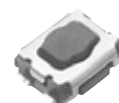


### 3.5 mm×2.9 mm SMD Light Touch Switches

Type: **EVPAA**  
**EVP2A**  
**EVP3A**



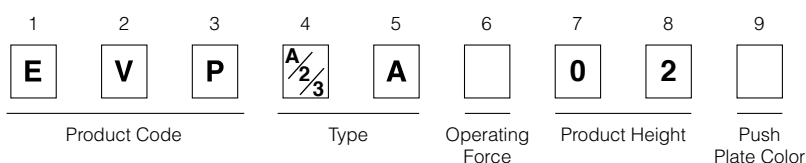
#### ■ Features

- External dimensions : 3.5 mm×2.9 mm, Height 1.7 mm
- High operating force available  
(Operating force : 7.0 N max.)
- Optional ground terminal

#### ■ Recommended Applications

- Operation switches for portable electronic equipments  
(Mobile phones, Digital still cameras, etc.)
- Operating switches for keyless entry systems

#### ■ Explanation of Part Numbers




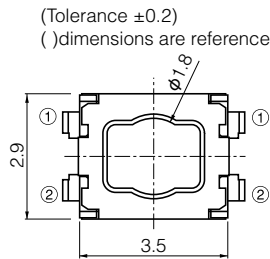
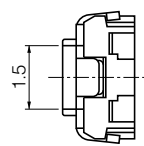
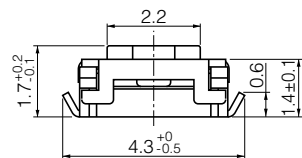
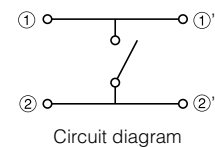
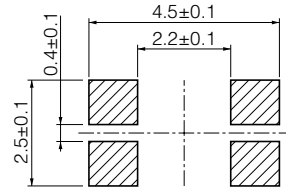
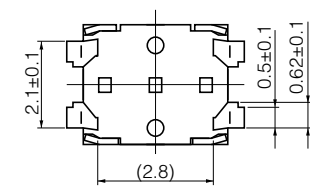
#### ■ Specifications

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	1.0 N, 1.6 N, 2.4 N, 3.5 N, 5.0 N, 7.0 N
	Travel	0.15 mm±0.1 mm
Endurance	Operating Life	1,000,000 cycles min. (1.0 N) 500,000 cycles min. (3.5 N) 200,000 cycles min. (1.6 N, 2.4 N, 3.5 N, 5.0 N) 100,000 cycles min. (5.0 N, 7.0 N)
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		5,000 pcs. Embossed Taping (Reel Pack)
Quantity/Carton		25,000 pcs.

Note: Non washable


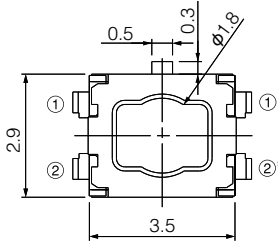
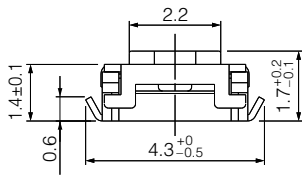
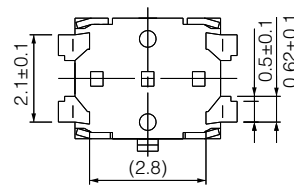
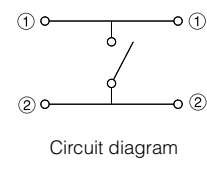
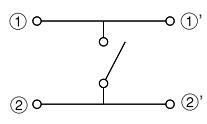
Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
 Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Dimensions in mm (not to scale)

<p>No. 1</p> <p>EVPAA EVP2A</p> <p>(Embossed Taping) Thickness : 1.7 mm With J-bent terminals Without Ground Terminal</p> 	<p>(Tolerance <math>\pm 0.2</math>) ( ) dimensions are reference dimensions.</p>     <p>Circuit diagram</p>  <p>PWB land pattern for reference</p> 			
<p>Part Numbers</p>	<p>Ground Terminal</p>	<p>Operating Force</p>	<p>Push Plate Color</p>	<p>Operating Life</p>
<p>EVPAA002K</p>	<p>Without</p>	<p>1.0 N</p>	<p>Black</p>	<p>1,000,000 cycles</p>
<p>EVPAA202K</p>	<p>Without</p>	<p>1.6 N</p>	<p>Black</p>	<p>200,000 cycles</p>
<p>EVPAA402W</p>	<p>Without</p>	<p>2.4 N</p>	<p>White</p>	<p>200,000 cycles</p>
<p>EVPAA602W</p>	<p>Without</p>	<p>3.5 N</p>	<p>White</p>	<p>200,000 cycles</p>
<p>EVPAAM02W</p>	<p>Without</p>	<p>3.5 N</p>	<p>White</p>	<p>500,000 cycles</p>
<p>EVPAA802Q</p>	<p>Without</p>	<p>5.0 N</p>	<p>Gray</p>	<p>100,000 cycles</p>
<p>EVPAAN02Q</p>	<p>Without</p>	<p>5.0 N</p>	<p>Gray</p>	<p>100,000 cycles (High load : 10N)</p>
<p>EVPAAU02Q</p>	<p>Without</p>	<p>7.0 N</p>	<p>Gray</p>	<p>100,000 cycles</p>
<p>EVP2AA02Q</p>	<p>Without</p>	<p>5.0 N</p>	<p>Gray</p>	<p>200,000 cycles (High load : 10N)</p>

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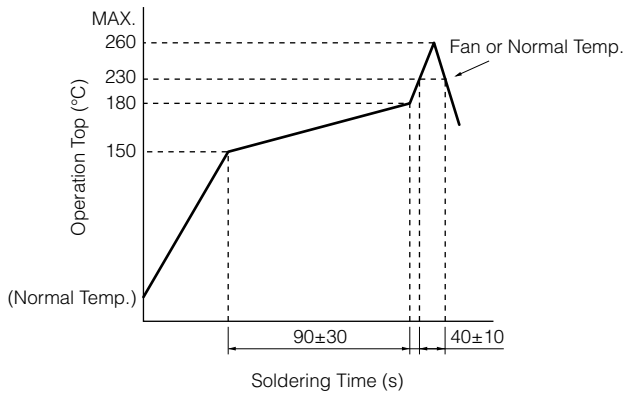
■ Dimensions in mm (not to scale)

<p>No. 2</p> <p><b>EVPAA</b> <b>EVP3A</b></p> <p>(Embossed Taping) Thickness : 1.7 mm With J-bent terminals With Ground Terminal</p> 	<p>(Tolerance <math>\pm 0.2</math>) ( ) dimensions are reference dimensions.</p>     <p style="text-align: center;">Circuit diagram</p>  <p style="text-align: center;">PWB land pattern for reference</p>
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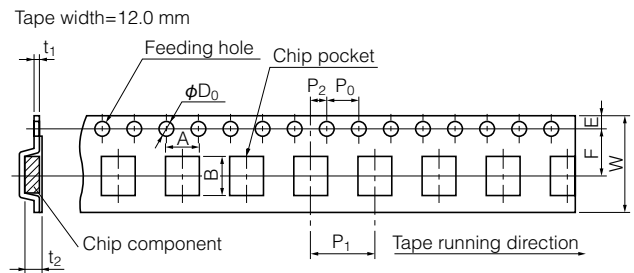
Part Numbers	Ground Terminal	Operating Force	Push Plate Color	Operating Life
EVPAA102K	With	1.0 N	Black	1,000,000 cycles
EVPAA302K	With	1.6 N	Black	200,000 cycles
EVPAA502W	With	2.4 N	White	200,000 cycles
EVPAA702W	With	3.5 N	White	200,000 cycles
EVPAAQ02W	With	3.5 N	White	500,000 cycles
EVPAA902Q	With	5.0 N	Gray	100,000 cycles
EVPAAR02Q	With	5.0 N	Gray	100,000 cycles (High load : 10N)
EVP3AA02Q	With	5.0 N	Gray	200,000 cycles (High load : 10N)

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### ■ Recommended Reflow Soldering Conditions



### ● Embossed Carrier Taping

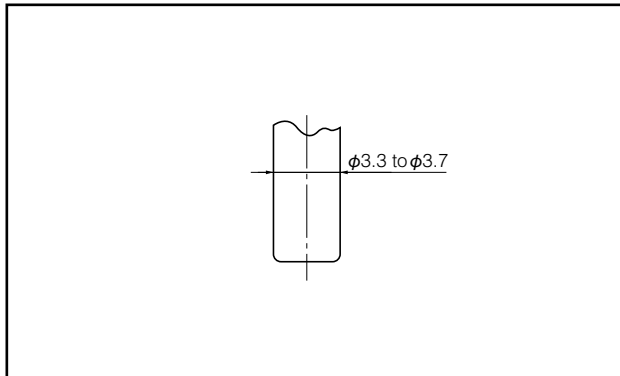


Taping condition : Lack of products in the middle of taping should be one MAX, but total quantity specified in the specifications should be secured.  
 Peeling off strength of top tape : It should be within 0.2N to 1.0N at 165 degree in peeling off angle.  
 Joint of carrier tape : One joint per one reel may exist.

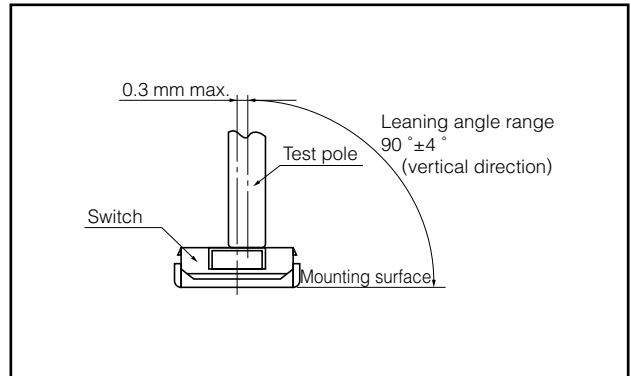
Unit: mm

Part No.	Height	A	B	W	F	E	P <sub>1</sub>	P <sub>2</sub>	P <sub>0</sub>	D <sub>0</sub> Dia	t <sub>1</sub>	t <sub>2</sub>
EVPAA EVP2A EVP3A	1.7	4.5±0.2	3.8±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>	0.3±0.1	1.85±0.20

### ■ Recommended Shape of Test Pole



### ■ Recommended Operating Conditions



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## 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 .....

**Panasonic Corporation**

Electromechanical Control Business Division

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