

**NEW!**

# ITS Series Illuminated Tact Switch

## Features/Benefits

- Vertical and right angle
- Thru-hole and SMT models
- Multiple caps and legends
- Several LED colors and bi-color options
- RoHS compliant /compatible

## Typical Applications

- Consumer electronics
- Server/storage
- Medical devices
- Test/Measurement/Instrumentation
- Audio/Video
- Computers/Peripherals
- Security



Tactile Switches

## Specification

FUNCTION: N.O. momentary action  
 TERMINALS: SMT with positioning pegs, Thru-hole

## Mechanical

OPERATING FORCE: 160gf ± 50gf  
 OPERATING LIFE: 50,000 cycles (250m Ω max)  
 RECOMMENDED OPERATING STROKE: 0.25mm ± 0.1mm

## Electrical

RATING: 50mA @ 12VDC  
 CONTACT RESISTANCE: <100m Ω (initial)  
 DIELECTRIC WITHSTANDING VOLTAGE:  
 >250VAC (50-60 Hz) between terminals - 1 min.Ω  
 INSULATION RESISTANCE: >100M Ω  
 BOUNCE TIME: <10ms

## Packaging

Thru-hole: 200 pieces per tray  
 SMT: tape & reel (see V2 or V3 mounting style drawings)

## Environmental

OPERATING TEMPERATURE: -25°C to +70°C  
 STORAGE TEMPERATURE: -25°C to +80°C

## Process

SOLDERABILITY: Thru-hole - wave compatible  
 SMT - convection or IR reflow compatible

## Materials

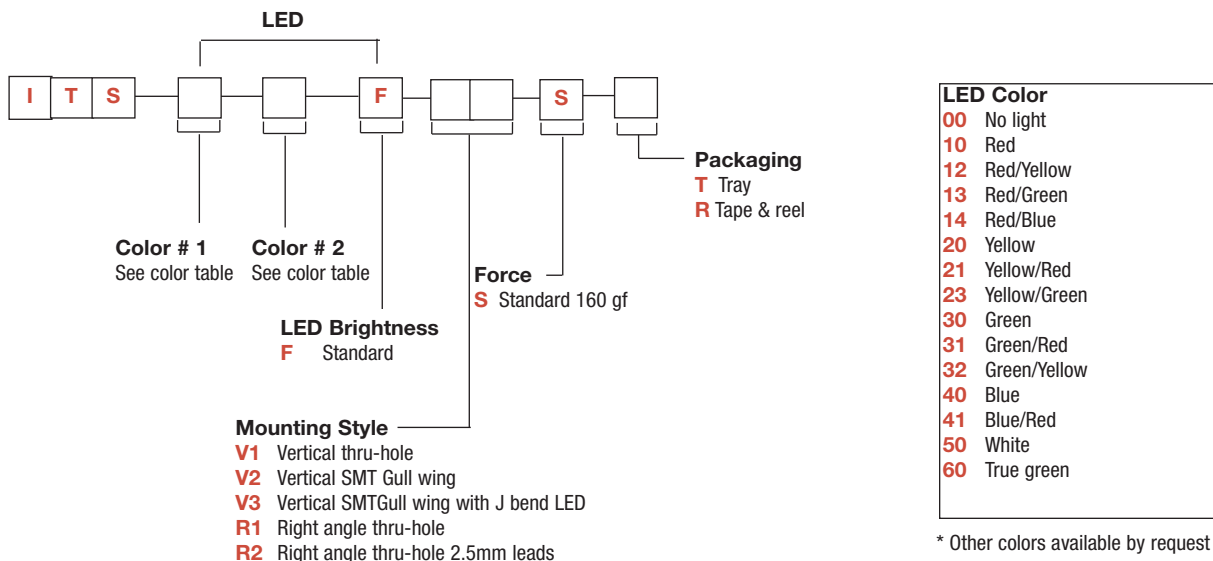
CONTACTS/TERMINALS: Base metal; brass  
 Plating; Ag  
 DOME: Base metal: Phosphor bronze  
 Plating; Ag  
 BASE: PA  
 ACTUATOR: PA  
 COVER: PA

## Caps

Caps are ordered separately and shipped bulk. Thru-hole versions available with caps assembled under custom part number. Contact customer service for details.

## How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



# ITS Series Illuminated Tact Switch

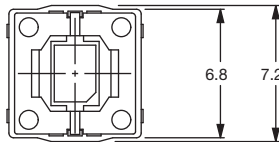
**NEW!**

## LED COLOR / BRIGHTNESS

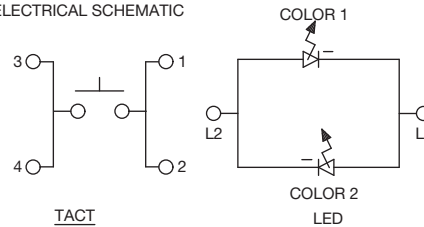
LED Characteristic	units	Standard LED Color Options					
		Red (1)	Yellow (2)	Green (3)	Blue (4)	White (5)	True Green (6)
Recommended Operating	mA @ 5VDC	20mA	20mA	20mA	20mA	20mA	20mA
Forward Current	mA	30 mA	30 mA	30 mA	30 mA	30 mA	30 mA
Peak Pulsing Current (1/8 duty @ 1kHz)	mA	125 mA	125 mA	125 mA	125 mA	125 mA	125 mA
Power Dissipation	mW	75 mW	75 mW	75 mW	108 mW	114 mW	108 mW
Forward Voltage @ 20mA	Volts	2.5 Volts Max.	2.5 Volts Max.	2.5 Volts Max.	3.6 Volts Max.	3.6 Volts Max.	3.6 Volts Max.
Dominant Wavelength @ 20mA	nm	637nm (Typical)	590nm (Typical)	570nm (Typical)	465nm (Typical)	CIE Coordinates X= 0.25 ~ 0.33 Y= 0.24 ~ 0.34	522nm (Typical)
Wavelength at Peak Emission @ 20mA	nm	645nm (Typical)	590nm (Typical)	573nm (Typical)	460nm (Typical)		515nm (Typical)
Spectral Half Bandwidth @ 20mA	nm	20nm (Typical)	20nm (Typical)	17nm (Typical)	25nm (Typical)		33nm (Typical)
Luminous Intensity @ 20mA	mcd	50mcd Minimum	125mcd Minimum	40mcd Minimum	100mcd Minimum	250mcd Minimum	500mcd Minimum
Viewing Angle at 50% LV (@10mA)	degrees	150° Typical	120° Typical	120° Typical	120° Typical	150° Typical	120° Typical

## MOUNTING STYLES

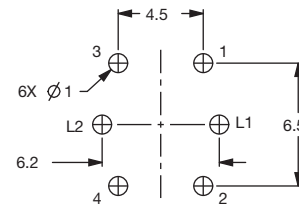
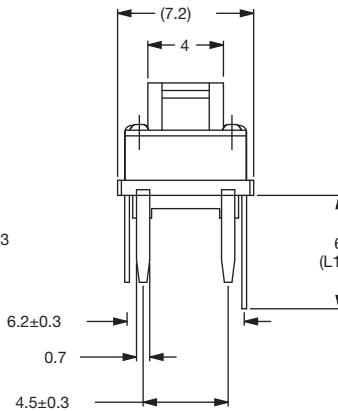
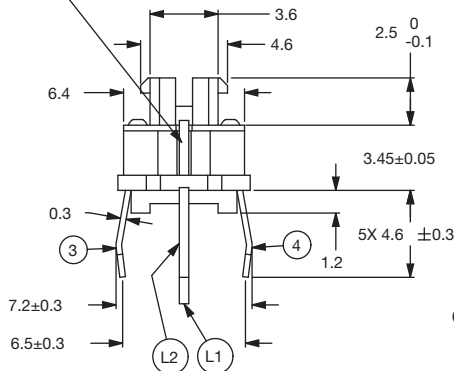
### V1 - Vertical Thru-hole



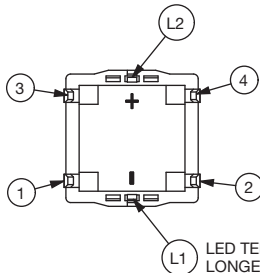
ELECTRICAL SCHEMATIC



DOT SHOWING LED COLOR IS MARKED FOR MINUS POLE SEE SCHEMATIC



P.C.B. LAYOUT



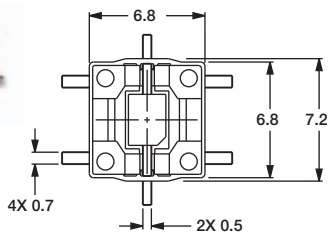
TRAY PACKAGING: 200 PIECES

**NEW!**

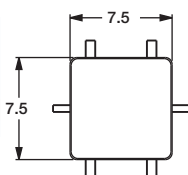
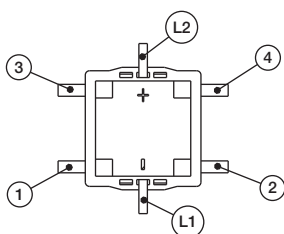
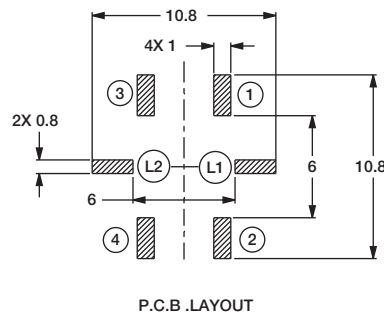
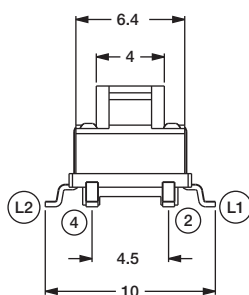
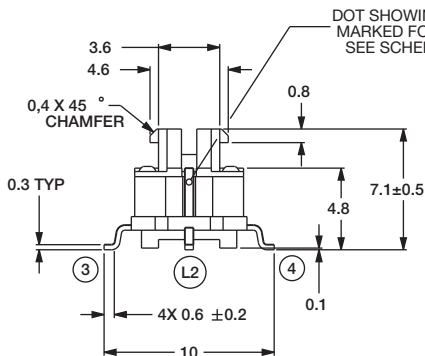
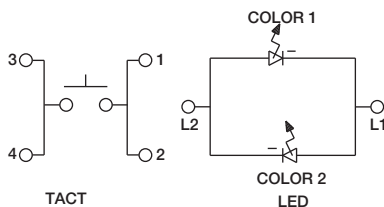
# ITS Series Illuminated Tact Switch

## MOUNTING STYLES

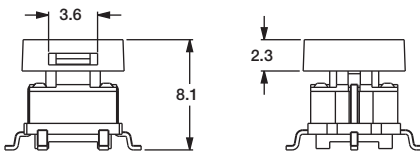
### V2 - Vertical SMT; Gullwing



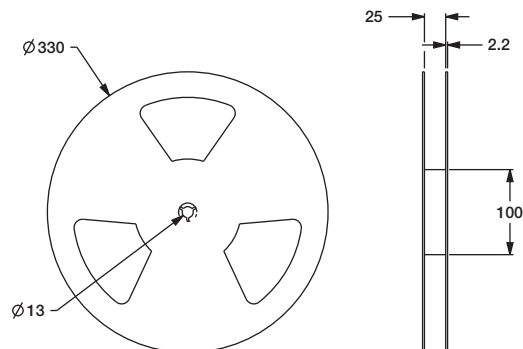
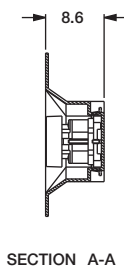
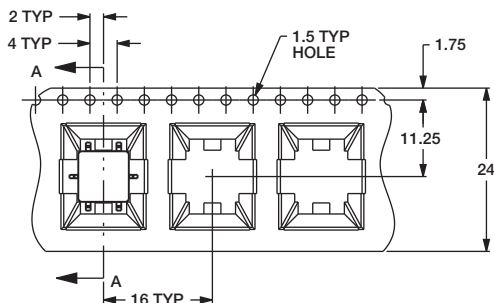
ELECTRICAL SCHEMATIC



TAPE & REEL: 500 PIECES



NOTES:  
1. SWITCH WITH TEMPORARY PICK AND PLACE CAP.



11 nov 13

B-91

Dimensions are shown: mm  
Specifications and dimensions subject to change

www.ck-components.com



B

Tactile Switches

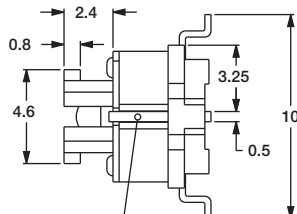
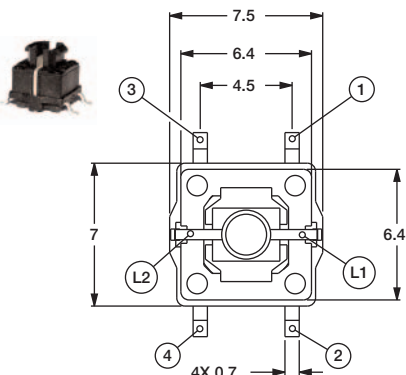
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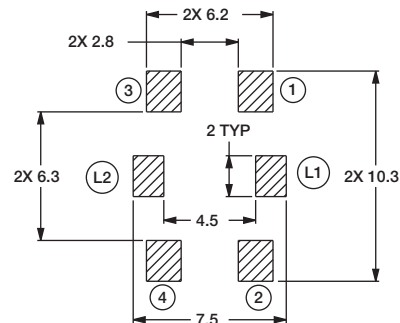
## MOUNTING STYLES

### V3 - Vertical SMT; Gull wing with J bend LED

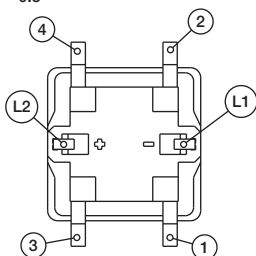
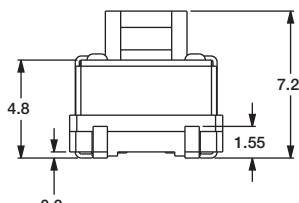
Tactile Switches



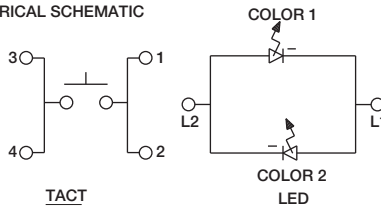
DOT SHOWING LED  
COLOR IS MARKED  
FOR MINUS POLE (CATHODE)  
SEE SCHEMATIC



P.C.B. LAYOUT



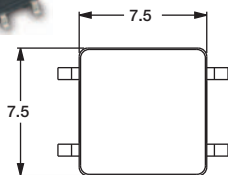
ELECTRICAL SCHEMATIC



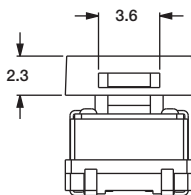
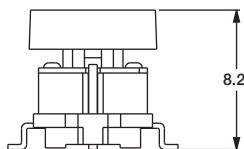
TACT

COLOR 1

COLOR 2 LED

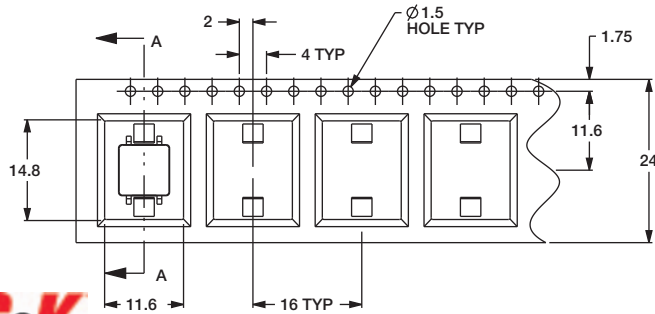


SCALE 3:1

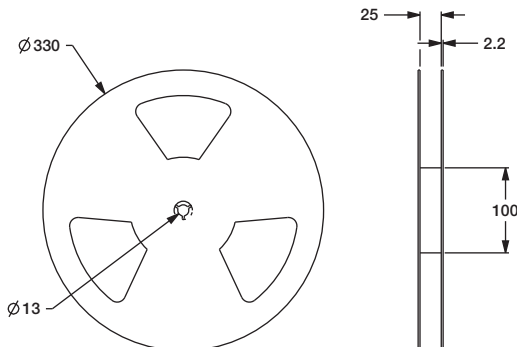
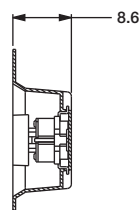


TAPE & REEL: 500 PIECES

NOTES:  
1. SWITCH WITH TEMPORARY PICK AND PLACE CAP.



SECTION A-A



Dimensions are shown: mm  
Specifications and dimensions subject to change

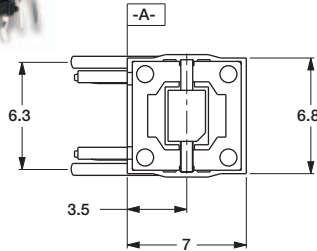


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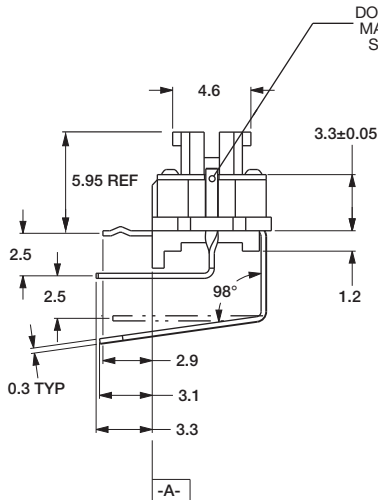
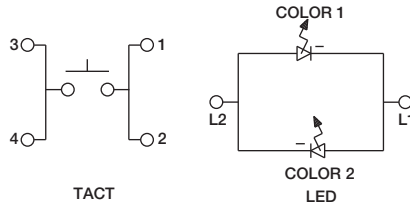
# ITS Series Illuminated Tact Switch

## MOUNTING STYLES

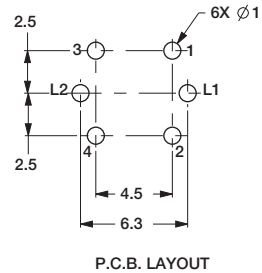
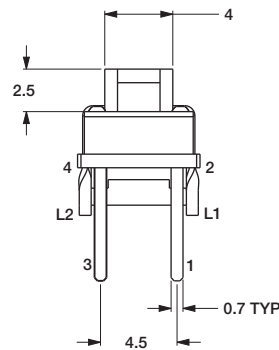
### R1 - Right Angle; Thru-hole



ELECTRICAL SCHEMATIC

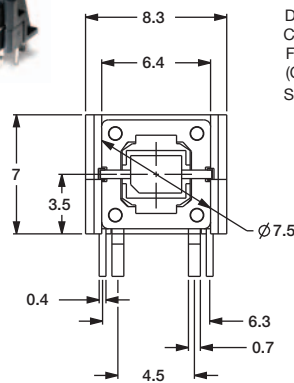


DOT SHOWING LED COLOR IS MARKED FOR MINUS POLE (CATHODE) SEE SCHEMATIC

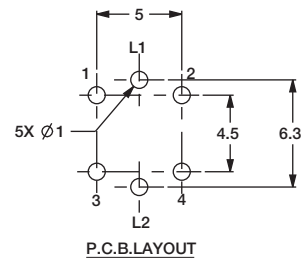
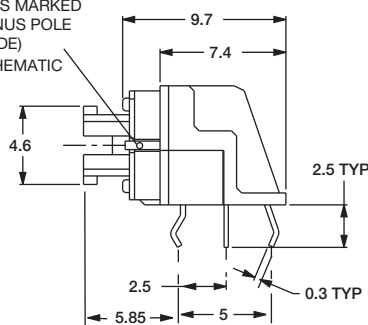


TRAY PACKAGING: 200 PIECES

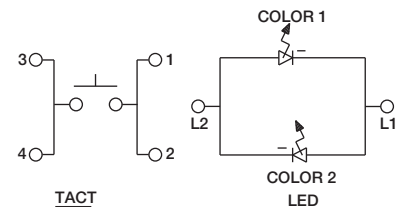
### R2 - Right Angle; Thru-hole 2.5mm leads



DOT SHOWING LED COLOR IS MARKED FOR MINUS POLE (CATHODE) SEE SCHEMATIC



ELECTRICAL SCHEMATIC



TRAY PACKAGING: 200 PIECES

# ITS Series Illuminated Tact Switch

**NEW!**

## FORCE

OPTION CODE	FORCE
<b>S</b>	Standard 160 gf

## CAPS

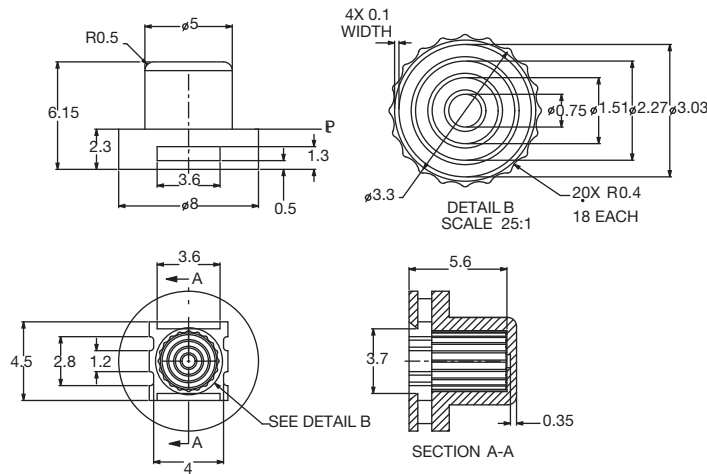
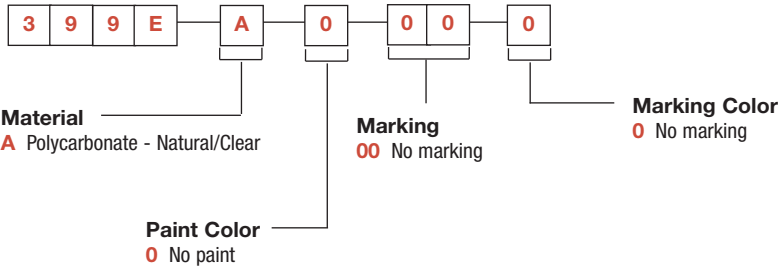
Tactile Switches

Use the individual ordering code for each cap



**399EA0000**

Round cap, clear



**NEW!**

# ITS Series Illuminated Tact Switch

## CAPS



**400EA0000**

Natural/clear



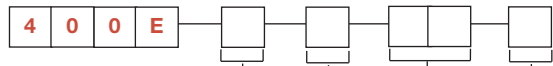
**400EB0000**

Translucent white, flat edge



**400ECA01E**

Matte silver paint laser etch, flat edge



**Material**

- A** Natural/Clear - polycarbonate
- B** Translucent white - polycarbonate
- C** Silver paint laser etch - polycarbonate

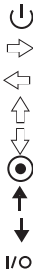
- Paint Color**
- 0** No paint
  - A** Matte silver

**Laser Etch Marking**

- 00** No marking
- 01** Power On/Off
- 04** Arrow right
- 05** Arrow left
- 06** Arrow up
- 07** Arrow down
- 09** Power
- 33** Arrow up (fill)
- 34** Arrow down (fill)
- 97** I/O

**Marking Color**

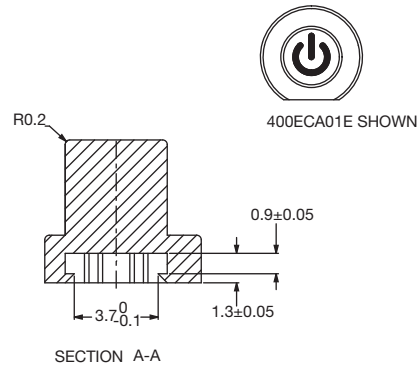
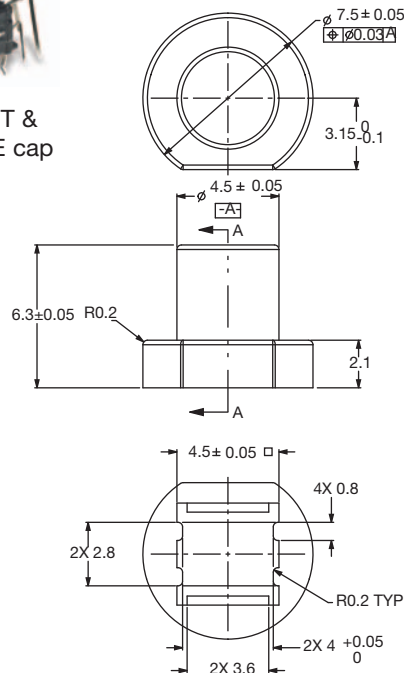
- 0** No marking
- E** Laser etch (painted caps only)



Tactile Switches



ITSXXFR1ST & 400ECA01E cap



# ITS Series Illuminated Tact Switch

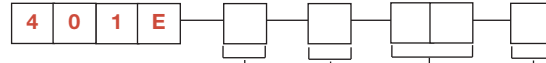
**NEW!**

## CAPS



**401ECA06E**

Matte silver paint, laser etch,  
tall oval



**Material**

- A** Natural/clear - polycarbonate
- B** Translucent white - polycarbonate
- C** Paint laser etch - polycarbonate

**Paint Color**

- 0** No paint
- A** Matte silver

**Laser Etch  
Marking**

- 00** No marking
- 06** Arrow up
- 07** Arrow down
- 33** Arrow up (fill)
- 34** Arrow down (fill)

**Marking Color**

- 0** No marking
- E** Laser etch (painted caps only)



**B**

Tactile Switches

