## 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

#### Typical Applications

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



#### Construction

FUNCTION: QSA2: 2 way switch

QSA4: 4 way switch

TYPE OF SWITCH: QSA2: 2x make contacts

QSA4: 4x make contacts

FOOTPRINT: 23 mm x 18 mm, operating direction diagonal HEIGHT: Housing: 9 mm, total height: 22,4 mm (H1 version)

PINS: Solder pins, SMD

ATTACHMENT: Snap-in pegs provided to help secure and

locate switches

ACTUATOR: ø3,5 mm with button fastener

#### Mechanical

OPERATION DIRECTION: In X-Y direction along the diagonal

axis of the switch. Rotation point is 5,5 mm over the PCB surface.

TRAVEL: (H1 G8 version) Travel of the actuator measured on an

axis parallel to and 19 mm above PCB.

switch point/stop (4,0 N force)  $1.5 \pm 0.4$  mm / 2.0+0.3 mm

ACTUATION ANGLE: G8 version

To switch point / stop (4,0 N force)

 $6.5^{\circ}$  /  $8.5^{\circ}$ 

ACTUATION FORCE: 3,5  $\pm$  1 N TACTILE EFFECT: 15%

LIFE: 100,000 cycles in each direction

(≤ 20 N force)

#### Mechanical (continued)

RETURN FORCE:  $0.8 \pm 0.3N$ 

ACTUATION STRENGTH: >50 N, parallel to PCB

>100 N, vertical (push) to PCB >50 N traction (pull) force

**Electrical** 

SWITCHING POWER MAX: 0,20 VA

MIN / MAX SWITCHING VOLTAGE: (VDC) 20mV / 30 V MIN / MAX SWITCHING CURRENT: 1mA / 50mA

BOUNCE: < 1 ms

**Environmental** 

OPERATING TEMPERATURE: -40°C to 85°C STORAGE TEMPERATURE: -40°C to 95°C

**Process** 

AUTOMATIC SOLDERING: Reflow compatible per CECC00802

Other Data

CONTACT MATERIAL: Au on Ni layer

SOLDERING PINS: Au flash

HOUSING MATERIAL: Thermoplastic

NOTE: For the latest information regarding RoHS compliance, please go to:

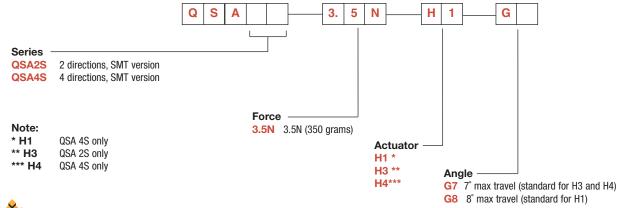
www.ittcannon.com/rohs.

**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.



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

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#### QSA2S H3





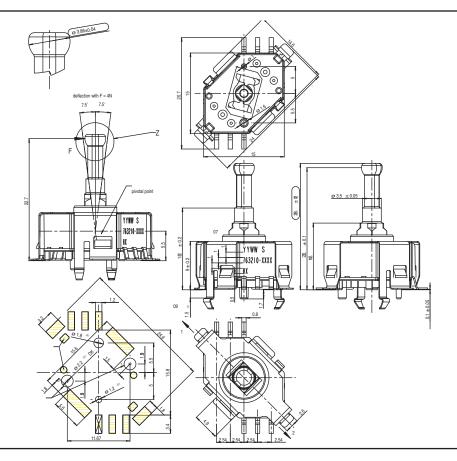
yellow surface:

green surface: be

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



#### **QSA4S H1**

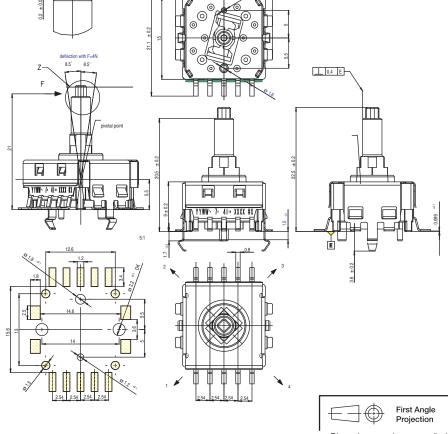


yellow surface: terr

red hole:

green surface:

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





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