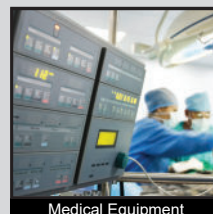
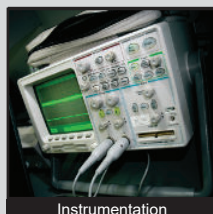
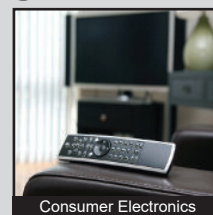
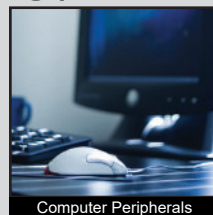
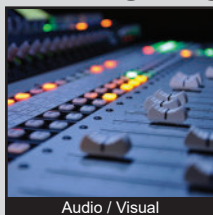


# TL1016 SERIES TACT SWITCH

ANTI-VANDAL SWITCHES  
DETECTOR SWITCHES  
DIP SWITCHES  
KEYLOCK SWITCHES  
NAVIGATION SWITCHES  
PUSHBUTTON SWITCHES  
ROCKER SWITCHES  
ROTARY SWITCHES  
SLIDE SWITCHES  
SNAP ACTION SWITCHES  
TACTILE SWITCHES  
TOGGLE SWITCHES  
CAP OPTIONS



## APPLICATIONS / MARKETS



**RoHS**

## SPECIFICATIONS

**Electrical Rating:** 50mA, 12VDC  
**Contact Resistance:** 500mΩ Max. (Initial)  
**Insulation Resistance:** 100MΩ Min. at 500VDC  
**Dielectric Strength:** 250VAC for 1 Minute  
**Life Cycles:** 100,000 cycles  
**Operating Temperature:** -40°C to 85°C  
**Storage Temperature:** -40°C to 85°C  
**Travel:** 0.20mm +0.2/-0.1mm  
**Operating Force:** 160gf, 220gf  
**Function:** SPST, Off-(On)  
**Bounce:** 10msec Max.  
**Contact Material:** Silver  
**Packaging:** Tape and Reel, 3,500 pcs/reel

## FEATURES & BENEFITS

- Right angle Surface mount design
- 3.5 x 3.55mm size
- Up to 100,000 cycle life expectancy
- Multiple actuation force options
- Mounting boss option
- Ground terminal option
- Tape and Reel packaging

## PART NUMBER CONFIGURATOR

Series	Bosses	Ground Terminal	Actuation Force	Contact Plating	Termination
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TL1016	A - Without Bosses B - With Bosses	A - Without Ground Terminal B - With Ground Terminal	F160 - 160 gf - Black F220 - 220 gf - White	Q - Silver	G - Gull-wing

Specifications subject to change without notice 12.7.2022



**E-SWITCH®**

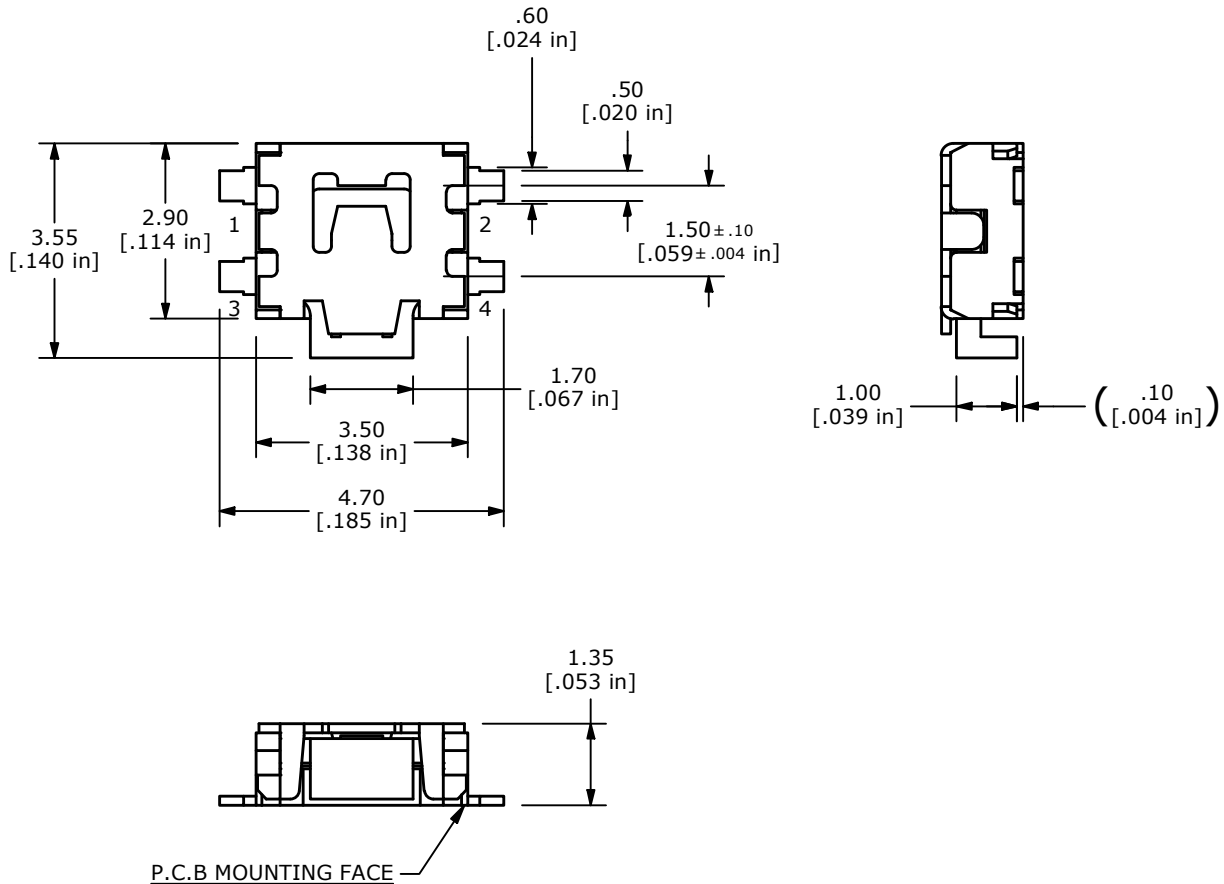
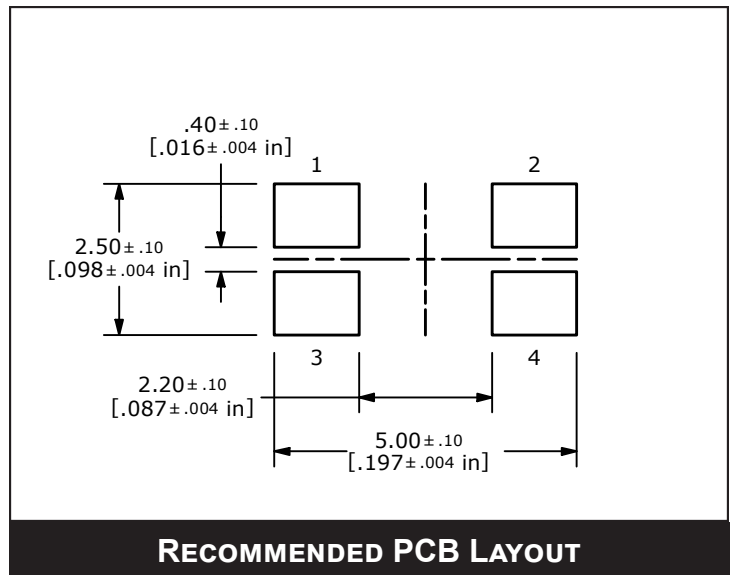
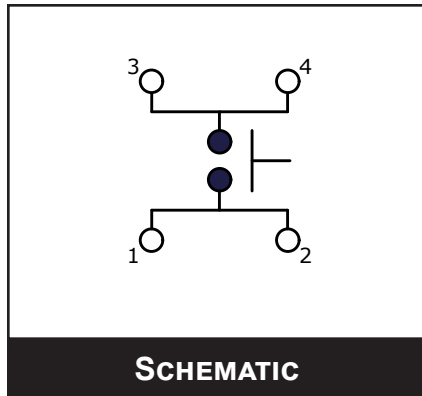
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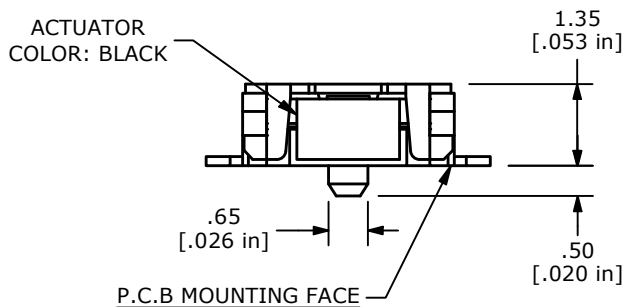
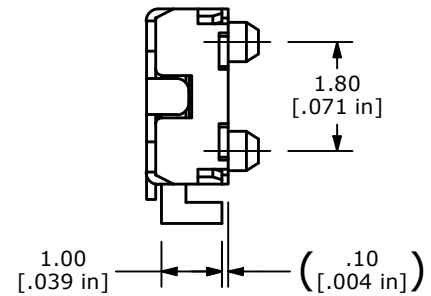
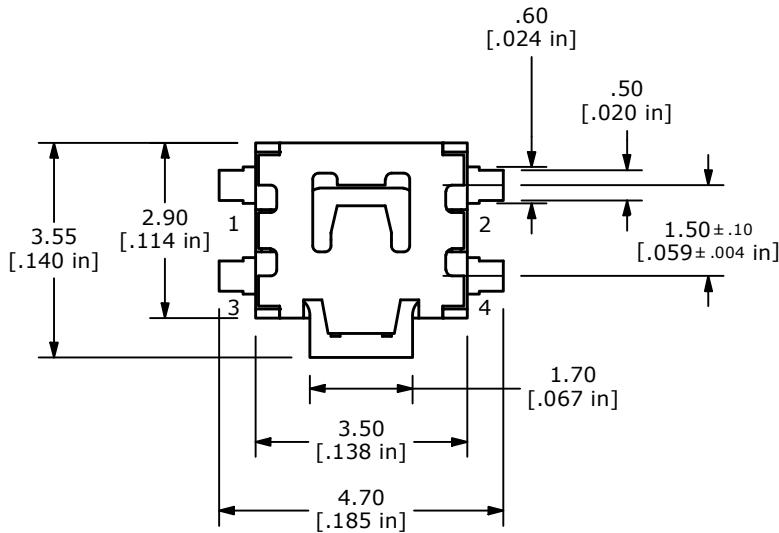
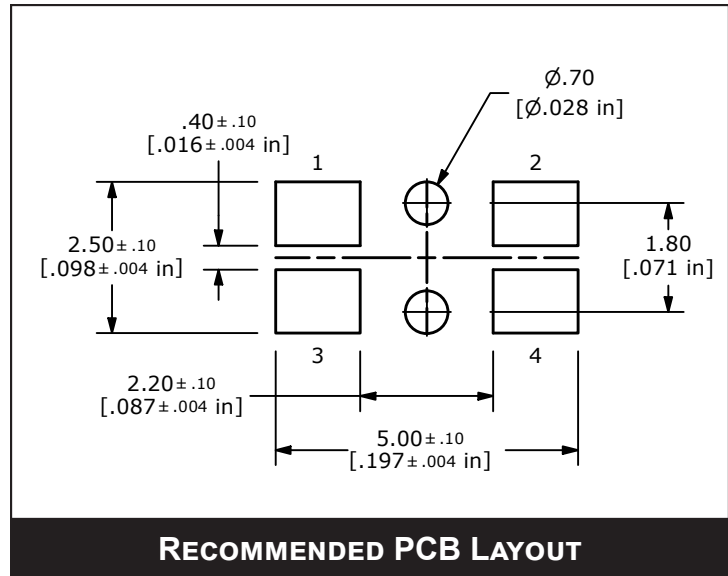
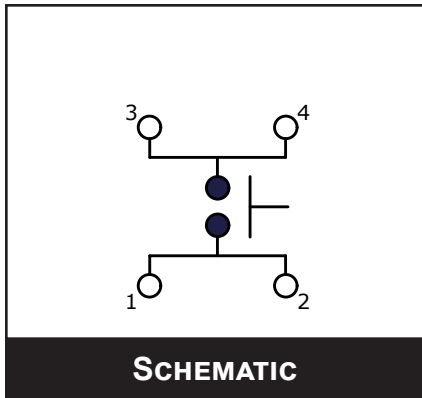
# TL1016 SERIES TACT SWITCH

## BODY DIMENSIONS WITHOUT BOSSES AND GROUND TERMINAL



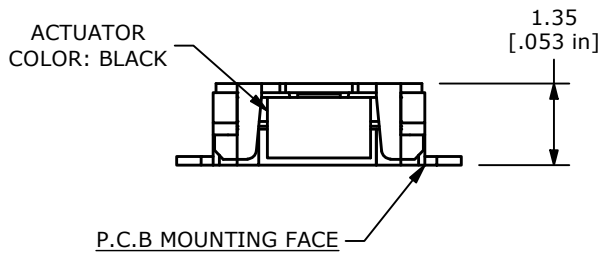
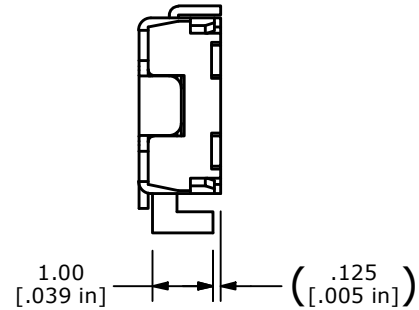
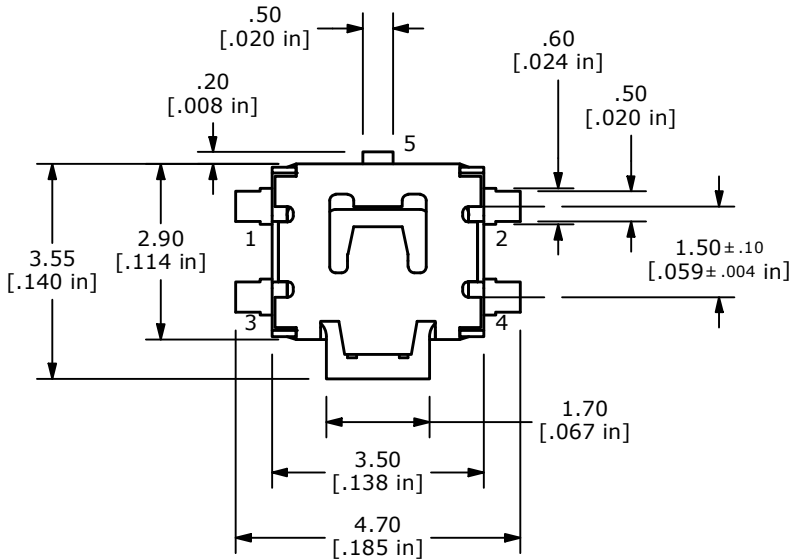
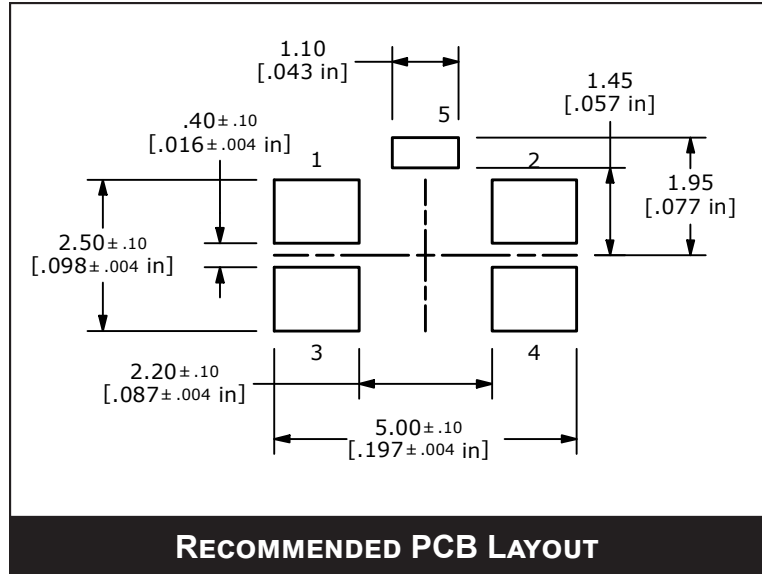
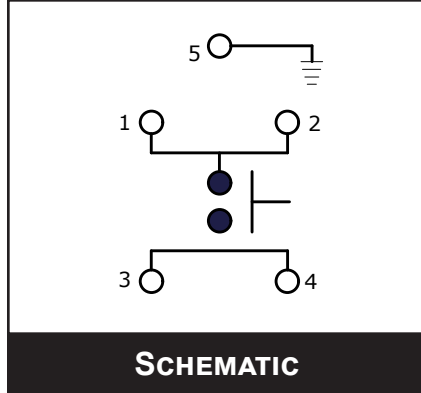
# TL1016 SERIES TACT SWITCH

## BODY DIMENSIONS WITH BOSSES AND WITHOUT GROUND TERMINAL



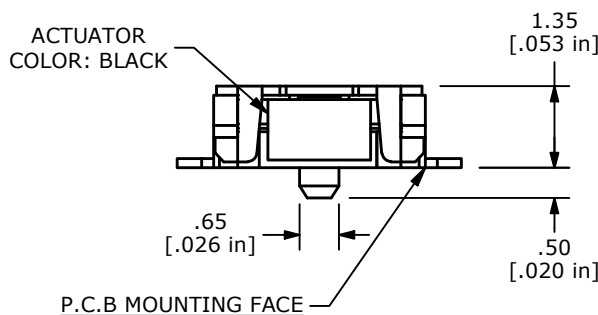
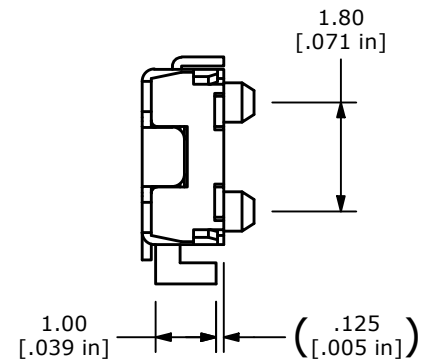
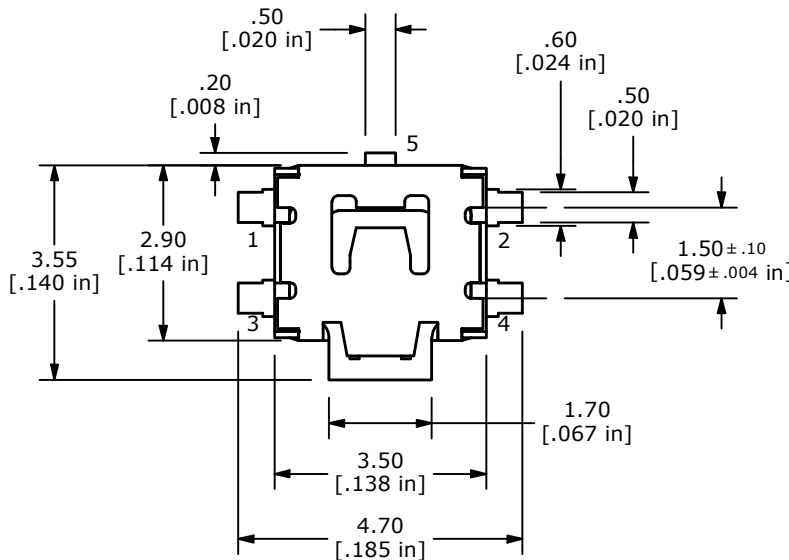
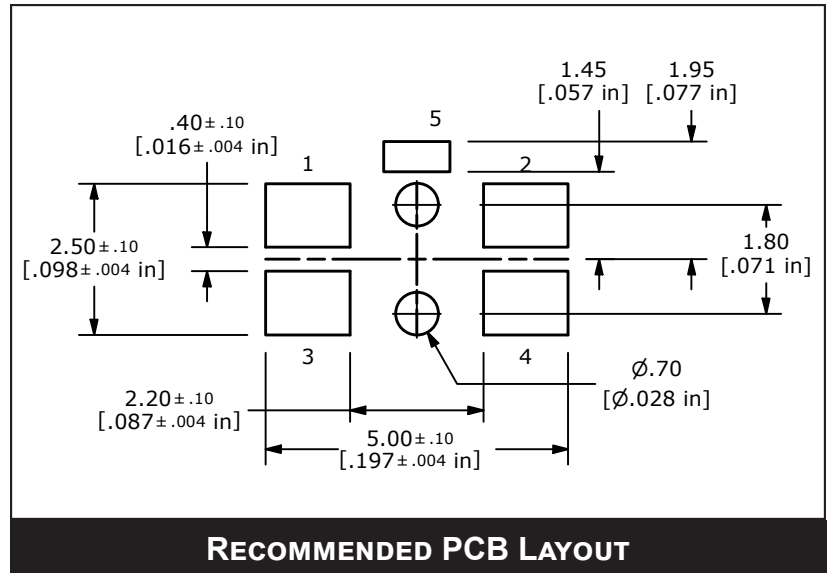
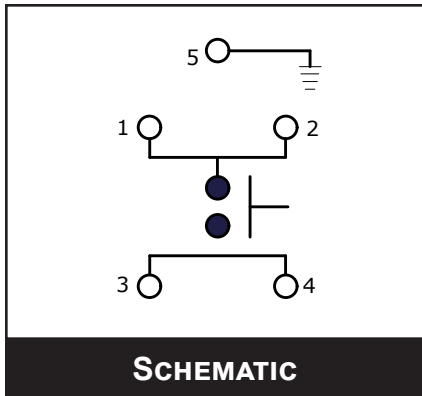
# TL1016 SERIES TACT SWITCH

## BODY DIMENSIONS WITH GROUND TERMINAL AND WITHOUT BOSSES



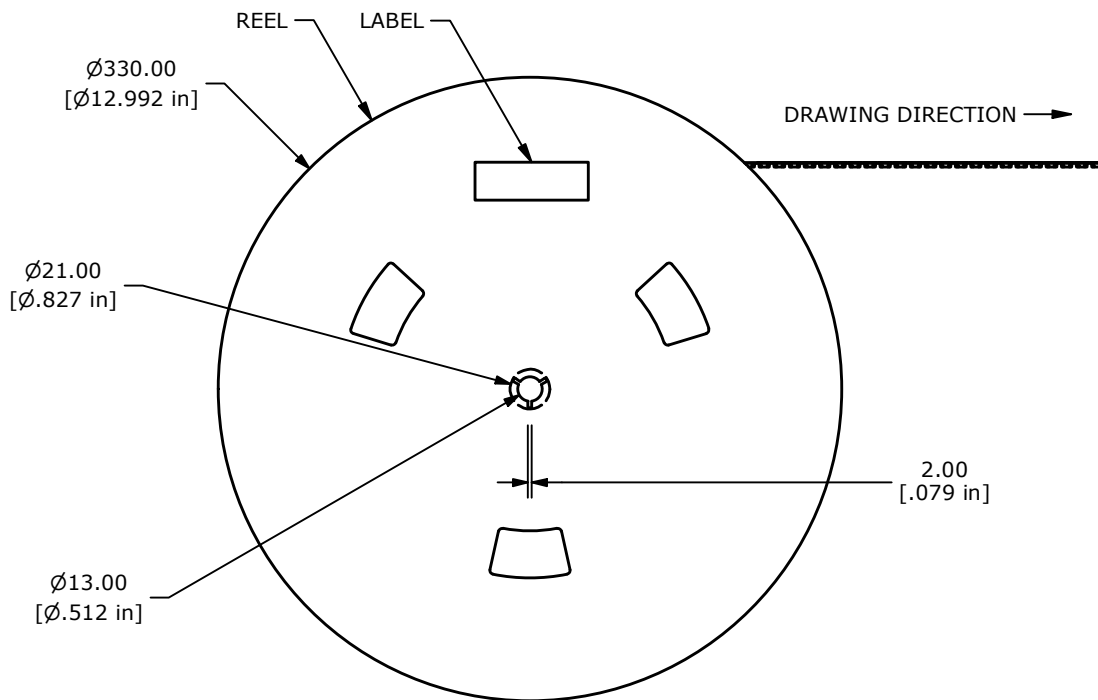
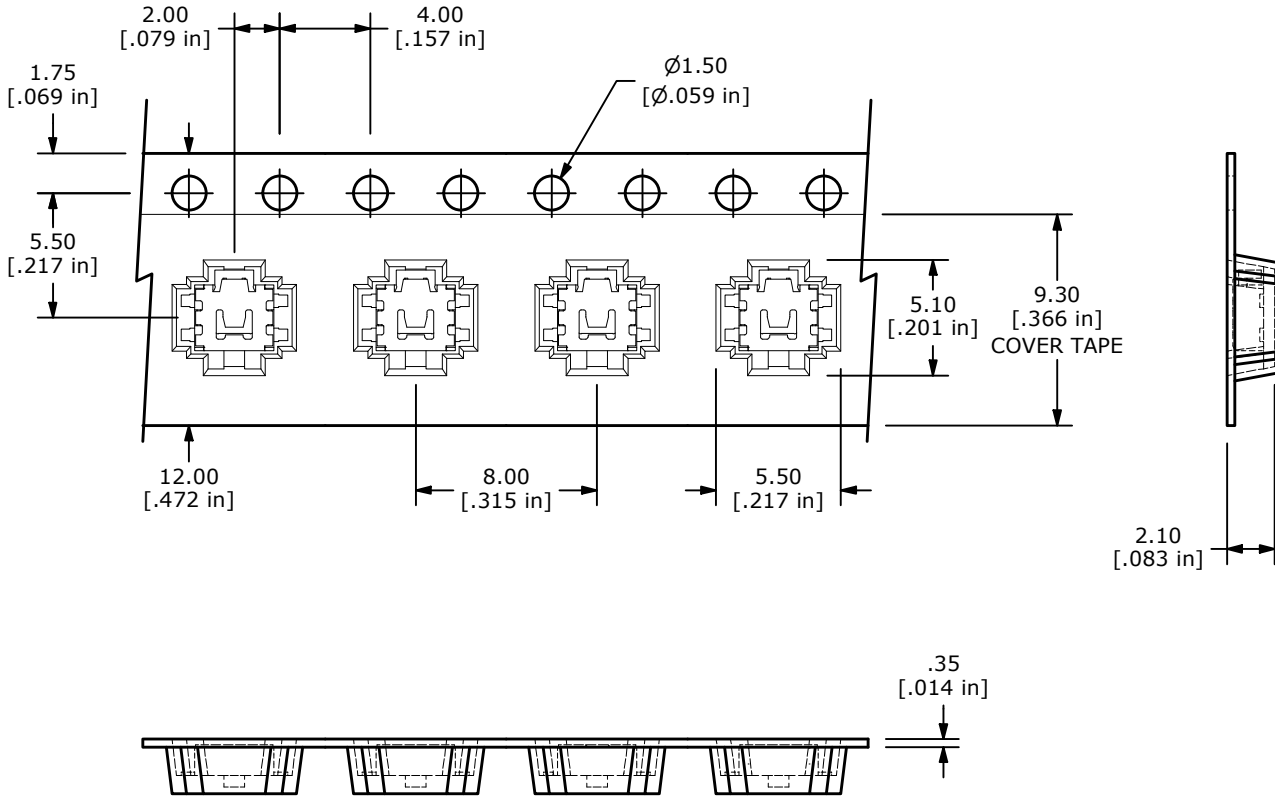
# TL1016 SERIES TACT SWITCH

## BODY DIMENSIONS WITH BOSSES AND GROUND TERMINAL



# TL1016 SERIES TACT SWITCH

## BODY DIMENSIONS TAPE AND REEL



# TL1016 SERIES TACT SWITCH

## 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 ( $T_{s_{max}}$ to $T_p$ )	3 °C/second max.	3 °C/second max.
<b>Preheat</b>		
-Temperature Min ( $T_{s_{min}}$ )	100 °C	150 °C
-Temperature Max ( $T_{s_{max}}$ )	150 °C	200 °C
-Time ( $t_{s_{min}}$ to $t_{s_{max}}$ )	60-120 seconds	60-180 seconds
Time Maintained above:		
-Temperature ( $T_L$ )	183 °C	217 °C
-Time ( $t_L$ )	60-150 seconds	60-150 seconds
Time within 5 °C of actual Peak Temperature ( $t_p$ )	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.

