

# 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

## Typical Applications

- Automotive
- Cellular phones
- Industrial electronics
- Computer & network industry



## Specification

FUNCTION: momentary action  
CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.  
TERMINALS: J bend & Gullwing type for SMT

## Mechanical

| Type     | Operating force FA <sup>1)</sup><br>Newtons (grams) | Operating life<br>(operations) | Travel          |
|----------|---|--------------------------------|-----------------|
| KSC121J  | 1.6 (160)   | 200,000                        | 0,25+0,40/-0,0  |
| KSC141J  | 3.0 (300)   | 200,000                        | 0,30+0,40/-0,0  |
| KSC151J  | 5.5 (550)   | 100,000                        | 0,30+0,40/-0,0  |
| KSC221J  | 2.0 (200)   | 500,000                        | 0,35+0,30/-0,10 |
| KSC241J  | 3.5 (350)   | 300,000                        | 0,40+0,40/-0,10 |
| 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   |
| KSC401J* | 1.1 (110)   | 5,000,000                      | 0,50+0,25/-0,25 |
| KSC411J* | 1.4 (140)   | 1,000,000                      | 0,35+0,2/-0,2   |
| KSC421J* | 1.7 (170)   | 1,000,000                      | 0,50+0,25/-0,25 |
| KSC441J* | 3.2 (320)   | 300,000                        | 0,75+0,25/-0,25 |
| KSC621J  | 1.6 (160)   | 500,000                        | 0,20+0,35       |
| KSC641J  | 3.0 (300)   | 300,000                        | 0,20+0,30       |
| KSC421V  | 1.7 (170)   | 1,000,000                      | 0,50+0,25/-0,25 |

<sup>1)</sup> Tolerances of operating force FA is ± 25%.

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

NOTE: Part numbers listed above do not represent all possible configurations. For information on specific and custom switches, consult Customer Service Center.

## Electrical

|                  |                |                |
|------------------|----------------|----------------|
| MAXIMUM POWER:   | Silver<br>1 VA | Gold<br>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<sup>9</sup> Ω

BOUNCE TIME: < 1 ms

## Environmental

|                        |                         |                        |
|------------------------|-------------------------|------------------------|
| OPERATING TEMPERATURE: | Silver<br>-40°C to 85°C | Gold<br>-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:

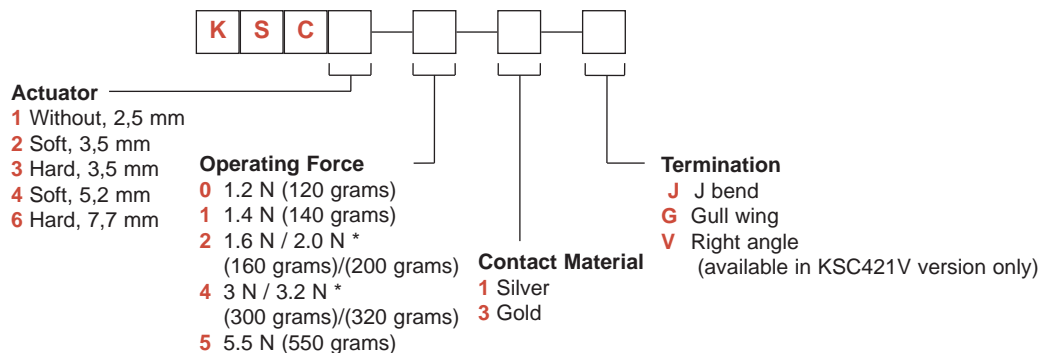
- Terminals being Tin/Lead plated over a nickel barrier, the use of slightly activated flux is suitable.
- Soldering on double wave machine. The bath temperature is generally 225°C±5°C and soldering time < 5 sec.
- Cleaning according to typical washing processes.
- Infrared Reflow Soldering in accordance with CECC00802

## 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.

## 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.

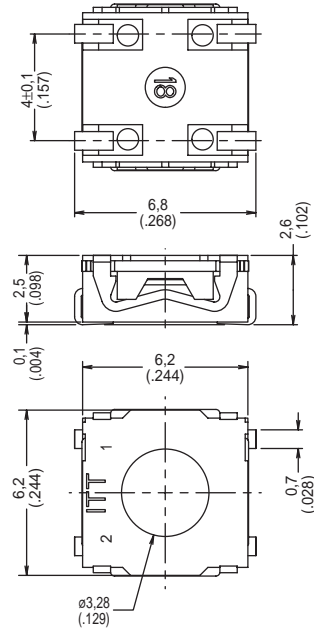


\* See Mechanical chart above to confirm specifications

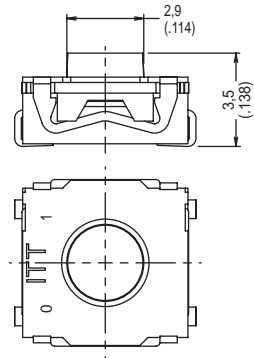
# KSC Series Sealed Tact Switch for SMT

## ACTUATOR

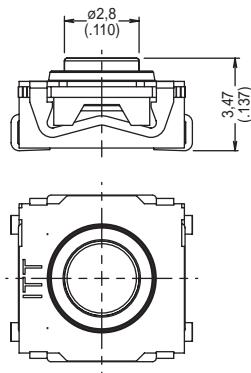
**KSC1** WITHOUT, 2.5 mm high



**KSC2** SOFT, 3.5 mm high

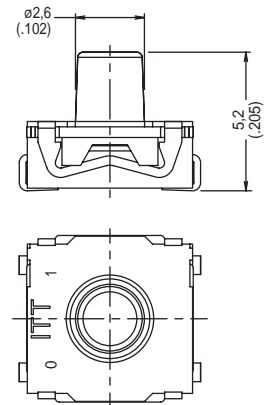


**KSC3** HARD, 3.5 mm high

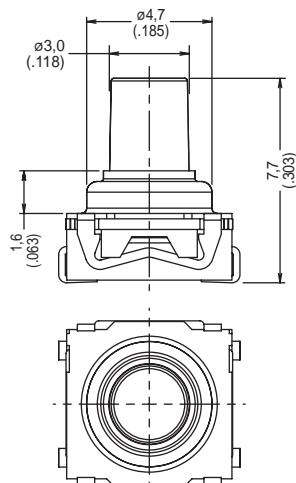


**KSC4** SOFT, 5.2 mm high

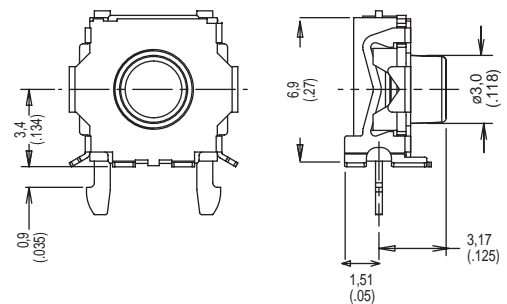
NOTE: KSC4 standard silicone material is 70 shore, the only exception is KSC401J which is 50 shore.



**KSC6** HARD, 7.7 mm high



**KSC4** KSC421V only



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

B  
Tactile Switches

# KSC Series Sealed Tact Switch for SMT

## OPERATING FORCE

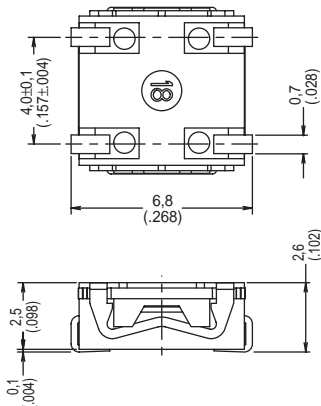
| OPTION CODE | OPERATING FORCE               |
|-------------|-------------------------------|
| 0           | 1.2 N (120 grams)             |
| 1           | 1.4 N (140 grams)             |
| 2           | 1.6 N / 2.0 N (160/200 grams) |
| 4           | 3 N / 3.2 N (300/320 grams)   |
| 5           | 5.5 N (550 grams)             |

## CONTACT MATERIAL

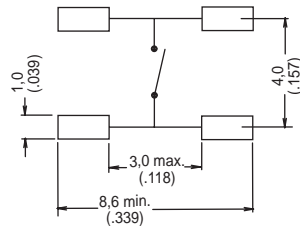
| OPTION CODE | MATERIAL |
|-------------|----------|
| 1           | SILVER   |
| 3           | GOLD     |

## TERMINATION

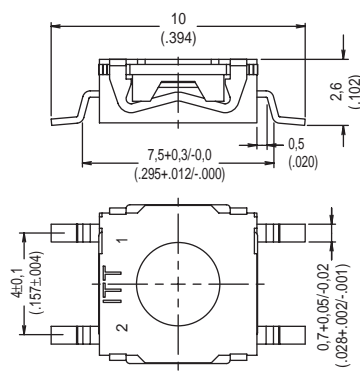
### J J BEND



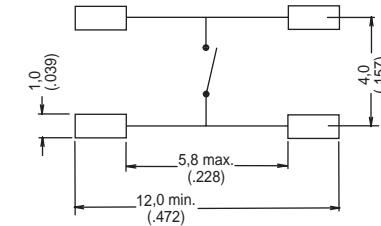
#### PAD LAYOUT



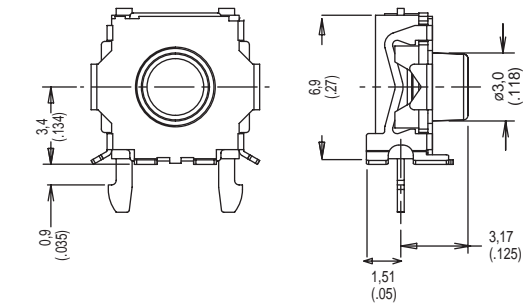
### G GULLWING



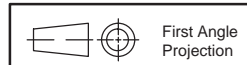
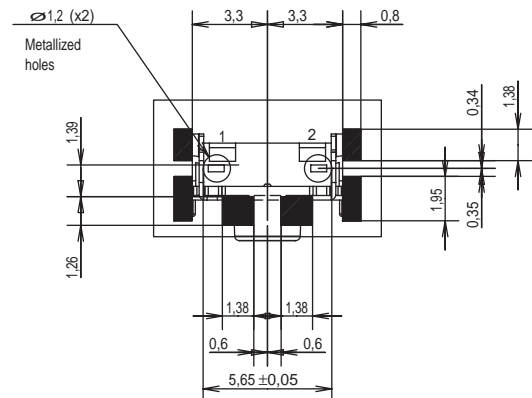
#### PAD LAYOUT



### V RIGHT ANGLE - KSC421V only



#### PAD LAYOUT



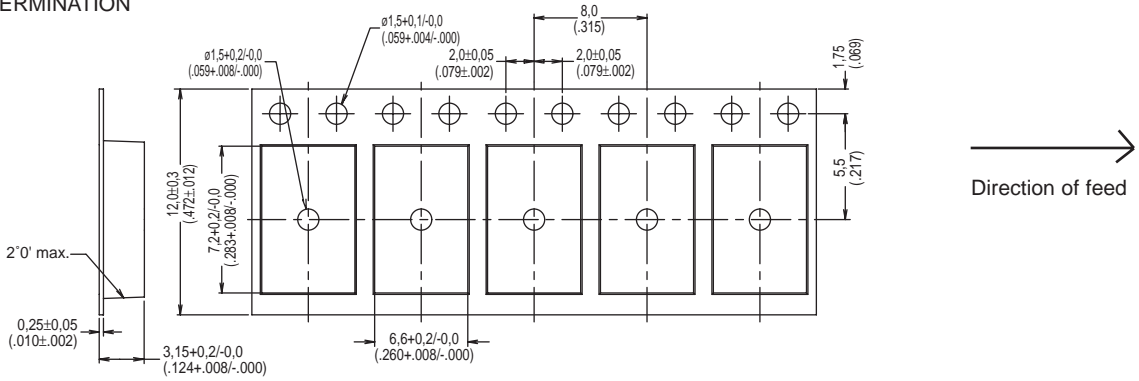
Dimensions are shown: mm (inch)  
Dimensions subject to change



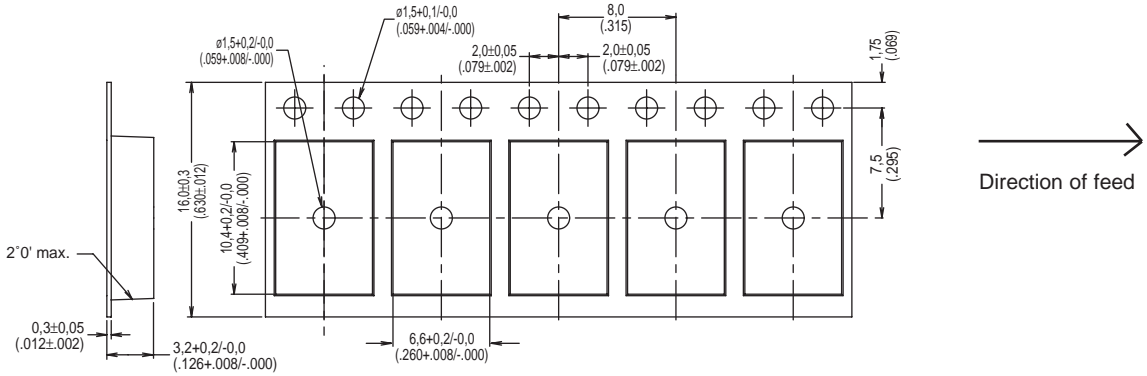
# KSC Series Sealed Tact Switch for SMT

## TAPE & REEL

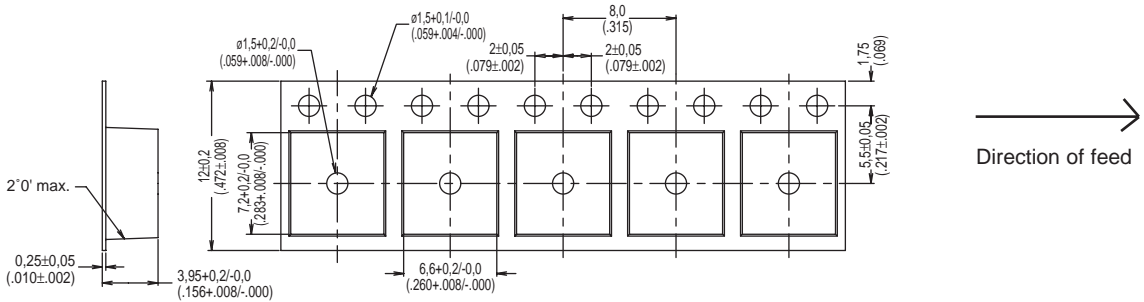
FOR KSC1 J TERMINATION



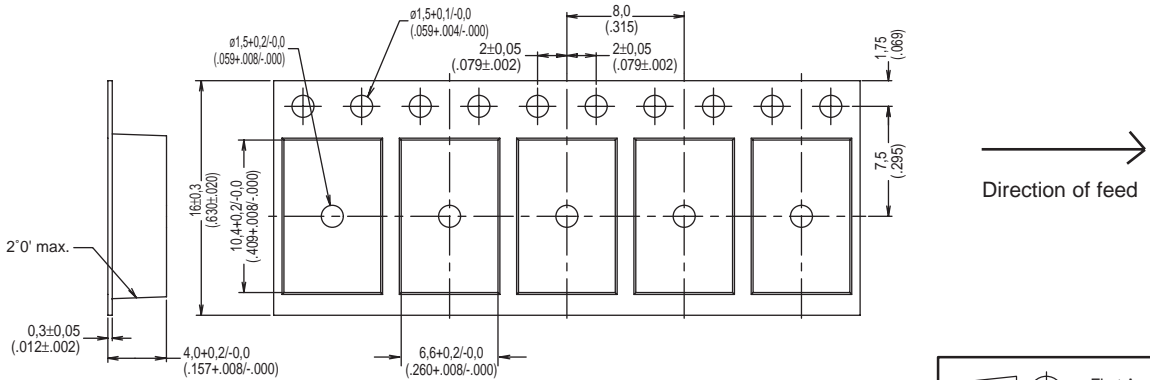
FOR KSC1 G TERMINATION



FOR KSC2 & KSC3 J TERMINATION



FOR KSC2 & KSC3 G TERMINATION

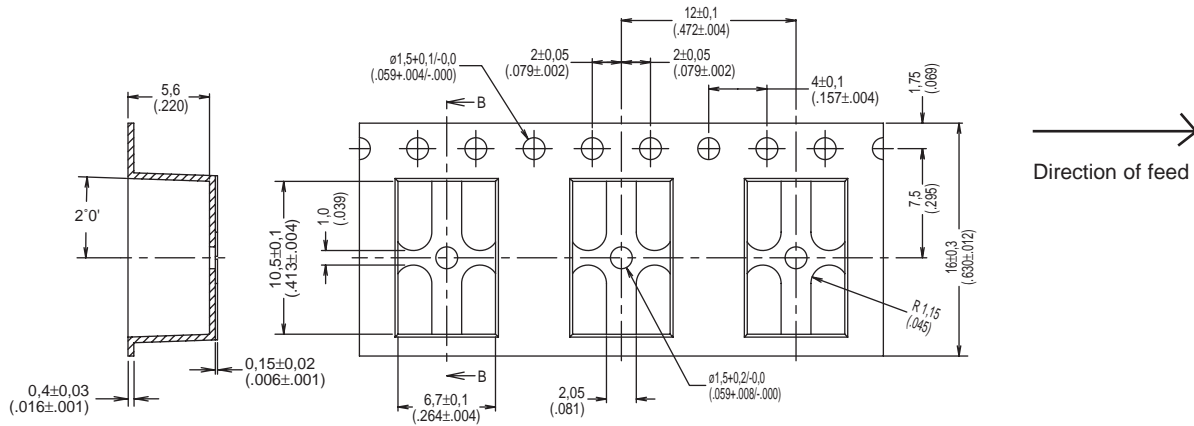


Tactile Switches

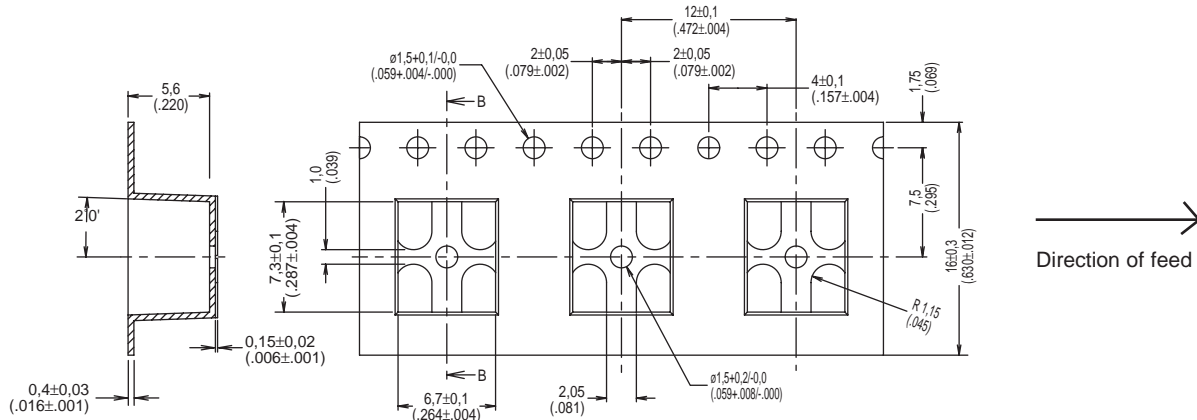
# KSC Series Sealed Tact Switch for SMT

## TAPE & REEL

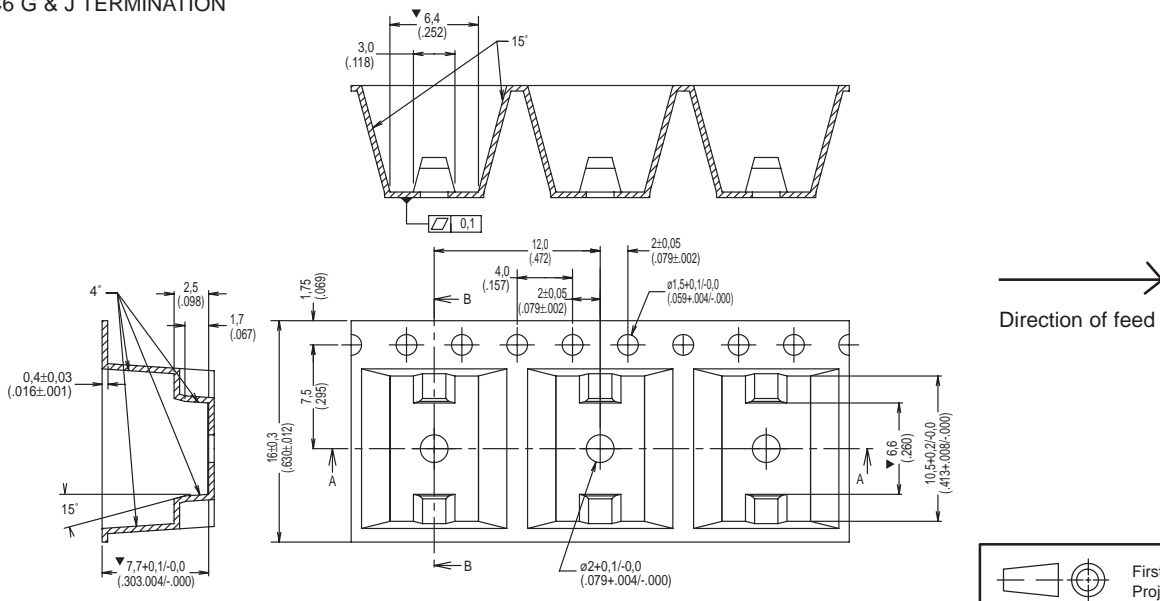
FOR KSC4 FOR G TERMINATION



FOR KSC4 FOR J TERMINATION



FOR KSC6 G & J TERMINATION



Tactile Switches