



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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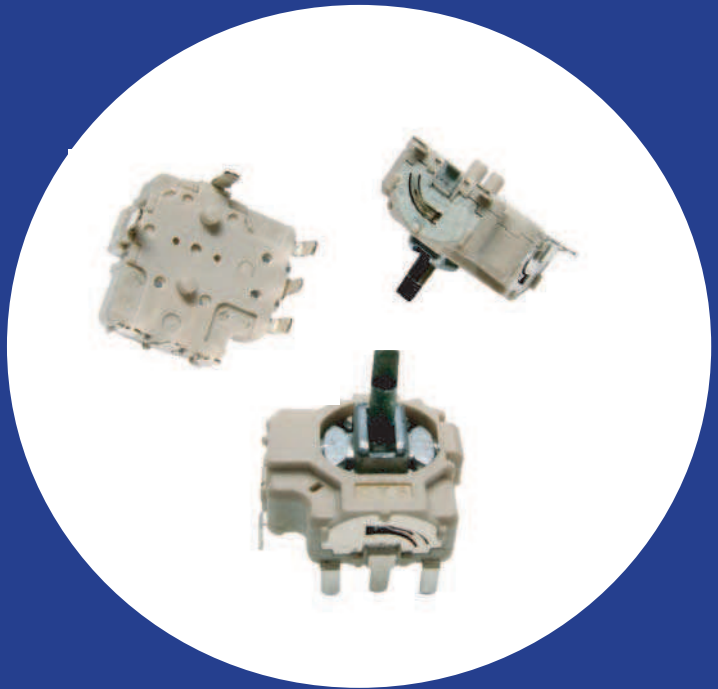
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## Two Axis, Ultra-miniature Joystick With Optional Momentary Switch

### Features

- Smallest mini-joystick available (11x11x5 mm)
- Long Life 1 Million Cycles
- Provides excellent electrical accuracy through patented mechanism
- Optional momentary switch is operational at all positions
- RoHS compliant



Pat. Nos.: US 7,199,314 , Taiwan 279822, Pat. Pending in China

## Electrical and Mechanical Specifications

### Potentiometer 1 & 2

**Resistance Range**

10 K ohms through 100 K ohms

**Resistance Tolerance**

± 30%, ± 20%, ± 10%

**Dielectric Strength**

250 VAC 50 / 60 Hz for 1 minute

**Insulation Resistance**

100 megohms @ 250 VDC for 1 minute

**Operational Torque**

120 ± 50 gf.cm

**Power Rating**

0.0125 watt @ 50°C

**Maximum Operating Voltage**

50 VAC or 5 VDC maximum

**Rotational Angle**

55°

**Life**

1,000,000 cycles

### Optional Switch

**Switch Type**

Momentary

**Contact Resistance**

100 milliohms maximum initially

200 milliohms maximum after 200,000 cycles switching 5 mA @ 5 VDC

**Insulation Resistance**

100 megohms minimum @ 100 VDC for 1 minute

**Operational Force**

650 ± 150 gf

**Power Rating**

5 VDC, 5 mA maximum

**Travel**

0.6 ± 0.2mm

**Switch Life**

200,000 cycles

# Electrical and Mechanical Specifications

## Potentiometer 1 & 2

**Operating Temperature**  
-10°C to +80°C

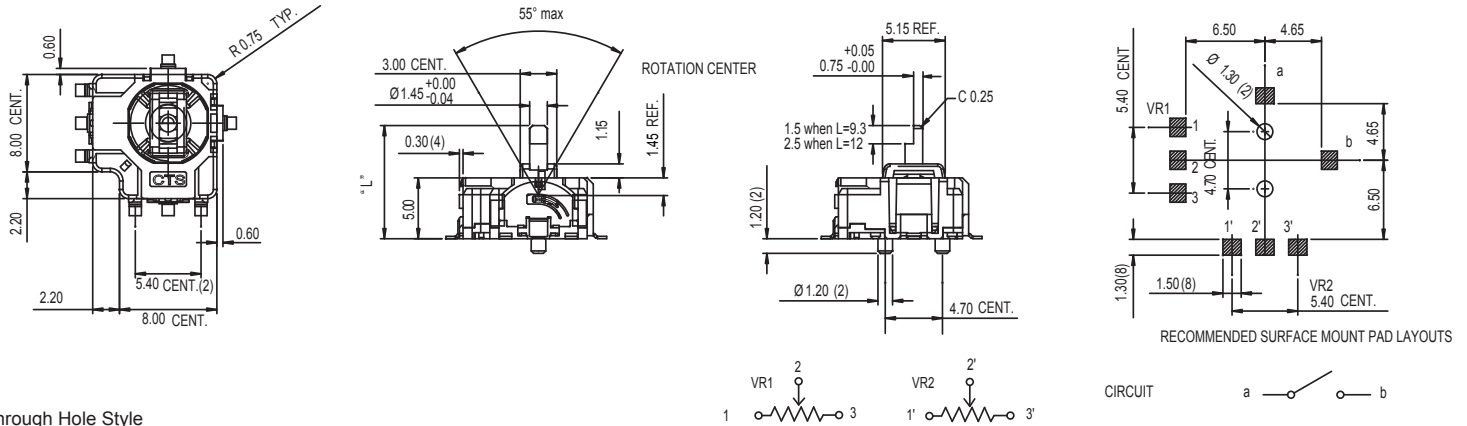
**Soldering Heat Resistance**  
260°C for 5 seconds

### Mounting Information

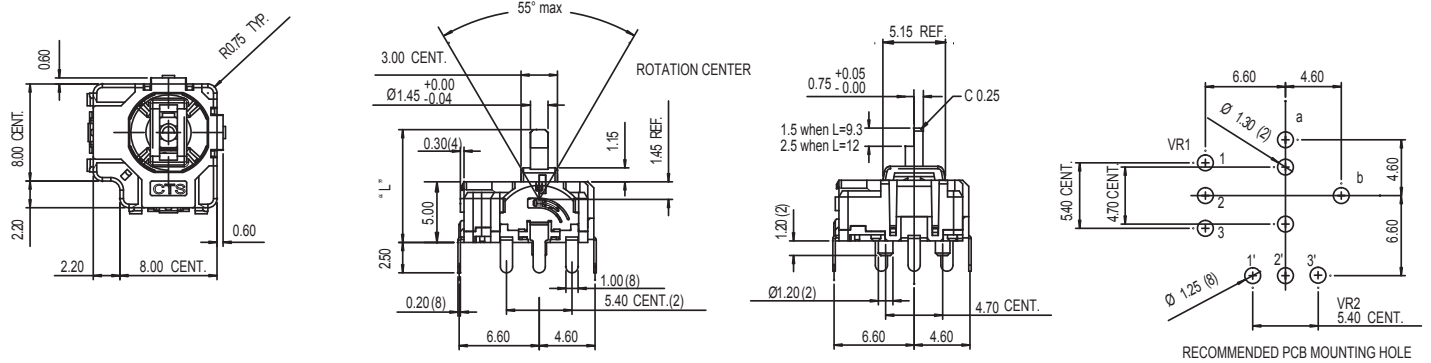
Through hole or Surface Mount terminal

## CTS Series 254 DIMENSION: mm

### Surface Mount Style



### Through Hole Style



## Ordering Information

**254**

**T**

**B**

**103**

**C**

**50**

**A**

TERMINAL STYLE	DRIVE ARM LENGTH DIM "L"	RESISTANCE CODE EXAMPLES	RESISTANCE TOLERANCE	EFFECTIVE ANGLE	SWITCH CONFIGURATION
S - SURFACE MOUNT T - THROUGH HOLE	LENGTH FROM MOUNTING SURFACE A - 9.3 mm B - 12.0 mm	CODE RESISTANCE 103 10K 104 100K	A - ±10% B - ±20% C - ±30%	50 - 50° 55 - 55°	A - W/O SWITCH B - MOMENTARY SWITCH

STANDARD PART (QUICK DELIVERY) - 254TA103C50A, 254TA103C50B, 254SA103C50A, 254SA103C50B