

Compact type with main unit height of 1.2mm that enables single-side recoil stroke 2mm



Detector

Slide

Push

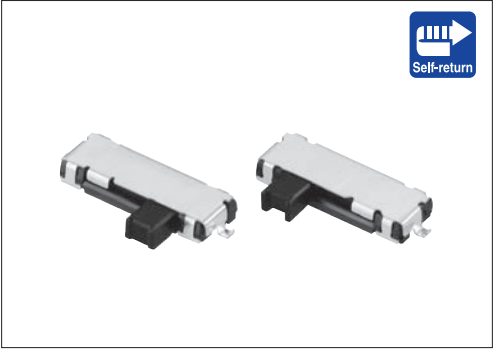
Rotary

Power

Dual-in-line Package Type

Small size General Use Type

Big size General Use Type



Typical Specifications

| Items | | Specifications |
|---|--------------|-----------------------------|
| Rating (max.)/(min.) (Resistive load) | | 10mA 5V DC / 50μA 3V DC |
| Contact resistance (Initial performance / After lifetime) | | 10Ω max. / 10Ω max. |
| Operating force | | 1±0.5N |
| Operating life | Without load | 100,000 cycles |
| | With load | 100,000 cycles (10mA 5V DC) |

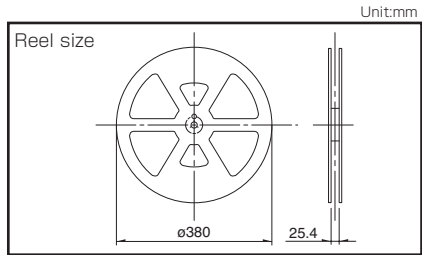
Product Line

| Travel (mm) | Operating section directions | Poles | Positions | Changeover timing | Soldering | Operating | Shape of flame leg | Location lug | Minimum order unit (pcs.) | | Products No. | Drawing No. |
|-------------|------------------------------|-------|-----------|-------------------|-----------|-------------------|---------------------|--------------|---------------------------|--------|-------------------|-------------|
| | | | | | | | | | Japan | Export | | |
| 2 | Horizontal | 1 | 2 | Not specified | Reflow | Left-side recoil | Flat | Without | 6,000 | 24,000 | SSAL120100 | 1 |
| | | | | | | Right-side recoil | | | | | SSAL220100 | 2 |
| | | | | | | Left-side recoil | For PC board insert | | 4,500 | 18,000 | SSAL120201 | 3 |
| | | | | | | Right-side recoil | | | | | SSAL220200 | 4 |

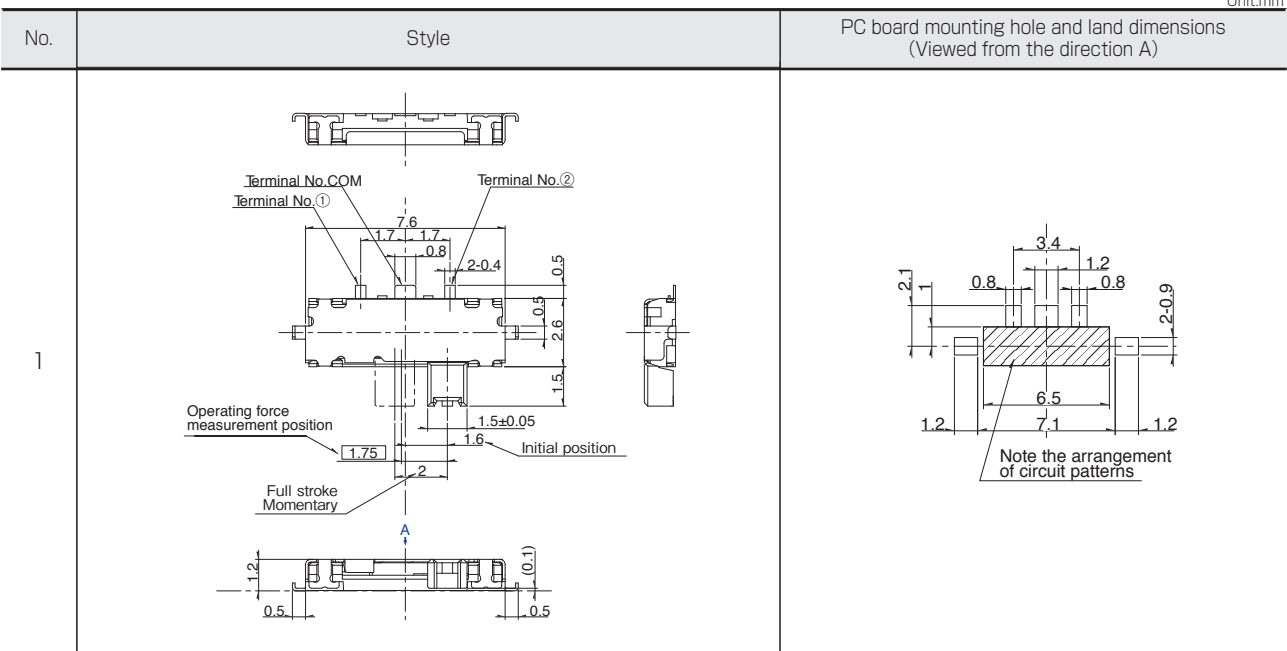
Packing Specifications

Taping

| Product No. | Number of packages (pcs.) | | | Tape width (mm) | Export package measurements (mm) |
|--|---------------------------|---------------|------------------------|-----------------|----------------------------------|
| | 1 reel | 1 case /Japan | 1 case /export packing | | |
| SSAL120100 SSAL220100 | 6,000 | 12,000 | 24,000 | 24 | 428×413×172 |
| SSAL120201 SSAL220200 | 4,500 | 9,000 | 18,000 | | |



Dimensions

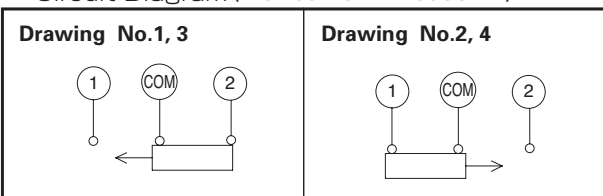


■ Dimensions

Unit:mm

| No. | Style | PC board mounting hole and land dimensions (Viewed from the direction A) |
|-----|-------|---|
| 2 | | |
| 3 | | |
| 4 | | |













■ Circuit Diagram (Viewed from Direction A)



Detector
Slide
Push
Rotary
Power
Dual-In-line
Package Type
Small size
General Use type
Big size
General Use Type

Slide Switches

List of Varieties

| Series | | SSAJ | SSAH | SSSS8 | SSAL | SSAG | SSSS7 |
|--------------------------------|--|---|---|---|---|---|---|
| Photo | |  |  |  |  |  |  |
| Actuator direction | Horizontal | ● | ● | ● | ● | ● | ● |
| | Vertical | — | — | ● | — | — | — |
| Poles-positions | 1-2 | ● | — | ● | ● | — | ● |
| | 1-3 | — | ● | ● | — | ● | ● |
| | 1-4 | — | — | — | — | — | — |
| | 2-2 | — | — | ● | — | — | — |
| | 2-3 | — | — | ● | — | — | — |
| | 2-4 | — | — | — | — | — | — |
| | 4-2 | — | — | — | — | — | — |
| Travel (mm) | | 1.4 | 1.5 | 1.5, 2 | 2 | 1.5 | 2 |
| Operating temperature range | | -10°C to +60°C | -30°C to +60°C | -40°C to +85°C | -10°C to +60°C | | -40°C to +85°C |
| Automotive use | | — | — | — | — | — | — |
| Life cycle | |  |  |  |  |  |  |
| Rating (max.) (Resistive load) | | 10mA 5V DC | 1mA 5V DC | 0.3A 5V DC | 10mA 5V DC | | 0.3A 4V DC |
| Rating (min.) (Resistive load) | | 50μA 3V DC | | | | | |
| Durability | Operating life without load | 10,000 cycles 500mΩ max. | 10,000 cycles 300mΩ max. | 10,000 cycles 100mΩ max. | 100,000 cycles 10Ω max. | 30,000 cycles (Lock side) 100,000 cycles (Recoil side) 500mΩ max. | 10,000 cycles 100mΩ max. |
| | Operating life with load Load: as rating | | | 10,000 cycles 130mΩ max. | | | |
| Electrical performance | Initial contact resistance | 300mΩ max. | 200mΩ max. | 70mΩ max. | 10Ω max. | 200mΩ max. | 70mΩ max. |
| | Insulation resistance | 100MΩ min. 100V DC | | | | | |
| | Voltage proof | 100V AC for 1minute | | | | | |
| Mechanical performance | Terminal strength | 3N for 1minute | | | | | |
| | Actuator strength | Operating direction | 10N | | | | |
| Pulling direction | | | | | | | |
| Environmental performance | Cold | -40°C 96h | | -40°C 500h | -40°C 96h | | -20°C 500h |
| | Dry heat | 85°C 96h | | 85°C 500h | 85°C 96h | | 85°C 500h |
| | Damp heat | 40°C, 90 to 95%RH 96h | 60°C, 90 to 95%RH 240h | 60°C, 90 to 95%RH 500h | 40°C, 90 to 95%RH 96h | | 60°C, 90 to 95%RH 500h |
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| | |
|-------------------------------------|-----|
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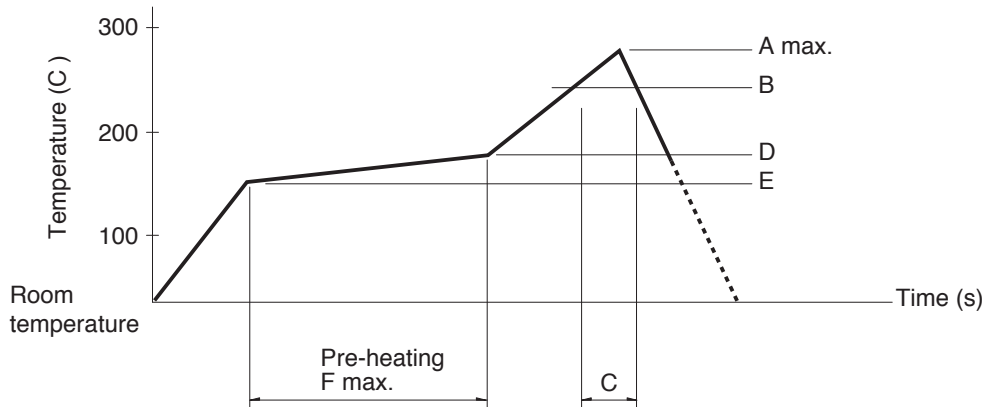
Note

● Indicates applicability to all products in the series.

Slide Switches Soldering Conditions

Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple ϕ 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) |
|-------------------------------|--|-------------------|--------|-------|--------|--------|-------|
| SSSS2 | Vertical 1-pole, 3-position | 260 | 230 | 40 | 180 | 150 | 120 |
| | Horizontal 1-pole, 2-position 1-pole, 3-position 2-pole, 3-position | | | | | | |
| | Vertical 1-pole, 2-position | 250 | | | | | |
| SSSS7 | | 260 | | | | | |
| SSAH, SSAG, SSAJ, SSAL, SSSS8 | | 260 | | | | | |

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, 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 |
|------------------------|-----------------------|----------------|
| SSSF, SSSU | 350±10°C | 3+1/0s |
| SSSS2 | 350±10°C | 4s max. |
| SSSS9 | 350±10°C | 3s max. |
| SSAH, SSAG, SSAJ, SSAL | 350±5°C | 3s max. |
| SSSS8 | 330±5°C | 3s max. |
| SSSS7 | 320±5°C | 3s max. |
| SSAC | 300±10°C | 2s max. |

Reference for Dip Soldering

(For PC board terminal types)

| Series | Items | | Dip soldering | |
|------------|------------------------|-----------------|-----------------------|-----------------------|
| | Preheating temperature | Preheating time | Soldering temperature | Duration of immersion |
| SSSS2 | 100°C max. | 60s max. | 260±5°C | 3±1s |
| SSSS9 | 120°C max. | 60s max. | 260±5°C | 5+0/-1s (2 times) |
| SSSF, SSSU | 100°C max. | 60s max. | 260±5°C | 10±1s/5±1s |
| SSAC | 100°C max. | 60s max. | 260±5°C | 5±1s |