



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# SF series

Washable miniature toggle switches •  
insulated threaded bushing



## DISTINCTIVE FEATURES

- Process sealed
- Front and rear sealing
- Optional ESD protection



## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -20 °C to +85 °C (-4 °F to +185 °F)
- Storage temperature : -40 °C to +85 °C (-40 °F to +185 °F)
- Moisture : The insulating materials employed and the complete seal permit the switches to withstand a 56 days moisture test (IEC 68-2-3).
- Solderability : The switches are tested at 235 °C (455 °F) according to IEC 68-2-20 after accelerated aging.



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contacts (A) : 4 A 30 VDC
  - gold plated brass contacts (CD) : 0.4 VA 20 VAC or DC
  - gold plated silver contacts (AD) : 4 A 30 VDC (300 mA 30 VDC for gold plating)
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min.
- Dielectric strength : 1,000 Vrms 50 Hz min.
- Electrical life at full load :

| Contacts | Number of cycles |             |
|----------|------------------|-------------|
|          | 2 positions      | 3 positions |
| A        | 40,000           | 40,000      |
| CD       | 100,000          | 50,000      |
| AD       | 40,000           | 40,000      |

The company reserves the right to change specifications without notice.



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## GENERAL SPECIFICATIONS

- Mechanical strength : Terminals are strengthened by a bracket or a ground plate ensuring the rigidity of the switch on the board. Actuator strength is 10 N max.
- Iron soldering : 300 °C (572 °F) 5 sec. max.
- Max. torque : 0.25 Nm (.184 Ft.lb)
- Max. panel thickness : 2.5 mm (.098) with 2 nuts, 4 mm (.157) with 1 nut

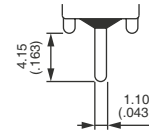


## MATERIALS

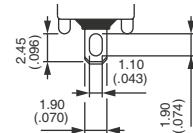
- Case and cover : UL94-VO, polyamide, glass filled or PES
- Actuator : brass, nickel plated
- Contacts  
**CD** : brass, gold plated  
**A** : silver  
**AD** : silver, gold plated
- Terminal seal : epoxy



## TERMINALS



Straight PC



Solder lug / quickconnect

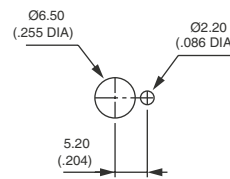


## ELECTRICAL FUNCTIONS

→ KEYWAY



## PANEL CUT-OUT

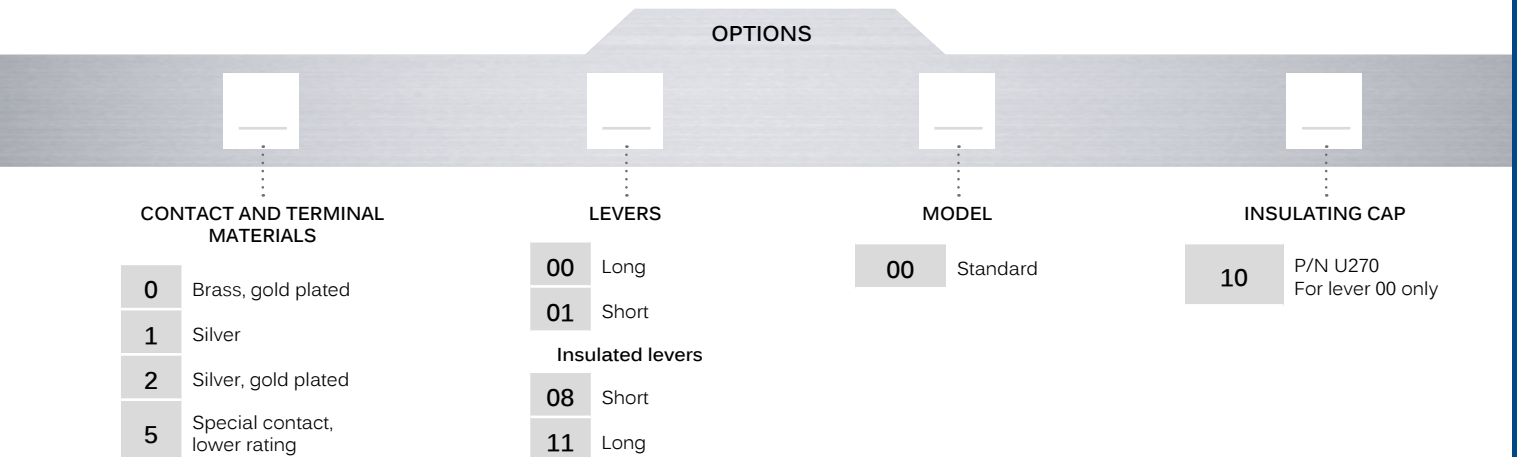
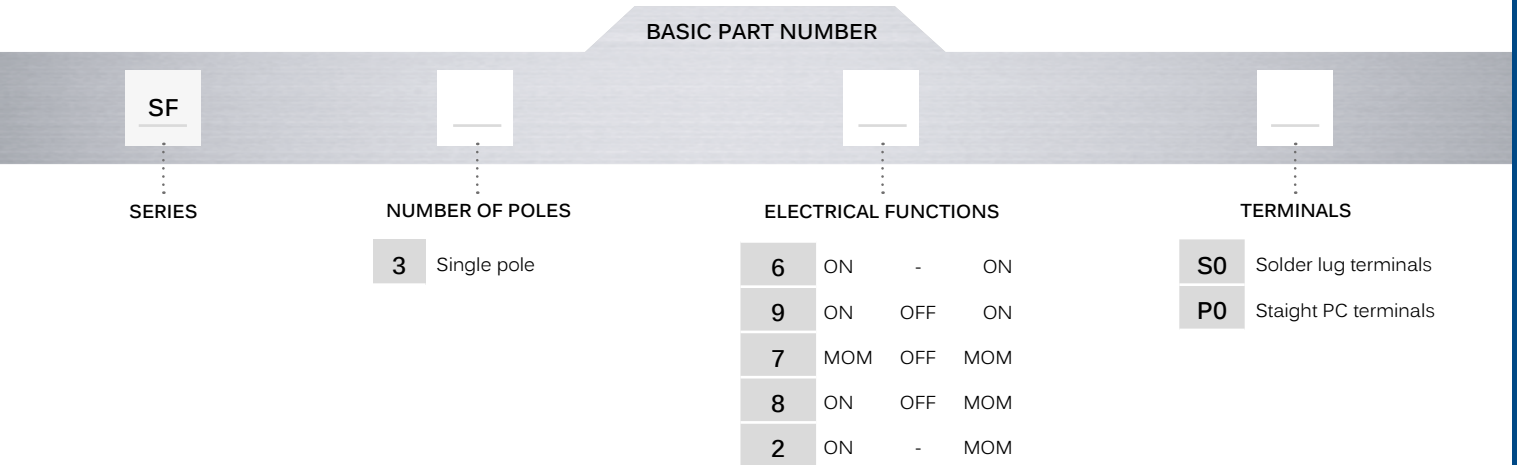


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## BUILD YOUR PART NUMBER



## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- ⚠ **Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- 🔧 **Mounting accessories** : 2 hex nuts 8 mm (.314) across flats, 1 locking ring and 1 lockwasher. Standard and special hardware available is presented in the "Accessories" section of website.

# SF series

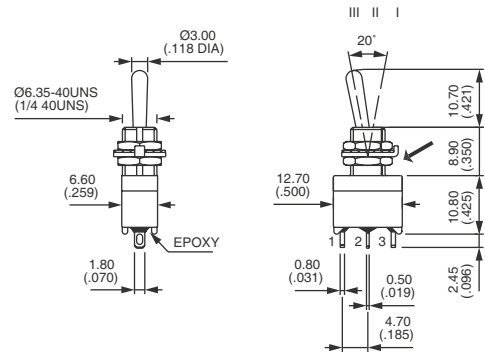
Washable miniature toggle switches • insulated threaded bushing

## SOLDER LUGS TERMINALS



|        | III<br>2-3 | II  | I<br>1-2 |
|--------|------------|-----|----------|
| SF36S0 | ON         | -   | ON       |
| SF39S0 | ON         | OFF | ON       |
| SF37S0 | MOM        | OFF | MOM      |
| SF38S0 | ON         | OFF | MOM      |
| SF32S0 | ON         | -   | MOM      |

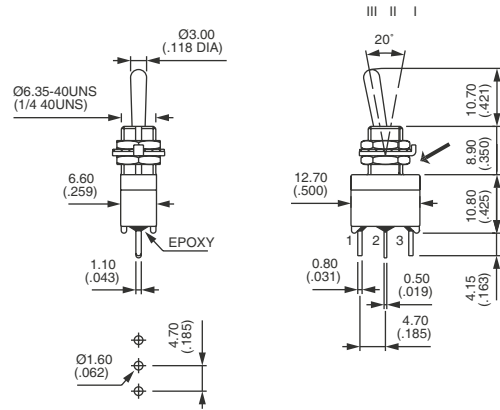
Shown with standard lever 00



## STRAIGHT PC TERMINALS



|        | III<br>2-3 | II  | I<br>1-2 |
|--------|------------|-----|----------|
| SF36P0 | ON         | -   | ON       |
| SF39P0 | ON         | OFF | ON       |
| SF37P0 | MOM        | OFF | MOM      |
| SF38P0 | ON         | OFF | MOM      |
| SF32P0 | ON         | -   | MOM      |

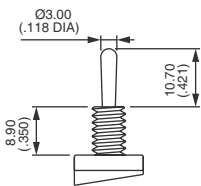
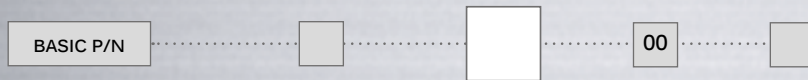


## CONTACT & TERMINAL MATERIALS

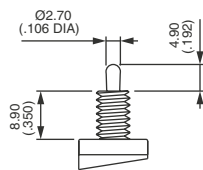


- 0 Brass, gold plated (standard)
- 1 Silver
- 2 Silver, gold plated
- 5 Special contact, lower rating, minimum quantity : consult factory.

## LEVERS

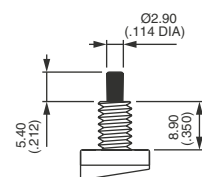


00  
Standard

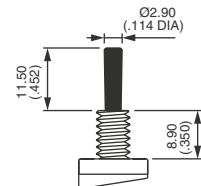


01  
Short

## INSULATED LEVERS



08  
Short

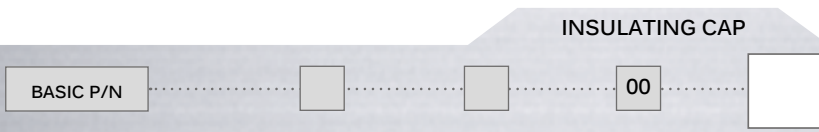


11  
Long

Protected against electrostatic discharges (ESD) up to 12 KV. Black color.

# SF series

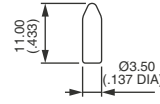
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- Blank Without caps
- 10 P/N U270 - For lever 00

For cap colors, replace "0" with number :

- 1 Blue
- 1/4 Dark blue
- 2 Black
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red
- 7/1 White
- 9 Orange



10

To order cap separately, use its part number (U270).