PTS647 Series
Tactile Switch for SMT 4.5 x 4.5 mm

Littelfuse® | **C&K** Switches

Description

The PTS647 series is a small 4.5 x 4.5 form factor in SMT version with 3 different heights and 3 available actuation forces, ideal for general usage applications

Features & Benefits

- Compact size 4.5 x 4.5 mm
- SMT terminals
- Different actuator heights
- Choice of actuation forces
- Tape & reel

Applications

- Consumer
- Industrial control panels
- Computer products

Specifications

Function	Momentary action
Contact Arrangement	1 make contact = SPST, N.O.
Terminals	Gullwing type for SMT

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

Electrical Specifications

Dielectric Strength (50 Hz, 1 min.)	250 VA C (1mn)
Contact Resistance	100 mΩ max. initial
Insulation Resistance (100 V)	100 MΩ min.
Bounce Time	≤ 5 ms
Maximum Power	0.6 W
Maximum Voltage	12 VDC
Minimum Voltage	5 VDC
Maximum Current	50 mA
Minimum Current	1 mA

Environmental Specifications

Operating Temperature	-40°C to 85°C

Dimensions (mm)

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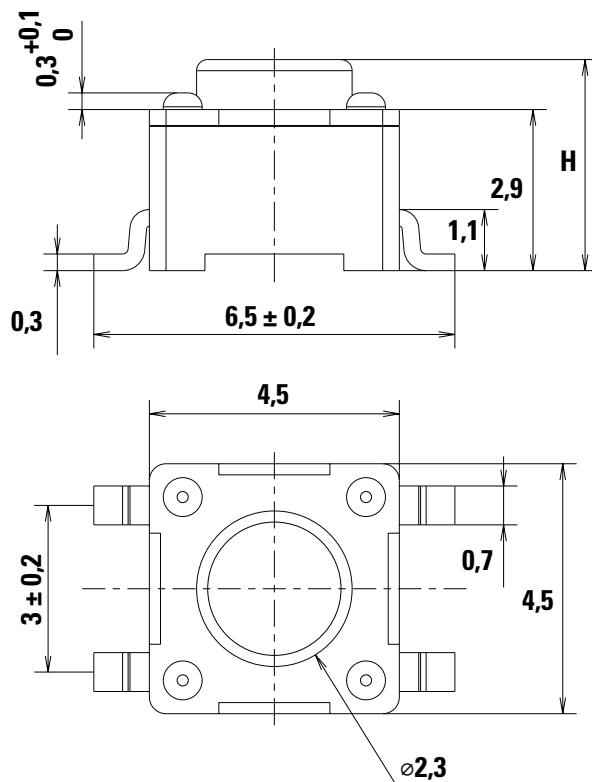
Mechanical Characteristics

Part #	Operating Force (N)	Travel (mm)	Color	Life	Height (mm)
PTS647SN38SMTR2 LFS	1.0 +/-0.5	0.2 +/-0.1	Black	500,000	3.8
PTS647SN38SMTR2N LFS	1.0 +/-0.5	0.15 +/-0.1	Blue	500,000	3.8
PTS647SM38SMTR2 LFS	1.8 +/-0.5	0.2 +/-0.1	Black	500,000	3.8
PTS647SM38SMTR2N LFS	1.8 +/-0.5	0.15 +/-0.1	Blue	300,000	3.8
PTS647SK38SMTR2 LFS	2.5 +/-0.5	0.25 +/-0.1	Black	200,000	3.8
PTS647SK38SMTR2N LFS	2.5 +/-0.5	0.2 +/-0.1	Blue	200,000	3.8
PTS647SN50SMTR2 LFS	1.0 +/-0.5	0.2 +/-0.1	Black	500,000	5.0
PTS647SN50SMTR2N LFS	1.0 +/-0.5	0.15 +/-0.1	Blue	500,000	5.0
PTS647SM50SMTR2 LFS	1.8 +/-0.5	0.2 +/-0.1	Black	500,000	5.0
PTS647SM50SMTR2N LFS	1.8 +/-0.5	0.15 +/-0.1	Blue	300,000	5.0
PTS647SK50SMTR2 LFS	2.5 +/-0.5	0.25 +/-0.1	Black	200,000	5.0
PTS647SK50SMTR2N LFS	2.5 +/-0.5	0.2 +/-0.1	Blue	200,000	5.0
PTS647SN70SMTR2 LFS	1.0 +/-0.5	0.2 +/-0.1	Black	500,000	7.0
PTS647SN70SMTR2N LFS	1.0 +/-0.5	0.15 +/-0.1	Blue	500,000	7.0
PTS647SM70SMTR2 LFS	1.8 +/-0.5	0.2 +/-0.1	Black	500,000	7.0
PTS647SM70SMTR2N LFS	1.8 +/-0.5	0.15 +/-0.1	Blue	300,000	7.0
PTS647SK70SMTR2 LFS	2.5 +/-0.5	0.25 +/-0.1	Black	200,000	7.0
PTS647SK70SMTR2N LFS	2.5 +/-0.5	0.2 +/-0.1	Blue	200,000	7.0

Soldering Profile
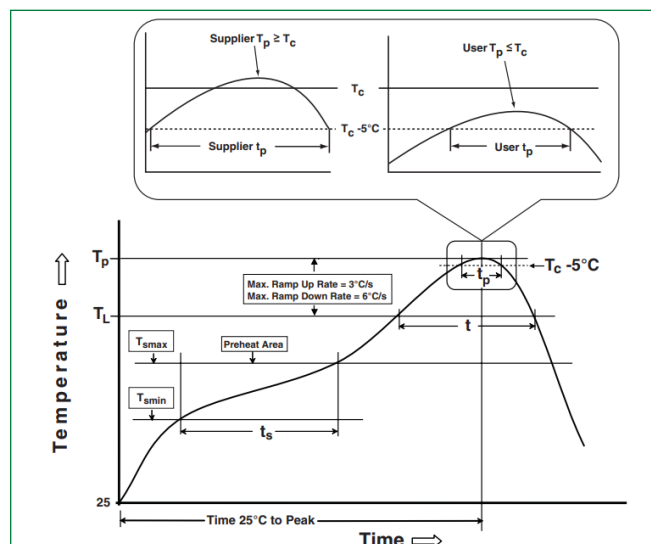
Terminations (mm)

Recommended PCB Layout

Schematic

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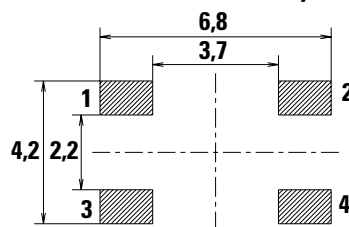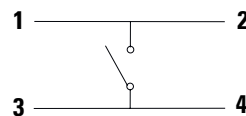
Packaging Dimensions (mm)
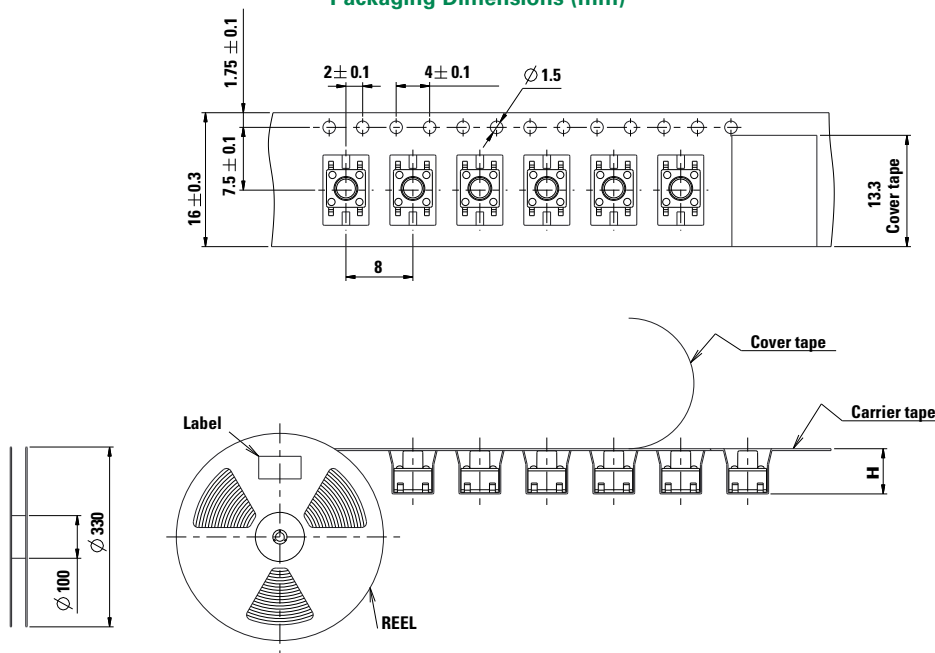
Process

Packaging	In reels of 1,000 pieces for 7.0 mm In reels of 1,500 pieces for 5.0 mm In reels of 2,000 pieces for 3.8 mm Dimensions of reels according to EIA RS481 or IEC 2863. External diameter 330 mm ± 2 mm.

Notes:
Specifications listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center. The PTS series is not certified for using in Automotive application and no PPAP. However, in the case of some automotive accessories and specific applications for 2 and 3 wheeled vehicles the PTS is widely used and very suitable. Please contact your local representative to discuss your application and the best switch solution.

Pocket Height (mm)

Part #	Pocket Height (H)
PTS647 SN38 SMTR2 LFS	
PTS647 SM38 SMTR2 LFS	4.2 mm
PTS647 SK38 SMTR2 LFS	
PTS647 SN50 SMTR2 LFS	
PTS647 SM50 SMTR2 LFS	5.4 mm
PTS647 SK50 SMTR2 LFS	
PTS647 SN70 SMTR2 LFS	
PTS647 SM70 SMTR2 LFS	7.2 mm
PTS647 SK70 SMTR2 LFS	

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 and place it in the appropriate box.

PTS647 - Sxxx - SMTR2x - LFS

Termination
S: Straight

Acutation Force
N: 1.0N (100 grams)
M: 1.8N (180 grams)
K: 2.5N (250 grams)

Total Height
38: 3.8mm
50: 5.0mm
70: 7.0mm

Void = Regular
N = IP5X, low noise

LFS: Lead free compatible, silver plated

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 equipement. Please contact customer service for the contractual specification package.