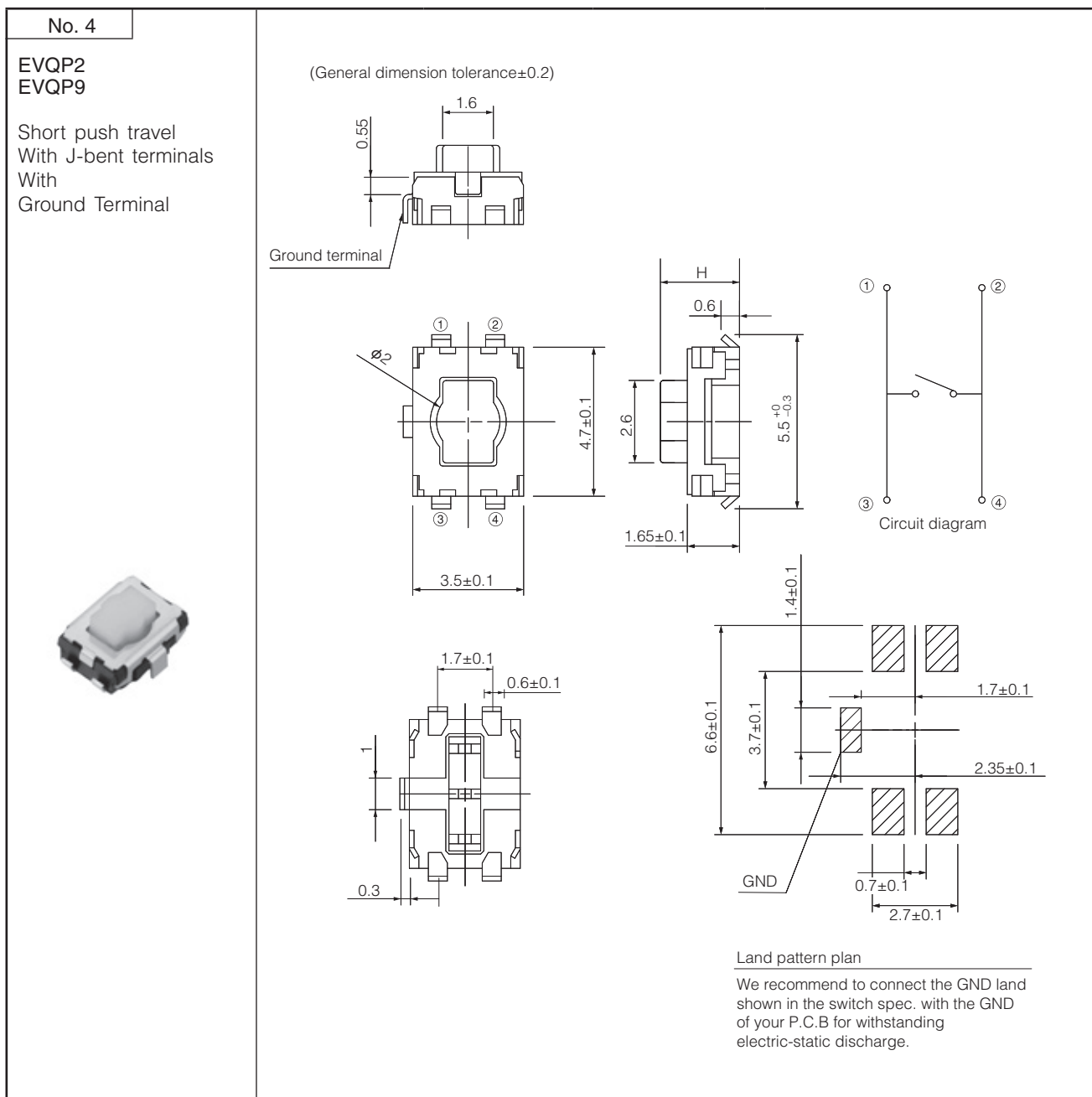
No. 2					
EVQP2 EVQ3P2					
Middle push travel With J-bent terminals With Ground Terminal					
					
	<div>(General dimension tolerance : ± 0.2)</div> <div><p>Ground terminal</p></div> <div></div> <div></div> <div><p>Circuit diagram</p></div> <div></div> <div></div> <div>Land pattern plan</div> <div>We recommend to connect the GND land shown in the switch spec. with the GND of your P.C.B for withstanding electric-static discharge.</div>				
Part Numbers	Ground Terminal	Operating Force	Height	Push Plate Color	Operating Life
EVQP2B02B	With	2.5 N	2.5 mm	Blue	1,000,000 cycles
EVQP2D02Q	With	3.5 N	2.5 mm	Gray	500,000 cycles
EVQP2F02K	With	5.0 N	2.5 mm	Black	200,000 cycles

■ Dimensions in mm (not to scale)

No. 3					
EVQP2 EVQP9					
Short push travel With J-bent terminals Without Ground Terminal					
					
	<p>(General dimension tolerance±0.2)</p> <div><p>Circuit diagram</p><p>PWB land pattern for reference</p></div>				
Part Numbers	Ground Terminal	Operating Force	H=Height	Push Plate Color	Operating Life
EVQP2002M	Without	1.0 N	2.1 mm	White	1,000,000 cycles
EVQP2002W	Without	1.0 N	2.5 mm	White	1,000,000 cycles
EVQP2202M	Without	1.6 N	2.1 mm	White	1,000,000 cycles
EVQP2202W	Without	1.6 N	2.5 mm	White	1,000,000 cycles
EVQP2402M	Without	2.4 N	2.1 mm	White	500,000 cycles
EVQP2402W	Without	2.4 N	2.5 mm	White	500,000 cycles
EVQP2602M	Without	3.5 N	2.1 mm	White	200,000 cycles
EVQP2602W	Without	3.5 N	2.5 mm	White	200,000 cycles
EVQP9W02W	Without	4.0 N	2.5 mm	White	200,000 cycles
EVQP9P02M	Without	5.0 N	2.1 mm	White	200,000 cycles
EVQP9P02W	Without	5.0 N	2.5 mm	White	200,000 cycles

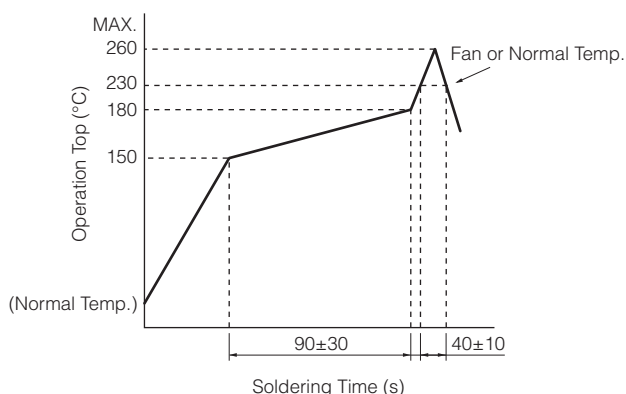
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■ Dimensions in mm (not to scale)

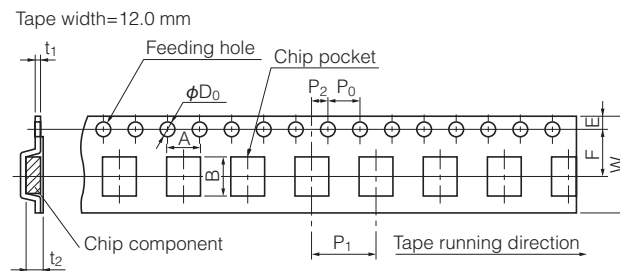


Part Numbers	Ground Terminal	Operating Force	H=Height	Push Plate Color	Operating Life
EVQP2P02M	With	1.0 N	2.1 mm	White	1,000,000 cycles
EVQP2P02W	With	1.0 N	2.5 mm	White	1,000,000 cycles
EVQP2R02M	With	1.6 N	2.1 mm	White	1,000,000 cycles
EVQP2R02W	With	1.6 N	2.5 mm	White	1,000,000 cycles
EVQP2T02M	With	2.4 N	2.1 mm	White	500,000 cycles
EVQP2T02W	With	2.4 N	2.5 mm	White	500,000 cycles
EVQP2V02M	With	3.5 N	2.1 mm	White	200,000 cycles
EVQP2V02W	With	3.5 N	2.5 mm	White	200,000 cycles
EVQP9H02M	With	5.0 N	2.1 mm	White	200,000 cycles
EVQP9H02W	With	5.0 N	2.5 mm	White	200,000 cycles

■ 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.

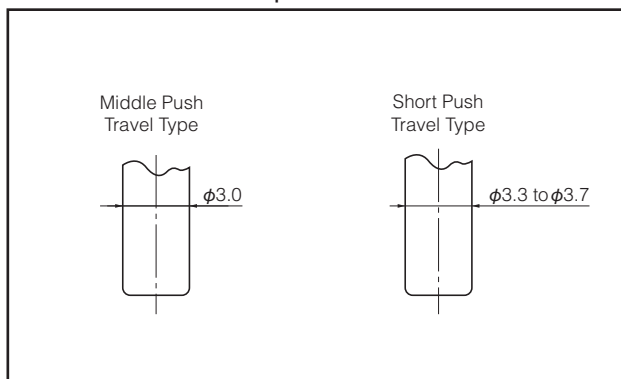
Peeling off strength of top tape : It should be within 0.2N to 1.0N at 165 degree in peeling off angle.

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
EVQP2	2.1	6.0±0.2	4.7±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	0.3±0.1	2.7±0.2
EVQP9	2.5											
EVQ3P2												

■ Recommended Shape of Test Pole



■ Recommended Operating Conditions

