

# SMT TL series

## Surface mount tiny washable toggle switches

*Distinctive features and specifications*



- Entirely designed for surface mount
- Tape and reel packaging
- Reflow solderable
  - High temperature plastic materials
  - Tin plated ground plate
  - Terminal coating : tin alloy over nickel plating
  - Terminals turned to the outside, preventing the shadow effect in infrared soldering and permitting visual inspection of solder joints
  - Distance between case and circuit : 0,55 mm (.021)
  - End stackable with 10,16 mm (.40) pitch
  - Available with positioning pins to ensure switch orientation during the reflow process and increasing switch mechanical resistance
- Protected against electrostatic discharges (ESD) up to 10 KV
- Washable
  - Construction withstands cleaning processes, including hot water under pressure

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 0,4VA 20V max. AC or DC
- Minimum load : 10mA 50mV or 10µA 5VDC
- Initial contact resistance : 20 mΩ max
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength : 1.000 Vrms. 50 Hz min. between terminals and frame 500 Vrms. 50 Hz min. between terminals
- Electrical life at full load :
  - 2 position switches : 60.000 cycles
  - 3 position switches : 30.000 cycles
- Static resistance : 10 KV (Schaffner equipment)

### GENERAL SPECIFICATIONS

- Operating temperature : -40°C to +85°C
- Moisture resistance : 21 days per IEC 512-6 test 11 c
- Vibration resistance : 10-500 Hz / 10 g per IEC 512-4 test 6d
- Shock resistance : 50 g per IEC 512-4 test 6c

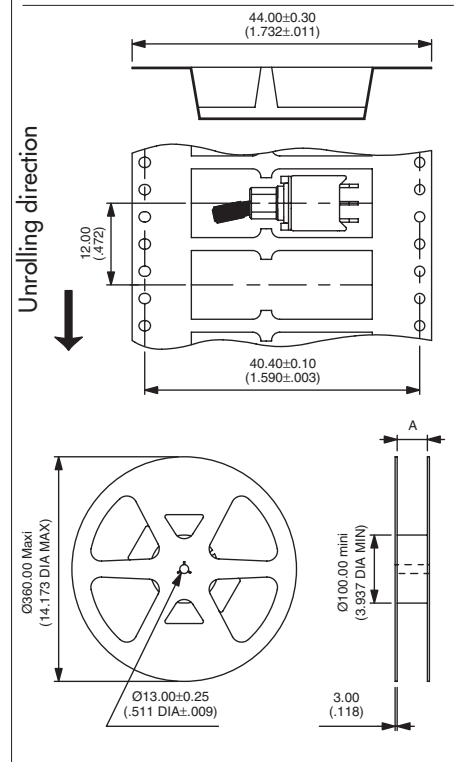
### MATERIALS

- Case : high temperature plastic material UL94-V0
- Actuator : brass, nickel plated, with high temperature UL94-V0 plastic cap
- Ground plate and positioning pins : steel, tin plated
- Contacts : brass, gold plated
- Terminals : brass, with pure tin plating over nickel barrier

### SOLDERING AND CLEANING

- Reflow soldering : infrared, vapor phase or infrared convection
- Washable per IEA-RS448-2 :
  - water + detergent - preferred
  - solvents
- Further information on reflow soldering : see end of catalogue.

### PACKAGING



Tape width	24.00 (.944)	44.00 (1.732)
Reel (dimension A)	24.40+2.00/0.00 (.960+.078/.000)	44.40+2.00/0.00 (1.748+.078/.000)

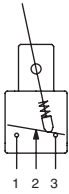
**Standard packaging unit** : 700 pieces  
 Tape meeting international standard IEC - Publication 286-3 (EIA481A)  
 Start leader : 400 mm min.

**Dimensions** : First dimensions are in mm while inches are shown as bracketted numbers.

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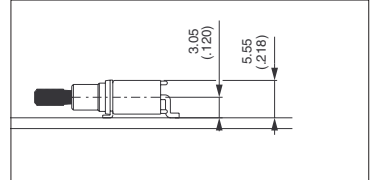
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A



- With or without positioning pins
- Single pole

Also available for vertical mounting. On request.

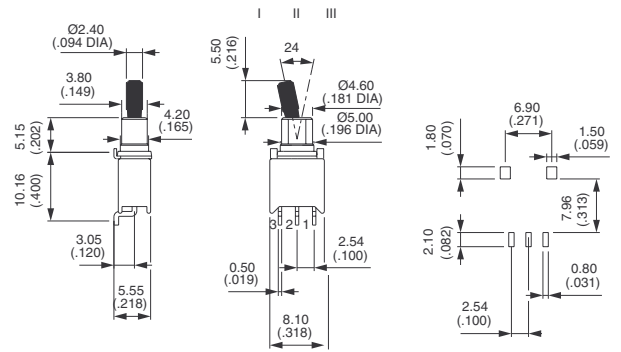


## Without positioning pins



TL36WS84000  
TL39WS84000  
TL37WS84000  
TL38WS84000  
TL32WS84000

	III	II	I
TL36WS84000	ON	-	ON
TL39WS84000	ON	OFF	ON
TL37WS84000	MOM	OFF	MOM
TL38WS84000	ON	OFF	MOM
TL32WS84000	ON	-	MOM



## With positioning pins



TL36WS84065  
TL39WS84065  
TL37WS84065  
TL38WS84065  
TL32WS84065

	III	II	I
TL36WS84065	ON	-	ON
TL39WS84065	ON	OFF	ON
TL37WS84065	MOM	OFF	MOM
TL38WS84065	ON	OFF	MOM
TL32WS84065	ON	-	MOM

