

NEW!

PTS641 Series SMT Top Actuated Switches



Features/Benefits

- 6.3 x 6.3 mm footprint
- Multiple heights
- Ground pin option

Typical Applications

- Metering
- White goods
- Home and garden equipment

B

Tactile Switches

Specification

FUNCTION: Momentary action
 CONTACT ARRANGEMENT: 1 make contact = SPST N.O.
 TERMINALS: G type for SMT

Mechanical

TRAVEL:
 0.20 mm ±0.15 mm for 160 & 250 gf
 0.30 mm ±0.15 mm for 320 gf
 OPERATING LIFE: 100,000 cycles
 OPERATION FORCE:
 160 gf ±50 gf blue actuator
 250 gf ±50 gf red actuator
 320 gf ±80 gf black actuator

Packaging

Switches in reels of 1,500 pieces.
 Dimensions of reels according to EIA 481B
 External diameter 330 mm

Electrical

MAXIMUM VOLTAGE: 12 VDC
 MAXIMUM CURRENT DC: 50 mA
 DIELECTRIC STRENGTH: 250 VA C (1mm)
 CONTACT RESISTANCE: 100 mΩ
 INSULATION RESISTANCE: ≥ 100 MΩ
 BOUNCE TIME: < 5 ms

Environmental

OPERATING TEMPERATURE: -20°C to 85°C

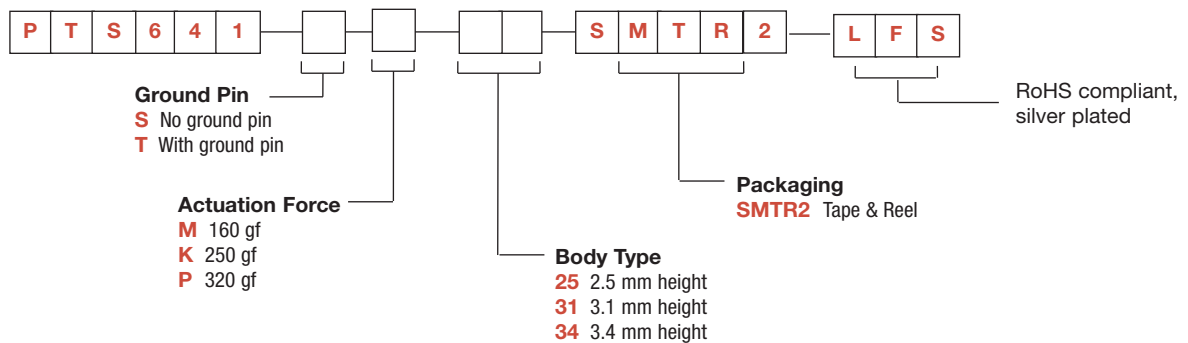
Process

SOLDERING: This component is suited to the following methods:
 Infrared Reflow Soldering in accordance with IEC61760-1

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 and place it in the appropriate box.



PTS641 Series SMT Top Actuated Switches

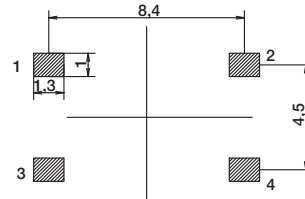
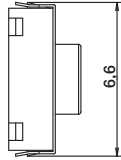
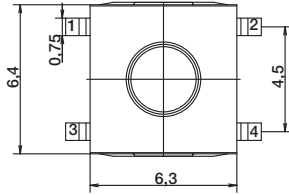
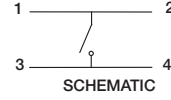
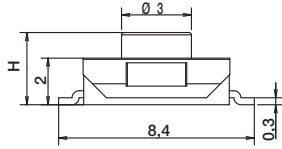
NEW!

NO GROUND PIN H = 2.5, 3.1, or 3.4 mm



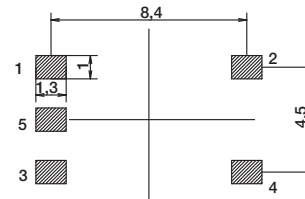
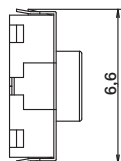
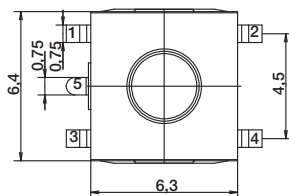
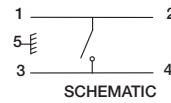
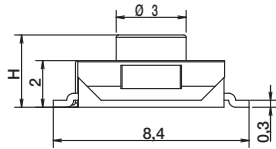
B

Tactile Switches



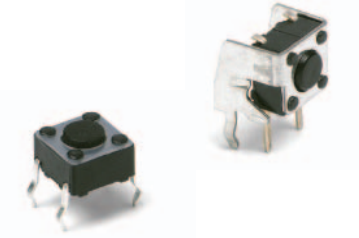
RECOMMENDED PCB LAYOUT

GROUND PIN H = 2.5, 3.1, or 3.4 mm



RECOMMENDED PCB LAYOUT

PTS645 Series 6 mm Tact Switches



Features/Benefits

- Compact size 6 x 6 mm
- Variety of actuator lengths
- Choice of actuation force
- RoHS compliant and compatible

Typical Applications

- Consumer products
- Instrumentation
- Computer products
- Industrial

B

Tactile Switches

Specification

FUNCTION: Momentary action
CONTACT ARRANGEMENT: SPST, N.O.
TERMINALS: PC pins

Mechanical

ACTUATION FORCE: 130 grams, 160 grams, 200 grams, 260 grams
LIFE EXPECTANCY: 100,000 operations.

Electrical

CONTACT RATING: 50 mA @ 12 V DC.
DIELECTRIC STRENGTH: 250 V AC min.
CONTACT RESISTANCE: 100 mΩ max. initial.
INSULATION RESISTANCE: 10¹¹ Ω min.

Environmental

OPERATING TEMPERATURE: -20°C to 60°C

Process

SOLDERING: Preheating to 100°C for 45 sec. max. Keep flux flush with top surface of PCB; do not apply to component side of PCB and area where terminals are located. Soldering to 255°C for 5 sec. max. Clean by brushing on solder surface. Do not clean switch with solvents.

Packaging

Bulk packaging.

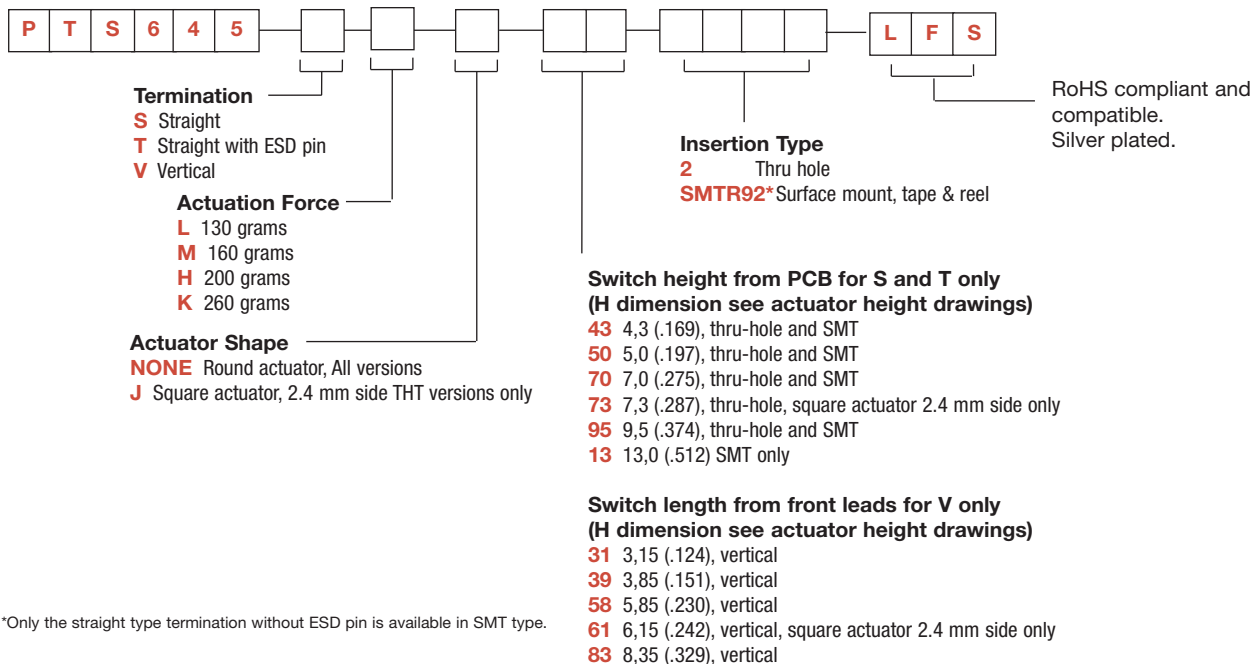
Tape & reel for the SMT type:

Reels of 1,000 pieces for 4,3 and 5,0 mm height
Reels of 700 pieces for 7,0 mm height
Reels of 500 pieces for 9,5 mm height
Reels of 400 pieces for 13,0 mm height

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.



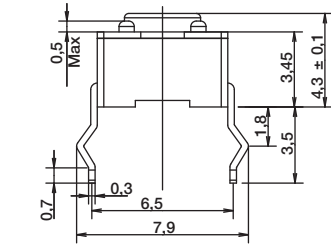
*Only the straight type termination without ESD pin is available in SMT type.



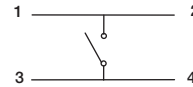
PTS645 Series 6 mm Tact Switches

TERMINATION

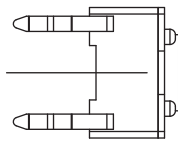
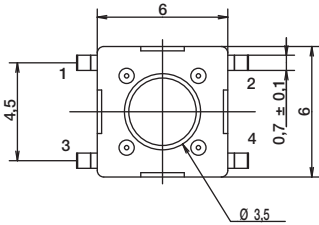
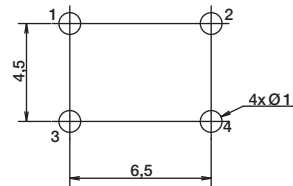
S STRAIGHT



SCHEMATIC



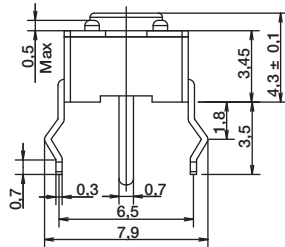
PCB LAYOUT



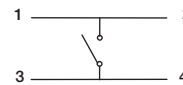
Tactile Switches

B

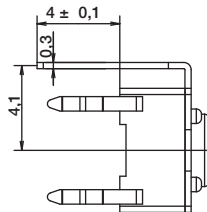
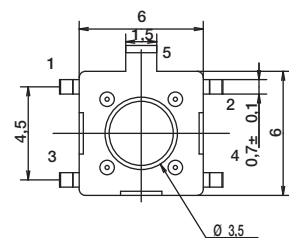
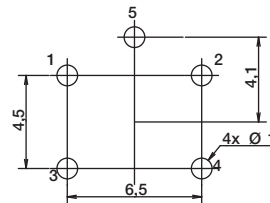
T STRAIGHT WITH ESD PIN



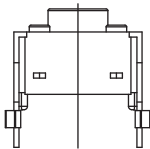
SCHEMATIC



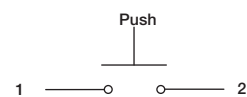
PCB LAYOUT



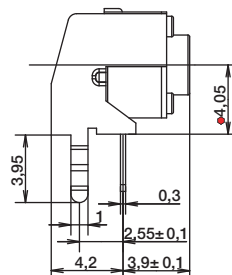
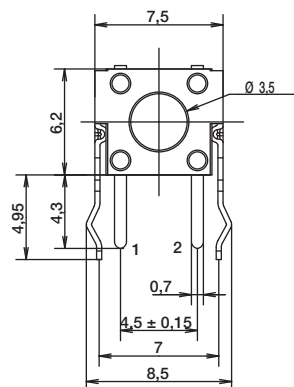
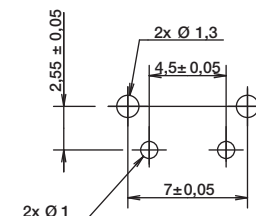
V VERTICAL



SCHEMATIC



PCB LAYOUT



First Angle
Projection

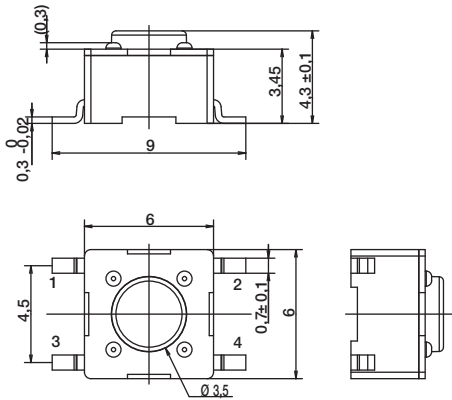


PTS645 Series 6 mm Tact Switches

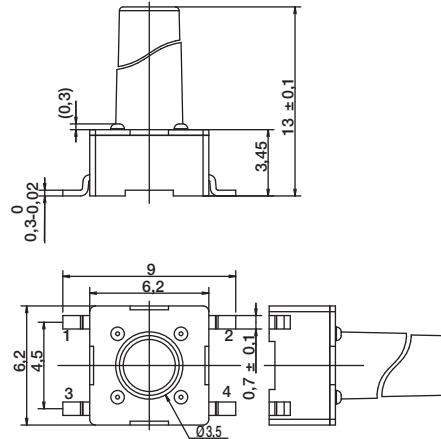
TERMINATION

SMT

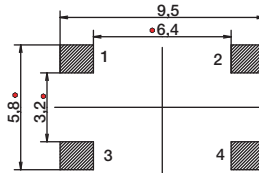
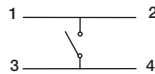
FOR 4.3, 5.0, 7.0, 9.5 MM HEIGHT



13.0 MM HEIGHT ONLY

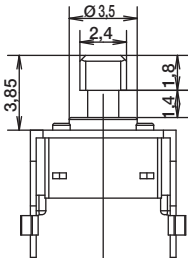


SCHMATIC

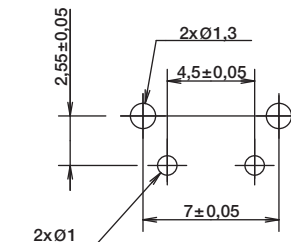
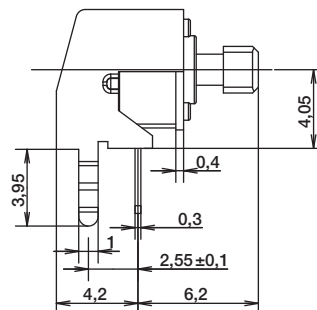
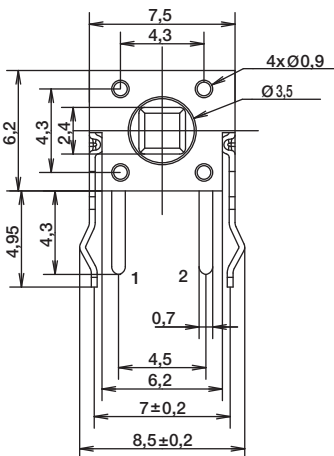
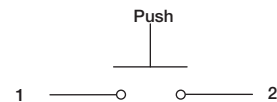


PCB LAYOUT

ACTUATOR SHAPE



SCHMATIC



RECOMMENDED PCB LAYOUT



First Angle
Projection

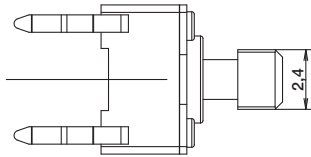
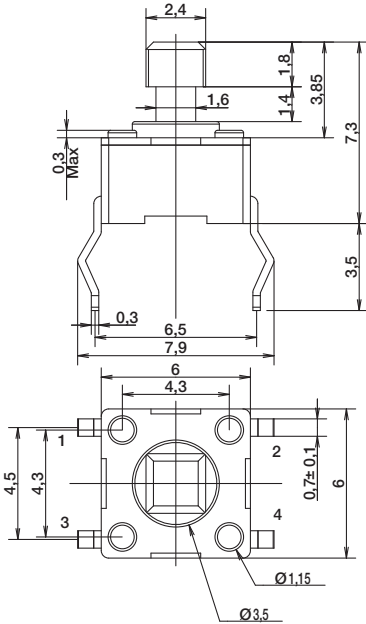
Dimensions are shown: mm
Specifications and dimensions subject to change

PTS645 Series 6 mm Tact Switches

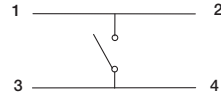
ACTUATOR SHAPE

Tactile Switches

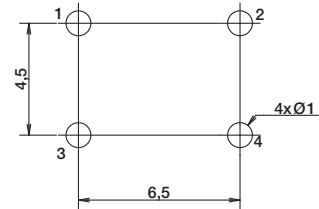
B



SCHMATIC



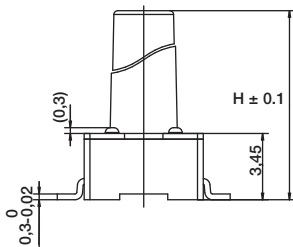
RECOMMENDED PCB LAYOUT



ACTUATION FORCE

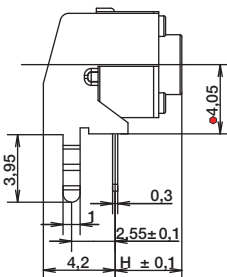
OPTION CODE	FORCE
L	130 grams Black
M	160 grams Blue
H	200 grams Gray
K	260 grams Red

ACTUATOR HEIGHT



Switch height from PCB for S and T only

OPTION CODE	DIMENSION H	TERMINATION	SCHEMATIC	
			Without EMC pin	With EMC pin
43	4,3 (.169)	Thru-hole and SMT		
50	5,0 (.197)	Thru-hole and SMT		
70	7,0 (.275)	Thru-hole and SMT		
95	9,5 (.374)	Thru-hole and SMT		
13	13,0 (.512)	SMT		

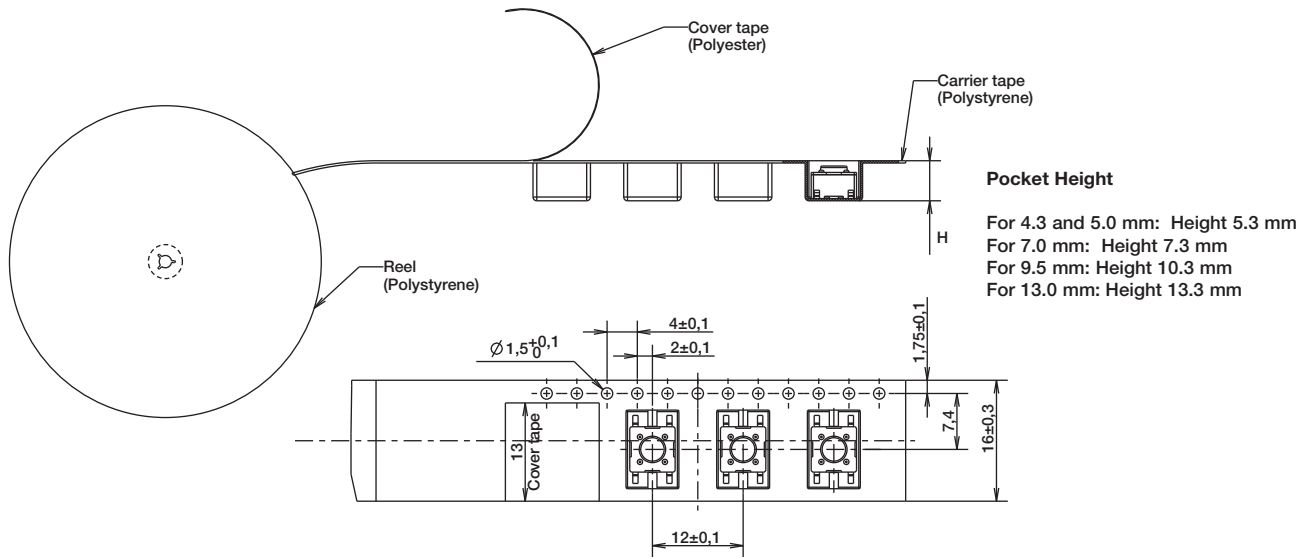


Switch length from front leads for V only

OPTION CODE	DIMENSION H	TERMINATION	SCHEMATIC	
			Without EMC pin	With EMC pin
31	3,15 (.124)	Vertical		
39	3,85 (.151)	Vertical		
58	5,85 (.230)	Vertical		
83	8,35 (.329)	Vertical		

PTS645 Series 6 mm Tact Switches

TAPE & REEL



B

Tactile Switches



B

Tactile Switches

NEW!

PTS645 Series 6 mm SMT Side Actuated Tact Switch



Features/Benefits

- Full SMT processing
- Strong PCB soldering pads
- Compact 6 x 6 mm design

Typical Applications

- Consumer Products
- Set Top and Access Boxes
- Instrumentation
- Home and Garden Equipment



B

Tactile Switches

Specification

FUNCTION: Momentary action
 CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.
 TERMINALS: G type for SMT
 TRAVEL: 0.25 mm +0.2/-0.1 mm
 OPERATING LIFE: 100,000 cycles

Mechanical

Part Number	Operating Force (gf)	Actuator Color
PTS645 VX13 SMTR92 LFS	100 ± 30	Dark grey
PTS645 VX13 SMTR92 LFS	160 ± 50	Yellow green

Electrical

MAXIMUM VOLTAGE: 12 V DC
 MAXIMUM CURRENT: 50 mA
 DIELECTRIC STRENGTH: 100 V AC (1mn)
 CONTACT RESISTANCE: ≤ 100 mΩ
 INSULATION RESISTANCE: ≥ 100 MΩ
 BOUNCE TIME: ≤ 10 ms

Environmental

OPERATING TEMPERATURE: -20°C to 70°C
 STORAGE TEMPERATURE: -30°C to 80°C

Process

SOLDERING: This component is suited to the following methods:
 Infrared Reflow Soldering in accordance with IEC61760-1

Recommended solder paste thickness is ≥ 15µm

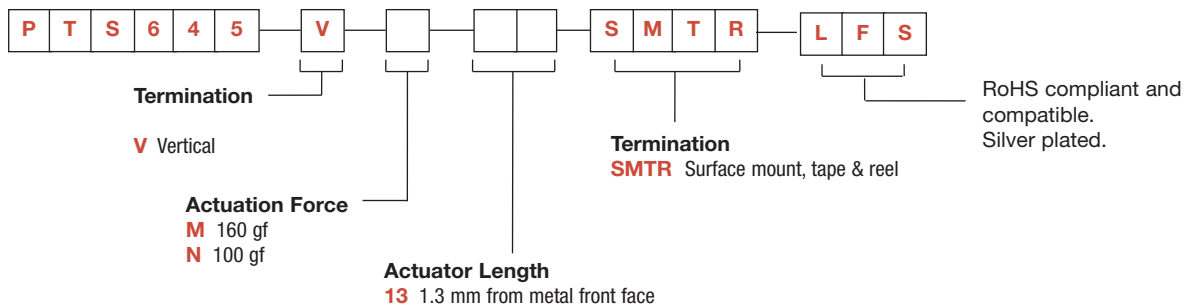
Packaging

In reels of 650 pieces
 Dimensions of reels according to EIA 481B
 External diameter 330 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.



PTS645 Series 6 mm SMT Side Actuated Tact Switch

NEW!

RECOMMENDED PCB LAYOUT

