

TYPICAL SWITCH ORDERING EXAMPLE

SS **12** **S** **D** **P** **2** **L** **C** **R**

MOUNTING

No Code	Through-Hole
3	SMD (SP non-illuminated only)

TERMINAL SPACING

For Through-Hole	
B	Metric 2.0mm X 2.0mm
D	Inch .100" X .100"
(Illuminated available with inch spacing only)	
For SMD	
A	Metric 2.0mm X 2.0mm

LED CIRCUIT

L	Isolated
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LED COLORS

C	Red
E	Yellow
F	Green

POLES & CIRCUITS

12	SPDT	ON	NONE	ON
14*	SP3T	ON	ON	ON
(Nonilluminated only)				
22	DPDT	ON	NONE	ON
(Through-hole only)				

*See Pole & Circuit chart below.

ACTUATION

For Through-Hole	
P	Top Actuated
H	Side Actuated
For SMD	
H	Side Actuated

CONTACT MATERIALS

2	Silver over Brass
4	Gold over Brass
Gold standard for SMD	

SMD PACKAGING

R	Tape-Reel 500 Pieces/Reel
No Code	Partitioned Tray

CONTACTS

S	Shorting (on-none-on only)
M	Nonshorting (3-on only)

See further details under Poles & Circuits & on Engineering page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

SS12SDP2

Top Actuated — SPDT ON-NONE-ON Circuit
 Silver Contacts — Shorting Contacts
 Terminals with .100" Spacing

POLES & CIRCUITS								
Pole	Model	Slide Position			Connected Terminals			Throw & Schematics
		Right	Center	Left	Right	Center	Left	
SP	SS12 SS312	ON	NONE	ON	2-1	OPEN	2-3	SPDT Note: Terminal numbers not actually on switch. Isolated LED circuit requires external power source.
SP	SS14	ON	ON	ON	3-4	3-2	3-1	SP3T
SP	SS314	ON	OFF	ON	3-5	4-2	3-1	SPDT
SP	SS314	ON	ON	ON	3-5	3-4	3-1	SP3T ON-ON-ON circuit can be created by adding external connection.
DP	SS22	ON	NONE	ON	2-1 5-4	OPEN	2-3 5-6	DPDT

GENERAL SPECIFICATIONS

Electrical Capacity (Resistive Load)

Power Level (code 2):	0.1A @ 30V DC for PCB mount models only
Logic Level (code 4):	0.4VA maximum @ 28V AC/DC maximum

Other Ratings

Contact Resistance:	20 milliohms maximum for SS; 50 milliohms maximum for SS3
Insulation Resistance:	100 megohms minimum @ 500V DC
Dielectric Strength:	500V AC
Mechanical Life:	10,000 operations minimum
Electrical Life:	10,000 operations minimum
Nominal Operating Force:	200 grams
Contact Timing:	Shorting (further details on Engineering Particulars page)
Total Travel:	2.0mm (.079")

Materials & Finishes

Actuator:	Polyamide for nonilluminated SS; polyacetal for illuminated SS; polyphenylene sulfide for SS3
Upper Case:	Polyester for 3-on SS; polyacetal for all other SS models Phosphor bronze with tin plating for SS3
Lower Case:	Glass fiber reinforced polyester for illuminated & 3-on SS models; glass fiber reinforced polybutylene terephthalate (thermoplastic) for all other SS models; polyphenylene sulfide for SS3 models
Movable Contactor:	Phosphor bronze with silver plating (code 2); or Phosphor bronze with gold plating over silver plating (code 4)
Interior Base:	Phenolic resin (thermoset) for SS
Terminals:	Brass with silver plating over copper plating for SS; or brass with gold plating for SS; phosphor bronze with gold plating for SS3

Environmental Data

Operating Temp Range:	-15°C through +60°C (+5°F through +140°F) for S; -25°C through +85°C (-13°F through +185°F) for SS3
Humidity:	93% 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 acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Installation

Soldering Time & Temperature:	For SS: 5 seconds @ 270°C, or 5 seconds @ 250°C for plated-through holes; For SS3: 3 seconds @ 350°C manual solder or Automated processing techniques can be used, excluding the washing procedures.
Process Seal:	Not available

Standards & Certifications

Flammability Standards:	UL 94V-0 rated housing & base
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CONTACTS

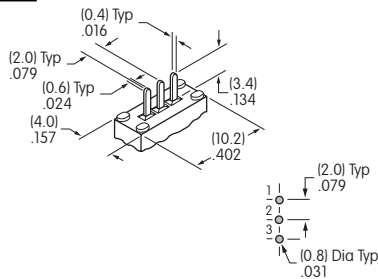
S **Shorting (Make-before-break)**
See explanation on the Engineering Particulars page.

M **Nonshorting (Break-before-make)**
See explanation on the Engineering Particulars page.

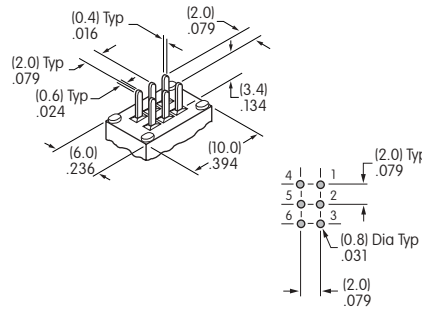
TERMINAL SPACING

For Through-Hole

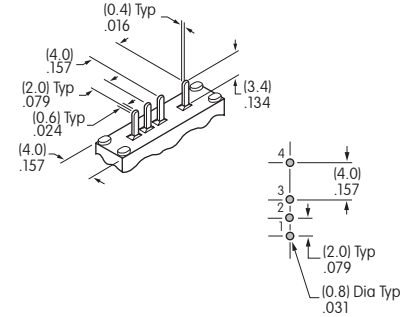
B **Metric 2.0mm with Black Base**



On-None-On Single Pole Models

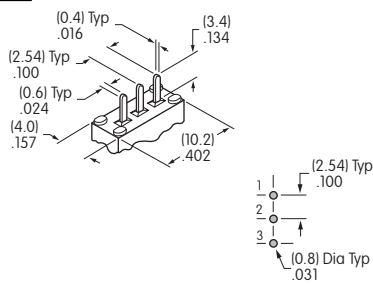


On-None-On Double Pole Models

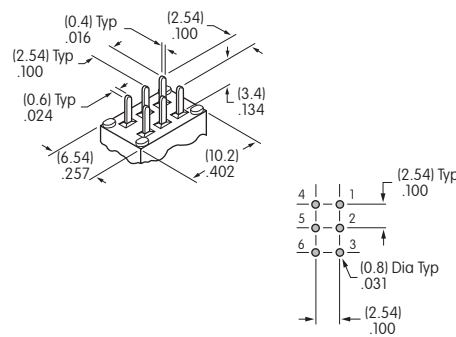


3-on Models

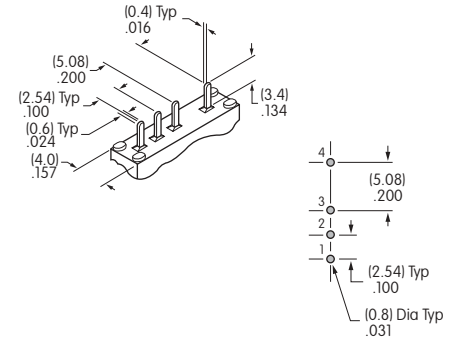
D **Inch .100" with Gray Base**



On-None-On Single Pole Models



On-None-On Double Pole Models

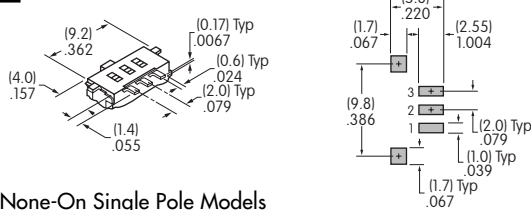


3-on Models

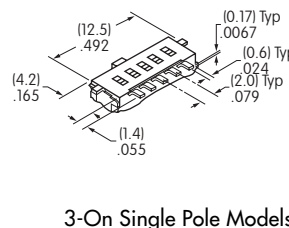
Illuminated Models Shown at end of section.

For SMD

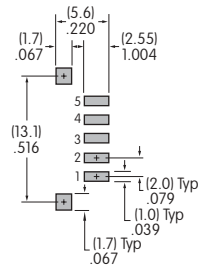
A **Metric 2.0mm with Black Base**



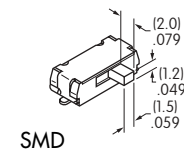
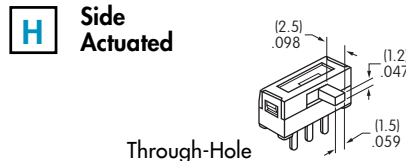
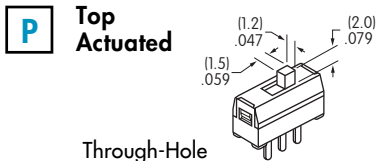
On-None-On Single Pole Models



3-On Single Pole Models



ACTUATION



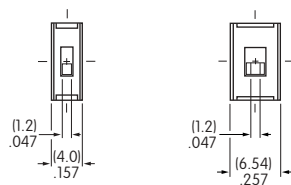
CONTACT MATERIALS & RATINGS

2	Silver over Brass	Power Level	0.1A @ 30V DC
4	Gold over Brass	Logic Level	0.4VA max. @ 28V AC/DC

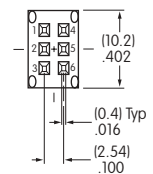
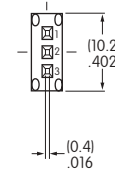
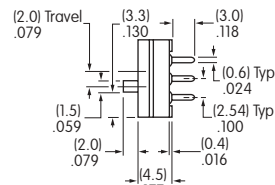
TYPICAL SWITCH DIMENSIONS

Top Actuated

Single & Double Pole

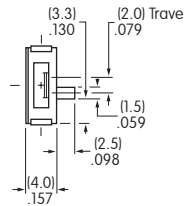


SS12SDP2

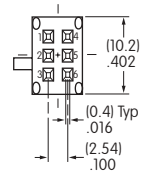
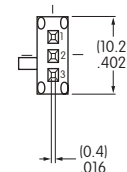
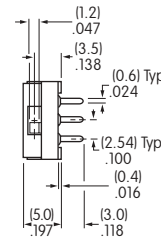
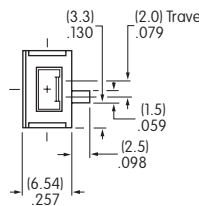


Side Actuated

Single & Double Pole

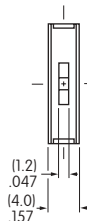


SS12SDH2

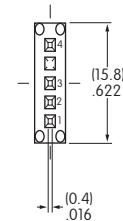
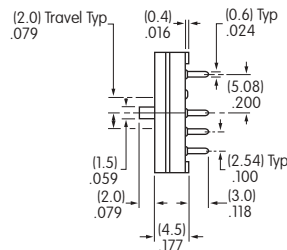


3-On Circuit • Top Actuated

Single Pole

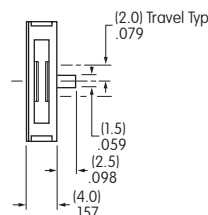


SS14SDP2

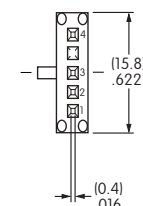
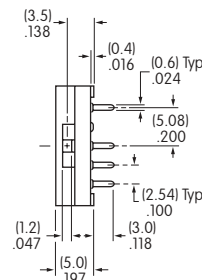


3-On Circuit • Side Actuated

Single Pole



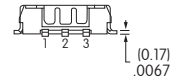
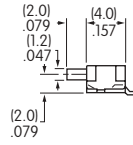
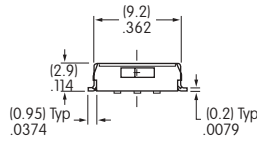
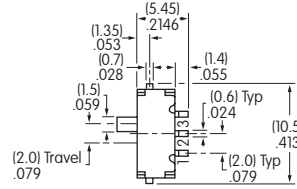
SS14SDH2



TYPICAL SWITCH DIMENSIONS

Side Actuated • SMD

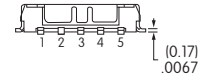
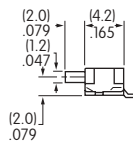
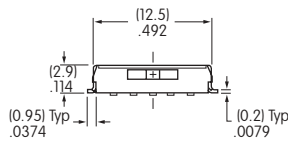
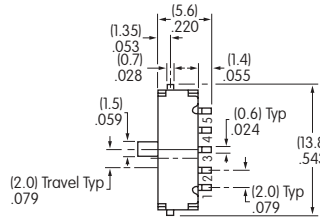
Single Pole



SS312SAH4

3-On Circuit • Side Actuated • SMD

Single Pole



SS314MAH4

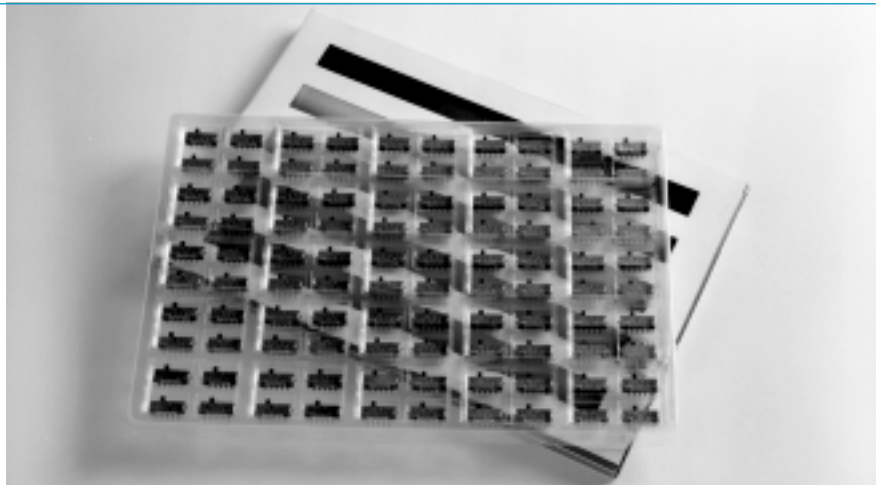
PACKAGING FOR SURFACE MOUNT DEVICES

Tray 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 FOR SURFACE MOUNT DEVICES (CONTINUED)

Tape-Reel Packaging



Tape-Reel Packaging

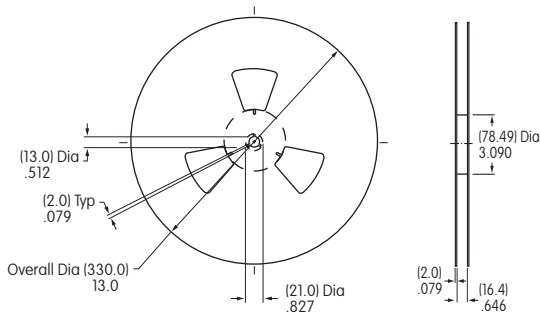
Switches must be ordered in 500-piece increments when tape-reel packaging is selected.



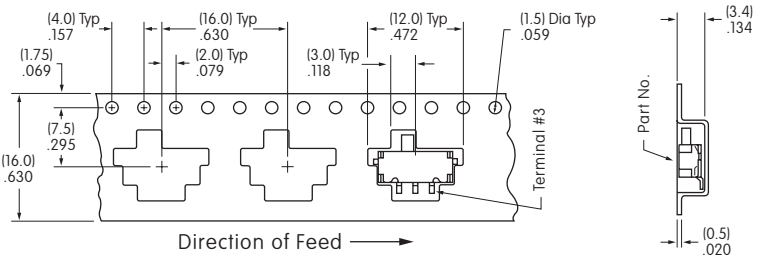
Tape Reel Packaging for SS312SAH4

Each tape-reel of 530 pockets contains 500 switches.

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



Reel Dimensions

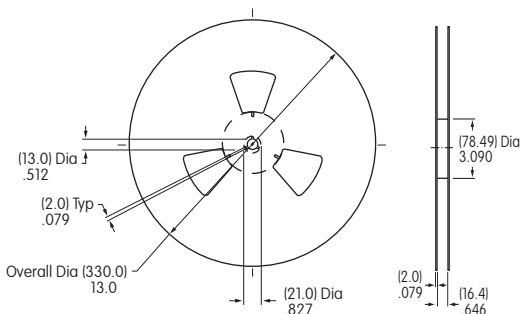


Tape Dimensions

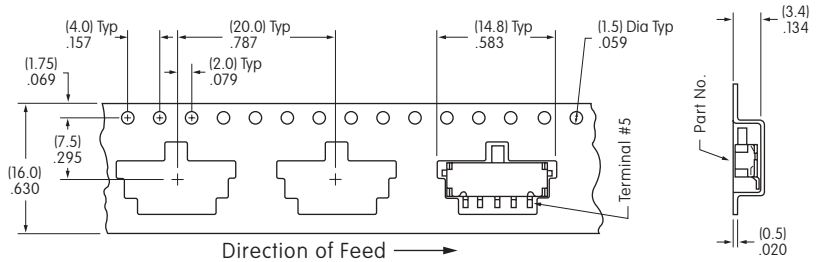
Tape Reel Packaging for SS314MAH4

Each tape-reel of 530 pockets contains 500 switches.

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



Reel Dimensions

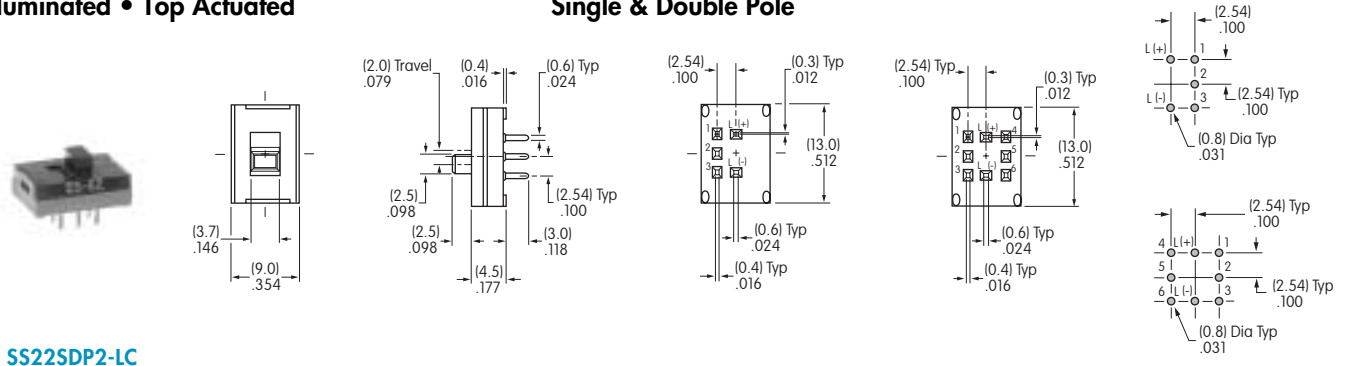


Tape Dimensions

TYPICAL SWITCH DIMENSIONS

Illuminated • Top Actuated

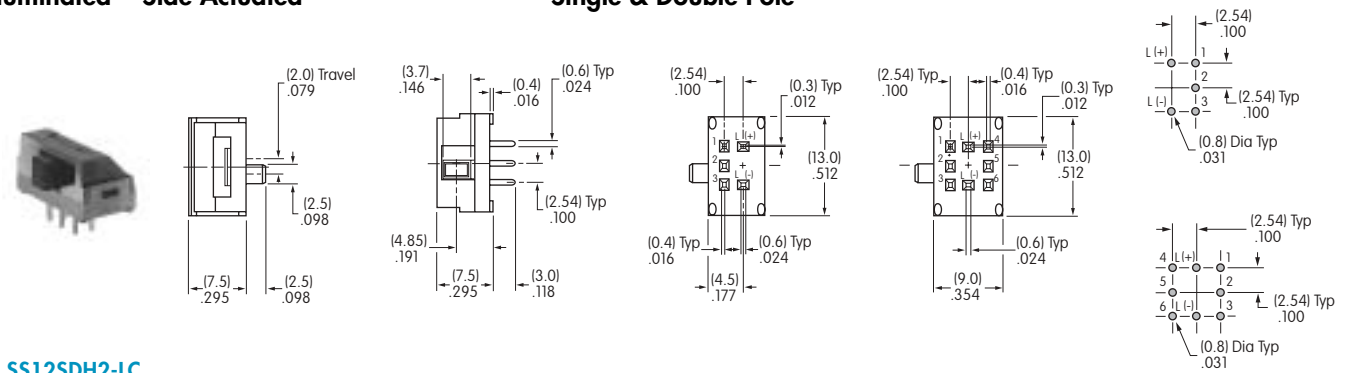
Single & Double Pole



SS22SDP2-LC

Illuminated • Side Actuated

Single & Double Pole



SS12SDH2-LC

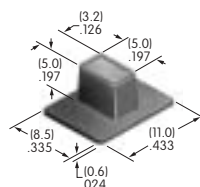
LED COLORS & SPECIFICATIONS

Electrical specifications are determined at a basic temperature of 25°C.	Single Element LED			C	E	F
				Red	Yellow	Green
Lamp circuit is independent of switch operation.	Forward Peak Current	I_{FM}	20mA	20mA	20mA	20mA
	Continuous Forward Current	I_F	16mA	16mA	16mA	16mA
	Forward Voltage	V_F	2.07V	2.15V	2.16V	2.16V
	Reverse Peak Voltage	V_{RM}	3V	4V	4V	4V
If the source voltage is greater than the LED's rated voltage, a ballast resistor must be connected in series with the LED.	Current Reduction Rate Above 25°C	ΔI_F	0.27mA/°C	0.27mA/°C	0.27mA/°C	0.27mA/°C

OPTIONAL CAP

AT4065 Slide Cap for Illuminated Models

Material: Polycarbonate
Cap can be assembled on request.
Cap Color: Black only



Window color should match LED color:

Colors Available:

- C Red
- E Yellow
- F Green