

2.8 mm × 1.9 mm SMD

Low profile (0.53 mm to 0.60 mm) and Small size (2.8 × 1.9 mm). IP67.



FEATURES

- External dimensions: 2.8 mm × 1.9 mm, Height 0.53 mm, 0.57 mm, 0.60 mm
- High operability equipped with an actuator (push plate)
- IP67

RECOMMENDED APPLICATIONS

- Operation switches for portable electronic equipment (Mobile phone, Portable audio)

EXPLANATION OF PART NO.

1	2	3	4	5	6	7	8	9	10	11	12
E	V	P	B	L		A		F	0	0	0
Product Code			Type	Operating Force	Height						

SPECIFICATIONS

Characteristics

Type		Snap action/Push-on type SPST	
Electrical	Rating	10 μA 2 V DC to 20 mA 15 V DC (Resistive load)	
	Contact Resistance	Max. 500 mΩ	
	Insulation Resistance	Min. 50 MΩ (at 100 V DC)	
	Dielectric Withstanding Voltage	250 V AC for 1 minute	
	Bouncing	Max. 10 ms (ON, OFF)	
Mechanical	Operating Force	0.7 N	1.6 N, 2.25 N, 3.0 N
	Travel	0.11 mm	0.15 mm
Endurance	Operating Life	Min. 300,000 cycles	
Protective Structure		IP67*1 Dust resistance : 4 types of talc 8 h , Water resistance: Immersion depth 1 m 30 min.	
Operating Temperature		-40 to +85 °C	
Storage Temperature		-40 to +85 °C (Bulk) -20 to +60 °C (Taping)	
Minimum Quantity/Packing Unit		20,000 pcs. Embossed Taping (Reel Pack)	
Quantity/Carton		100,000 pcs.	

Note) Non washable

*1: Switch shall not be operated during test.

Water or dust ingress shall be limited enough to prevent deleterious effect to the switch function.

However, IP67 shall be guaranteed under single product state,

then there is a possibility that IP67 performance become impaired depending on your mounting condition or usage.

So, please Ask our sales representative in advance, if the switch is applied to important usage for water and dust resistant.

Tactile Switches 2.8 mm × 1.9 mm SMD

DIMENSIONS (Unit: mm)

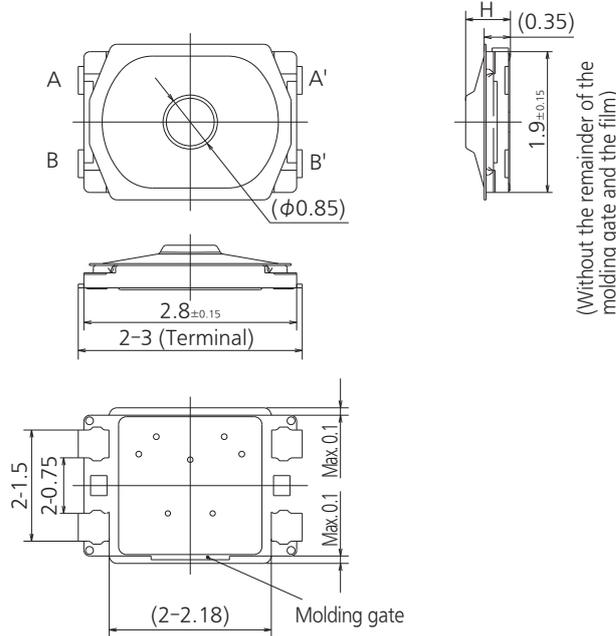
CAD The CAD data of the products with a " CAD " mark can be downloaded from our Website.

■ EVPBL (Embossed Taping)



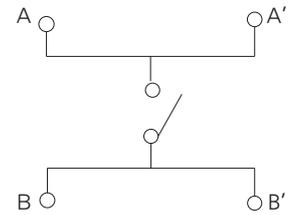
CAD

External dimensions



(Without the remainder of the molding gate and the film)

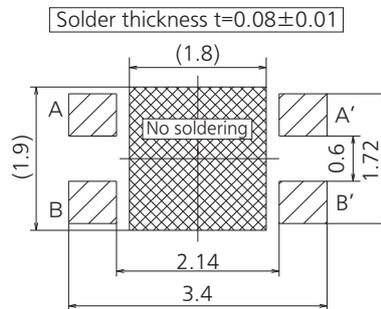
Circuit diagram



This product is designed to be smaller than the conventional type, which lowered the film peel off strength. Therefore please avoid to apply force to a push plate from side, or/and avoid set-knob to touch push plate during insertion to a set-case.

General dimension tolerance: ± 0.1
() dimensions are reference dimensions.

PWB land pattern for reference



- ▨: Recommended land pattern area.
▩: No soldering area.
- Any land pattern or via holes shall not be provided at ▩ area.
 - If it's necessary to design land pattern or via holes at ▩ area, please apply resist to them to protect their metal part completely.
 - If their metal parts are not protected completely, short circuit failure may occur by solder ball.
 - Beside, there should be convex/concave by designing additional pattern, it may cause switch tilt, influence on solder-ability or flux intrusion after reflow soldering.
 - Therefore, please study any influence of additional land pattern or via holes at ▩ area in advance.

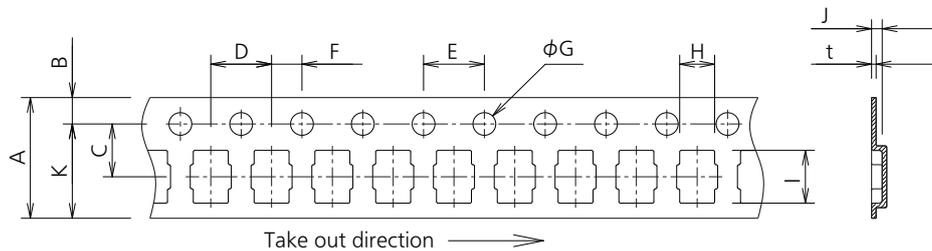
Part No.	Operating Force	H=Height	Operating Life
EVPBL0ADF000	0.7 N	0.53 mm	300,000 cycles
EVPBL2A1F000	1.6 N	0.53 mm	300,000 cycles
EVPBL9A2F000	2.25 N	0.57 mm	300,000 cycles
EVPBL5A8F000	3.0 N	0.60 mm	300,000 cycles

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EMBOSED TAPE DIMENSIONS (Unit: mm)

Specifications for taping

- Part No. : EVPBL/Height: 0.53 mm, 0.57 mm, 0.60 mm



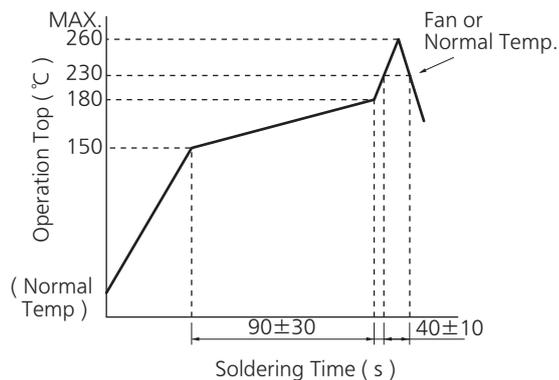
- Notes)
- 1: Peeling off strength of top tape: It should be within 0.2 N to 1.0 N at 165 degree in peeling off angle.
 - 2: Taping condition: Lack of products in the middle of taping should be one MAX, but total quantity specified in the specifications should be secured.
 - 3: Joint of carrier tape: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

Unit: mm

A	B	C	D	E	F	G	H	I	J	K	t
8±0.3	1.75±0.1	3.5±0.1	4±0.1	4±0.1	2±0.1	1.5 ^{+0.1} _{-0.1}	2.2±0.2	3.4±0.2	0.7±0.2	(6.25)	0.3±0.1

REFERENCE DATA

Recommended Reflow Soldering Conditions



- * Reflow temperature may vary by location even in the same reflow condition.
Please check the reflow temperature at terminals and at the top of a switch to make sure the both temperatures are within the specification.
If even one of them is out of the specifications, please adjust.

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