## $3.8 \mathrm{~mm} \times 1.9 \mathrm{~mm}$ Side-operational SMD Light Touch Switches

## Type: EVPAK



## - Features

- External dimensions: $3.9 \mathrm{~mm} \times 2.05 \mathrm{~mm}$, (Excluding the push plate)

Height 1.6 mm

- Side-operational type
- Good feeling
- Measure against electro static discharge (ESD)
- IP67 characteristic


## - Recommended Applications

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

■ Explanation of Part Numbers


Specifications

| Type |  | Snap action/Push-on type SPST |
| :---: | :---: | :---: |
| Electrical | Rating | $10 \mu \mathrm{~A} 2 \mathrm{Vdc}$ to 20 mA 15 Vdc (Resistive load) |
|  | Contact Resistance | $100 \mathrm{~m} \Omega$ max. |
|  | Insulation Resistance | $100 \mathrm{M} \Omega \mathrm{min}$. (at 100 Vdc ) |
|  | Dielectric Withstanding Voltage | 250 Vac for 1 minute |
|  | Bouncing | $10 \mathrm{~ms} \mathrm{max}$. (ON, OFF) |
| Mechanical | Operating Force | 1.6 N |
|  | Travel | 0.12 mm |
| Endurance | Operating Life | 200000 cycles min. |
| IP67(*1) | IP6x (Dust resistance) | Dust : Talc (Type4) 8h |
|  | IPx7 (Water resistance) | Immersion depth: 1 m 30 min . |
| Operating Temperature |  | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Storage Temperature |  | $\begin{aligned} & -40^{\circ} \mathrm{C} \text { to }+90^{\circ} \mathrm{C} \text { (Bulk) } \\ & -20^{\circ} \mathrm{C} \text { to }+60^{\circ} \mathrm{C} \text { (Taping) } \end{aligned}$ |
| Minimum Quantity/Packing Unit |  | 5000 pcs. Embossed Taping (Reel Pack) |
| Quantity/Carton |  | 25000 pcs. |

## Note: Non washable

(*1) IP67 : 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 us in advance, if the switch is applied to important usage for water and dust resistant.

Dimensions in mm (not to scale)


## 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 withiin the specification
If even one of them is out of the specifications, please adjust.

## - Embossed Carrier Taping

Tape width $=12.0 \mathrm{~mm}$


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 0.2 N to 1 . ON at 165 degree in peeling off angle. Joint of carrier tape : One joint per one reel may exist.

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| Part No. | Height | A | B | C | D | E | F |  |  |  |  |  |  |  |  |
| EVPAK | 1.6 | $12.0 \pm 0.2$ | $1.75 \pm 0.10$ | $5.50 \pm 0.05$ | $8.0 \pm 0.1$ | $4.0 \pm 0.1$ | $2.00 \pm 0.05$ | $1.5^{+0.1}$ | $3.15 \pm 0.20$ | $4.1 \pm 0.2$ | $(1.125)$ | $1.8 \pm 0.1$ | $0.65 \pm 0.10$ | $(10.25)$ | $0.30 \pm 0.05$ |

- Standard Reel Dimensions in mm (not to scale)


| Item | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rate (mm) | $\phi 380.0 \pm 2.0$ | $\phi 80.0 \pm 1.0$ | $\phi 13.0 \pm 0.5$ | $\phi 21.0 \pm 1.0$ | $2.0 \pm 0.5$ |


| Item | $F$ | $G$ |
| :---: | :---: | :---: |
| Rate $(\mathrm{mm})$ | $13.5 \pm 1.0$ | $17.5 \pm 1.0$ |

