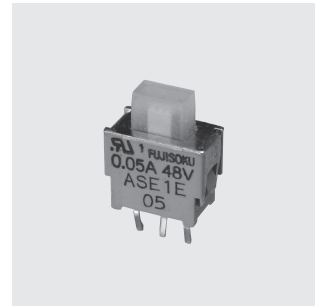


# ASE

## Hyper-miniature Slide Switches

Washable

RoHS Compliant



UL

### Features

#### 1. High Contact Reliability

Twin-contact clip mechanism for high contact reliability

#### 2. Immersion washable type

#### 3. Gold-plated contacts suitable for low current applications

#### 4. For PC board mounting

#### 5. Improved operability

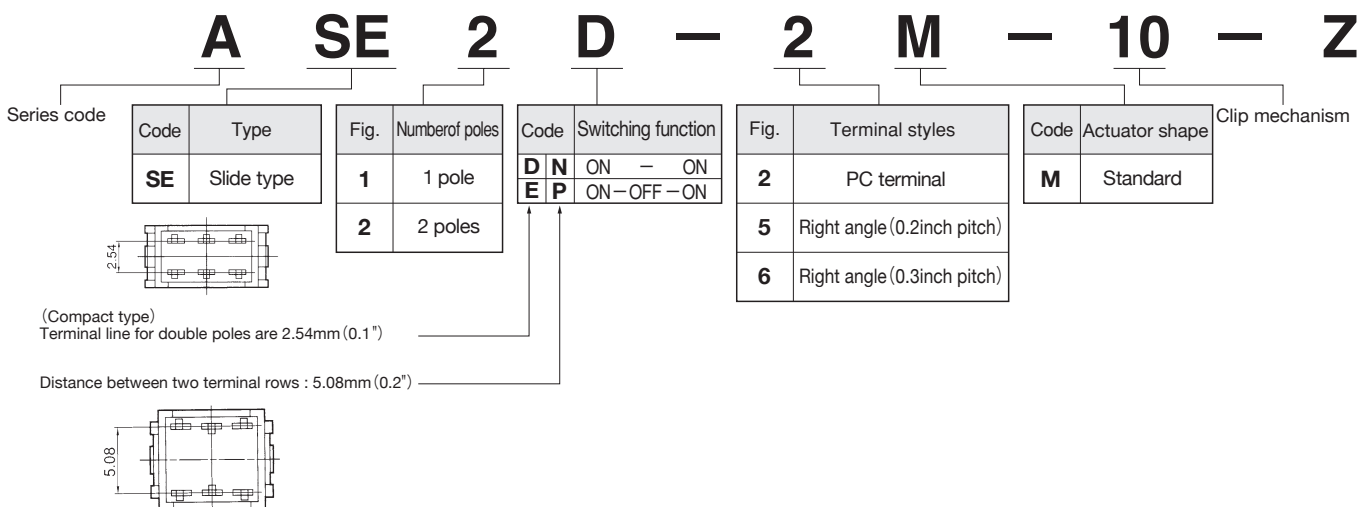
The independent detent structure provides a light operating touch.

#### 6. UL-recognized

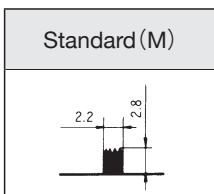
### Specifications

|        |                               |                                   |                                       |
|--------|-------------------------------|-----------------------------------|---------------------------------------|
| Rating | 0.4VA AC/DC                   | Voltage range                     | 20mV~60V                              |
|        |                               | Current range                     | 1 $\mu$ A~50mA                        |
|        | Max.                          | 50mA 60VAC/DC                     |                                       |
|        | Min.                          | 1 $\mu$ A 20mVAC/DC               |                                       |
|        | UL                            | 48VAC/DC 50mA                     |                                       |
|        | Initial contact resistance    | 50m $\Omega$ max.                 | (1.5mA 200 $\mu$ VAC)                 |
|        | Dielectric strength           | 250VAC 1 minute                   |                                       |
|        | Initial insulation resistance | 500M $\Omega$ min.                | (500VDC)                              |
|        | Electrical life               | 10,000 cycles at max. rating.     | 50,000 cycles at min. rating or 0.4VA |
|        | Operating force               | 0.69~4.9N                         |                                       |
|        | Operating temperature range   | -20 $^{\circ}$ C~+85 $^{\circ}$ C |                                       |
|        | Storage temperature range     | -40 $^{\circ}$ C~+85 $^{\circ}$ C |                                       |

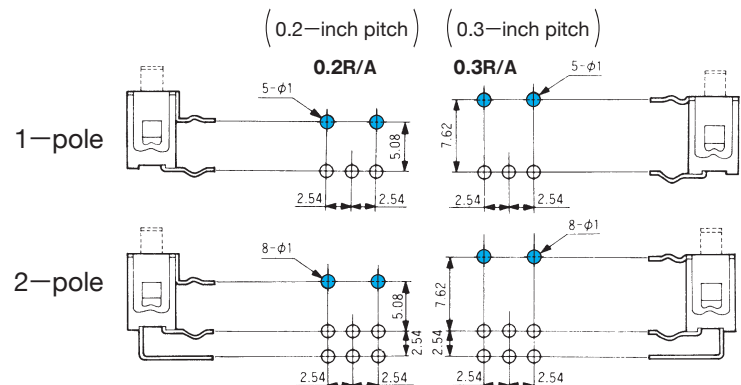
### Part Numbering



### Actuator Shape



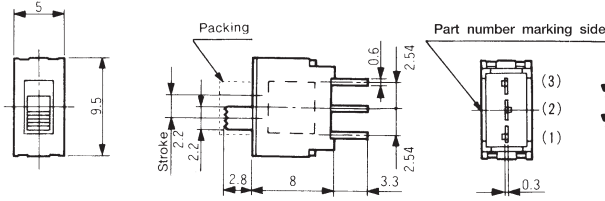
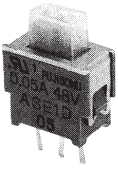
### Right Angle Terminals



Optional Accessories.

**SPDT**

**PC**



| Switching function   | Viewed from part No. marking side |     |     |
|----------------------|-----------------------------------|-----|-----|
|                      |                                   |     |     |
| Part No.             |                                   |     |     |
| ASE1D-2M-10-Z        | ON                                | —   | ON  |
| ★ASE1E-2M-10-Z       | ON                                | OFF | ON  |
| Connecting terminals | 2-1                               | —   | 2-3 |

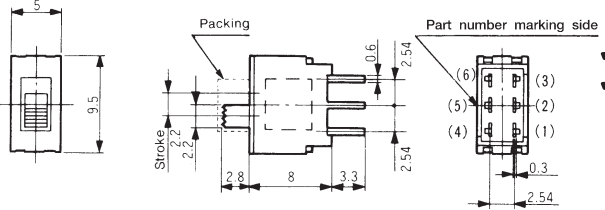
Terminal numbers are not shown on the switch.

**DPDT**

**PC**



Distance between two terminal rows : 2.54 mm

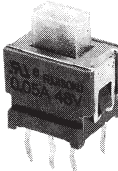


| Switching function   | Viewed from part No. marking side |     |            |
|----------------------|-----------------------------------|-----|------------|
|                      |                                   |     |            |
| Part No.             |                                   |     |            |
| ASE2D-2M-10-Z        | ON                                | —   | ON         |
| ★ASE2E-2M-10-Z       | ON                                | OFF | ON         |
| Connecting terminals | 2-1<br>5-4                        | —   | 2-3<br>5-6 |

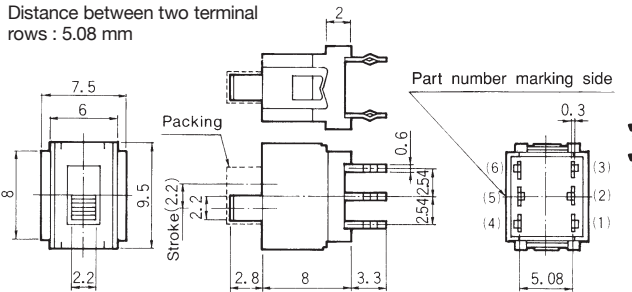
Terminal numbers are not shown on the switch.

**DPDT**

**PC**



Distance between two terminal rows : 5.08 mm

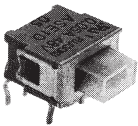


| Switching function   | Viewed from part No. marking side |     |            |
|----------------------|-----------------------------------|-----|------------|
|                      |                                   |     |            |
| Part No.             |                                   |     |            |
| ★ASE2N-2M-10-Z       | ON                                | —   | ON         |
| ★ASE2P-2M-10-Z       | ON                                | OFF | ON         |
| Connecting terminals | 2-1<br>5-4                        | —   | 2-3<br>5-6 |

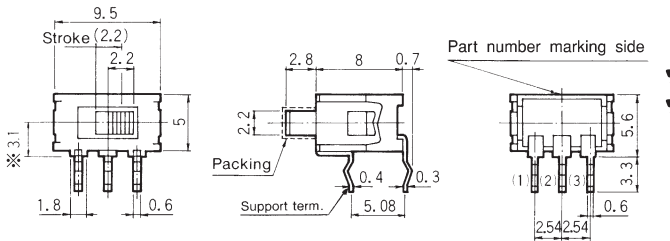
Terminal numbers are not shown on the switch.

**SPDT**

**0.2R/A**



Mounting height : 3.1 mm

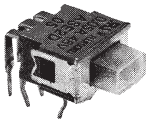


| Switching function   | Viewed from part No. marking side |     |     |
|----------------------|-----------------------------------|-----|-----|
|                      |                                   |     |     |
| Part No.             |                                   |     |     |
| ASE1D-5M-10-Z        | ON                                | —   | ON  |
| ★ASE1E-5M-10-Z       | ON                                | OFF | ON  |
| Connecting terminals | 2-1                               | —   | 2-3 |

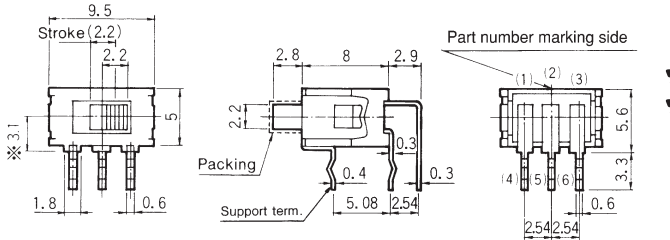
Terminal numbers are not shown on the switch.

**DPDT**

**0.2R/A**



Mounting height : 3.1 mm

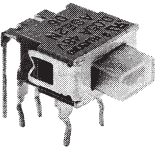


| Switching function   | Viewed from part No. marking side |     |            |
|----------------------|-----------------------------------|-----|------------|
|                      |                                   |     |            |
| Part No.             |                                   |     |            |
| ASE2D-5M-10-Z        | ON                                | —   | ON         |
| ★ASE2E-5M-10-Z       | ON                                | OFF | ON         |
| Connecting terminals | 2-1<br>5-4                        | —   | 2-3<br>5-6 |

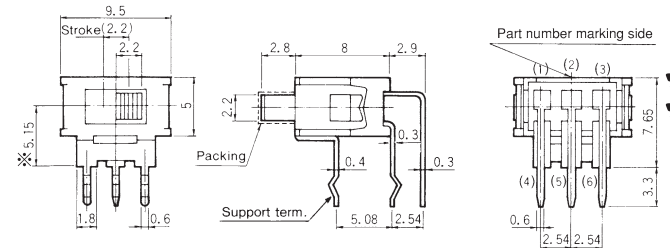
Terminal numbers are not shown on the switch.

**DPDT**

**0.2R/A**



Mounting height : 5.15 mm



| Switching function   | Viewed from part No. marking side |     |            |
|----------------------|-----------------------------------|-----|------------|
|                      |                                   |     |            |
| Part No.             |                                   |     |            |
| ★ASE2N-5M-10-Z       | ON                                | —   | ON         |
| ▲ASE2P-5M-10-Z       | ON                                | OFF | ON         |
| Connecting terminals | 2-1<br>5-4                        | —   | 2-3<br>5-6 |

Terminal numbers are not shown on the switch.

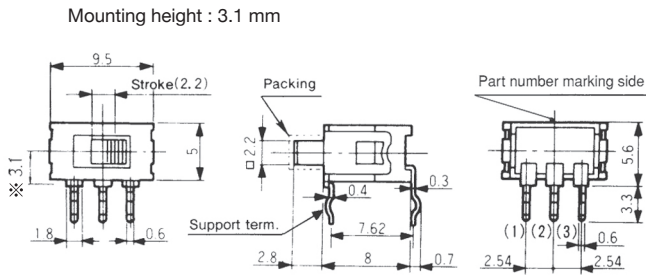
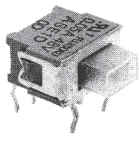
★ : Made to order products.

●The actuator is sealed with a white-colored packing. Remove the packing with tweezers after the washing process.

# ASE

## SPDT

0.3R/A

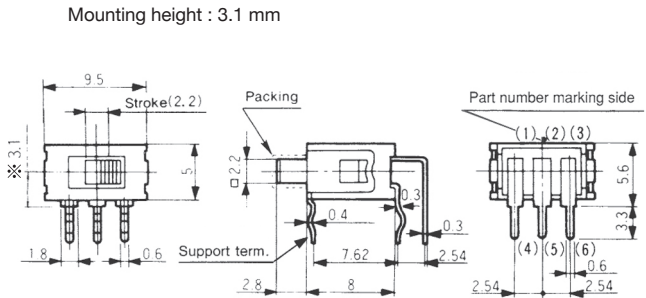
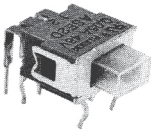


| Switching function   | Viewed from part No. marking side |     |     |
|----------------------|-----------------------------------|-----|-----|
|                      |                                   |     |     |
| Part No.             |                                   |     |     |
| ★ ASE1D-6M-10-Z      | ON                                | —   | ON  |
| ★ ASE1E-6M-10-Z      | ON                                | OFF | ON  |
| Connecting terminals | 2-1                               | —   | 2-3 |

Terminal numbers are not shown on the switch.

## DPDT

0.3R/A

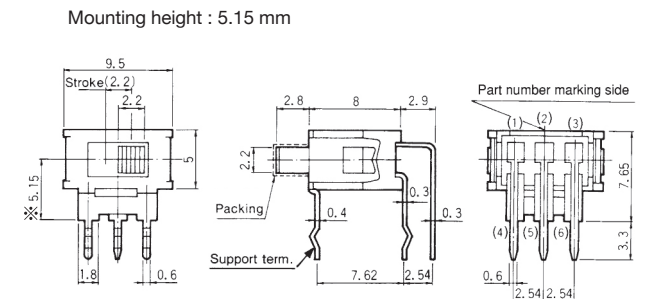
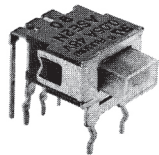


| Switching function   | Viewed from part No. marking side |     |            |
|----------------------|-----------------------------------|-----|------------|
|                      |                                   |     |            |
| Part No.             |                                   |     |            |
| ☆ ASE2D-6M-10-Z      | ON                                | —   | ON         |
| ★ ASE2E-6M-10-Z      | ON                                | OFF | ON         |
| Connecting terminals | 2-1<br>5-4                        | —   | 2-3<br>5-6 |

Terminal numbers are not shown on the switch.

## DPDT

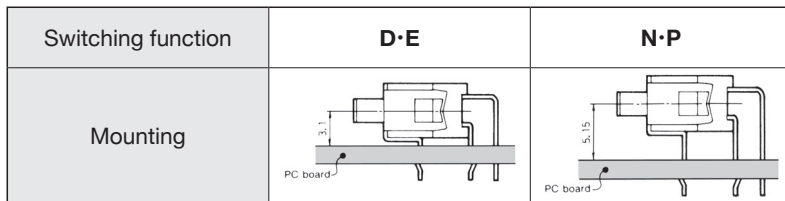
0.3R/A



| Switching function   | Viewed from part No. marking side |     |            |
|----------------------|-----------------------------------|-----|------------|
|                      |                                   |     |            |
| Part No.             |                                   |     |            |
| ★ ASE2N-6M-10-Z      | ON                                | —   | ON         |
| ★ ASE2P-6M-10-Z      | ON                                | OFF | ON         |
| Connecting terminals | 2-1<br>5-4                        | —   | 2-3<br>5-6 |

Terminal numbers are not shown on the switch.

## Mounting Height



## Optional Accessories

(Supplied separately)

| Part Name  | Bracket      |
|------------|--------------|
| Part No.   | 140000640324 |
| Dimensions |              |

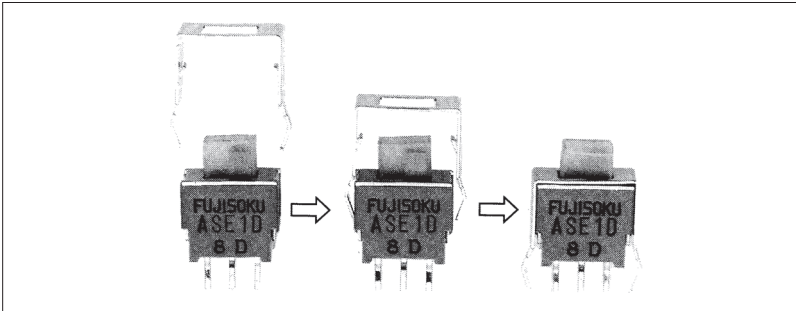
## PC Hole Layouts

| Series         | P/C terminal     |              | Right Angle terminal |               |
|----------------|------------------|--------------|----------------------|---------------|
|                | Whithout bracket | Whit bracket | 0.2inch pitch        | 0.3inch pitch |
| ASE1D<br>ASE1E |                  |              |                      |               |
| ASE2D<br>ASE2E |                  |              |                      |               |
| ASE2N<br>ASE2P |                  |              |                      |               |

★ : Made to order products.

☆ : Semi-standard products.

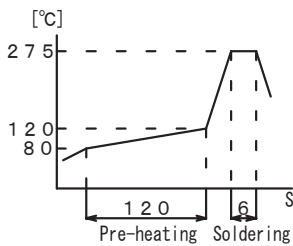
**Bracket Installation Procedure**



**Handling Precautions (AS and ASE Series)**

**1. Soldering Specifications**

- (1) Manual Soldering
  - Device : Soldering iron
  - 380°C, Max.; 3 seconds, Max.
- (2) Auto Soldering
  - Device : Jet wave type or dip type
  - 275°C, Max.; 6 seconds, Max.
  - Pre-heating should be done at temperatures ranging from 80°C to 120°C and within 120 sec.



**2. Flux Cleaning**

- (1) Solvent : Fluorine or Alcohol type.
- (2) Cleaning after soldering should be done after the terminal temperature falls to 90°C or below, or after leaving the switch for five minutes or longer at room temperature.
  - AS series are not process sealed and are not washable. If the PC board is to be cleaned, clean the soldering surface of substrate with a brush so that the switch is not exposed to the cleaning solution.
- (3) Do not use ultrasonic cleaning system.

**3. Mounting of Switch**

- (1) Use the PC boards of  $\phi 1$  holes.
- (2) Do not bend the terminals before mounting the switch on the PC board.
- (3) After mounting the switch, do not place the device in such a way that the device weight will be applied on the knob, etc. of the switch.
- (4) Do not apply load exceeding 12.7 N (1.3 kgf) to the knob. Use a bracket (optional accessory) if the load is expected to exceed 12.7 N (1.3 kgf). The strength of the knob will be reinforced to 29.4 N (3 kgf) max..

**Packaging Specifications**

