| Part number |  | SKRHADE010 |
| :---: | :---: | :---: |
| Type |  | Surface mount |
| Operating force | 4-direction | 1.2 N |
|  | Center push | 2.35 N |
| Travel | 4-direction | 0.25 mm |
|  | Center push | 0.15 mm |
| Operating life (5mA 5V DC) |  | 1,000,000 cycles for each direction |
| Initial contact resistance |  | $100 \mathrm{~m} \Omega$ max. |
| Stem color |  | Natural |
| Guide bosses |  | With |
| Operating temperature range |  | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Ratings (max.)/(min.) (Resistive load) |  | 50 mA 12 V DC/ $10 \mu \mathrm{~A} 1 \mathrm{~V}$ DC |
| Electrical performance | Directional resolution | 4-direction |
|  | Insulation resistance | $100 \mathrm{M} \Omega$ min. 100 V DC |
|  | Voltage proof | 100 V AC for 1 minute |
| Mechanical performance | Directional operating force | $1.2 \pm 0.69 \mathrm{~N}$ |
|  | Push operating force | $2.35 \pm 0.69 \mathrm{~N}$ |
|  | Actuator strength Operating direction | 29.4N |
| Durability | Operating life Center push | 1,000,000 cycles |
| Environmental performance | Cold | $-40 \pm 2^{\circ} \mathrm{C}$ for 96 h |
|  | Dry heat | $90 \pm 2^{\circ} \mathrm{C}$ for 96 h |
|  | Damp heat | $60 \pm 2^{\circ} \mathrm{C}, 90$ to $95 \% \mathrm{RH}$ for 96 h |

## Certificate of Compliance to RoHS regulations

## Dimensions




Viewed from mounting face

## Circuit Diagram



## Packing Specifications

## Taping



| Number of | 1 reel | 1,300 |
| :--- | :--- | :--- |
| packages (pcs.) | 1 case / Japan | 10,400 |
|  | 1 case $/$ export | 10,400 |

```
packing
```

Tape width (mm)16

Export package measurements (mm) $401 \times 401 \times 214$

## Soldering Condition

Example of Reflow Soldering Condition

1. Heating method:

Double heating method with infrared heater.
2. Temperature measurement:

Thermocouple 0.1 to $0.2 \Phi$ CA (K) or CC (T) at solder joints (copper foil surface). A heat resisting tape should be used to fix thermocouple.
3. Temperature profile

A
B
C
D
E
F G H
I No. of reflows
$260^{\circ} \mathrm{C} \quad 230^{\circ} \mathrm{C} \quad 180^{\circ} \mathrm{C} \quad 150^{\circ} \mathrm{C}$
2 min. - - 40s

- 1 time
(1) The condition mentioned above is the temperature on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the PC board's material, size, thickness, etc. The above-stated conditions shall also apply to switch surface temperatures.
(2) Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

Reference for Hand Soldering
Tip temperature
$350 \pm 5^{\circ} \mathrm{C}$

Soldering time

No. of solders

3s max.

1 time

