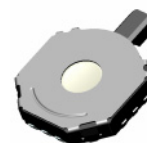


Multifunction Switches (Double Action Type Tactile+Lever)

TSW-27 Series

Features

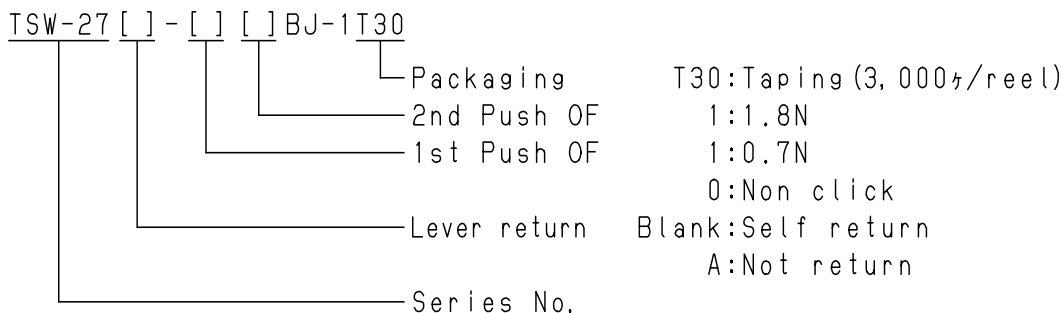
- ◇ Double action tactile switch and Lever combined switch.
- ◇ The lever has two operations at one side , and it is possible to change according to the operation angle.
- ◇ 2types of switches, with 2 clicks or without click feeling.
- ◇ All types with earth terminal for static discharge.



Applications

- ◇ Digital still camera and digital video camera

Product number



Typical Specifications

Item	Specifications	
Ratings (max.) (Resistive load)	10mA 5VDC	
Contact resistance	1 ohm max. (Initial)	
Insulation resistance	100 megohm min. 500V DC	
Withstanding voltage	100V AC for 1min.	
Operating force	Push	1st 0.7N , 2nd 1.8N
	Lever	5mN·m MAX.
Operating life	Push	50,000 cycles
	Lever	50,000 cycles
Operating temperature range	-20 to +70 degree Celsius	
Storage temperature range	-30 to +80 degree Celsius (except carrier tape)	

Products Line

No	Products No.	Lever self return	Push 1st click	Operating Force (Push)	
				1st	2nd
1	TSW-27-11BJ-1T30	With	With	0.7N	1.8N
1	TSW-27-01BJ-1T30	With	Without	>0.7N	1.8N
1	TSW-27A-11BJ-1T30	Without	With	0.7N	1.8N
1	TSW-27A-01BJ-1T30	Without	Without	>0.7N	1.8N

Output

Terminal	Free	1st	2nd
ⓓ-ⓕ			
ⓓ-ⓔ			

▨ = ON

Terminal	2nd	1st	Center	1st	2nd
ⓑ-ⓓ-ⓖ					
ⓑ-ⓓ-ⓐ					
ⓑ-ⓓ-ⓓ					
ⓑ-ⓓ-ⓐ					

Angle 27° 20° 8° 0° 8° 20° 27°
 ▨ = ON CCW ← → CW

Push Output

Lever Output

Dimensions

Unit : mm

No	Style	P.C.B reference Land Dimensions Circuit Diagram (TOP VIEW)
1		

□ Notes

1. The appearance and specifications of the product may be modified to improve its performance without prior notice.
2. This catalog shows only outline specifications. When using the product, please obtain formal specifications.
3. Please see appendix [Cautions in Using Switches].
4. 3,000pcs/reel is the minimum packing unit. It is requested that the quantity of order shall be an integer multiple of the minimum packing unit.
5. Please set the reflow soldering condition confirming under the actual conditions of mass-production.
6. Characteristics of switch may change due to the warping of the circuit writing board. Consideration shall be given to the pattern design and layout.
7. This push switch is not washable.
8. This push switch permits reflow soldering and the switch has the possibility to be mounted on the edge of the PC board. But auto-dip shall not be done after the mounting of the switch because of the big possibility of the penetration of the soldering flux into the contacts sliding portion.
9. Larger stress than specified and/ or shock shall not be applied during switch operation.
10. In manual soldering, consider that the abnormal pressure of the soldering iron shall not be applied to the tip of the terminal as well do not apply any pressure for more than 1 minute after soldering.
11. Care shall be taken so that the flux shall not penetrate into the terminal portion.
12. The operating characteristic may change if force is exerted to the top the cover.
13. Please confirm the performance on actual operation by simulation with actual environments for high reliability.