

Part number **SLLB510100** Lever and Push Operation Type SLLB5 Series

Standard ?

Basic information



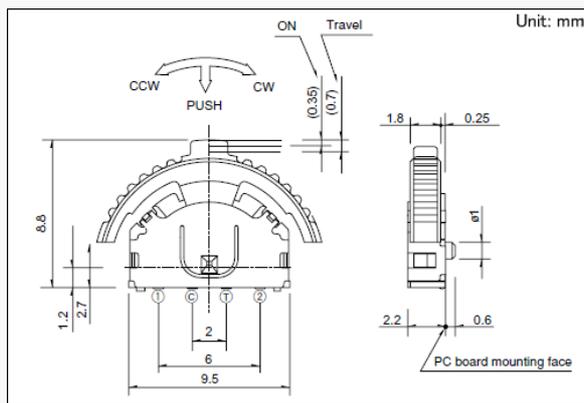
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Number of operating shafts	Single-shaft				
Shaft material	Resin				
Actuator configuration	Mounting knob integrated				
Push-on switch	With				
Operating force	<table border="0"> <tr> <td>Lever portion</td> <td>0.65±0.3N</td> </tr> <tr> <td>Push portion</td> <td>2.5±1N</td> </tr> </table>	Lever portion	0.65±0.3N	Push portion	2.5±1N
Lever portion	0.65±0.3N				
Push portion	2.5±1N				
Travel (Center push)	0.7mm				
Location lug	With				
Contact resistance	1Ω max.				
Dimensions (W×D×H)	9.5×8.8×2.2mm				

Specifications

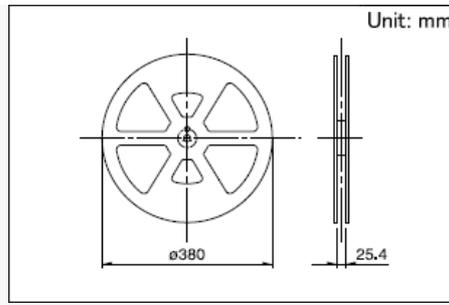
Operating temperature range	-10°C to +60°C		
Ratings (max.)/(min.) (Resistive load)	10mA 5V DC/50μA 3V DC		
Electrical performance	Directional resolution	2-direction	
	Insulation resistance	100MΩ min. 100V DC	
	Voltage proof	100V AC for 1 minute	
Mechanical performance	Terminal strength	3N for 1 minute	
	Actuator strength	Push/pull directions	50N
		Operating direction	10N
Durability	Operating life without load	100,000 cycles	
	Operating life with load (Load: as ratings)	100,000 cycles (10mA 5V DC)	
Environmental performance	Cold	-20°C 96h	
	Dry heat	85°C 96h	
	Damp heat	40°C, 90 to 95%RH 96h	
Minimum order unit(pcs.)	Japan	1,500	
	Export	6,000	

Dimensions



[Open an expandable image in a separate window](#)

Land Dimensions



Number of packages (pcs.)

1 reel	1,500
1 case / Japan	3,000
1 case / export packing	6,000

Tape width (mm)

24

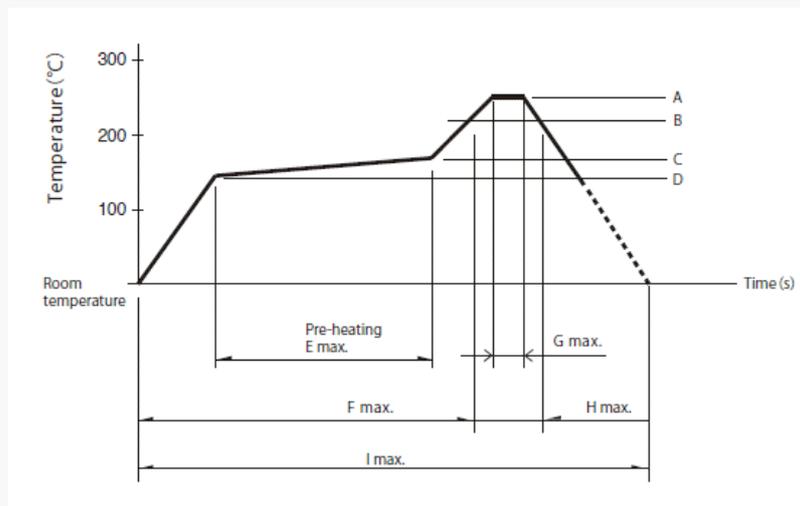
Export package measurements (mm)

428×413×172

Soldering Condition

Example of Reflow Soldering Condition

1. Heating method:
Double heating method with infrared heater.
2. Temperature measurement:
Thermocouple 0.1 to 0.2 Φ CA (K) or CC (T) at solder joints (copper foil surface). A heat resisting tape should be used to fix thermocouple.
3. Temperature profile



A	B	C	D	E	F	G	H	I	No. of reflows
250°C	230°C	150°C	150°C	-	2 min.	-	30s	-	1 time

- (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

Tip temperature

350±5°C

Soldering time

3s max.

No. of solders

1 time

Notes are common to this series/models

1. This site catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders for taping products per minimum order unit (1 reel or a case).

Cautions

1. Applying load to terminals during soldering under certain conditions may cause deformation and electrical property degradation.
2. Avoid use of water-soluble soldering flux, since it may corrode the switches.
3. Check and conform to soldering requirements under actual mass production conditions.
4. In soldering twice, make sure the solder joints should go down to normal temperature. Continuing heating will cause deformation of switch, loose and fractured terminals, or may deteriorate electrical characteristics.
5. Flux from around and above the PC board should not adhere to the switches.
6. For the sizes of holes and patterns on a PC board for mounting a switch, refer to the recommended dimensions in the outline drawings.
7. This switch is designed for manually operated units. Must not use this switch for a mechanical detection unit. For detection purposes, please use our detection switches.
8. After mounting the switches, if you intend to put the board into an oven in order to harden adhesive for other parts, please consult with ALPS.
9. Use of a through-hole PC board, or a PC board of different thickness from the recommendation will have a different heat stress. Verify the soldering requirements thoroughly before use.
10. Solder the switches with detent at the detent position. Soldering switches fixed at the center of the detent may deform the detent mechanisms.
11. No washing.
12. Protect small and thin switches from external forces in the set mounting process.
13. Use of the switches with voltage below 1V DC or current below 10μA may make contacts unstable.
When using these switches in this way, please consult with us beforehand.
14. The products are designed and manufactured for direct current resistance. Contact us for use of other resistances such as inductive (L) or capacitive (C).
15. The switch will be broken if impact force or a greater stress than that specified is applied. Take a great care not to let the switch be subject to greater stress than specified.
16. Do not apply a force from the side of the stem.
17. Be sure to push the center of switch for "without-stem" type. Extreme care is required for a hinge structure type because the stem press position moves when it is pressed.
18. Insert these switches to the specified mounting surface and mount them horizontally. If not mounted horizontally, these switches will malfunction.
19. Use of the switches in a dusty environment may lead the dusts entering through the openings and cause imperfect contact or malfunction. Take this into account for set design.
20. Corrosive gas if generated by peripheral parts of a set, malfunction such as imperfect contact may occur. Thorough investigation shall be required beforehand.
21. Be aware of dust intrusion into a non dust-proof-type TACT Switch™.
22. Storage
 1. Store the products as delivered, at a normal temperature and humidity, without direct sunshine and corrosive gas ambient. Use them at an earliest possible timing, not later than six months upon receipt.

2. Store the key switches with the switch in the released position.