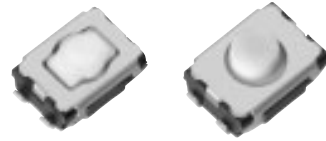


4.7 mm×3.5 mm SMD Light Touch Switches

Type: **EVQP2/EVQP9/EVQ3P2**



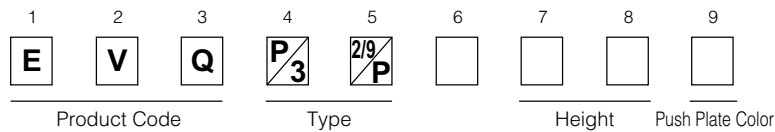
■ Features

- 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

- Keyless entry systems (automotive)
- Car audio equipment

■ Explanation of Part Numbers



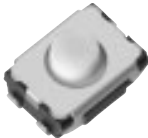
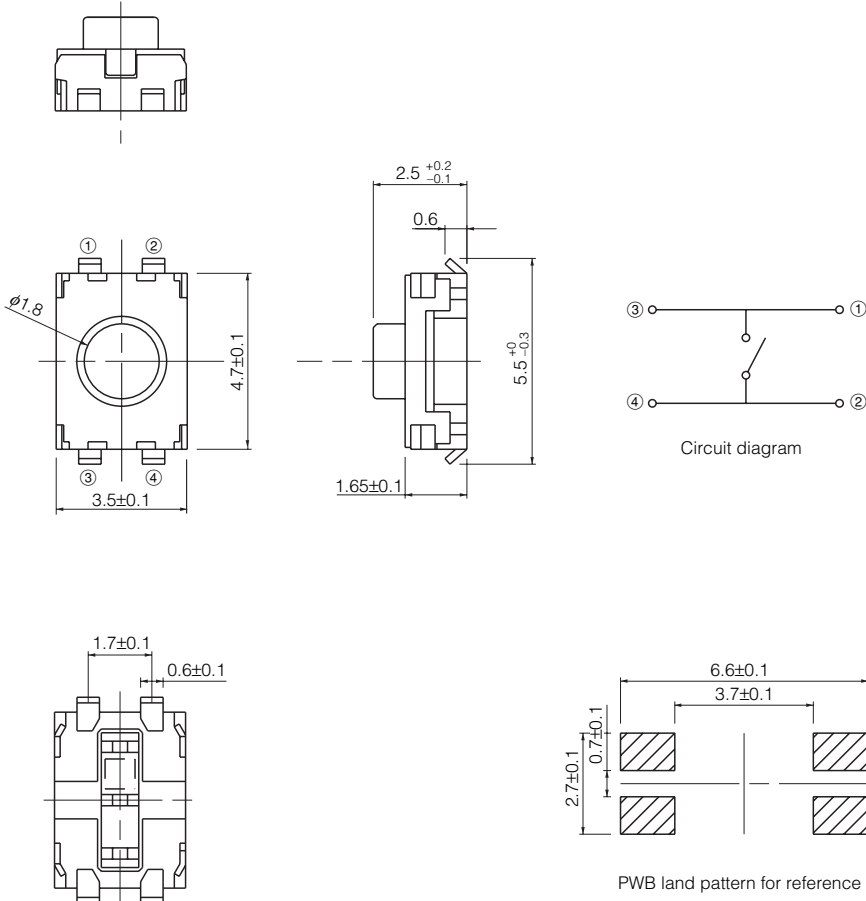
■ Specifications

Travel Type		Middle Push Travel	Short Push Travel
Type		Snap action / Push-on type SPST	
Electrical	Rating	10 μ A 2 Vdc to 20 mA 15 Vdc (Resistive load)	
	Contact Resistance	100 m Ω max.	
	Insulation Resistance	100 M Ω min.	
	Dielectric Withstanding Voltage	250 Vac (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, 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: 1000000 cycles min. 3.5 N: 500000 cycles min. 5.0 N: 200000 cycles min.	1.0 N, 1.6 N: 1000000 cycles min. 2.4 N: 500000 cycles min. 3.5 N: 200000 cycles min. 5.0 N: 200000 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		4000 pcs. Embossed Taping (Reel Pack)	
Quantity/Carton		20000 pcs.	

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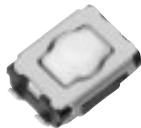
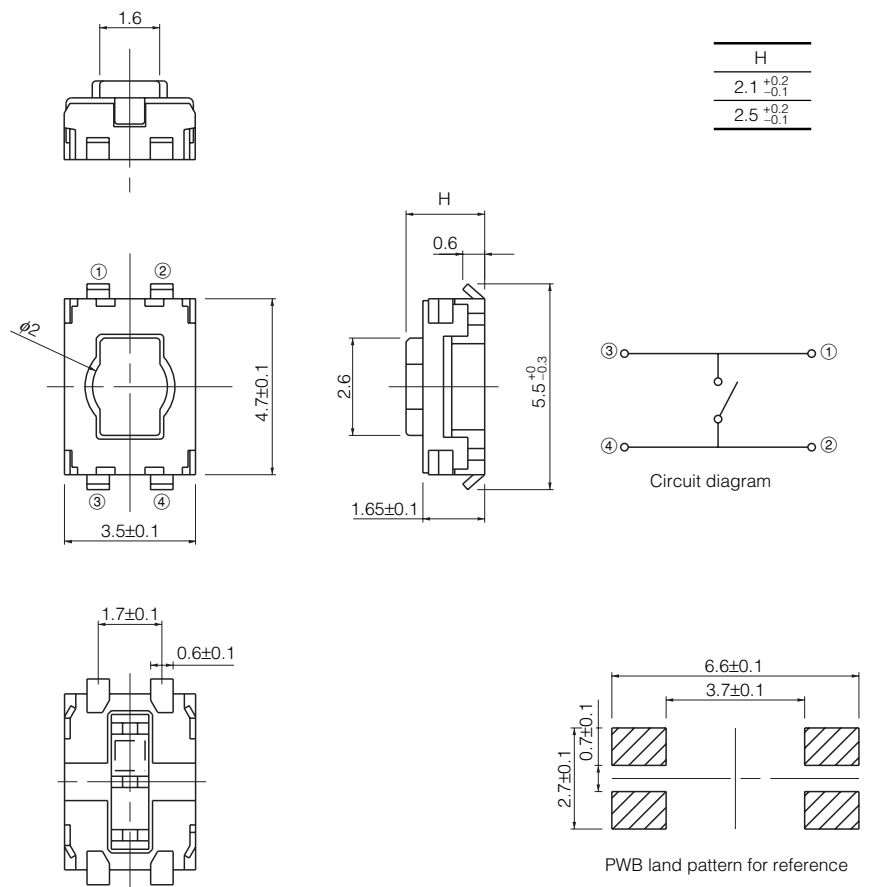
00 Sep. 2010

■ Dimensions in mm (not to scale)

<p>No. 1</p> <p>EVQP2 EVQ3P2</p> <p>Middle push travel With J-bent terminals (With Ground terminal)</p> 	 <p style="text-align: center;">Circuit diagram</p> <p style="text-align: center;">PWB land pattern for reference</p>				
<p>Part Numbers</p>	<p>Ground Terminal</p>	<p>Operating Force</p>	<p>Height</p>	<p>Push Plate Color</p>	<p>Operating Life</p>
<p>EVQP2B02B</p>	<p>With</p>	<p>2.5 N</p>	<p>2.5 mm</p>	<p>Blue</p>	<p>1000000 cycles</p>
<p>EVQP2D02Q</p>	<p>With</p>	<p>3.5 N</p>	<p>2.5 mm</p>	<p>Grey</p>	<p>500000 cycles</p>
<p>EVQP2F02K</p>	<p>With</p>	<p>5.0 N</p>	<p>2.5 mm</p>	<p>Black</p>	<p>200000 cycles</p>
<p>EVQP2H02B</p>	<p>Without</p>	<p>2.5 N</p>	<p>2.5 mm</p>	<p>Blue</p>	<p>1000000 cycles</p>
<p>EVQP2K02Q</p>	<p>Without</p>	<p>3.5 N</p>	<p>2.5 mm</p>	<p>Grey</p>	<p>500000 cycles</p>
<p>EVQ3P202K</p>	<p>Without</p>	<p>5.0 N</p>	<p>2.5 mm</p>	<p>Black</p>	<p>200000 cycles</p>

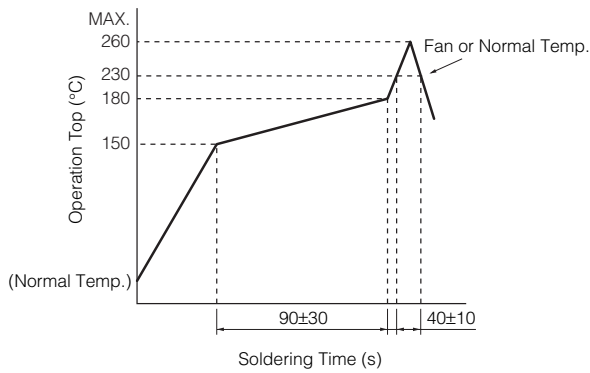
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■ Dimensions in mm (not to scale)

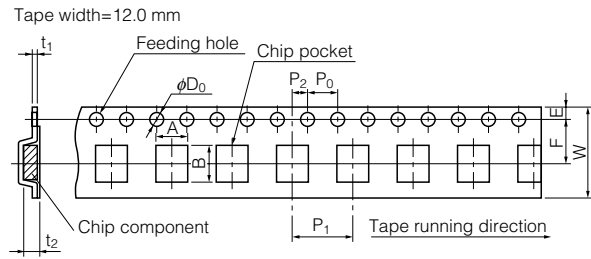
<p>No. 2</p> <p>EVQP2</p> <p>Short push travel With J-bent terminals (With Ground terminal)</p> 					
Part Numbers	Ground Terminal	Operating Force	H=Height	Push Plate Color	Operating Life
EVQP2P02M	With	1.0 N	2.1 mm	Natural	1000000 cycles
EVQP2P02W	With	1.0 N	2.5 mm	Natural	1000000 cycles
EVQP2R02M	With	1.6 N	2.1 mm	Natural	1000000 cycles
EVQP2R02W	With	1.6 N	2.5 mm	Natural	1000000 cycles
EVQP2T02M	With	2.4 N	2.1 mm	Natural	500000 cycles
EVQP2T02W	With	2.4 N	2.5 mm	Natural	500000 cycles
EVQP2V02M	With	3.5 N	2.1 mm	Natural	200000 cycles
EVQP2V02W	With	3.5 N	2.5 mm	Natural	200000 cycles
EVQP2002M	Without	1.0 N	2.1 mm	Natural	1000000 cycles
EVQP2002W	Without	1.0 N	2.5 mm	Natural	1000000 cycles
EVQP2202M	Without	1.6 N	2.1 mm	Natural	1000000 cycles
EVQP2202W	Without	1.6 N	2.5 mm	Natural	1000000 cycles
EVQP2402M	Without	2.4 N	2.1 mm	Natural	500000 cycles
EVQP2402W	Without	2.4 N	2.5 mm	Natural	500000 cycles
EVQP2602M	Without	3.5 N	2.1 mm	Natural	200000 cycles
EVQP2602W	Without	3.5 N	2.5 mm	Natural	200000 cycles
EVQP9H02M	With	5.0 N	2.1 mm	Natural	200000 cycles
EVQP9H02W	With	5.0 N	2.5 mm	Natural	200000 cycles
EVQP9P02M	Without	5.0 N	2.1 mm	Natural	200000 cycles
EVQP9P02W	Without	5.0 N	2.5 mm	Natural	200000 cycles

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Recommended Reflow Soldering Conditions



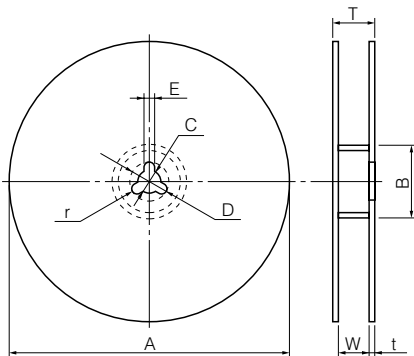
Embossed Carrier Taping



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											
EVQP9	2.5	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
EVQ3P2												

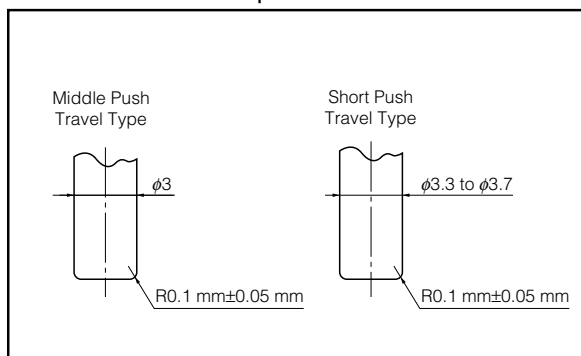
Standard Reel Dimensions in mm (not to scale)



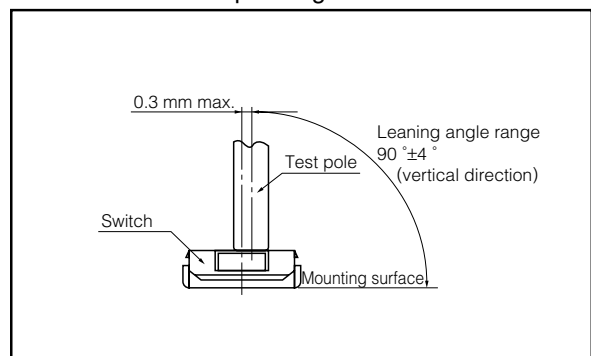
Item	A	B	C	D	E
Rate (mm)	φ370.0±2.0	φ50.0 min.	φ13.0±0.5	φ21.0±1.0	2.0±0.5

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



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