

KSC Series Sealed Tact Switch for SMT

Features/Benefits

- Positive tactile feel
- Range of 6 actuation forces
- J or G terminations
- Tape & reel
- IP 67
- RoHS compliant and compatible

Typical Applications

- Automotive
- Cellular phones
- Industrial electronics
- Network infrastructure and IT



Specification

FUNCTION: momentary action

CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.

TERMINALS: J bend & Gullwing type for SMT

Mechanical

Type	Operating force FA ¹⁾ Newtons (grams)	Operating life (operations)	Travel
KSC121J	1.85 (185)	200,000	0,3±0,15
KSC141J	3.0 (300)	200,000	0,3±0,15
KSC151J	5.5 (550)	100,000	0,35±0,15
KSC221J	2.0 (200)	500,000	0,35+0,30/-0,10
KSC241J	3.5 (350)	300,000	0,5±0,2
KSC321J	1.6 (160)	500,000	0,20+0,30/-0,0
KSC341J	3.0 (300)	300,000	0,20+0,30/-0,0
KSC351J	5.5 (550)	100,000	0,25+0,30-0,0
KSC401J50SH	1.1 (110)	5,000,000	0,35±0,15
KSC411J70SH	1.4 (140)	1,000,000	0,35+0,2/-0,2
KSC421J70SH	1.7 (170)	1,000,000	0,50+0,25/-0,25
KSC441J70SH	3.2 (320)	300,000	0,75+0,25/-0,25
KSC621J	1.6 (160)	500,000	0,50±0,20
KSC641J	3.0 (300)	300,000	0,50±0,20
KSC421V	1.7 (170)	1,000,000	0,50+0,25/-0,25
KSC621V	1.7 (170)	100,000	0,50±0,20

1) Tolerances of operating force FA is ± 25%.

A detect switch version is available KSC4D1J and KSC4D1G.

Please see Detect chapter, page F-7.

Electrical

	Silver	Gold
MAXIMUM POWER:	1 VA	0.2 VA
MAXIMUM VOLTAGE:	32 VDC	32 VDC
MINIMUM VOLTAGE:	20 mV	20 mV
MAXIMUM CURRENT:	50 mA	10 mA
MINIMUM CURRENT:	1 mA	1 mA
DIELECTRIC STRENGTH (50 Hz, 1 min.):	250 V	
CONTACT RESISTANCE:	< 100 mΩ	
INSULATION RESISTANCE (100 V):	> 10 ⁹ Ω	
BOUNCE TIME:	< 1 ms	

Environmental

	Silver	Gold
OPERATING TEMPERATURE:	-40°C to 85°C	-40°C to 125°C
STORAGE TEMPERATURE:	-55°C to 85°C	-55°C to 125°C

Process

SOLDERING: Compatible with the lead free soldering profile.

Packaging

KSC1, KSC2 and KSC3 are delivered on continuous tape and reels of 2,000 pieces, KSC4 in reels of 1,000 pieces. KSC 6 in reels of 750 pieces. KSCV in boxes of 500 pieces. Dimensions of reels according to EIA RS481 or IEC 2863. External diameter 330 mm ± 2 mm.

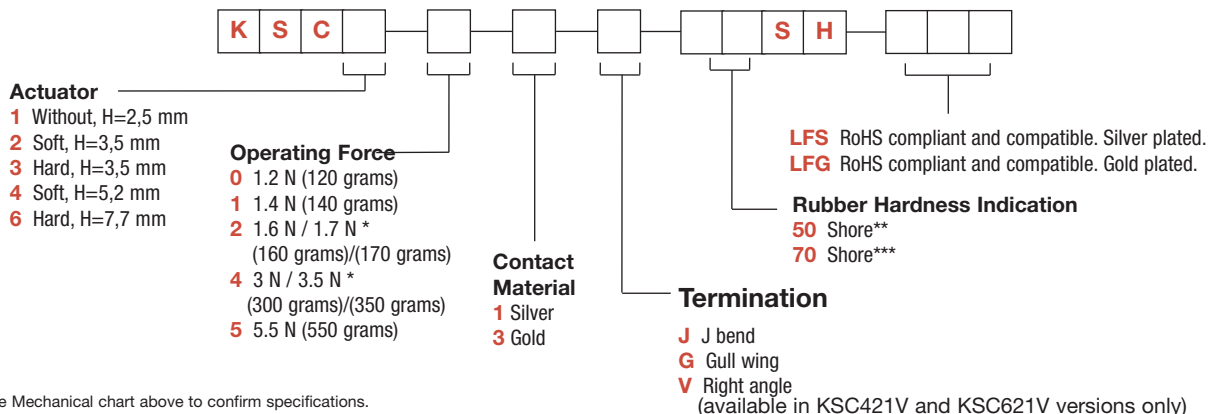
NOTE: Specifications listed above are for switches with standard options.
For information on specific and custom switches, consult Customer Service Center.

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.

However, please note that all the combinations of these options are not feasible.

For any part number different from those listed above, please consult your local ITT representative.



* See Mechanical chart above to confirm specifications.

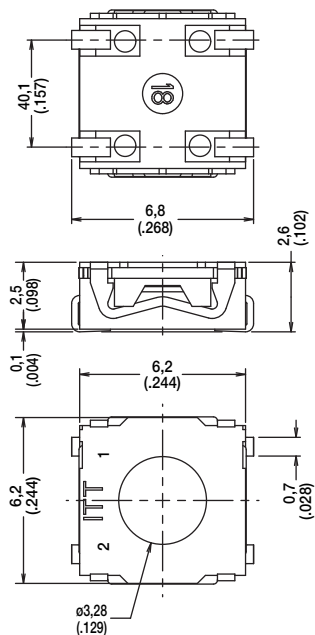
** Applies to KSC401J50SH only.

*** Applies to KSC 411J70SH, KSC421J70SH, KSC441J70SH

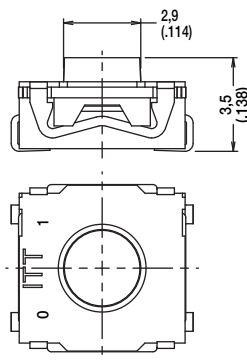
KSC Series Sealed Tact Switch for SMT

ACTUATOR

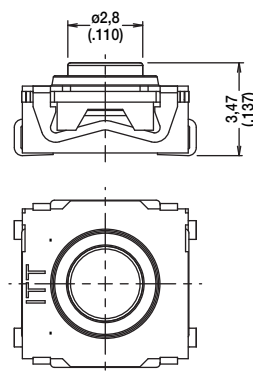
KSC1 WITHOUT, 2.5 mm HIGH



KSC2 SOFT, 3.5 mm HIGH

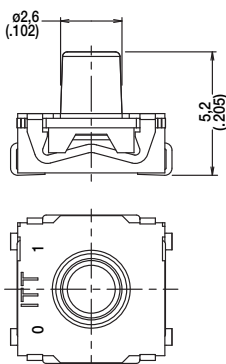


KSC3 HARD, 3.5 mm HIGH



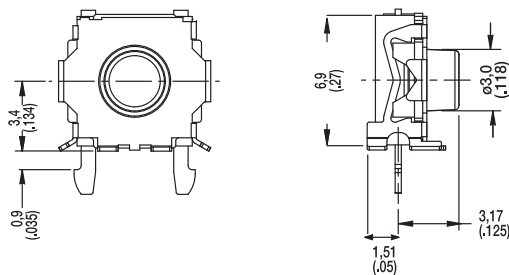
KSC4 SOFT, 5.2 mm HIGH

NOTE: KSC4 standard silicone material is 70 shore, the only exception is KSC401J which is 50 shore.

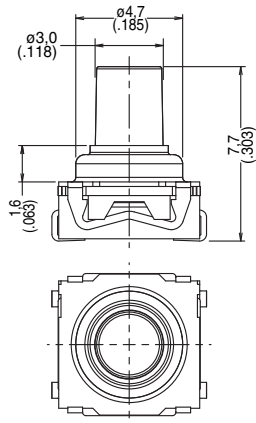


KSC4 KSC421V ONLY

NOTE: KSC421V requires metalized holds for simultaneous reflow soldering of switch terminals and bracket terminals.

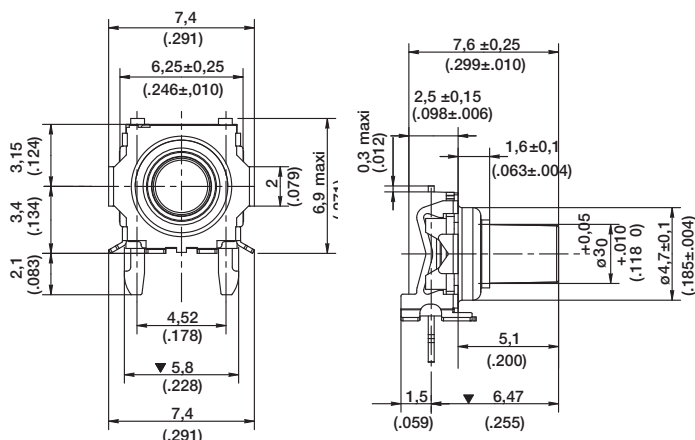


KSC6 HARD, 7.7 mm HIGH



KSC6 KSC621V ONLY

NOTE: KSC621V requires metalized holds for simultaneous reflow soldering of switch terminals and bracket terminals.



KSC Series Sealed Tact Switch for SMT

OPERATING FORCE

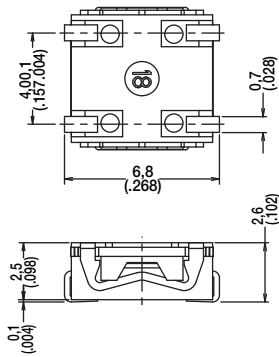
OPTION CODE	OPERATING FORCE
0	1.2 N (120 grams)
1	1.4 N (140 grams)
2	1.6 N / 1.7 N (160/170 grams)
4	3 N / 3.5 N (300/350 grams)
5	5.5 N (550 grams)

CONTACT MATERIAL

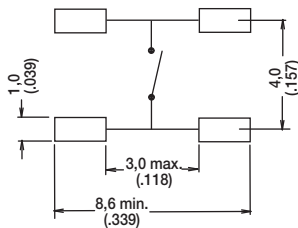
OPTION CODE	MATERIAL
1	SILVER
3	GOLD

TERMINATION

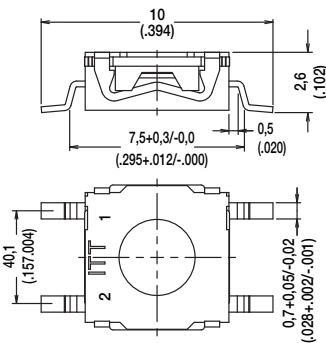
J J BEND



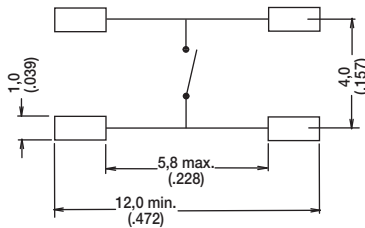
PAD LAYOUT



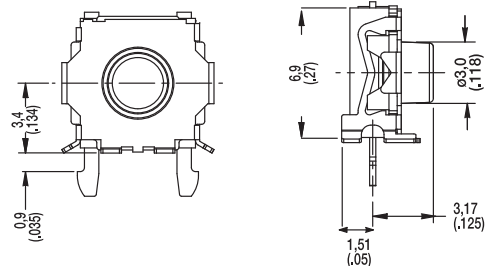
G GULLWING



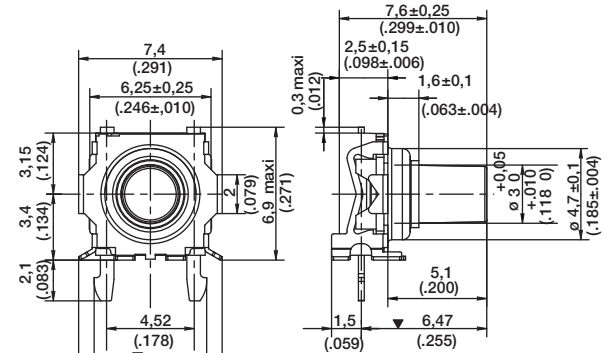
PAD LAYOUT



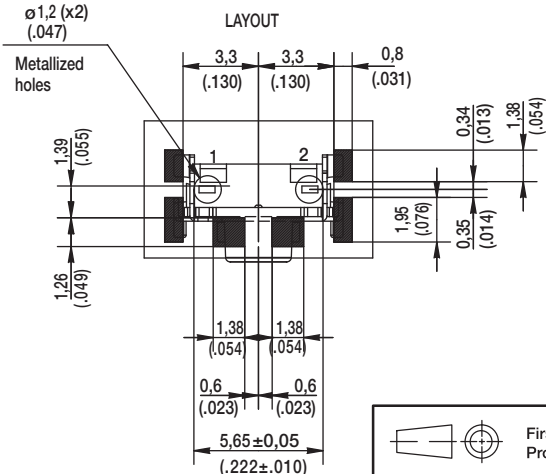
V RIGHT ANGLE - KSC421V ONLY



V RIGHT ANGLE - KSC621V ONLY



PAD LAYOUT



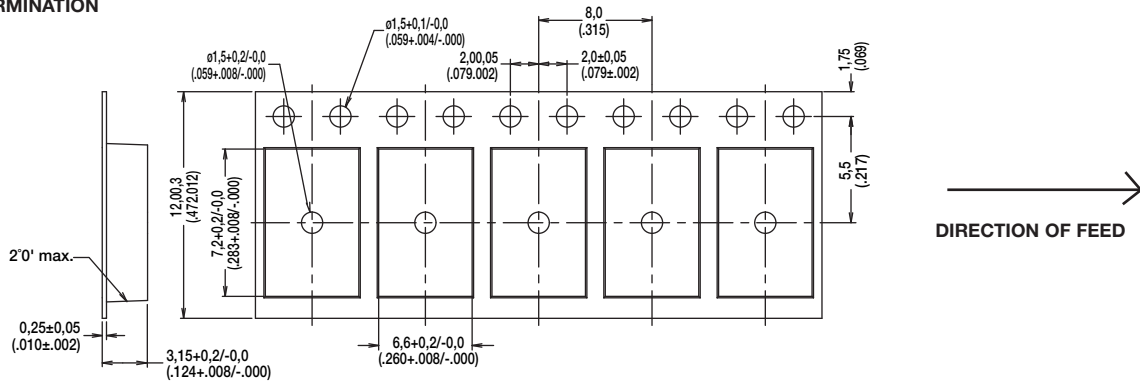
Dimensions shown in: mm (inch)
Specifications and dimensions subject to change

www.ittcannon.com

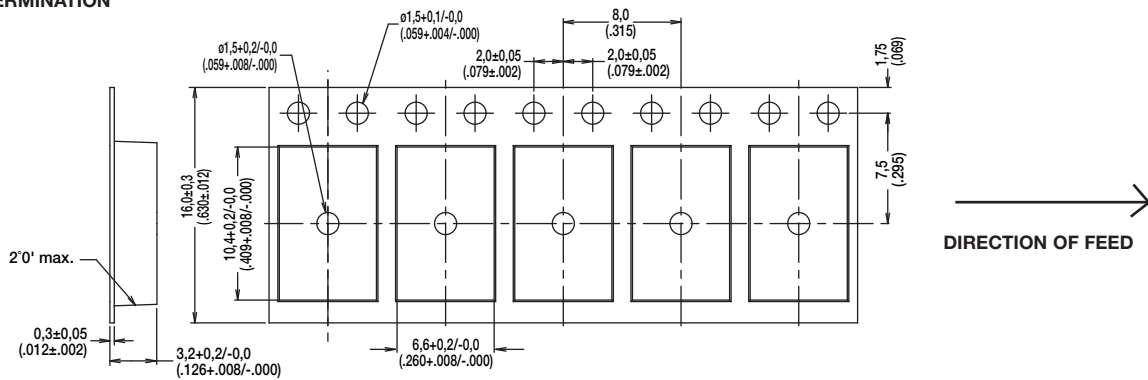
KSC Series Sealed Tact Switch for SMT

TAPE & REEL

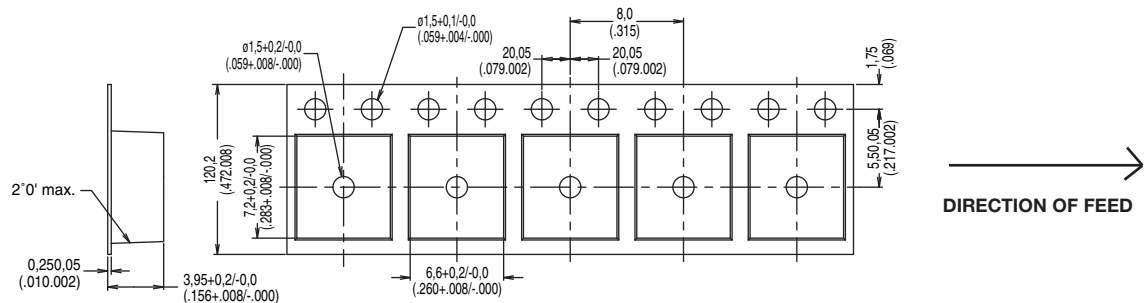
FOR KSC1 J TERMINATION



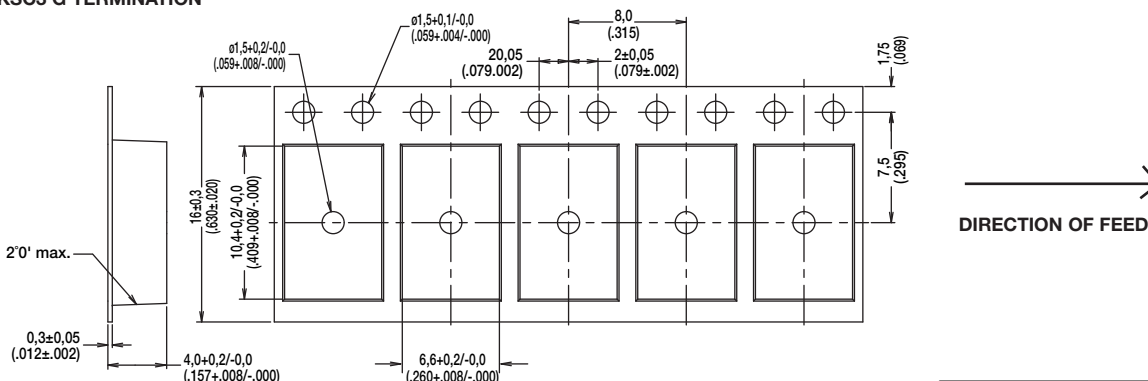
FOR KSC1 G TERMINATION



FOR KSC2 & KSC3 J TERMINATION



FOR KSC2 & KSC3 G TERMINATION



TAPE & REEL

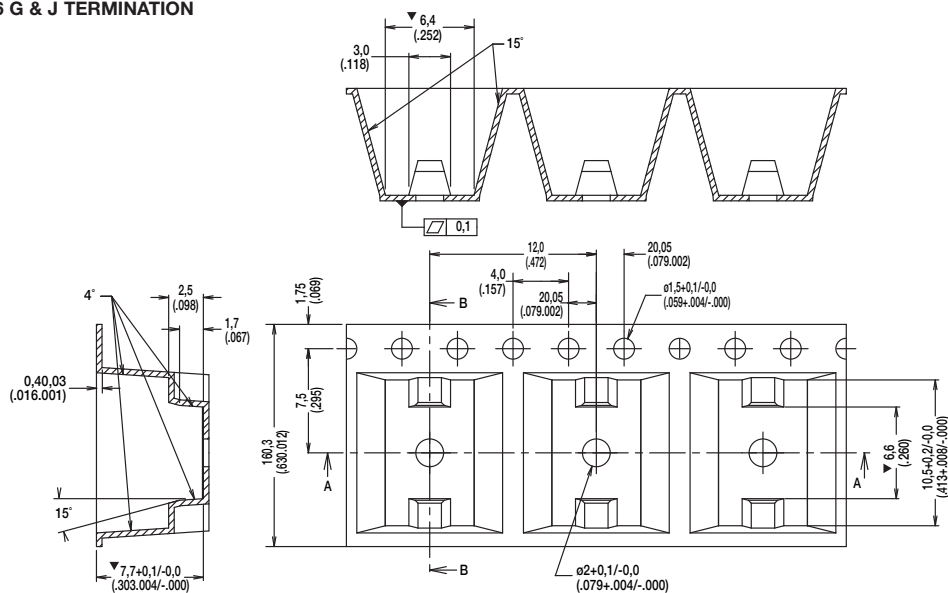
B

Tactile Switches

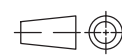
The technical drawing shows two views of a mechanical component:

- Front View (Top):** A rectangular plate with three vertical slots. Dimensions include:
 - Total width: 6.7 ± 0.1 ($.264 \pm .004$)
 - Slot width: 0.4 ± 0.03 ($.016 \pm .001$)
 - Distance from left edge to first slot center: 5.6 ($.220$)
 - Distance between slot centers: 12 ± 0.1 ($.472 \pm .004$)
 - Distance from last slot center to right edge: 4 ± 0.1 ($.157 \pm .004$)
 - Slot depth: 7.3 ± 0.1 ($.287 \pm .004$)
 - Plate thickness: 0.15 ± 0.02 ($.006 \pm .001$)
 - Internal feature dimension: $\phi 1.5 \pm 0.1 / -0.0$ ($.059 + .004 / -.000$)
 - Feature diameter: 2 ± 0.05 ($.079 \pm .002$)
 - Feature radius: $R1.15$ ($.045$)
 - Feature diameter: $\phi 1.5 \pm 0.2 / -0.0$ ($.059 + .008 / -.000$)
- Side View (Bottom):** Shows the profile of the component with a total height of 16 ± 0.3 ($.630 \pm .012$). The distance from the top surface to the start of the slot is 1.0 ($.039$).

FOR KSC6 G & J TERMINATION



Direction of feed



First Angle Projection

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

www.ittcannon.com