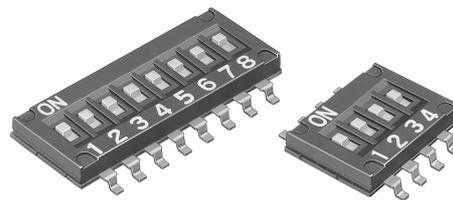


## Half-pitch DIP Switch

## A6H

### Ultra-low Profile, Half-pitch, Surface-mounting DIP Switch

- Very low profile of 1.55 mm.
- Mounting space reduced by 63% (compared with conventional models).
- Washable, seal tape models available.
- Embossed taping models available.



## Ordering Information

No. of poles	Standard models	Models with seal tape	
		Stick models	Embossed taping models (See note.)
			
4	A6H-4101	A6H-4102	A6H-4102-P
6	A6H-6101	A6H-6102	A6H-6102-P
8	A6H-8101	A6H-8102	A6H-8102-P
10	A6H-0101	A6H-0102	A6H-0102-P

**Note:** Embossed taping models are packaged in units of 4,000. Orders should be placed in multiples of 4,000 as delivery is not possible in smaller units.

## Specifications

### ■ Ratings/Characteristics

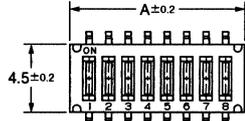
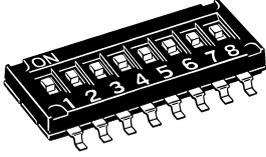
<b>Switching capacity</b>	25 mA at 24 VDC 10 $\mu$ A (minimum current) at 3.5 VDC
<b>Insulation resistance</b>	100 M $\Omega$ min. (at 100 VDC)
<b>Contact resistance</b>	200 m $\Omega$ max. (initial value)
<b>Dielectric strength</b>	300 VAC for 1 min between terminals of same polarity, and between terminals of different polarity
<b>Vibration resistance</b>	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
<b>Shock resistance</b>	Malfunction: 300 m/s <sup>2</sup> min.
<b>Life expectancy</b>	Mechanical: 1,000 operations min. Electrical: 1,000 operations min.
<b>Ambient temperature</b>	Operating: -40 to 85°C (with no icing or condensation) Storage: -40 to 85°C (with no icing or condensation)
<b>Ambient humidity</b>	Operating: 35% to 90%
<b>Operating force</b>	0.29 to 4.9 N
<b>Enclosure rating</b>	Equivalent to IP40

# Dimensions

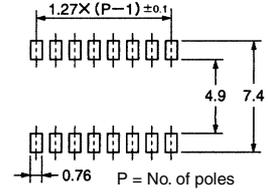
**Note:** All units are in millimeters unless otherwise indicated.

## Standard

A6H-□101

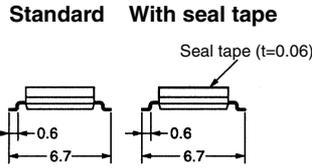
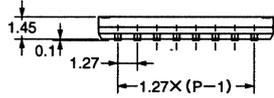
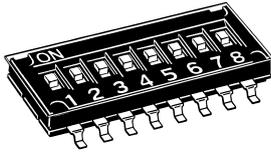


## Dimensions of PCB pad (Top View)



## With Seal Tape

A6H-□102  
A6H-□102-P

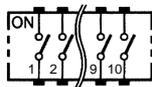


- Note:**
1. There is a tolerance of  $\pm 0.4$  mm for each of the above dimensions unless otherwise specified in the diagrams.
  2. The values of A in the above diagram are given below.

No. of poles	Model		A
4	A6H-4101	A6H-4102	6.31
6	A6H-6101	A6H-6102	8.85
8	A6H-8101	A6H-8102	11.39
10	A6H-0101	A6H-0102	13.93

# Installation

## Internal Connections (Top View)



# Precautions

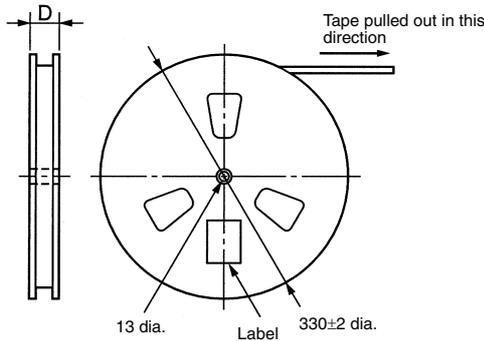
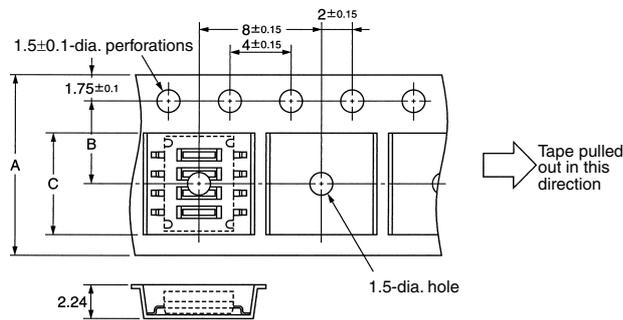
## Handling

Do not apply excessive operating force to the DIP Switch, otherwise the DIP Switch may be damaged or deformed, thus causing the switch mechanism to malfunction as a result. Apply an operating force not exceeding 200% of the maximum rated operating force to the DIP Switch.

Set the DIP Switch with a tiny, rounded object, such as the tip of a ball-point pen or small screwdriver. Do not set the DIP Switch using tweezers or any other sharp object, which may damage the DIP Switch. Do not set the DIP Switch using the point of a mechanical pencil, otherwise lead powder or fragments may fall into the DIP Switch and internal circuit board, causing the DIP Switch to malfunction and reducing the insulation of the circuit board.

## Packing Specifications

A6H models with embossed taping specifications are shown below.



<b>Applicable models</b>	A6H-□102-P
<b>Standard</b>	Conforming to EIAJ
<b>Wrapping quantity</b>	4,000 per reel

Dimension	No. of poles			
	4	6	8	10
A <sup>+0.3</sup> <sub>-0.1</sub>	12	24	24	24
B±0.13	5.5	11.5	11.5	11.5
C	(6.6)	(11.7)	(11.7)	(14.4)
D	(18)	(30)	(30)	(30)

## Circuit Design

Use the DIP Switch within the rated voltage and current ranges, otherwise the DIP Switch may have a shortened life expectancy, radiate heat, or burn out. This particularly applies to the instantaneous voltages and currents when switching.

The reliability and lifetime of the Switch may vary with the type of load and other conditions. It is recommended that the Switch is used in actual applications only after correct operation is confirmed under the conditions in which it will be used.

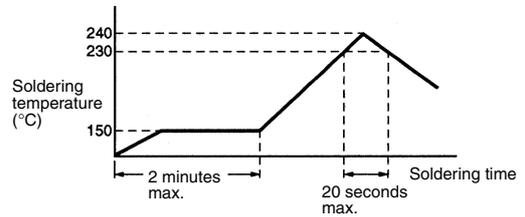
## Mounting

Do not operate the DIP Switch while mounting, soldering, or washing the DIP Switch, otherwise the DIP Switch may deform due to the heat of the solder, the DIP Switch may malfunction due to the penetration of the washing agent, or the machine incorporating the DIP Switch may operate or be set incorrectly.

## Soldering

Observe the following conditions when soldering the DIP Switch.

### Reflow Soldering



Do not use flow soldering or manual soldering.

Depending on the kind of reflow bath used, the soldering conditions and the temperature around the Switch may vary. Confirm the conditions beforehand.

## Washing

Only models with a seal tape can be washed.

The DIP Switch cannot be washed using ultrasonic cleaning. It is possible to wipe these models or dip them into washing agents for one minute maximum.

Apply fluorocarbon or alcoholic solvents to clean washable models. Do not apply any other solvents or water to clean any washable model because they may deteriorate the materials or performance of the Switch.

Washing equipment incorporating more than one washing bath can be used to clean washable models provided that the washable models are cleaned for one minute maximum per bath and the total cleaning time does not exceed three minutes.

Do not impose any external force on washable models while washing.

Do not clean washable models immediately after soldering. Wait for at least three minutes to clean washable models after soldering.

Models with a seal tape can be washed provided that the seal tape is not removed or pasted before washing the DIP Switch.

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. A117-E1-2 **In the interest of product improvement, specifications are subject to change without notice.**

## **OMRON Corporation**

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