

## **Washable**

RoHS Compliant

# **Hyper-miniature Slide Switches**

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

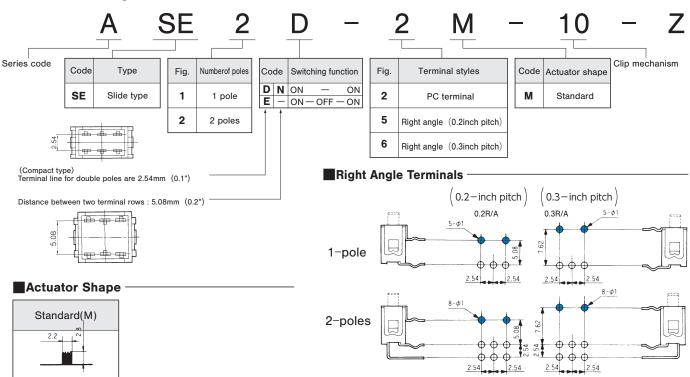
The independent detent structure provides a light operating touch.

6. UL-recognized

## **■**Specifications

		Valtage renge	20m)/- 60\/	
	0.4VA AC/DC	Voltage range	20mV~60V	
	0.477770700	Current range	1μA∼50mA	
Rating	Max.	50mA 60VAC/DC		
	Min.	1μA 20mVAC/DC		
	UL	48VAC/DC 50m	nΑ	
Initial cont	act resistance	50mΩ max. (1.5mA 200µVAC		
Dielectric strength		250VAC 1 minute		
Initial insulation resistance		500MΩ min.	(500VDC)	
Electrical Pro-		10,000 cycles at max. rating.		
Electrical life		50,000 cycles at min. rating or 0.4VA		
Operating force		0.69~4.9N		
Operating temperature range		-20°C∼+85°C		
Storage temperature range		-40°C∼+85°C		

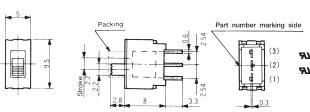
## ■Part Numbering



#### **SPDT**

PC





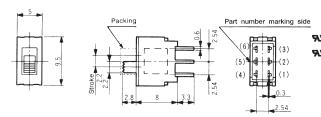
	Switching function	Viewed from part No. marking side		
	Part No.			
7	ASE1D-2M-10-Z	ON	_	ON
7	☆ ASE1E-2M-10-Z	ON	OFF	ON
	Connecting terminals	2-1	-	2-3

Terminal numbers are not shown on the switch.

## **DPDT**

PC





Distance between two terminal rows: 2.54 mm

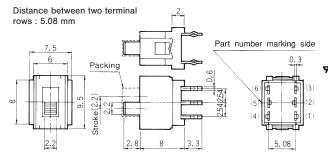
	Switching function	Viewed from part No. marking side		
	Part No.			
7	ASE2D-2M-10-Z	ON	-	ON
7	★ ASE2E-2M-10-Z	ON	OFF	ON
	Connecting terminals	2-1 5-4	-	2-3 5-6

Terminal numbers are not shown on the switch.

#### **DPDT**

PC





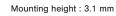
	Switching function	Viewed from part No. marking side		
	Part No.			
<i>77</i>	☆ASE2N-2M-10-Z	ON	_	ON
	Connecting terminals	2-1 5-4	_	2-3 5-6

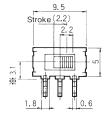
Terminal numbers are not shown on the switch.

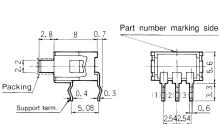
## **SPDT**

0.2R/A









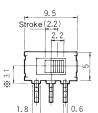
	Switching function	Viewed from part No. marking sid		
	Part No.			
<i>9</i> 1	ASE1D-5M-10-Z	ON	-	ON
	Connecting terminals	2-1	_	2-3

Terminal numbers are not shown on the switch.

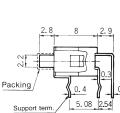
#### **DPDT**

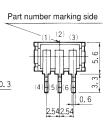
0.2R/A





Mounting height: 3.1 mm



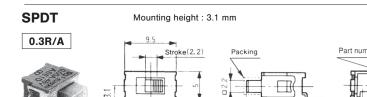


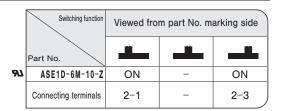
	Switching function	Viewed from part No. marking s			
	Part No.			1	
<i>9</i> 1	ASE2D-5M-10-Z	ON	_	ON	
	Connecting terminals	2-1 5-4	_	2-3 5-6	

Terminal numbers are not shown on the switch.

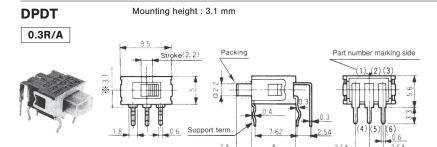
<sup>★:</sup> Made to order products.

ts.



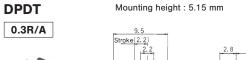


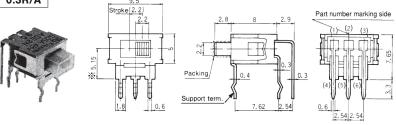
Terminal numbers are not shown on the switch.



	Switching function	Viewed from part No. marking side		
	Part No.			
<b>R</b>	☆ASE2D-6M-10-Z	ON	-	ON
	Connecting terminals	2-1 5-4	_	2-3 5-6

Terminal numbers are not shown on the switch.





	Switching function	Viewed fro	m part No. m	. marking side	
	Part No.				
<i>9</i> 1	★ ASE2N-6M-10-Z	ON	-	ON	
	Connecting terminals	2-1 5-4	_	2-3 5-6	

Terminal numbers are not shown on the switch.

## ■ Mounting Height

Switching function	D∙E	N
Mounting	PC board	PC board

## **■**Optional Accessories

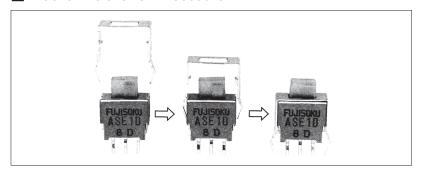
《Supplied separately》

	«Cupplica coparatory»
Part Name	Bracket
Part No.	140000640324
Dimensions	9.55 9.55 9.55 0.7

## **■PC Hole Layouts**

Series	P/C te	erminal	Right Ang	le terminal
	Without bracket	With bracket	0.2inch pitch	0.3inch pitch
ASE1D ASE1E	3- \( \psi \) 2.54 2.54	2.54 2.54 2.54 2.54	2- \$1 5- \$1	5.5 4 1 5.5 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
ASE2D ASE2E	2.54 2.54 6- \( \phi \) 1	2.54 2.54 2.54 8- \( \psi \) 1	5.08 8- ø 1	7.62
ASE2N	2.54 2.54 6-\$\psi\$	2.54 2.54 2.54 8-\$1	5.08 2.54	7.62 2.54

#### ■ Bracket Installation Procedure



#### Handling Precautions

#### 1. Soldering Specifications

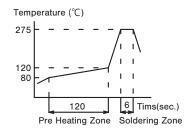
(1)Manual Soldering

Device: Soldering iron 380°C, Max.; 3 seconds, Max.

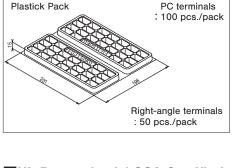
(2)Auto Soldering

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.



#### ■Packaging Specifications



#### 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.

## ■UL Recognized / CSA Certified

Part No.
ASE1D-2M-10-Z
ASE1E-2M-10-Z
ASE2D-2M-10-Z
ASE2E-2M-10-Z
ASE2N-2M-10-Z
ASE1D-5M-10-Z
ASE2D-5M-10-Z
ASE1D-6M-10-Z
ASE2D-6M-10-Z
ASE2N-6M-10-Z

Even if the products are of UL-or CSA-approved ones, The products in stock do not carry the UL mark of the CSA mark.

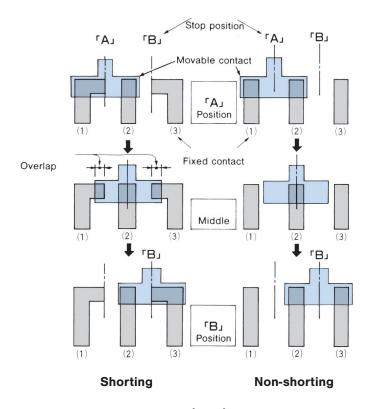
When placing an order, be sure to specify "With UL/CSA Mark." For the products with the UL mark or the CSA mark, extra costs will be added.

UL File No.E43275 CSA File No.LR38341

## ■Shorting (Make-Before-Break)

A switch which momentarily connects both circuits when the actuator is moved from Point A to B in the below figure.

All switches which are not marked as "Shorting" are "Non-shorting" (Break-Before-Make).



(Fig.1)