TL6150 Series Tact Switch

Applications / Markets


Audio / Visual


Computer Peripherals


Consumer Electronics


Instrumentation


Medical Equipment


Telecommunication

RoHS

Specifications

Contact Rating: 50mA, 32VDC
Electrical Life: up to 5,000,000 Cycles
Contact Resistance: 100mΩ Max. (Initial)
Insulation Resistance: 10MΩ Min. at 100VDC
Dielectric Strength: 250VAC for 1 Minute
Operating Temperature: -40°C to 85°C
Operating Force: 160gf ± 50gf (5,000,000 cycles)
200gf ± 50gf (500,000 cycles)
350gf ± 100gf (300,000 cycles)
Travel: 0.3mm; 160gf
0.35mm; 200gf
0.5mm; 350gf
Dust/Moisture Protection: IP67
Function: SPST, Off-(On)

Features & Benefits

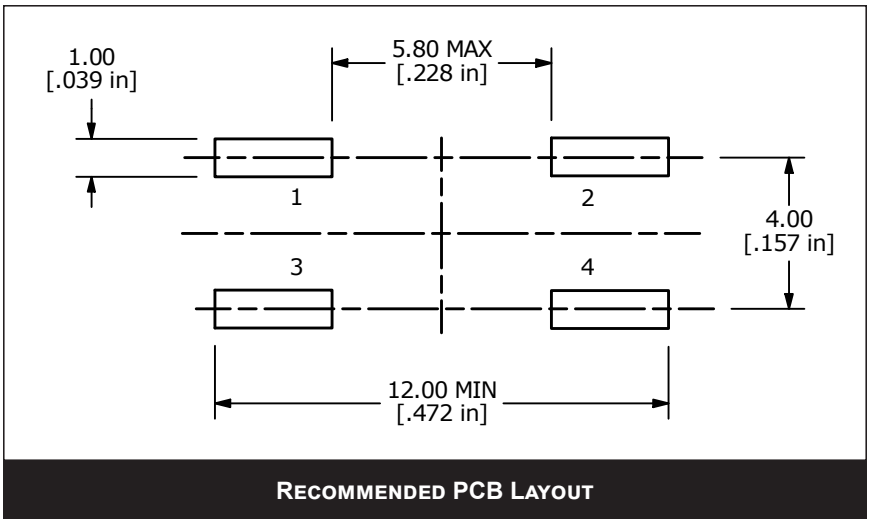
- **Up to 5,000,000 cycle life expectancy**
- **Tape and Reel packaging**
- **IP67 ratings**
- **Multiple force options**

Part Number Configurator

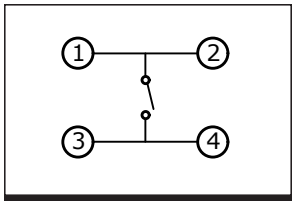
Series	Circuit	Actuator	Force	Plating	Termination
TL	6150	**A** - 3.50 **B** - 5.20	**F160** - 160 gf - Brown **F200** - 200 gf - Red **F350** - 350 gf - Orange	**Q** - Silver	**G** - Gull Wing **J** - J Lead

Specifications subject to change without notice 2.9.2021

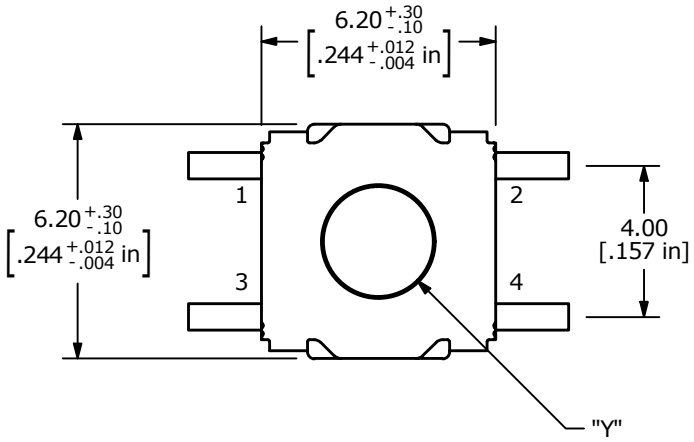
Body Dimensions
Gull Wing



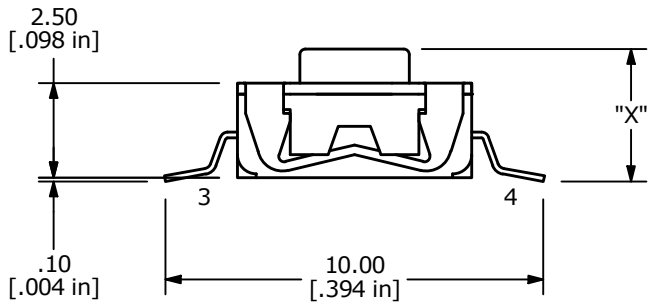
Recommended PCB Layout

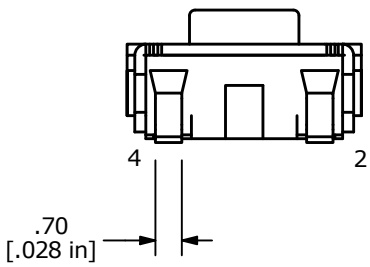


Schematic

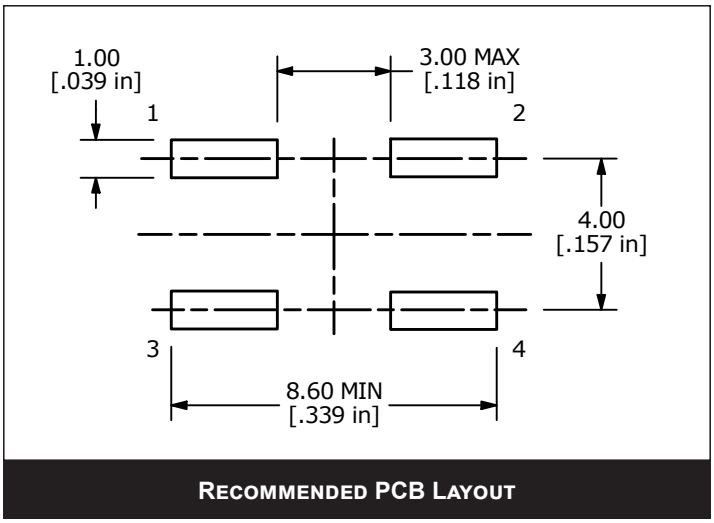


ACTUATOR	"X"	"Y"
A	3.50	2.90
B	5.20	2.70

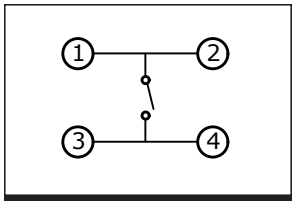




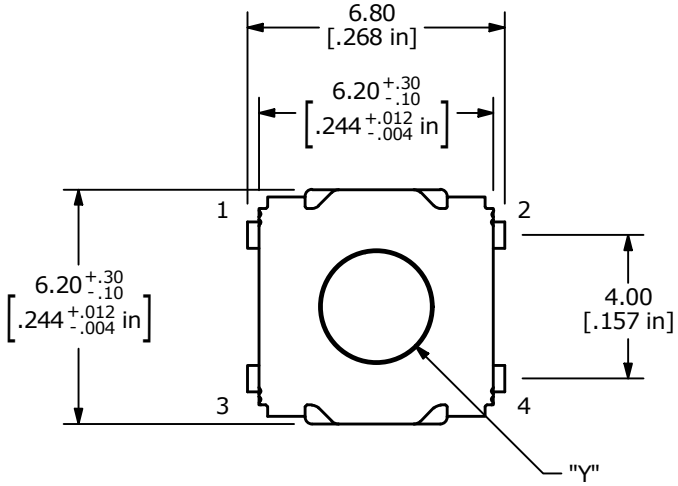
Body Dimensions
J Lead



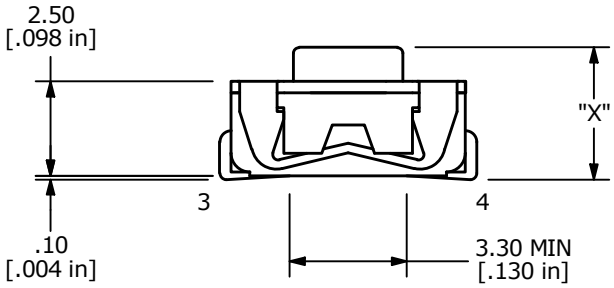
Recommended PCB Layout

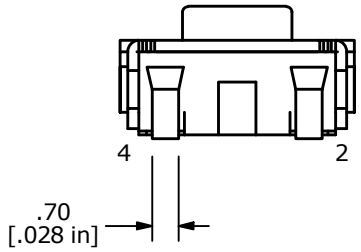


Schematic

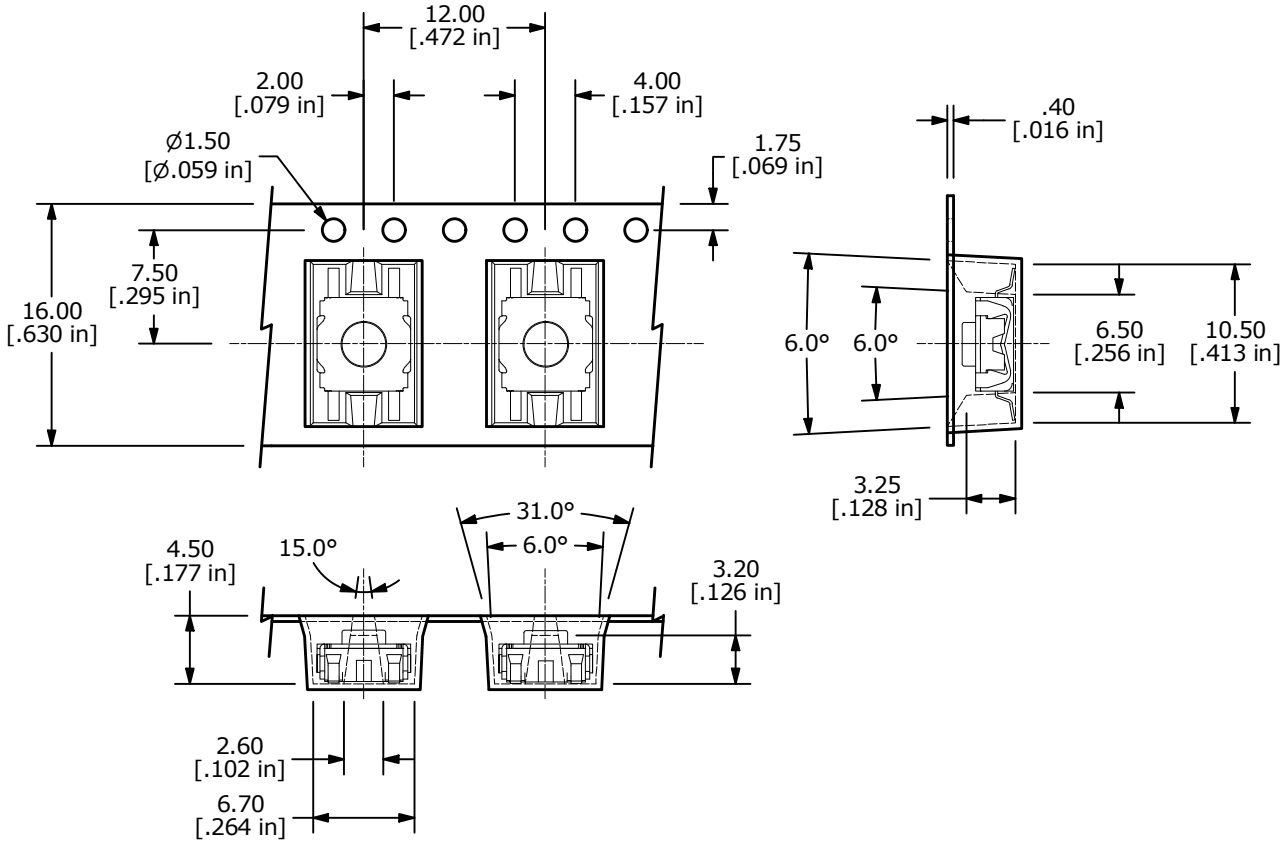


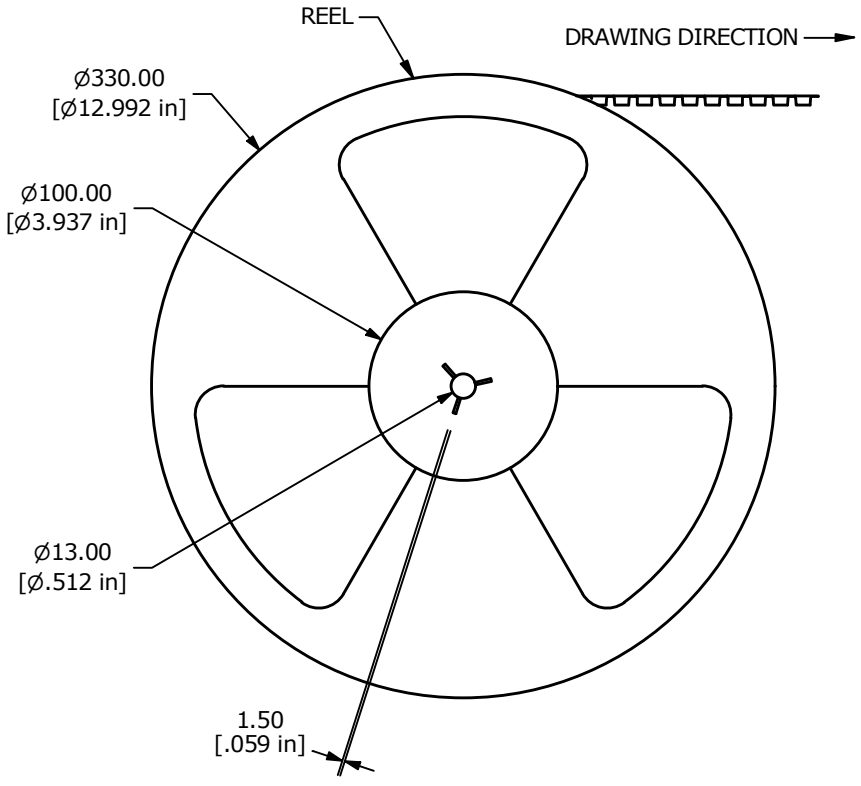
ACTUATOR	"X"	"Y"
A	3.50	2.90
B	5.20	2.70





Body Dimensions
Tape and Reel





Recommended 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 (Ts_{max} to Tp)	3 °C/second max.	3 °C/second max.
Preheat -Temperature Min (Ts_{min}) -Temperature Max (Ts_{max}) -Time (ts_{min} to ts_{max})	 100 °C 150 °C 60-120 seconds	 150 °C 200 °C 60-180 seconds
Time Maintained above: -Temperature (T_L) -Time (t_L)	 183 °C 60-150 seconds	 217 °C 60-150 seconds
Time within 5 °C of actual Peak Temperature (tp)	10-30 seconds	20-40 seconds
Ramp-Down Rate	6 °C/second max.	6 °C/second max.
Time 25 °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.*