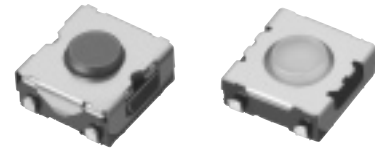


### Surface Mount Light Touch Switches with Knob for Reflow Soldering

Japan

Type: **EVQPH/EVQQW**



Surface-mount type with a push button

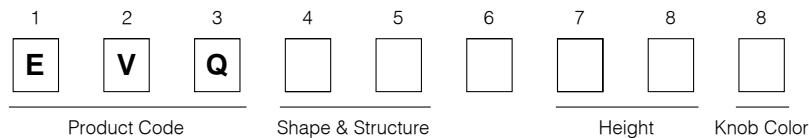
#### ■ Features

- Easy operation type with knob
- Reflow soldering available
- Wide product variety: With or without ground terminal, height, operating force

#### ■ Recommended Applications

- Operating button switches for Camcorders, Headphone Stereos.
- Operating signal input switches for Communication Equipments.

#### ■ Explanation of Part Numbers



#### ■ Product Chart

Type with Knob	Soldering	Reflow soldering				
		Without sealing film		With sealing film		
	Packaging	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


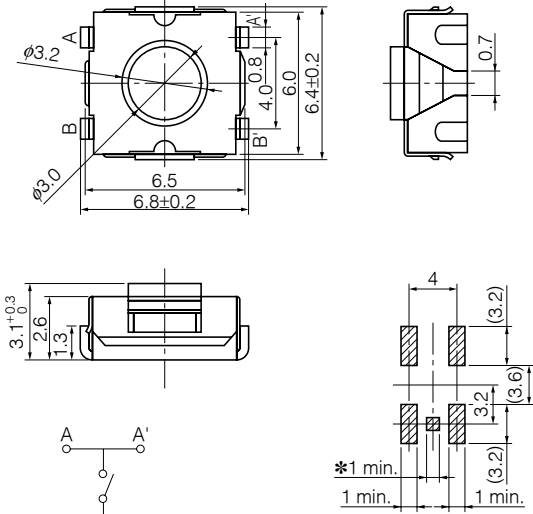
#### ■ Major Specifications

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	2.6 N± 0.6 N	
	Travel	0.25 mm±0.10 mm		
Endurance	Operating Life	EVQPH	100000 cycles min.	50000 cycles min.
		EVQQW	1000000 cycles min.	100000 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, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

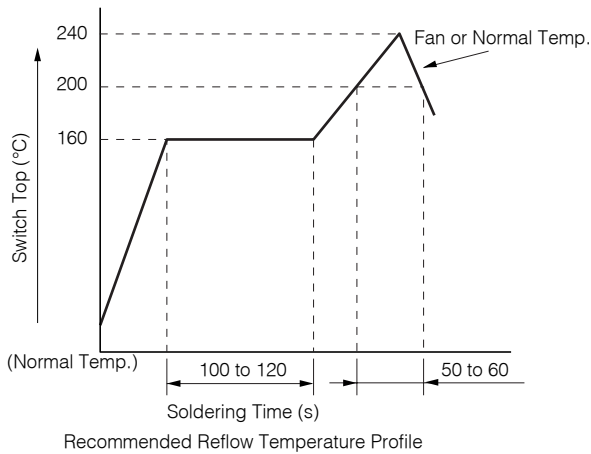
### ■ Dimensions in mm (not to scale)

<p>No. 1</p> <p>Japan</p> <p><b>EVQPH</b> (Embossed Taping)</p> <p>With knob Surface mount For reflow soldering Without ground terminal</p> <p>Notes: 1. Non-washable in solvents 2. Types with ground terminal available</p> 	<p>Registered by EIAJ-SMD Outline Registration System</p>  <p>Circuit diagram</p> <p>Reference of PCB pattern</p> <p>* This land not necessary when a ground terminal is not used.</p>				
Part Numbers	Operating Force	Height	Knob 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

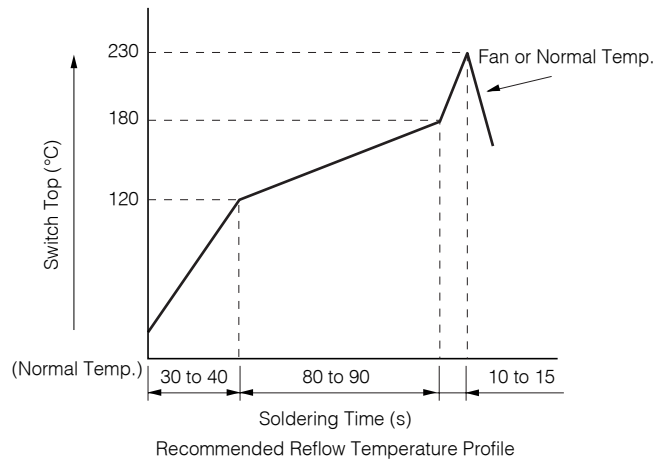


### Recommended Reflow Soldering Conditions

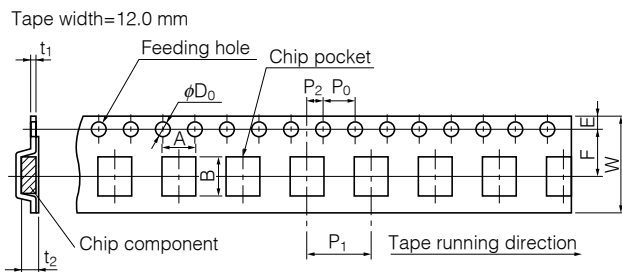
#### ● Type PH



#### ● Type QW



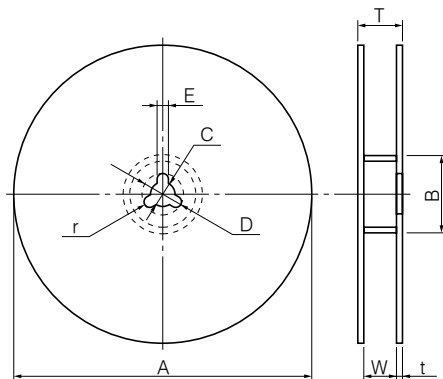
### ● Embossed Carrier Taping



Unit: mm

Part No.	Height	A	B	W	F	E	$P_1$	$P_2$	$P_0$	$D_0$ Dia.	$t_1$	$t_2$
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)

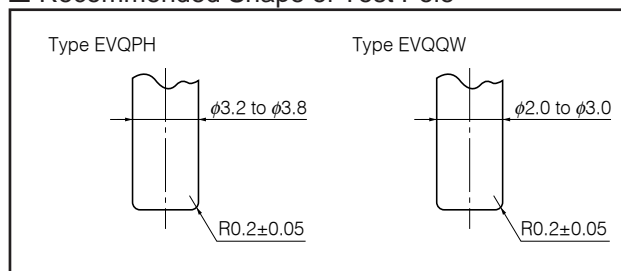


Item	A	B	C	D	E
Rate (mm)	$\phi 370.0 \pm 2.0$	$\phi 50.0$ min.	$\phi 13.0 \pm 0.5$	$\phi 21.0 \pm 1.0$	2.0±0.5

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

