

# Height 0.9mm, Compact Sized Side Push Type Tactile Switches

## TSW-31 Series

1/2

### Features

- ◇ With 2.45x2.95mm dimension and 0.9mm height, these surface-mounting type switches are ideal for high-density mounting.
- ◇ A sharp click feeling of key touch is provided utilizing the tactile feedback characteristic.
- ◇ With solderable metal covered ground terminal effective for electrostatic discharge.
- ◇ Easy mounting on PC board for the flat upper surface of the switch body.
- ◇ Switches are packaged in 12mm wide embossed taping.



### Applications

- ◇ Digital still camera and digital video camera
- ◇ Audio equipment, VTR and Car navigation system
- ◇ Cellular phone, PDA

### Products Line

No	Products No.	Operating force	Travel	Guide bosses	Qty/reel( pcs. )
1	TSW-31-16-T60	1.6N	0.2mm	Without	6,000
1	TSW-31-16B-T60			With	

### Typical Specifications

Item	Specifications
<b>Ratings (max.) (Resistive load)</b>	20mA 12VDC
<b>Contact resistance</b>	100 milliohm max. (Initial)
<b>Insulation resistance</b>	100 megohm min. 100V DC
<b>Withstanding voltage</b>	100V AC for 1min.
<b>Operating life</b>	100,000 cycles
<b>Operating temperature range</b>	-20 to +70 degree Celsius
<b>Storage temperature range</b>	-30 to +80 degree Celsius (except carrier tape)

Dimensions

Unit : mm

No	Style	P.C.B reference Land Dimensions Circuit Diagram (TOP VIEW)
		<p>□ Appointed area of soldering ▨ Prohibition area of exposing patterns</p> <p>CIRCUIT</p>

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. 6,000pcs/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. Pressure to the push button shall be applied to the whole surface equally and avoid the pressure to the specific one portion
11. 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.
12. Care shall be taken so that the flux shall not penetrate into the terminal portion.
13. The operating characteristic may change if force is exerted to the top the cover.
14. Please confirm the performance on actual operation by simulation with actual environments for high reliability.