# imall

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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### **QSA Series** Silent Navigation Switch for SMT

#### Features/Benefits

- Excellent tactile feel
- Plunger can be custom designed •
- SMT switch adapted for low current
- Only actuate 1 direction at a time •
- Provides logic level control •
- **RoHS compliant**

#### Construction

#### **Typical Applications**

- Seat adjustments •
- Industrial controls •
- Mirror adjustment
- Home entertainment •
- Multi-function steering wheel •



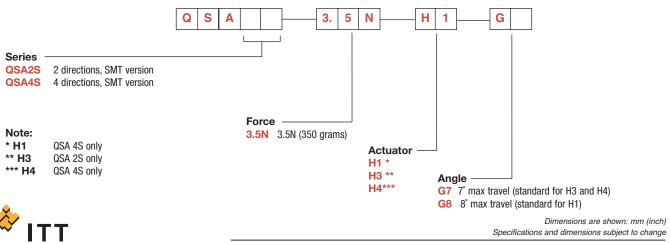
Construction		Mechanical (continued)
FUNCTION: TYPE OF SWITCH:	QSA2: 2 way switch QSA4: 4 way switch QSA2: 2x make contacts QSA4: 4x make contacts	RETURN FORCE: 0,8 ± 0,3N ACTUATION STRENGTH: >50 N, parallel to PCB >100 N, vertical (push) to PCB
FOOTPRINT:	23 mm x 18 mm, operating direction diagonal	>50 N traction (pull) force
HEIGHT:	Housing: 9 mm, total height: 22,4 mm (H1 version)	Electrical
PINS: ATTACHMENT: ACTUATOR:	Solder pins, SMD Snap-in pegs provided to help secure and locate switches ø3,5 mm with button fastener	SWITCHING POWER MAX: 0,20 VA MIN / MAX SWITCHING VOLTAGE: (VDC) 20mV / 30 V MIN / MAX SWITCHING CURRENT: 1mA / 50mA BOUNCE: < 1 ms
Mechanical		
	TION: In X–Y direction along the diagonal axis of the switch. Rotation point is 5,5 mm over the PCB surface.	Environmental OPERATING TEMPERATURE: -40°C to 85°C STORAGE TEMPERATURE: -40°C to 95°C
TRAVEL: (H1 G8 ve	rsion) Travel of the actuator measured on an axis parallel to and 19 mm above PCB. switch point/stop (4,0 N force) 1,5 ± 0,4 mm / 2,0+0,3 mm	Process AUTOMATIC SOLDERING: Reflow compatible per CECC00802
ACTUATION ANGLE	E: G8 version	Other Data
ACTUATION FORCE TACTILE EFFECT: LIFE:	To switch point / stop (4,0 N force) 6.5° / 8.5° E: 3,5 ± 1 N 15% 100,000 cycles in each direction (≤ 20 N force)	CONTACT MATERIAL: Au on Ni layer SOLDERING PINS: Au flash HOUSING MATERIAL: Thermoplastic <b>NOTE:</b> For the latest information regarding RoHS compliance, please go to: www.lttcannon.com/rohs.

Note: Specifications listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Note: Product to be offered as compatible with the lead free soldering profile on Q3-2006.

#### 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.



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С

# Navigation

yellow surface: terminals and top plate fixations to be soldered with Infrared process green surface: bearing point -to keep free from PCB lines snap-in pegs and positioning pins to get through the PCB but not to be soldered



red hole:

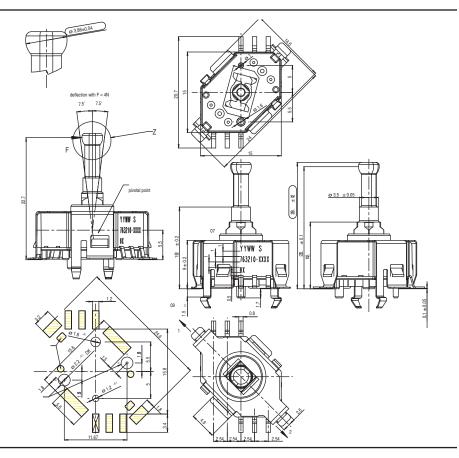


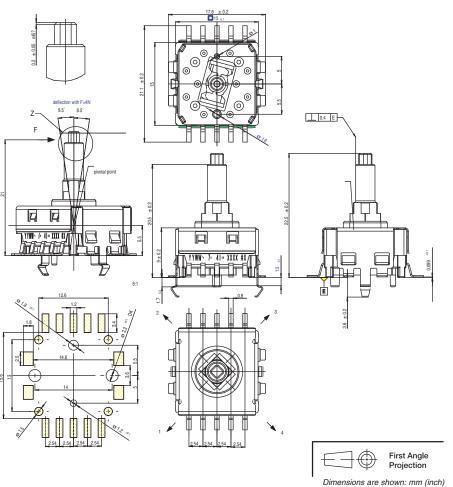
yellow surface: green surface:

red hole:

terminals and top plate fixations to be soldered with Infrared process bearing point -to keep free from PCB lines snap-in pegs and positioning pins to get through the PCB but not to be soldered

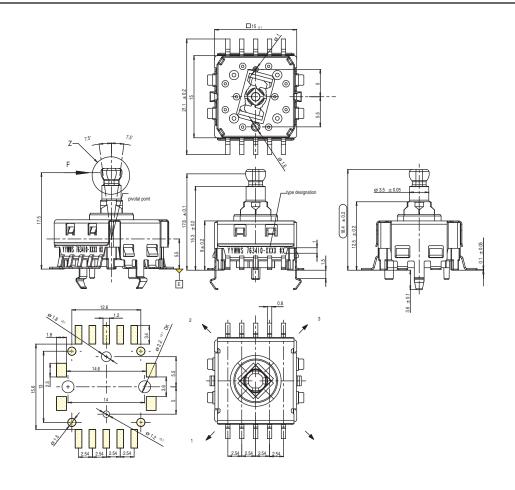






# QSA Series Silent Navigation Switch for SMT

#### QSA4S H4







Dimensions are shown: mm (inch) Specifications and dimensions subject to change C Navigation