

KSC Series Sealed Tact Switch for SMT

Features/Benefits

- Positive tactile feeling
- Range of 6 actuation forces
- J or G terminations
- Tape & reel
- IP 67

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 (Newtons) Min/Max	Operating life (operations)	Travel (mm)
KSC121J	1.2 / 2.5	200,000	0.3 ± 0.15
KSC141J	2.25 / 3.75	200,000	0.3 ± 0.15
KSC151J	4.3 / 7.3	100,000	0.3 ± 0.15
KSC201J	0.9 / 2N	300,000	0.3 +0.2 / -0.15
KSC221J	1.5 / 2.5	500,000	0.35 +0.3 / -0.1
KSC222J	1.5 / 2.5	1,000,000	0.35 +0.3 / -0.1
KSC241J	2.6 / 4.4	300,000	0.5 ± 0.2
KSC251J	4.1 / 7.0	300,000	0.5 ± 0.2
KSC321J	1.6 / 2.4	300,000	0.2 +0.3 / 0
KSC341J	2.25 / 3.75	300,000	0.2 +0.3 / 0
KSC351J	4.1 / 6.9	100,000	0.25 +0.3 / 0
KSC401J 50SH	0.9 / 2.0	300,000	0.5 ± 0.25
KSC411J 70SH	1.05 / 1.75	300,000	0.35 ± 0.15
KSC421J 70SH	1.25 / 2.12	300,000	0.5 ± 0.25
KSC422J 70SH	1.25 / 2.12	1,000,000	0.5 ± 0.25
KSC441J 70SH	3.0 / 5.0	300,000	0.75 ± 0.25
KSC442J 70SH	3.0 / 5.0	1,000,000	0.75 ± 0.25
KSC621J	1.0 / 1.65	300,000	0.5 ± 0.2
KSC641J	2.25 / 3.75	300,000	0.5 ± 0.2
KSC421V	1.3 / 2.1	300,000	0.375 ± 0.225
KSC621V	1.1 / 1.9	100,000	0.5 ± 0.2
KSC721 J	1.7 / 2.8	300,000	0.3 ± 0.15
KSC741J	2.9 / 4.9	300,000	0.4 ± 0.20

A detect switch version is available KSC4D1J and KSC4D1G.

Please see Detect chapter, page F-7.

KSC vertical series have an IP40 sealing level.

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): > 10⁹ 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: Depending on the application, this component is suited to the following methods:

- Terminals being silver or gold plated over a nickel barrier, the use of slightly activated flux is suitable.
- Soldering on double wave machine for vertical versions: soldering time < 5 sec.
- Cleaning according to typical washing processes.
- Infrared Reflow Soldering in accordance with IEC 61760-1.

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. KSC7 in reels of 1,000 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.

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

Actuator 1 Without, H= 2,5 mm 2 Soft, H= 3,5 mm 3 Hard, H= 3,5 mm 4 Soft, H= 5,2 mm 6 Hard, H= 7,7 mm 7 Soft, H= 4,3 mm	Operating Force 0 1.2 N (120 grams) 1 1.4 N (140 grams) 2 1.6 N / 1.7 N * (160 grams)/(170 grams) 4 3 N / 4 N * (300 grams)/(400 grams) 5 5.5 N (550 grams) 6 4.5 N / 8.0 (450 grams)/(800 grams)	Contact Material Operating life 1 Silver 2 Silver long life 3 Gold 4 Gold long life	Termination J J bend G Gull wing V Right angle (available in KSC421V and KSC621V versions only)	Rubber Hardness Indication 50 Shore** 70 Shore***	LFS Lead free compatible, silver plated. LFG Lead free compatible, gold plated.
--	---	--	---	--	--

* See Mechanical chart above to confirm specifications.
 ** Applies to KSC401J 50SH only.
 *** Applies to KSC 411J 70SH, KSC421J 70SH, KSC441J 70SH

B

Tactile Switches

Tactile Switches

The technical drawing shows two views of the 6000 series connector. The top view is a square with rounded corners, featuring a central circular opening and four small rectangular protrusions at the corners. The bottom view is a cross-section showing the internal structure, including a central cavity and a base. Dimensions are provided for both views:

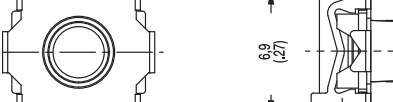
- Top View Dimensions:**
 - Central circular opening diameter: 2.9 (.114)
 - Overall width: 3.5 (.138)
- Bottom View Dimensions:**
 - Overall height: 2.9 (.114)
 - Internal cavity depth: 1.5 (.059)

The technical drawing shows two views of the 6000 series ball bearing housing:

- Front View (Top):** Shows the outer profile of the housing. The inner diameter is dimensioned as $\varnothing 2,8$ (.110). The total height of the housing is dimensioned as 3,47 (.137).
- Top View (Bottom):** Shows the square cross-section of the housing with rounded corners and four mounting tabs.

[illegible]

KSC4 KSC421V ONLY



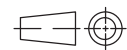
Technical drawing of the 1000 Series 1/2" (Figure 1000-1). The drawing includes a top view and a side view. The top view shows a square flange with a central circular opening. The side view shows the profile of the valve, including the handle and the internal mechanism. Dimensions are provided in inches and millimeters.

Dimensions (inches / millimeters):

- Top view: 3.4 (.134) (width of the central opening)
- Side view: 6.9 (.27) (total height)
- Side view: 3.17 (.125) (height of the handle)
- Side view: 1.51 (.05) (height of the base)
- Side view: 3.0 (ø3.0) (diameter of the central opening)

Technical drawing of the 1000 Series LED Flood Light showing front and top views with dimensions:

- Front View Dimensions:
 - Top diameter: $\varnothing 4.7$ (.185)
 - Top flange diameter: $\varnothing 3.0$ (.118)
 - Bottom flange diameter: 1.6 (.063)
 - Overall height: 7.7 (.303)
- Top View: Shows the square base with mounting tabs and the circular lens assembly.

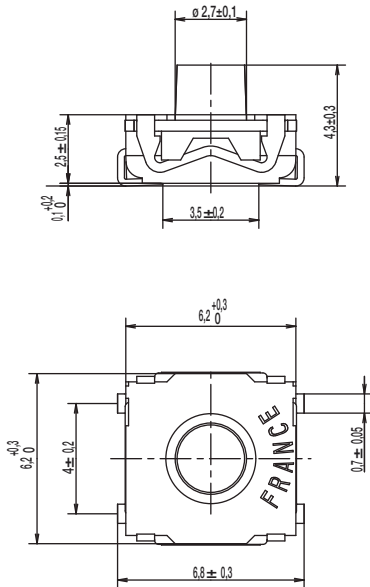
[illegible]

First Angle Projection

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

KSC Series Sealed Tact Switch for SMT

KSC7 SOFT, 4.3mm HIGH



B

Tactile Switches

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



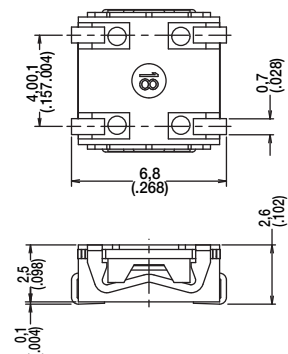
OPTION CODE	MATERIAL
1	SILVER
3	GOLD

KSC Series Sealed Tact Switch for SMT

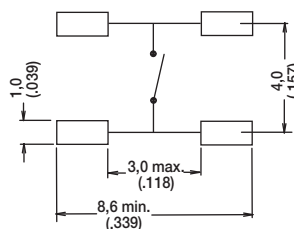
TERMINATION



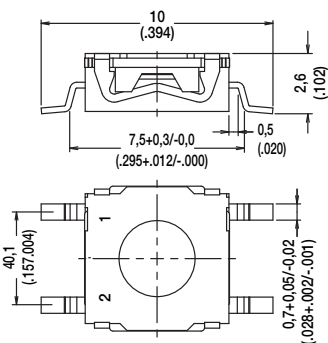
J J BEND



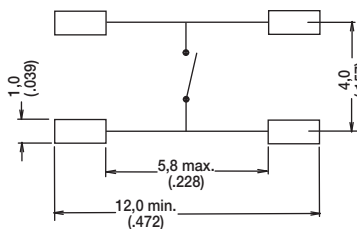
PAD LAYOUT



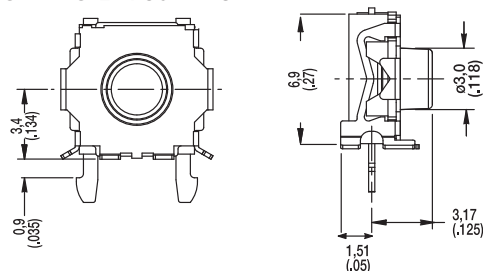
G GULLWING



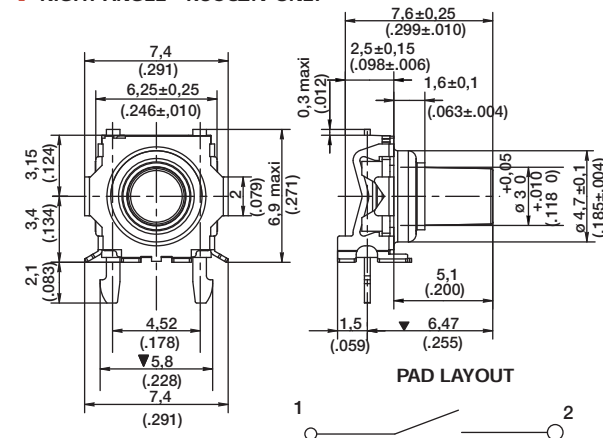
PAD LAYOUT



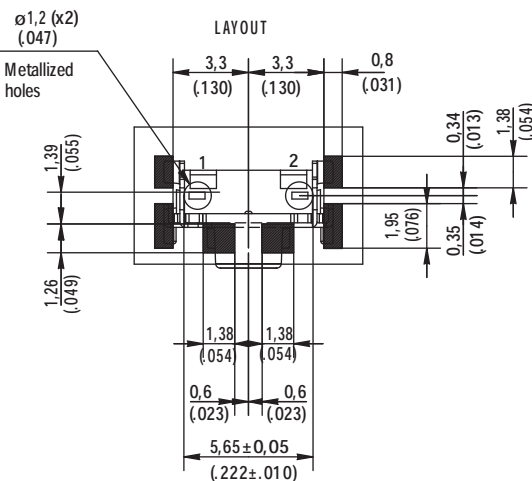
V RIGHT ANGLE - KSC421V ONLY



V RIGHT ANGLE - KSC621V ONLY



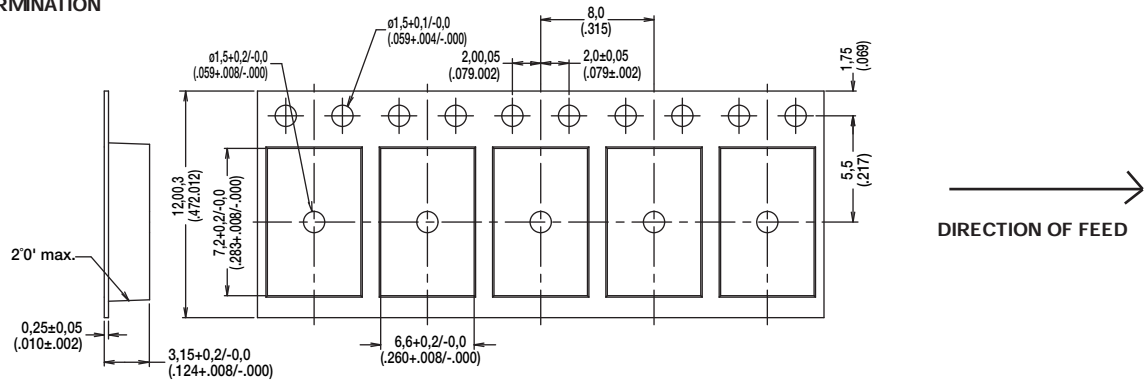
PAD LAYOUT



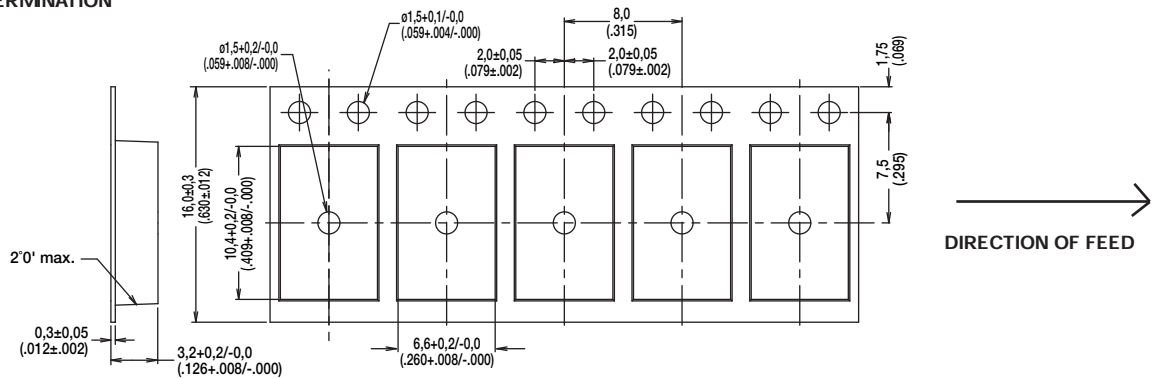
KSC Series Sealed Tact Switch for SMT

TAPE & REEL

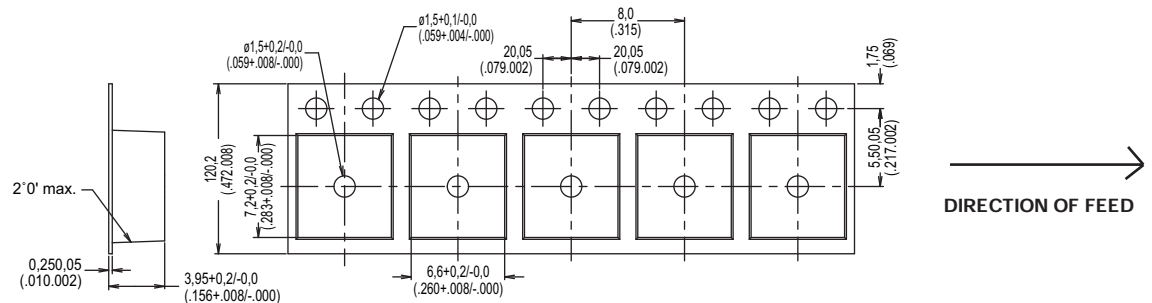
FOR KSC1 J TERMINATION



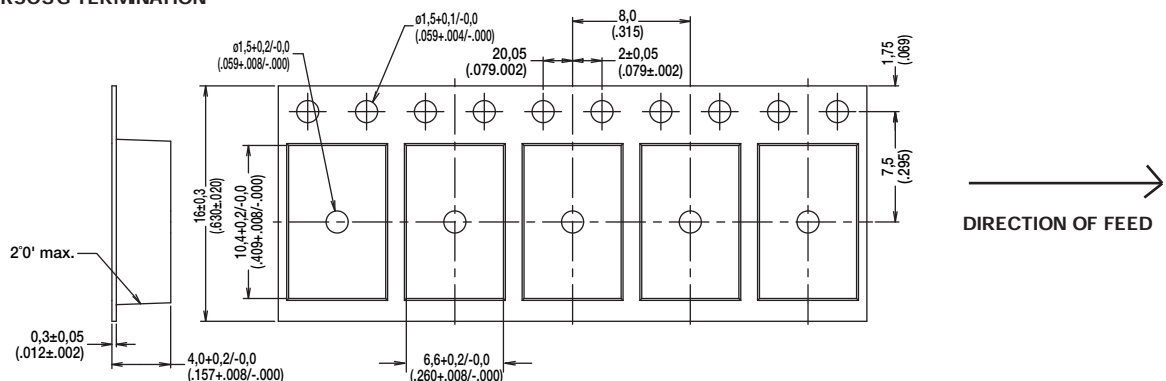
FOR KSC1 G TERMINATION



FOR KSC2 & KSC3J TERMINATION



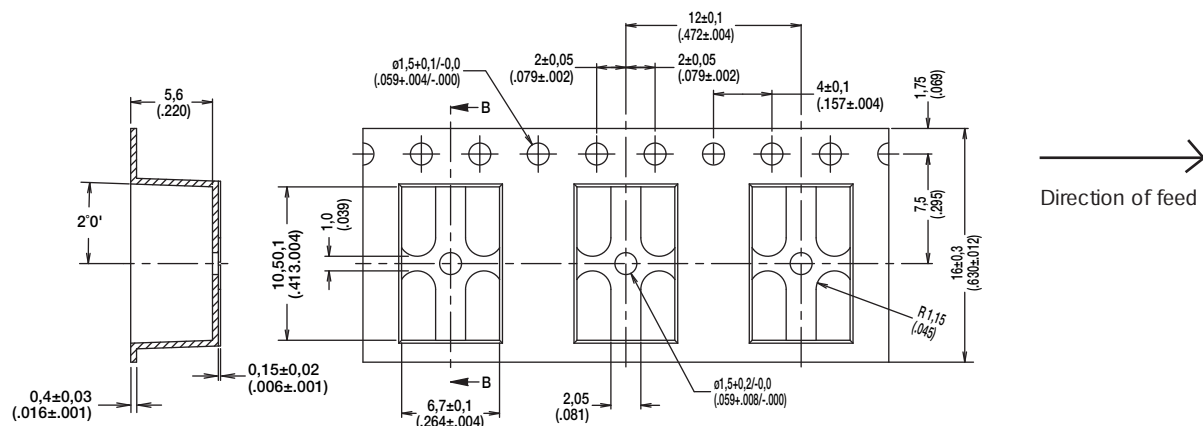
FOR KSC2 & KSC3G TERMINATION



Sealed Tact Switch for SMT

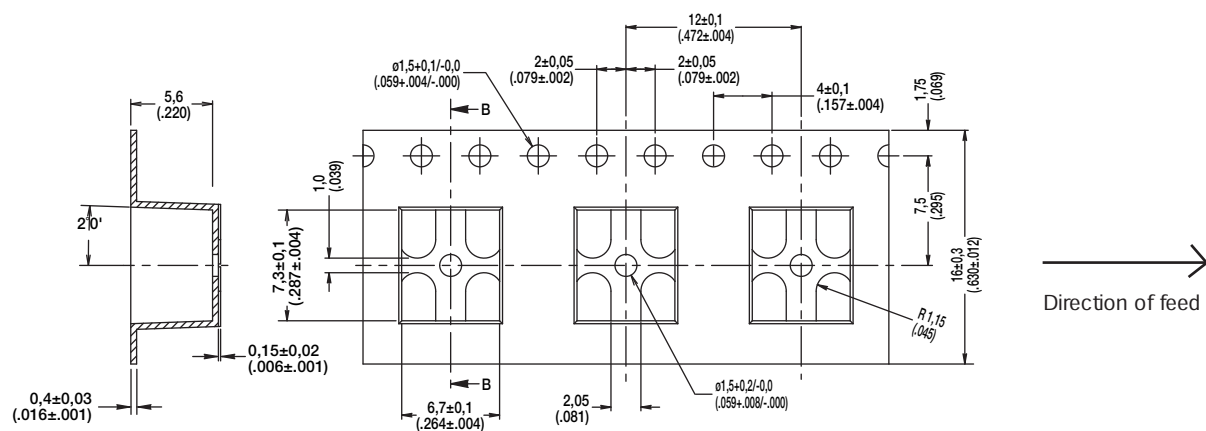
TAPE & REEL

FOR KSC4FOR G TERMINATION



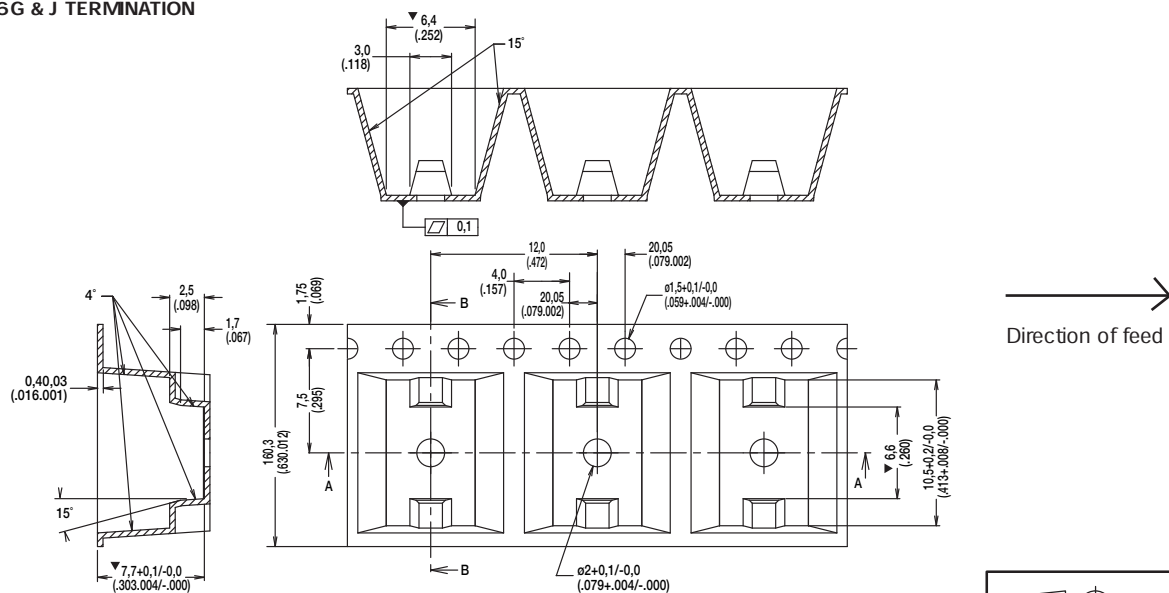
Direction of feed

FOR KSC4FOR J TERMINATION



Direction of feed

FOR KSC6G & J TERMINATION



Direction of feed



Dimensions shown in: mm (inch)

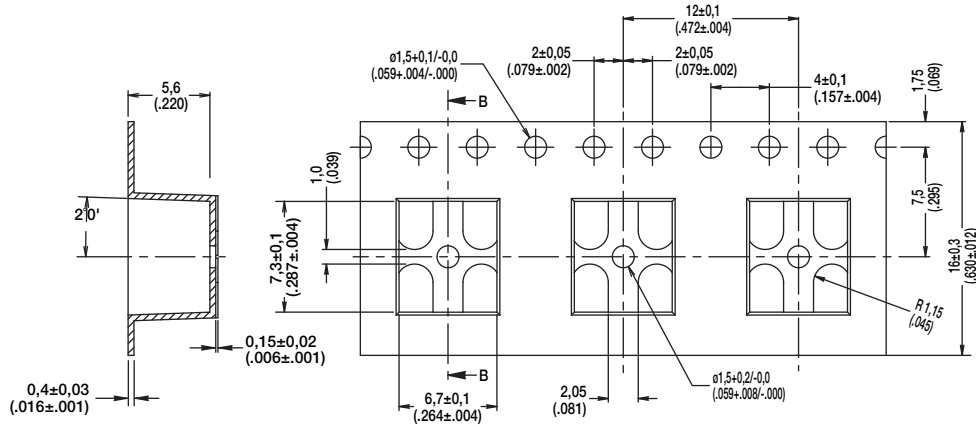
Specifications and dimensions subject to change

www.ck-components.com

KSC Series Sealed Tact Switch for SMT

TAPE & REEL

FOR KSC7 FOR J TERMINATION



B

Tactile Switches



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

