## Panasonic

#### 4.5 mm×2.2 mm Side-operational Edge Mount

Light Touch Switches
Type: **EVPAE** 



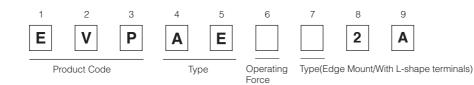
#### Features

- External dimensions : 4.5 mm×2.25 mm (Excluding the push plate), Height 2.9 mm (Printed circuit board being as low as 0.95 mm)
- Improved soldering strength in the operating direction
- Long operational life
- Measure against electro static discharge(ESD)

#### Recommended Applications

 Operation switches for portable electronic equipment (Mobile phones, Digital still cameras, Camcorders Portable audio players, etc.)

#### Explanation of Part Numbers



#### Specifications

Туре		Snap action / Push-on type SPST					
Electrical	Rating	10 µA 2 V DC to 20 mA 15 V DC (Resistive load)					
	Contact Resistance	1,000 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	1.6 N, 2.4 N, 3.0 N, 3.5 N					
	Push Travel	1.6 N, 2.4 N, 3.0 N, 3.5 N : 0.15 mm 1.6 N (With L-shape terminals) : 0.13 mr					
	Push Strength	50 N (1 minute)					
Endurance	Operating Life	200,000 cycles min.					
Operating Ter	nperature	-40 °C to +85 °C					
Storage Temperature		-40 °C to +85 °C (Bulk)					
		-20 °C to +60 °C (Taping)					
Minimum Quantity/Packing Unit		3,500 pcs. Embossed Taping (Reel Pack)					
Quantity/Carton		17,500 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.



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

No. 1	General dimension toler								
	() dimensions are refere								
EVPAE									
Edge Mount									
	4.5								
1-m	3.3 Dimensions for reference								
	$\begin{array}{c} 3.0 - 0.1 \\ \hline \\ $								
	$1000 \times 1000 \times 10000 \times 10000000 \times 10000 \times 10000 \times 10000 \times 100$								
	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} $								
	2-0.6±0.1	2-0.6±0.1							
	0.6±0.1	Pue	not to let	ut your consideration any burrs of printed					
	(2.3) Push plate side wiring board stick out from PWB land pattern for reference the mounting surface of our switches.								
	* Height from surfac	* Height from surface of PCB : 0.95 mm							
Part Numbers	Operating Force	Height	Push Plate Color	Operating Life					
EVPAEBB2A	1.6 N	0.95 mm	Black	200,000 cycles					
EVPAECB2A	2.4 N	0.95 mm	Black	200,000 cycles					
EVPAEDB2A	3.0 N	0.95 mm	Black	200,000 cycles					
EVPAEJB2A	3.5 N	0.95 mm	Black	200,000 cycles					
No. 2	General dimension tolera	nce · + 0 2	$\sim$						
EVPAE	() dimensions are referen		(1') P						
With L-shape terminals	121	, s							
	GND _ GND Circuit Diagram								
			20						
	2.2 <u>0.6±0.1</u> <sup>geq</sup> <sup>geq</sup> %								
			R0.15						
	3.3 3.6 <sup>+0.08</sup>	stpy)							
	5.55		<u>3.1±0.1</u> <u>1.5±0.1</u>						
		3-1.65±0.10 3-1.65±0.10 3-0.4 max. (0.31py)	0.8±0.1						
	$\begin{array}{c} \hline \\ \hline $								
	2-0.6±0.1 Push plate side not to let any burrs of printed wiring board stick out from								
	(2.3) PWB land pattern for reference the mounting surface of our switches.								
	* Height from surfac	* Height from surface of PCB : 0.95 mm							
Part Numbers	Operating Force	Height	Push Plate Color	Operating Life					
EVPAEGE2A	1.6 N	0.95 mm	Black	200,000 cycles					
EVPAECE2A	2.4 N 0.95 mm Black 200,000								

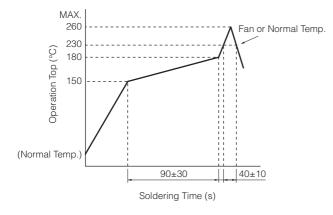
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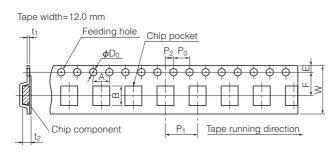
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## Panasonic

#### 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	В	W	F	E	P1	P2	P0	D0 Dia	t1	t2
EVPAE	2.9	5.5±0.2	2.9±0.2	12.0±0.3	5.5	1.75±0.10	8.0±0.1	2.0±0.1	4.0±0.1	1.5+0.1	0.3±0.1	3.3±0.20
With L-shape terminals Unit: mm												
Part No.	Height	A	В	W	F	E	P1	P2	P0	D0 Dia	t1	t2
EVPAE	2.9	6.1±0.2	2.9±0.2	12.0±0.3	5.5	1.75±0.10	8.0±0.1	2.0±0.1	4.0±0.1	1.5+8-1	0.3±0.1	3.3±0.20

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- •The products described on this material were designed and manufactured for standard applications such as general electronics devices, office equipment, data and communications equipment, measuring instruments, household appliances and audio-video equipment. For special applications in which quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or cause threat of personal injury (such as for aircraft and aerospace equipment, traffic and transport equipment, combustion equipment, medical equipment, accident prevention and anti-theft devices, and safety equipment), please use only after your company has sufficiently tasted our products' suitability for that application.
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## **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 .....

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