

# SSGM 2 to 10 Circuits-designed Type

Highly reliable IC-size type  
with gold contact supports automatic insertion



Detector

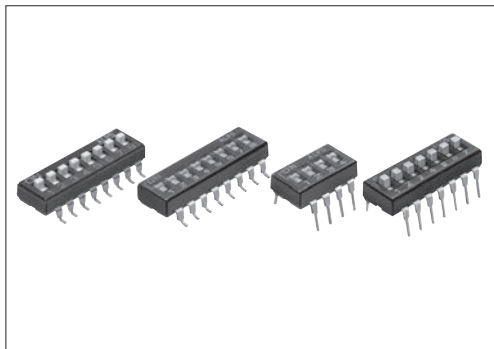
Slide

Push

Rotary

Power

Dual-In-line  
Package Type



## Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		25mA 24V DC (At opening and closing) 0.1A 50V DC (When energized) / 50μA 3V DC
Contact resistance (Initial performance / After lifetime)		50mΩmax. / 100mΩ max.
Operating force		3.5±2.5N
Operating life	Without load	3,000 cycles
	With load	3,000 cycles (25mA 24V DC)

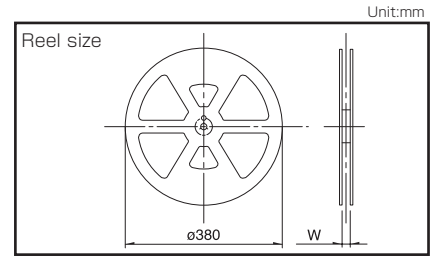
## Product Line

Soldering	Actuator configuration	Packaging style	Poles	Minimum order unit (pcs.)		Product No.	Drawing No.
				Japan	Export		
Insertion	Standard	Stick	2	70	7,000	<b>SSGM120100</b>	1
			3	52	5,200	<b>SSGM130100</b>	
			4	40	4,000	<b>SSGM140100</b>	
			5	33	3,300	<b>SSGM150100</b>	
			6	28	2,800	<b>SSGM160100</b>	
			7	25	2,500	<b>SSGM170100</b>	
			8	22	2,200	<b>SSGM180100</b>	
			9	19	1,900	<b>SSGM190100</b>	
	10		18	1,800	<b>SSGM1A0100</b>		
	Flat		4	4,000	<b>SSGM240100</b>	2	
			6	2,800	<b>SSGM260100</b>		
			8	2,200	<b>SSGM280100</b>		
			10	1,800	<b>SSGM2A0100</b>		
	Reflow		Standard	Taping	4	800	3,200
8		1,600			<b>SSGM680200</b>		
Flat		2	1,000		4,000	<b>SSGM720101</b>	4
		4				<b>SSGM740101</b>	
		6			2,000	<b>SSGM760102</b>	
		8				<b>SSGM780103</b>	

## ■ Packing specifications

### Taping

Product No.	Number of packages (pcs.)			Reel width W (mm)	Tape width (mm)	Export package measurements (mm)
	1 reel	1 case /Japan	1 case /export packing			
<b>SSGM640200</b>	800	1,600	3,200	25.4	24	406×406×190
<b>SSGM680200</b>		800	1,600	45.4	44	
<b>SSGM720101</b> <b>SSGM740101</b>	1,000	2,000	4,000	25.4	24	
<b>SSGM760102</b>		1,000	2,000	33.4	32	
<b>SSGM780103</b>				45.4	44	



### Stick

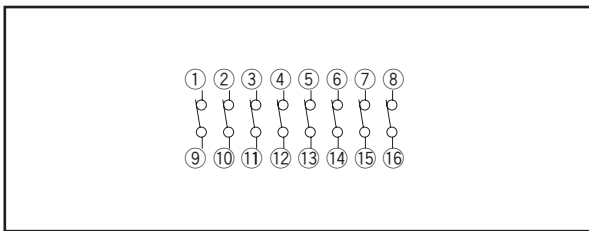
Product No.	Number of packages (pcs.)			Export package measurements (mm)
	1 stick	1 case /Japan	1 case /export packing	
<b>SSGM120100</b>	70	1,400	7,000	578×180×202
<b>SSGM130100</b>	52	1,040	5,200	
<b>SSGM140100</b> <b>SSGM240100</b>	40	800	4,000	
<b>SSGM150100</b>	33	660	3,300	
<b>SSGM160100</b> <b>SSGM260100</b>	28	560	2,800	
<b>SSGM170100</b>	25	500	2,500	
<b>SSGM180100</b> <b>SSGM280100</b>	22	440	2,200	
<b>SSGM190100</b>	19	380	1,900	
<b>SSGM1A0100</b> <b>SSGM2A0100</b>	18	360	1,800	

## ■ Dimensions

Unit:mm

No.	Style	PC board mounting hole dimensions (Viewed from direction A)
1	<b>Standard</b> 	
2	<b>Flat</b> 	
3	<b>Standard</b> 	
4	<b>Flat</b> 	

## ■ Circuit Diagram (Viewed from Direction A)

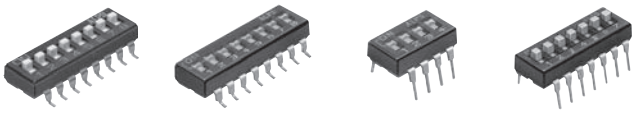



## ■ Number of Poles and Outline Dimension (L)

Number of poles (N)	2	3	4	5	6	7	8	9	10
L (mm)	6.9	9.4	11.9	14.5	17	19.6	22.1	24.6	27.2

# Dual-in-line Package Type Switches

## List of Varieties

Series		SSGM	
Photo			
Operating temperature range		-40°C to +85°C	
Automotive use		●	
Life cycle			
Rating (max.) / (min.) (Resistive load)		25mA 24V DC (At opening and closing), 0.1A 50V DC (When energized), 50 μ A 3V DC	
Durability	Operating life	Without load	3,000 cycles
		With load	3,000 cycles (25mA 24V DC)
Electrical performance	Contact resistance (Initial performance / After life time)		50mΩ max. / 100mΩ max.
	Insulation resistance		100MΩ min. 500V DC
	Voltage proof		500V AC for 1minute
Mechanical performance	Terminal strength		5N for 1minute
	Actuator strength	Operating direction	10N
		Pulling direction	10N
Environmental performance	Cold	-40°C 250h	
	Dry heat	85°C 250h	
	Damp heat	60°C, 90 to 95%RH 250h	
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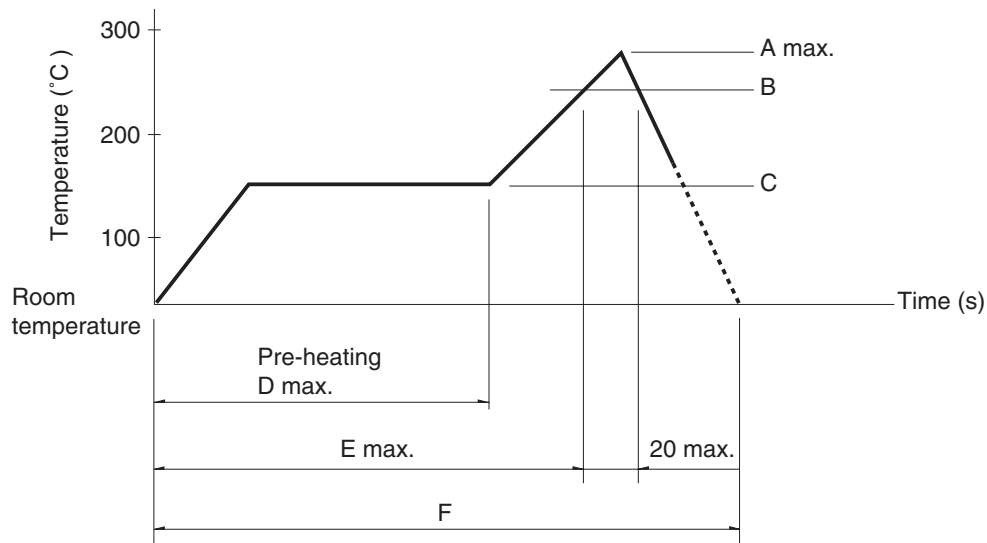
### Note

● Indicates applicability to all products in the series.

# Dual In-line Package Type Switches Soldering Conditions

## Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple  $\phi$  0.1 to 0.2 CA (K) or CC (T) at soldering portion (copper foil surface).  
A heat resisting tape should be used for fixed measurement.
3. Temperature profile



Series (Reflow type)	A (°C) 3s max.	B (°C)	C (°C)	D (s)	E (s)	F (s)
<b>SSGM</b>	250	240	150	180	—	—

### Notes

1. The condition mentioned above is the temperature on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the PC board's material, size, thickness, etc. The above-stated conditions shall also apply to switch surface temperatures.
2. Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

## Reference for Hand Soldering Condition

Soldering temperature	Soldering time
350±5°C	5s max.

## Reference for Dip Soldering Condition

(For insertion terminal types)

Items		Dip soldering	
Preheating temperature	Preheating time	Soldering temperature	Duration of immersion
120°C max.	90s max.	270±5°C	10±1s max.