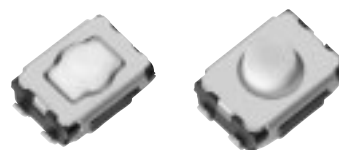


4.7 mm×3.5 mm SMD Light Touch Switches

Type: **EVQP2/EVQP9/EVQ3P2**



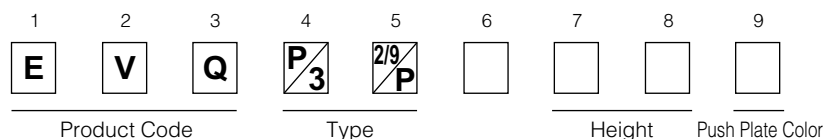
■ Features

- 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

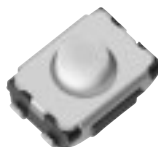
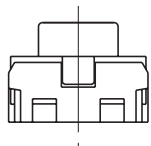
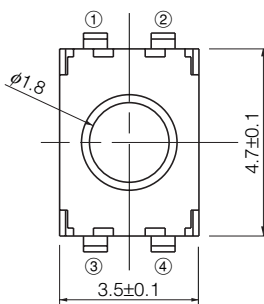
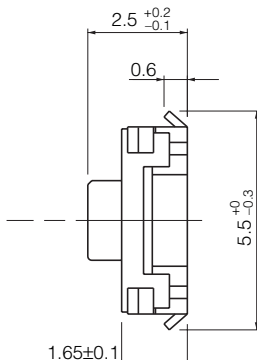
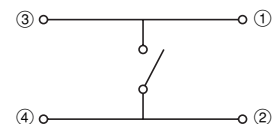
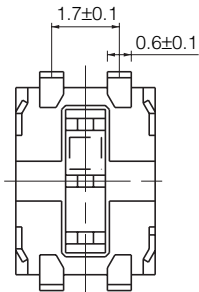
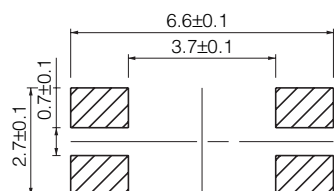
■ Explanation of Part Numbers



■ 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±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.	

■ Dimensions in mm (not to scale)

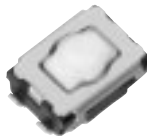
No. 1					
EVQP2 EVQ3P2					
Middle push travel With J-bent terminals (With Ground terminal)					
					
					
		Circuit diagram			
					
		PWB land pattern for reference			
Part Numbers	Ground Terminal	Operating Force	Height	Push Plate Color	Operating Life
EVQP2B02B	With	2.5 N	2.5 mm	Blue	1000000 cycles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

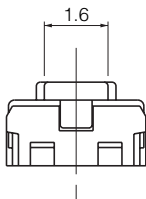
■ Dimensions in mm (not to scale)

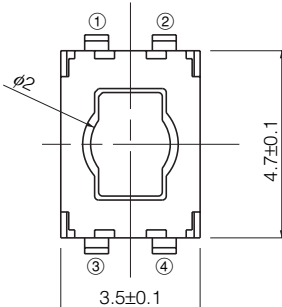
No. 2

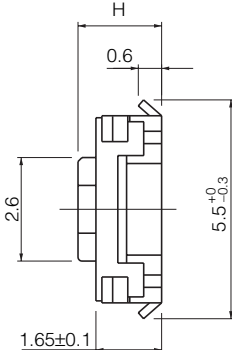
EVQP2

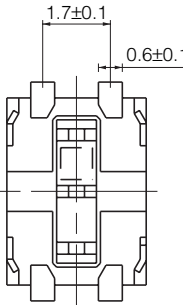
Short push travel
With J-bent terminals
(With Ground terminal)



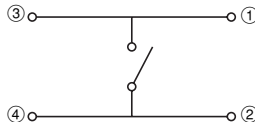




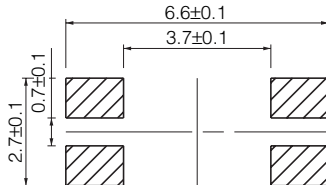




H
2.1 ^{+0.2} _{-0.1}
2.5 ^{+0.2} _{-0.1}



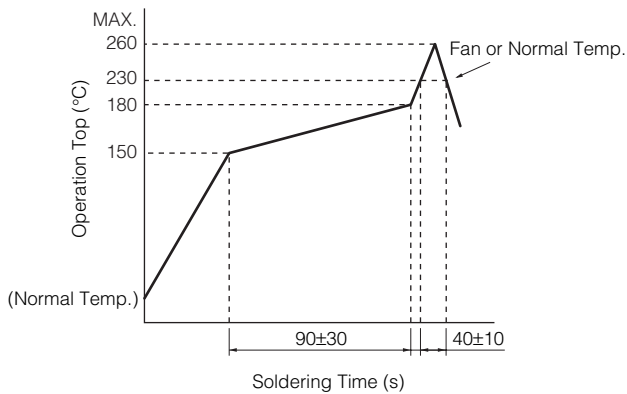
Circuit diagram



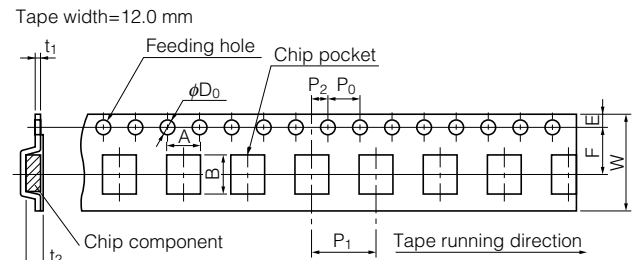
PWB land pattern for reference

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

■ Recommended Reflow Soldering Conditions



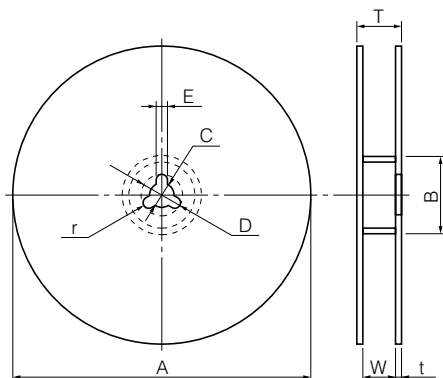
● Embossed Carrier Taping



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	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												

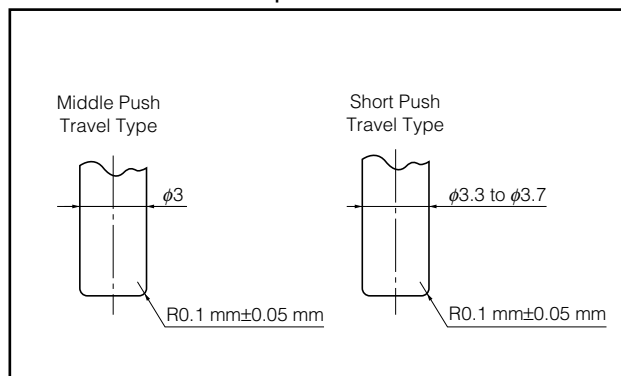
● Standard Reel Dimensions in mm (not to scale)



Item	A	B	C	D	E
Rate (mm)	$\phi 370.0 \pm 2.0$	$\phi 50.0$ min.	$\phi 13.0 \pm 0.5$	$\phi 21.0 \pm 1.0$	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

