## TL6400 Series Tact Switch



Applications / Markets


## RoHS

## Specifications

Electrical Rating: $50 \mathrm{~mA}, 12 \mathrm{VDC}$
Contact Resistance: $100 \mathrm{~m} \Omega$ Max. (Initial)
Insulation Resistance: $100 \mathrm{M} \Omega$ Min. at 100VDC
Dielectric Strength: 250VAC for 1 Minute
Operating Temperature: $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$
Storage Temperature: $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$
Operating Force: $160 \mathrm{gf} \pm 50 \mathrm{gf} 50,000$ cycles
$260 \mathrm{gf} \pm 70 \mathrm{gf} 30,000$ cycles
Travel: $0.15 \mathrm{~mm} \pm 0.10 \mathrm{~mm}$
Dust/Moisture Protection: IP67
Function: SPST, Off-(On)
Bounce: 10msec Max.
Contact Material: Silver
Packaging: Actuator A: Tape and Reel, 1,800 pcs/reel Actuator B: Tape and Reel, 1,500 pcs/reel

## Features \& Benefits

- Up to 50,000 cycle life expectancy
- Tape and Reel packaging
- Surface mount design
- Actuation force options
- IP67 rating for dust \& moisture protection


## Part Number Configurator



Specifications subject to change without notice 4.15.2022

## Body Dimensions


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## Body Dimensions <br> Tape and Reel



## Recommended <br> Solder Process

Most contamination problems can be prevented by exercising care during the cleaning and soldering process. Care should be taken not to immerse or spray unsealed switches during flux removal. Contact E-Switch for specific soldering recommendations and specifications not shown. Generalized soldering procedures are outlined below.

## "TYPICAL" SMT REFLOW (Pb and Pb-Free)

| Profile Feature | Sn-Pb Eutectic Assembly | Pb-Free Assembly |
| :---: | :---: | :---: |
| Average Ramp-Up Rate ( $\mathrm{Ts}_{\text {max }}$ to Tp ) | $3^{\circ} \mathrm{C} /$ second max. | $3^{\circ} \mathrm{C} /$ second max. |
| Preheat -Temperature Min $\left(\mathrm{Ts}_{\text {min }}\right)$ - Temperature $\left.\mathrm{Max}^{(\mathrm{Ts}} \mathrm{Ts}_{\text {max }}\right)$ -Time $\left(\mathrm{ts}_{\text {min }}\right.$ to ts $\left.\mathrm{t}_{\max }\right)$ | $\begin{gathered} 100{ }^{\circ} \mathrm{C} \\ 150^{\circ} \mathrm{C} \\ 60-120 \text { seconds } \end{gathered}$ | $\begin{gathered} 150^{\circ} \mathrm{C} \\ 200^{\circ} \mathrm{C} \\ 60-180 \text { seconds } \end{gathered}$ |
| Time Maintained above: <br> -Temperature ( $\mathrm{T}_{\mathrm{L}}$ ) <br> -Time ( $\mathrm{t}_{\mathrm{L}}$ ) | $\begin{gathered} 183{ }^{\circ} \mathrm{C} \\ 60-150 \text { seconds } \end{gathered}$ | $\begin{gathered} 217{ }^{\circ} \mathrm{C} \\ 60-150 \text { seconds } \end{gathered}$ |
| Time within $5^{\circ} \mathrm{C}$ of actual Peak Temperature (tp) | 10-30 seconds | 20-40 seconds |
| Ramp-Down Rate | $6^{\circ} \mathrm{C} /$ second max. | $6^{\circ} \mathrm{C} /$ second max. |
| Time $25^{\circ} \mathrm{C}$ to Peak Temperature | 6 minutes max. | 8 minutes max. |

Note 1: All temperatures refer to topside of the package, measured on the package surface.


