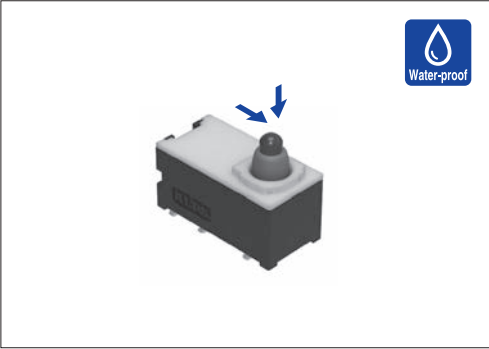


Surface mount two-pole simultaneous changeover type achieving stable contact



Typical Specifications

| Items | | Specifications |
|---|--------------|----------------------------|
| Rating (max.)/(min.) (Resistive load) | | 50mA 18V DC / 50μA 5V DC |
| Contact resistance (Initial / After operating life) | | 75mΩ max. / 200mΩ max. |
| Operating force | | 1 ± 0.5N |
| Operating life | Without load | 300,000cycles |
| | With load | 300,000cycle (50mA 18V DC) |

Product Line

| Poles | Positions | Changeover timing | Operating part shape | Terminal type | Minimum order unit (pcs) | | Product No. |
|-------|-----------|-------------------|----------------------|-----------------------|--------------------------|--------|-------------------|
| | | | | | Japan | Export | |
| 2 | 2 | Non shorting | Push | For PC board (Reflow) | 300 | 2,400 | SPVQC10100 |

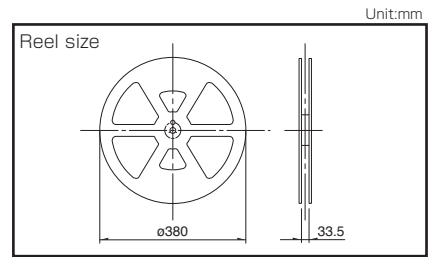
Note

This unit cannot be used in water (IP67 rating, except for terminal).

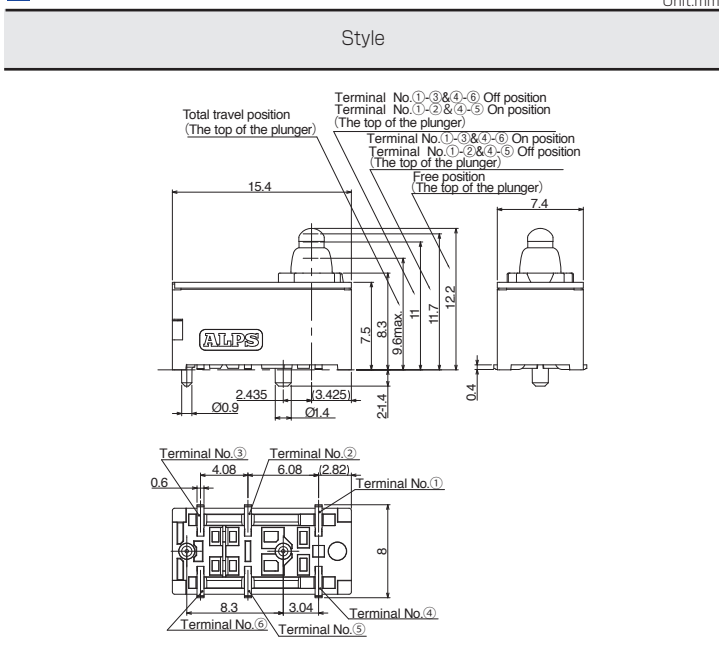
Packing Specifications

Taping

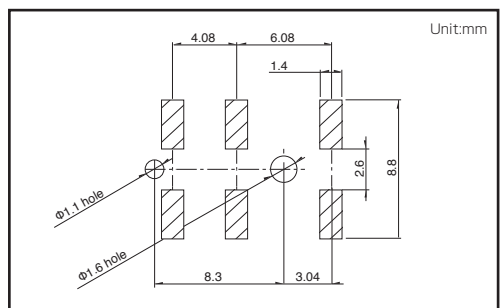
| Number of packages (pcs.) | | | Tape width (mm) | Export package measurements (mm) |
|---------------------------|---------------|------------------------|-----------------|----------------------------------|
| 1 reel | 1 case /Japan | 1 case /export packing | | |
| 300 | 1,200 | 2,400 | 32 | 403×403×360 |



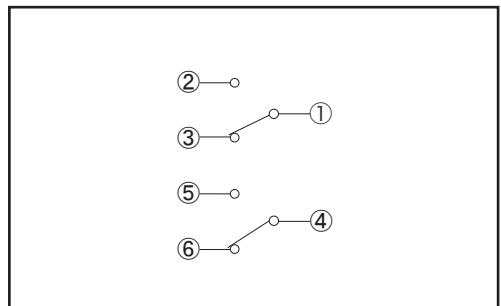
Dimensions



PC Board Mounting Hole and Land Dimensions



Circuit Diagram

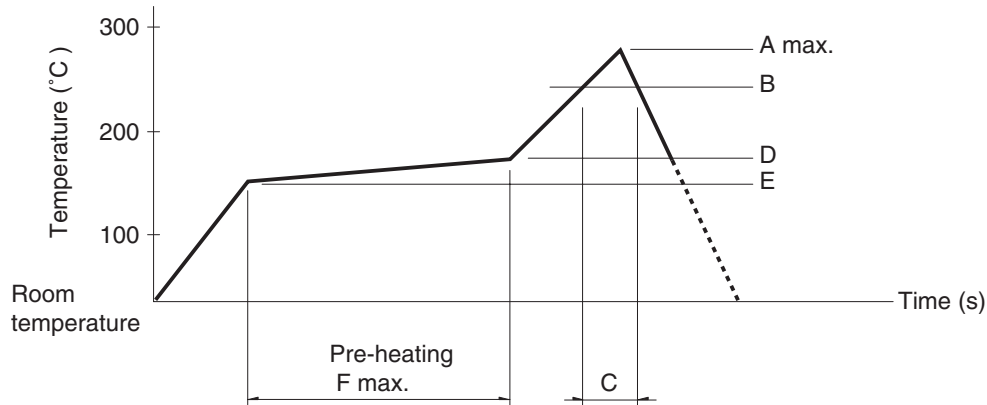


Refer to P.71 for soldering conditions.

Detector Switches Soldering Conditions

Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple $\phi 0.1$ to 0.2 CA (K) or CC (T) at soldering portion (copper foil surface).
A heat resisting tape should be used for fixed measurement.
3. Temperature profile



| Series (Reflow type) | A (°C) 3s max. | B (°C) | C (s) | D (°C) | E (°C) | F (s) |
|----------------------|----------------|--------|-------|--------|--------|-------|
| SPPB | 250 | 230 | 40 | 180 | 150 | 120 |
| SPPW8 | | | 35 | | | |
| SPVE | 260 | | 40 | | | |
| SPVL | | | | | | |
| SPVM | | | | | | |
| SPVN | | | | | | |
| SPVR | | | | | | |
| SPVS | | | | | | |
| SPVT | | | | | | |
| SSCM | | | | | | |
| SSCQ | | | | | | |
| SPVQC | 250 | | | | | |

Notes

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, surface 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

| Series | Soldering temperature | Soldering time |
|---|-----------------------|----------------|
| SPVS, SPVN, SPVT, SPVM, SPVR, SPVE, SPPW8, SSCQ, SSCM, SPVL, SSCT, SPVQC | 350±5°C | 3s max. |
| SPVQ1, SPVQ3, SPVQ6, SPVQ7, SPVQ8, SPVQ9, SSCN, SPVQA | 300±10°C | 3 +1 / 0s |
| SPPB (Reflow) | 300±5°C | 5s max. |
| SSCF, SPPB (For Lead, Dip) | 350±10°C | 3 +1 / 0s |

Reference for Dip Soldering

(For PC board terminal types)

| Series | Items | | Dip soldering | |
|--|------------------------|-----------------|-----------------------|-----------------------|
| | Preheating temperature | Preheating time | Soldering temperature | Duration of immersion |
| SSCT, SPVQ1, SPVQ3, SPVQ6, SPVQ7, SPVQ8, SPVQ9, SPVQA | 100±10°C | 60s max. | 260±5°C | 5±1s |
| SPPW8, SPPB | 100 °C max. | 60s max. | 255±5°C | 5±1s |
| SSCF | — | | 260±5°C | 5±1s |