# **QSA** Series

### 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

## 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
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
TRAVEL:	5,5 mm over the PCB surface. Travel of the actuator measured on an axis parallel to and 19 mm above PCB. switch point/stop (4,0 N force)
ACTUATION ANGLE:	1,5 ± 0,4 mm / 2,0+0,3 mm G8 version To switch point / stop (4,0 N force) 6.5° / 8.5°
ACTUATION FORCE: TACTILE EFFECT: LIFE:	3,5 ± 1 N ≥ 15% 100,000 cycles in each direction (≤ 20 N force)

### Mechanical (continued)

**BETURN 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

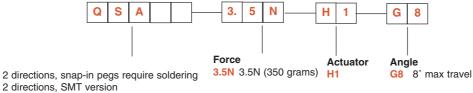
#### **Other Data**

CONTACT MATERIAL: Au on Ni layer SOLDERING PINS: Au flash HOUSING MATERIAL: Thermoplastic

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

#### 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.



#### Series

- QSA2 QSA2S
- QSA4 4 directions, snap-in pegs require soldering
- QSA4S 4 directions, SMT version



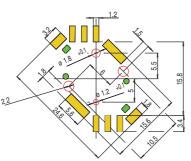
Cannon

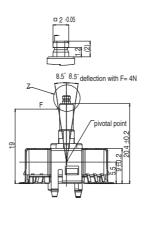
# **QSA** Series



PAD LAYOUT

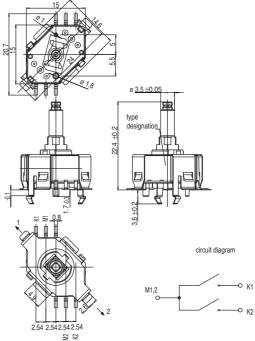






VIEW Z

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 pges and positioning pins to get through the PCB but not to be soldered



17.6 ±0.2

QSA4S H1

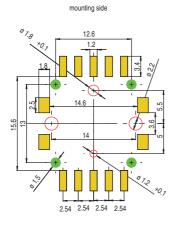
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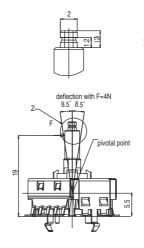
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Navigation



PAD LAYOUT



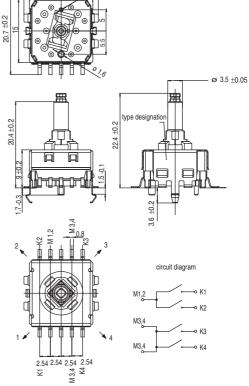


VIEW Z

green surface: red hole:

yellow surface:

terminals and top plate fixations to be soldered 2 with Infrared process bearing point to keep free from PCB lines snap-in pges and positioning pins to get through the PCB but not to be soldered





Cannon

Dimensions are shown: mm (inch) Dimensions subject to change