

KSS Series

Sub-Miniature Side Actuated Tactile Switch for
SMT 7.0 x 4.4 mm with 1.7 mm Height Actuator



Specifications

Function	Momentary action
Contact Arrangement	N.O.
Terminals	Gullwing IP40 sealed
Overload	20N
Packaging	Tape and reels of 3,000 pieces External diameter 330mm ± 2mm

Electrical Characteristics

	Silver	Gold
Maximum Power	1 VA	0.2 VA
Max. Voltage	32VDC	
Min. / Max. Current	1 - 50 mA	1 - 10 mA
Dielectric Strength	≥ 250 VDC	
Contact Resistance	< 100 mΩ	
Insulation Resistance	(100 VDC): ≥ 10 ⁹ Ω	
Bounce Time	< 3 ms	

Environmental Characteristics

Operating Temperature	-40°C to 85°C	-40°C to 125°C
Storage Temperature	-55°C to 85°C	-55°C to 125°C

Description

The KSS series subminiature SMT side actuated switch features a large flat top, has a low profile of 1.7 mm and can withstand high shear forces, making it ideal for products that are exposed to harsh environmental conditions, including health diagnostics, industrial electronics and consumer devices such as cell phones.

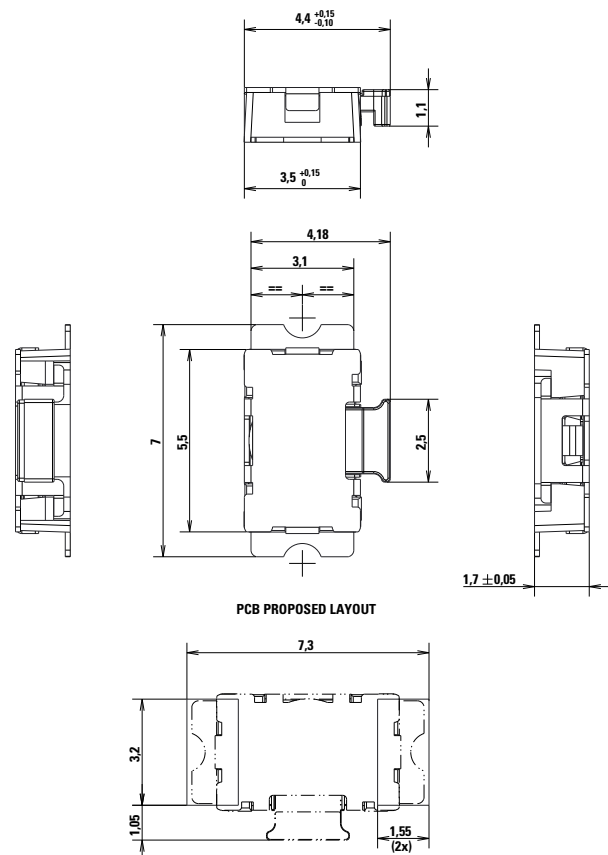
Features & Benefits

- Low profile of 1.7 mm
- Excellent tactile feel
- High shear force
- Range of actuation forces
- Large flat top
- RoHS compliant and compatible

Applications

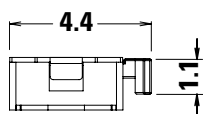
- Cellular phone
- Industrial electronics
- Health diagnostic electronics

Dimensions (mm)

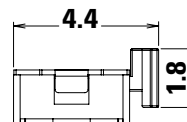


Sub-Miniature Side Actuated Tactile Switch for SMT 7.0 x 4.4 mm with 1.7 mm Height Actuator

2 - Standard, 1.1



3 - Large, 1.8



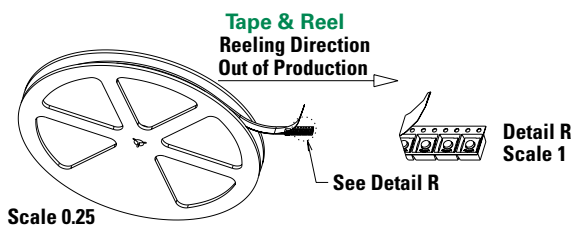
According to IEC 61760-1

The graph shows Temperature (°C) on the Y-axis (0 to 300) and Time (s) on the X-axis (0 to 360+). The solid green line represents the 'Typical' heating curve, and the dashed grey line represents the 'Ramp up rate < 3 K/s' curve. The dashed grey line shows a two-stage ramp: the first stage reaches 220°C at 90s, and the second stage reaches 235°C at 240s. The solid green line follows a similar path but reaches a peak of approximately 245°C at 300s. Both curves show a ramp down rate < 6 K/s after the peak.

Time (s)	Typical Temperature (°C)	Ramp up rate < 3 K/s Temperature (°C)
0	25	25
30	50	25
60	100	25
90	150	150
120	160	150
150	170	160
180	180	170
210	190	180
240	200	200
270	230	220
300	245	240
330	240	240
360	140	110

- Lead free reflow soldering process in accordance with IEC 61760-1
- Terminals being silver or gold plated over a nickel barrier, the use of slightly activated flux is suitable.
- Lead free soldering process in accordance with the definition on the left.

Note: Up to 2 reflow cycles in accordance with the above temperature profile



Type	Tape & reel
Number of Parts in Packaging	3,000
Other Information	Tape and reel per EIA 481
Transport Conditions	According to specification NF H00-060

[illegible]

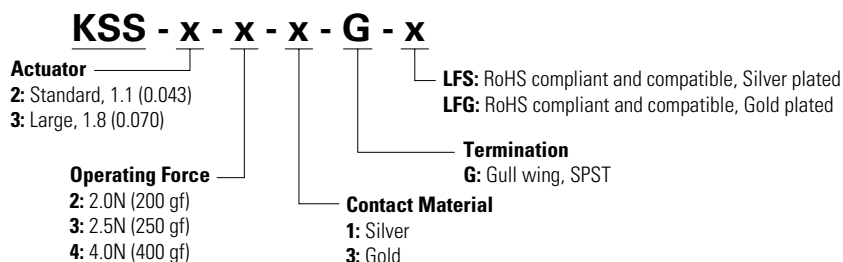
KSS Series

Sub-Miniature Side Actuated Tactile Switch for
SMT 7.0 x 4.4 mm with 1.7 mm Height Actuator



Ordering Number

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 representative.



Mechanical Characteristics

KSS2 - Standard Actuator 1.1 mm

Supply Status	LITTELFUSE Orderable Part Number	Description	Contact & Terminals Plating	Terminals	Operating Force Fa (Newtons)	Tactile ratio (Min)	Operating Life (Operations)	Electrical Travel (mm)
✓	Y39A22110FP	KSS221G LFS	Silver	G	2±0.5	25%	100,000	0.3±0.15
✓	Y39A22310FP	KSS223G LFG	Gold	G	2±0.5	25%	100,000	0.3±0.15
✓	Y39A23110FP	KSS231G LFS	Silver	G	2.5±0.5	30%	100,000	0.3±0.1
✓	Y39A23310FP	KSS233G LFG	Gold	G	2.5±0.5	30%	100,000	0.3±0.1
✓	Y39A24110FP	KSS241G LFS	Silver	G	4±1	25%	100,000	0.3±0.15
✓	Y39A24310FP	KSS243G LFG	Gold	G	4±1	25%	100,000	0.3±0.15

KSS3 - Large Actuator 1.8 mm

Supply Status	LITTELFUSE Orderable Part Number	Description	Contact & Terminals Plating	Terminals	Operating Force Fa (Newtons)	Tactile ratio (Min)	Operating Life (Operations)	Electrical Travel (mm)
✓	Y39A32110FP	KSS321G LFS	Silver	G	2±0.5	25%	250,000	0.3±0.15
✓	Y39A32310FP	KSS323G LFG	Gold	G	2±0.5	25%	250,000	0.3±0.15
✓	Y39A33110FP	KSS331G LFS	Silver	G	2.5±0.7	25%	250,000	0.3±0.15
✓	Y39A33310FP	KSS333G LFG	Gold	G	2.5±0.7	25%	250,000	0.3±0.15
✓	Y39A34110FP	KSS341G LFS	Silver	G	4±1	25%	250,000	0.3±0.15
✓	Y39A34310FP	KSS343G LFG	Gold	G	4±1	25%	250,000	0.3±0.15

Note: Supply Status: ✓ Available for ordering

Liability Limitation

This datasheet does not provide enough information for applications that require a certain level of quality or safety such as automotive, medical systems, or safety equipment. Please contact customer service for the contractual specification package.

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.