## TL4115 Series Tact Switch



Applications / Markets


## RoHS

## Specifications

Contact Arrangement: SPST Off - (On) Contact Rating: 12VDC, 50 mA
Contact Resistance: $500 \mathrm{~m} \Omega$ Max. (Initial)
Insulation Resistance: 100M $\Omega$ Min. at 100VDC
Dielectric Strength: 250VAC for 1 Minute
Electrical Life: 600,000 Cycles
Operating Temperature: $-30^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$
Operating Force: $160 \mathrm{gf} \pm 50 \mathrm{gf}, 220 \mathrm{gf} \pm 70 \mathrm{gf}$ Travel: 0.15 mm
Bounce: 10 m sec. max.

## Features \& Benefits

- 600,000 cycle life expectancy
- Tape and Reel packaging
- Low travel
- Right angle edge surface mount design


## Part Number Configurator



## 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 $\operatorname{Min}\left(\mathrm{Ts}_{\text {min }}\right)$ -Temperature $\mathrm{Max}^{\left(T s_{\text {max }}\right)}$ -Time $\left(\mathrm{ts}_{\text {min }}\right.$ to $\left.\mathrm{ts}_{\max }\right)$ | $\begin{gathered} 100^{\circ} \mathrm{C} \\ 150^{\circ} \mathrm{C} \\ 60-120 \text { seconds } \end{gathered}$ | $\begin{gathered} 150^{\circ} \mathrm{C} \\ 200^{\circ} \mathrm{C} \\ 60-180 \text { seconds } \end{gathered}$ |
| 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.


