

# SMAP

Washable

RoHS Compliant

## Surface Mount Pushbutton Switches



### Features

- Compatible with Reflow Soldering
- Washable
- Gold-Plated Contacts for Low Current Application
- Clip Contact Mechanism for High Contact Reliability

### Specifications

Rating	Max.	0.4VA (28VDC max.) (Resistive load)
	Min.	1 $\mu$ A 20mVDC (Resistive load)
Initial contact resistance	100m $\Omega$ max. (1.5mA 200 $\mu$ VAC)	
Dielectric strength	250VAC 1minute	
Initial insulation resistance	500M $\Omega$ min. (250VDC)	
Stroke	1.4mm	
Operating force	1.47 $\pm$ 0.98 N	
Electrostatic capacity	5pF max.	10,000 operations at max. rating
Electrical life	30,000 operations at min. rating	
Switch timing	Non-shorting	
Operating temperature range	-20 $\sim$ +80 $^{\circ}$ C	
Storage temperature range	-40 $\sim$ +80 $^{\circ}$ C	

### Table of Part Numbers

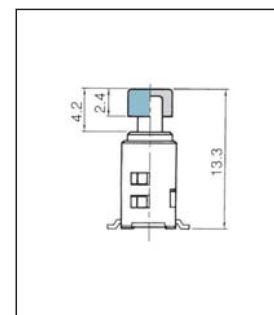
Packaging specifications	Terminal styles	Switching function	Poles	
			1 pole	2 poles
Stick	PC	ON-(ON)	SMAP1F-2M-Z	SMAP2F-2M-Z
	Right-angle	ON-(ON)	SMAP1F-5M-Z	SMAP2F-5M-Z
Emboss tapping	Right-angle	ON-(ON)	SMAP1F-5M-E-Z	SMAP2F-5M-E-Z

### Optional Accessories

(Sold separately)

<b>Color Cap</b>  Material: ABS resin	
White	140000481453
Red	140000481452
Black	140000481451
Gray	140000481450

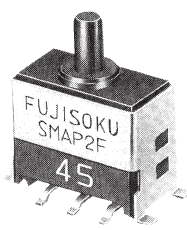
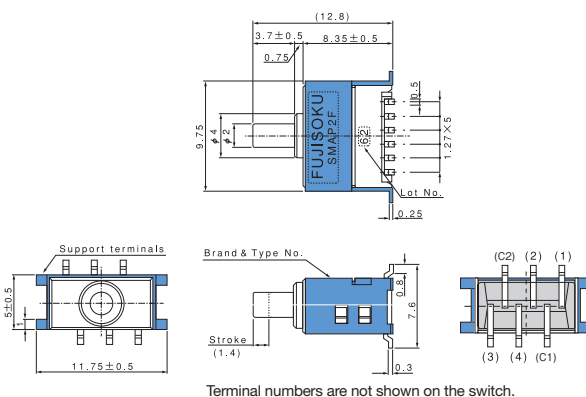
### Color Cap Mounting



### Packaging Specifications

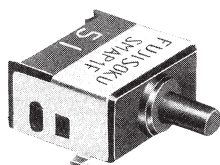
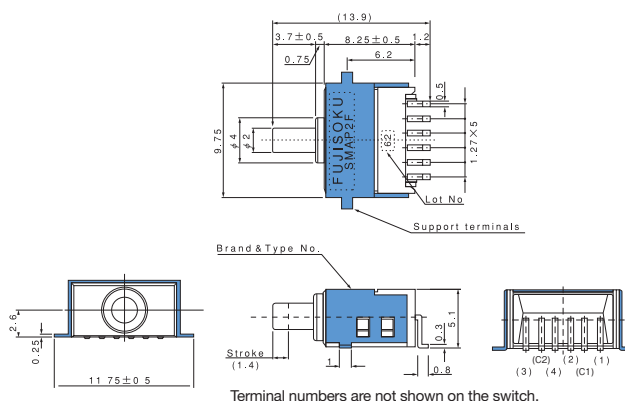
Emboss tapping		Stick	
 500 pcs/reel		PC	R/A
		 $\ell$ =570 50pcs/stick	 $\ell$ =570 50pcs/stick

(ON) : Momentary.

**SMAP-2M****PC**

Terminal numbers are not shown on the switch.

Switching function		Push
Part No.		
☆SMAP1F-2M-Z	ON	(ON)
接続端子 Connecting terminals	C1-2	C1-1
☆SMAP2F-2M-Z	ON	(ON)
接続端子 Connecting terminals	C1-2 C2-4	C1-1 C2-3

**SMAP-5M****R/A**

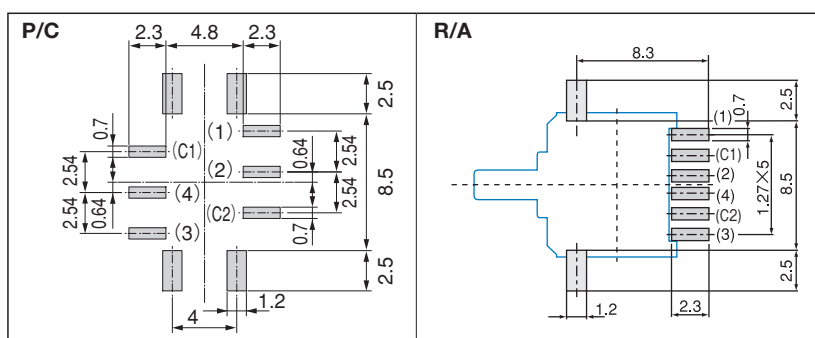
Terminal numbers are not shown on the switch.

Switching function		Push
Part No.		
SMAP1F-5M-Z SMAP1F-5M-E-Z	ON	(ON)
Connecting terminals	C1-2	C1-1
★SMAP2F-5M-Z ★SMAP2F-5M-E-Z	ON	(ON)
Connecting terminals	C1-2 C2-4	C1-1 C2-3

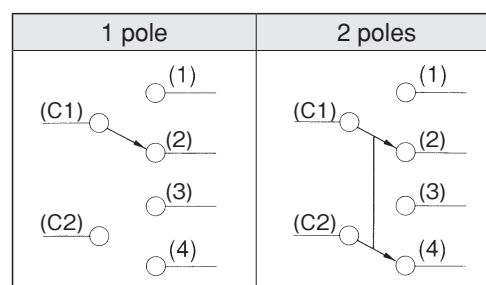
(ON) : Momentary

**Pad Layouts**

(Top view)



The blue line shows the outline of the switch.

**Circuit Diagrams**

In a single-pole configuration, terminals (C2), (3) and (4) are not connected.

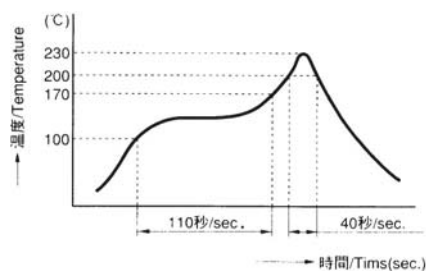
**Soldering Specifications**

## (1) Manual Soldering

Device : Soldering iron  
 $380^{\circ}\text{C} \pm 10^{\circ}\text{C}$ ;  $3 \pm 0.5$  seconds

## (2) Reflow Soldering

Device : Inline or batch system  
 • Apply reflow soldering only once

**Flux Cleaning**

- (1) Solvent : Fluorine or Alcohol type
- (2) Cleaning after soldering should be done after the terminal temperature falls to  $90^{\circ}\text{C}$  or below, or after leaving the switch for five minutes or longer at room temperature.
- (3) Do not use ultrasonic cleaning.