

# Distinctive Characteristics

Compact dimensions and low profile allow high density mounting and close stacking of PC boards.

Crisp actuation positively indicates circuit status.

Heat resistant resin allows vapor phase and infrared convection reflow soldering.

Award-winning STC mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability, and unparalleled logic-level reliability. (Additional STC details in Terms and Acronyms in the Supplement section.)



Insert molded terminals lock out flux, solvents, and other contaminants.

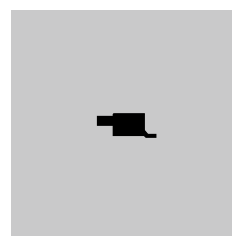
Metric terminal spacing for standard PC board grid (2.0mm x 2.0mm ).

Gull-wing terminals provide mechanical stability during soldering and simplified solder joint inspection.

Packaged in tape-reel or partitioned tray. Tape-reel packaging meets EIA-481-D Standard.

Coplanarity: all considered surfaces must lie between two parallel planes that are a maximum distance apart of .0059" (0.15mm). (Additional coplanarity details in Terms and Acronyms in the Supplement section.)

Actual Size



# General Specifications

## Electrical Capacity (Resistive Load)

**Logic Level:** 0.4VA maximum @ 28V AC/DC maximum  
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
Note: Find additional explanation of operating range in Supplement section.

## Other Ratings

**Contact Resistance:** 50 milliohms maximum  
**Insulation Resistance:** 100 megohms minimum @ 500V DC  
**Dielectric Strength:** 500V AC minimum for 1 minute minimum  
**Mechanical Life:** 10,000 operations minimum  
**Electrical Life:** 10,000 operations minimum  
**Contact Timing:** SS312S ~ Shorting (make-before-break); SS314M ~ Nonshorting (break-before-make)  
**Total Travel:** .079" (2.0mm)

## Materials & Finishes

**Actuator:** Polyphenylene sulfide  
**Housing:** Phosphor bronze with tin plating (UL94V-0)  
**Base:** Polyphenylene sulfide (UL94V-0)  
**Movable Contactor:** Phosphor bronze with gold plating over silver plating (code 4)  
**Terminals:** Phosphor bronze with gold plating

## Environmental Data

**Operating Temp Range:** -25°C through +85°C (-13°F through +185°F)  
**Humidity:** 90 ~ 95% humidity for 240 hours @ 40°C (104°F)  
**Vibration:** 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours  
**Shock:** 50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## Installation

**Soldering:** Reflow Soldering Recommended. See Profile A in Supplement section.  
Manual Soldering: See Profile A in Supplement section.  
**Cleaning:** These devices are not process sealed. Hand clean locally using alcohol based solution.

## Standards & Certifications

**Flammability Standards:** UL 94V-0 rated housing & base  
The SS3 Series slides have not been tested for UL recognition or CSA certification.  
These switches are designed for use in a low-voltage, low-current, logic-level circuit.  
When used as intended in a logic-level circuit, the results do not produce hazardous energy.

TYPICAL SWITCH ORDERING EXAMPLE

SS3

14M

A

H

4

Poles & Circuits

|     |      |    |      |    |
|-----|------|----|------|----|
| 12S | SPDT | ON | NONE | ON |
|-----|------|----|------|----|

SS312S model has shorting contacts.

|     |      |    |     |    |
|-----|------|----|-----|----|
| 14M | SPDT | ON | OFF | ON |
|     | SP3T | ON | ON  | ON |

SS314M model has nonshorting contacts.

For 3-on: External connection must be made during installation; see Poles & Circuits chart.

Actuation

|   |               |
|---|---------------|
| H | Side Actuated |
|---|---------------|

Packaging

|         |                              |
|---------|------------------------------|
| R       | Tape-Reel<br>500 Pieces/Reel |
| No Code | Partitioned Tray             |

Terminal Spacing

|   |                      |
|---|----------------------|
| A | Metric 2.0mm x 2.0mm |
|---|----------------------|

Contact Material & Rating

|   |                                                 |
|---|-------------------------------------------------|
| 4 | Gold Rated 0.4VA maximum<br>@ 28V AC/DC maximum |
|---|-------------------------------------------------|

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

SS314MAH4

Gold Contacts with 0.4VA Rating

Side Actuated



SPDT ON-OFF-ON Circuit

2.0mm x 2.0mm Terminal Spacing

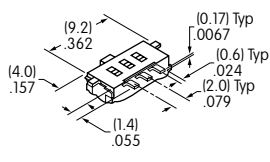
### POLES & CIRCUITS

|      |        | Slide Position |        |      | Connected Terminals |        |      | Throw & Schematics                                 |                                                                                      |
|------|--------|----------------|--------|------|---------------------|--------|------|----------------------------------------------------|--------------------------------------------------------------------------------------|
| Pole | Model  | Right          | Center | Left | Right               | Center | Left | Note: Terminal numbers are not actually on switch. |                                                                                      |
| SP   | SS312S | ON             | NONE   | ON   | 2-3                 | NONE   | 2-1  | SPDT                                               |                                                                                      |
| SP   | SS314M | ON             | OFF    | ON   | 3-5                 | 4-2    | 3-1  | SPDT                                               |                                                                                      |
|      |        | ON             | ON     | ON   | 3-5                 | 3-4    | 3-1  | SP3T                                               | <br>External connection must be made during installation to create ON-ON-ON circuit. |

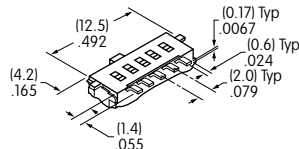
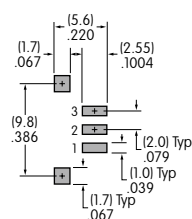
### TERMINAL SPACING

A

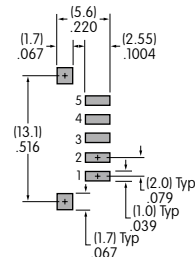
Metric 2.0mm x 2.0mm



SS312



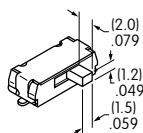
SS314



### ACTUATION

H

Side Actuated



### CONTACT MATERIALS & RATING

4

Gold over Silver/Phosphor Bronze

Logic Level

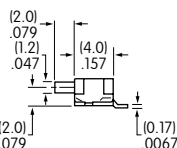
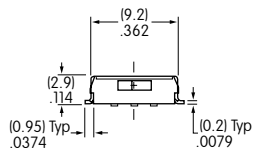
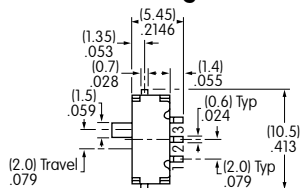
0.4VA maximum @ 28V AC/DC maximum

Complete explanation of operating range in Supplement section.

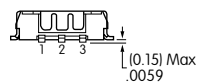
## TYPICAL SWITCH DIMENSIONS

### Shorting Contacts

#### Single Pole



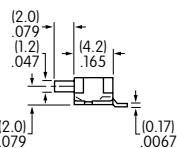
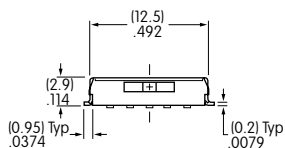
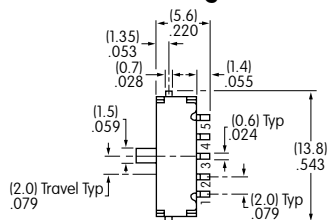
#### Coplanar Dimension



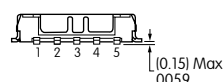
SS312SAH4

### Nonshorting Contacts

#### Single Pole



#### Coplanar Dimension



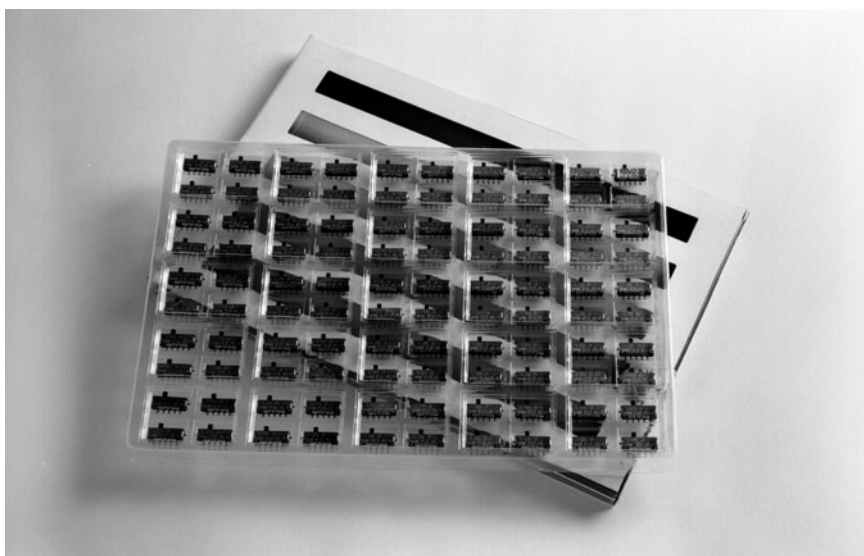
SS314MAH4

## PACKAGING

**No  
Code**

### Partitioned Tray

If the SS3 is ordered in less than 500-piece increments, the switches are packaged in a partitioned tray. No code is required.



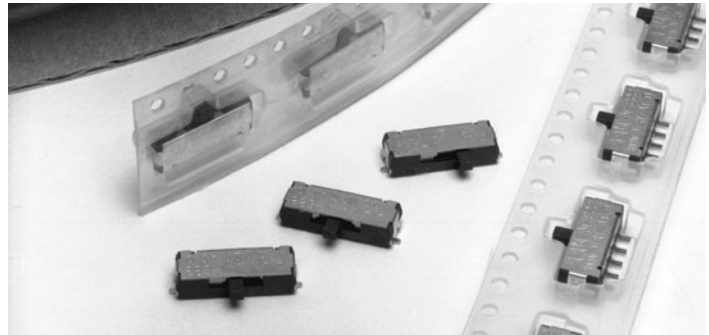
### PACKAGING

**R**

#### Tape-Reel Packaging

Switches must be ordered in 500-piece increments when tape-reel packaging is selected.

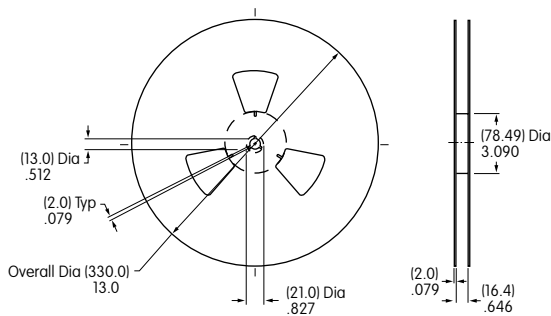
Tape-reel packaging meets EIA-481-D Standard.



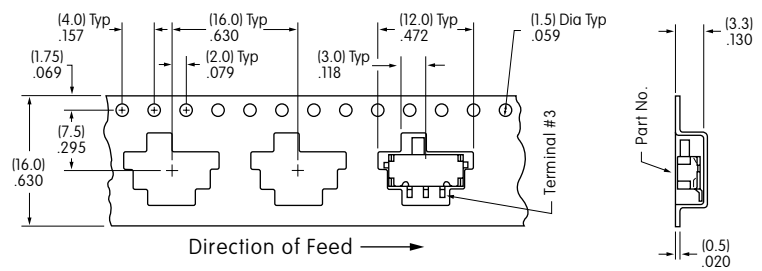
#### Tape-Reel Packaging for SS312SAH4

Each tape-reel of 530 pockets contains 500 switches.

Minimum Leader Length: 11.97" (304mm) Minimum Trailer Length: 6.93" (176mm)



Reel Dimensions

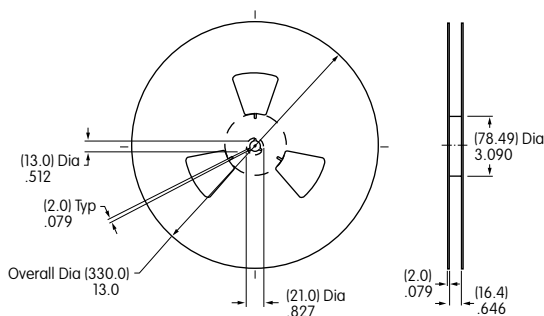


Tape Dimensions

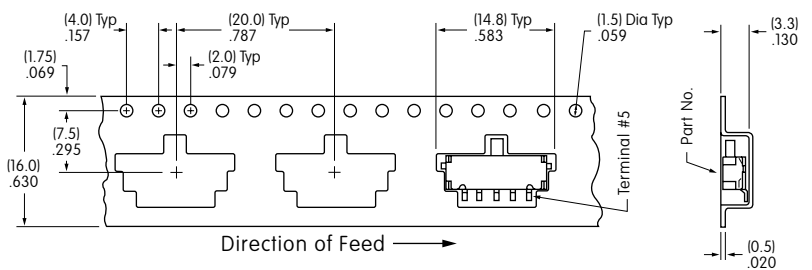
#### Tape-Reel Packaging for SS314MAH4

Each tape-reel of 530 pockets contains 500 switches.

Minimum Leader Length: 14.96" (380mm) Minimum Trailer Length: 8.66" (220mm)



Reel Dimensions



Tape Dimensions

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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