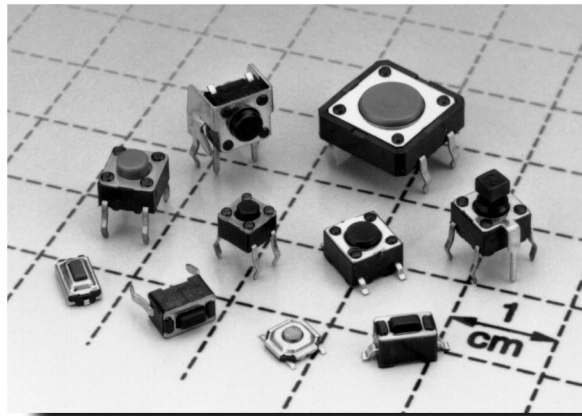


# PTS Series Subminiature Tactile Switches



## Features/Benefits

- **Cost-effective solution**
- **Long life contact design**
- **Variety of actuator styles and package sizes**
- **Multiple actuation forces**

## Typical Applications

- **Consumer products**
- **Instrumentation**
- **Computer Products**
- **Hand-held devices**

## Specifications

CONTACT RATING: 50 mA @ 12 V DC.

MECHANICAL & ELECTRICAL LIFE: 20,000 operations for PTS635S/V models; 25,000 operations for PTS453S/T models; 100,000 operations for PTS645S/T, PTS645V, PTS645SJ/TJ and PTS645VJ models; 200,000 operations for PTS125S models. 300,000 for PTS525 models.

CONTACT RESISTANCE: 100 milliohms max. initial.

INSULATION RESISTANCE:  $10^9 \Omega$  min.

DIELECTRIC STRENGTH: 250 V AC min.

OPERATING TEMPERATURE:  $-10^\circ\text{C}$  to  $60^\circ\text{C}$ .

SOLDERABILITY: Preheating to  $100^\circ\text{C}$  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  $255^\circ\text{C}$  for 5 sec. max. Clean by brushing on soldering surface. Do not clean switch with solvents. SMT capable of IR solder process, no cleaning process.

## Materials

BASE: 6/6 nylon or glass filled polyester (PBT) (UL 94HB).

ACTUATOR: 6/6 nylon or polyacetal (UL 94HB).

COVER PLATE: PTS453S, PTS635S, PTS635V models:

Tin-plated brass; PTS453T, PTS125, PTS645T, PTS645V, PTS645TJ, PTS645VJ models: Tin alloy; PTS645S models (Including TR): Polyester.

DOME CONTACTS: PTS635 models - stainless steel, silver clad; all other models - phosphor bronze, silver clad.

STATIONARY CONTACTS: Brass, silver plated.

TERMINALS: Brass, silver plated. All terminals insert molded.

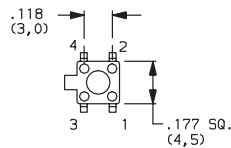
PACKAGING: Bulk packaging standard for PTS453, PTS635 and PTS645 models. Tube packaging standard for all PTS125 models. Radial tape packaging available on PTS645S models; when ordering, add suffix 'TR' to part number. Switches supplied 1,000 pieces per box.

## 4.5 x 4.5mm Models

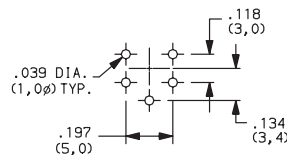
PART NUMBER	PART NUMBER (With ESD Pin)	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC (With ESD Pin)	SCHEMATIC
<b>PTS453SL38</b>	<b>PTS453TL38</b>	130 g	0.150 (3,8)	Black		



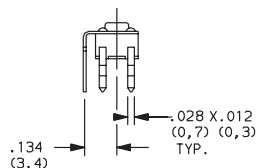
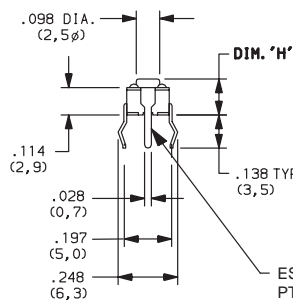
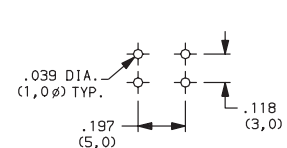
PTS453TL38  
SPST



PC MOUNTING  
(With ESD Pin)



PC MOUNTING



ESD PIN WITH  
PTS453TL38  
MODEL ONLY

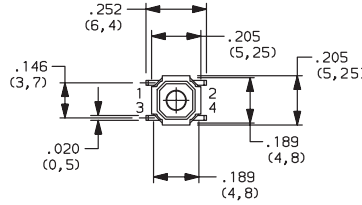
Tactile

*New!*

## 5.25 x 5.25mm Surface Mount Model

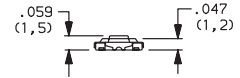
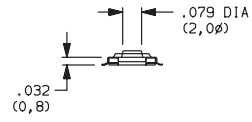
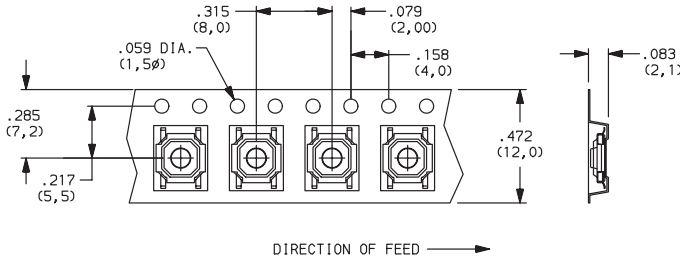
PART NUMBER	OPERATING FORCE (TYP.)	ACTUATOR COLOR	SCHEMATIC
<b>PTS525SM10SM</b>	130 g	Black	 SPST

NOTE: Add suffix 'TR' to part number for tape and reel packaging.

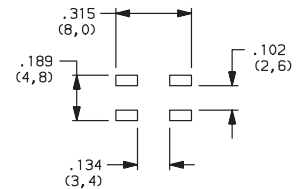


PTS525SM10SM  
SPST

### TAPE & REEL PACKAGING

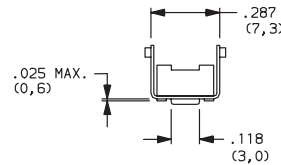


### PC MOUNTING



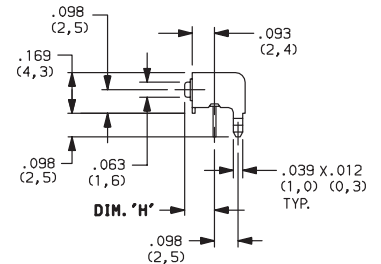
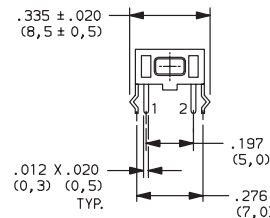
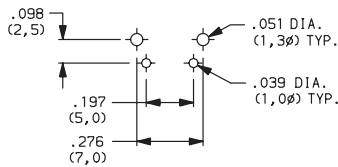
## 6 x 3.5mm Right Angle Models

PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
<b>PTS635VL31</b>	130 g	0.124 (3,15)	Black	 SPST
<b>PTS635VL39</b>	130 g	0.151 (3,85)	Black	
<b>PTS635VH31</b>	200 g	0.124 (3,15)	Gray	
<b>PTS635VH39</b>	200 g	0.151 (3,85)	Gray	



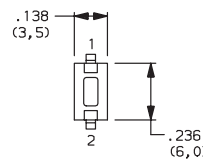
PTS635VL31  
SPST

### PC MOUNTING



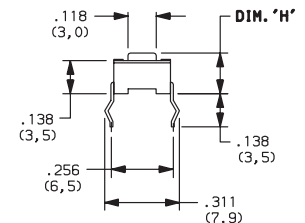
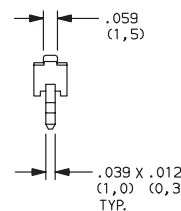
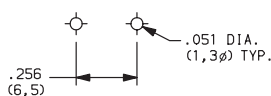
## 6 x 3.5mm Models

PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
<b>PTS635SL43</b>	130 g	0.169 (4,3)	Black	 SPST
<b>PTS635SL50</b>	130 g	0.197 (5,0)	Black	
<b>PTS635SH43</b>	200 g	0.169 (4,3)	Gray	
<b>PTS635SH50</b>	200 g	0.197 (5,0)	Gray	



PTS635SL43  
SPST

### PC MOUNTING



# PTS Series Subminiature Tactile Switches

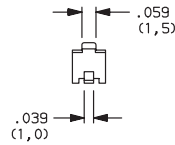
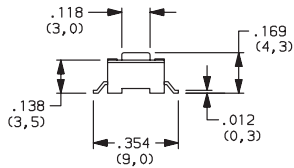
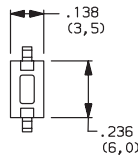


## 6 x 3.6mm Surface Mount Models

New!

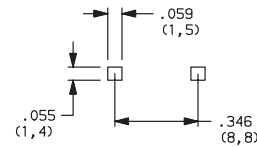


PTS635SL43SM  
SPST



PART NUMBER	OPERATING FORCE (TYP.)	ACTUATOR COLOR	SCHEMATIC
PTS635SL43SM	130 g	Black	
PTS635SH43SM	200 g		

### PC MOUNTING

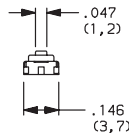
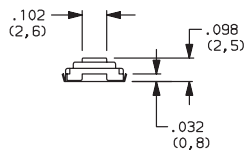
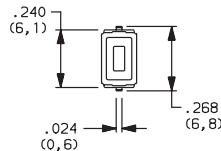


## 6.1 x 3.7mm Surface Mount Models

New!



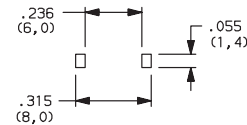
PTS635SL25SM  
SPST



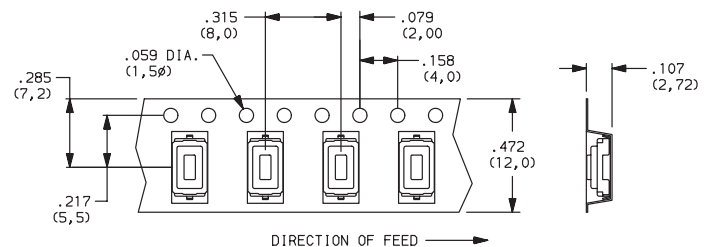
PART NUMBER	OPERATING FORCE (TYP.)	ACTUATOR COLOR	SCHEMATIC
PTS635SL25SM	130 g	Black	
PTS635SK25SM	260 g	Red	

NOTE: Add suffix 'TR' to part number for tape and reel packaging.

### PC MOUNTING



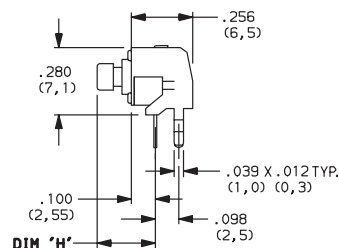
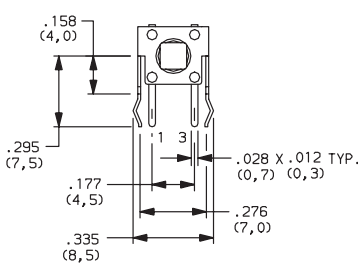
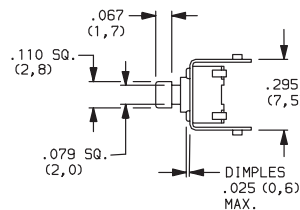
### TAPE & REEL PACKAGING



## 6 x 6mm Right Angle Models



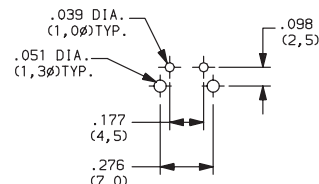
PTS645VJL61  
SPST



PART NUMBER (With ESD Pin)	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
PTS645VJL61	130 g	0.242 (6,15)	Black	
PTS645VJH61	200 g	0.242 (6,15)	Gray	

NOTE: 160 g version available; to specify part number, replace 'L' or 'H' with 'M'; actuator color is blue. 260 g version available; to specify part number, replace 'L' or 'H' with 'K'; actuator color is red.

### PC MOUNTING



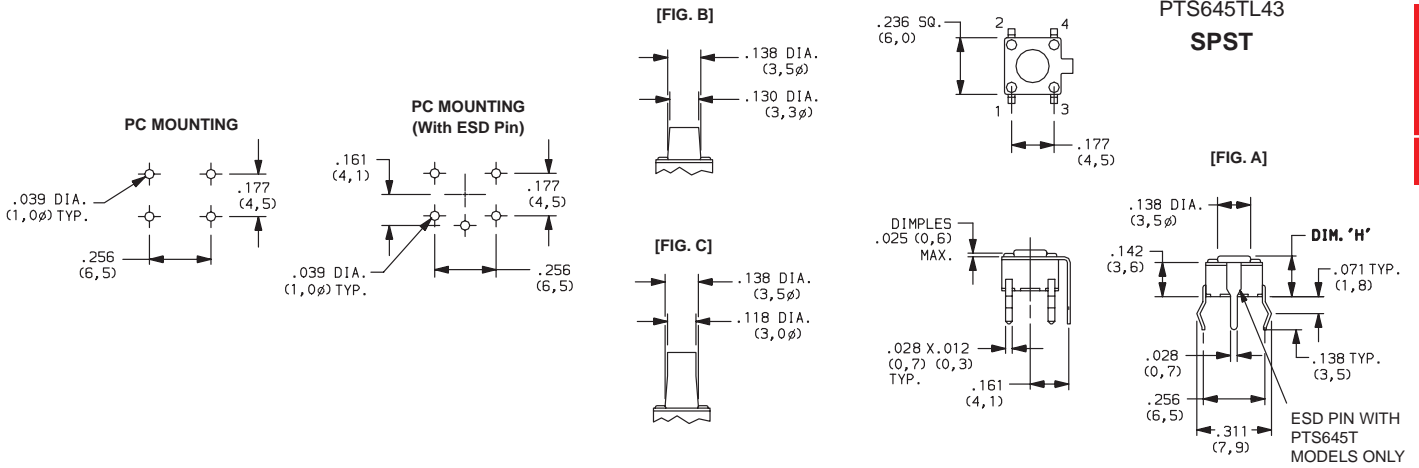
## 6 x 6mm Models

PART NUMBER	PART NUMBER (With ESD Pin)	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	FIG.	SCHEMATIC (With ESD Pin)	SCHEMATIC
PTS645SL43	PTS645TL43	130 g	0.169 (4,3)	Black	A		
PTS645SL50	PTS645TL50	130 g	0.197 (5,0)	Black	A		
PTS645SL70	PTS645TL70	130 g	0.275 (7,0)	Black	B		
PTS645SL95	PTS645TL95	130 g	0.374 (9,5)	Black	C		
PTS645SH43	PTS645TH43	200 g	0.169 (4,3)	Gray	A		
PTS645SH50	PTS645TH50	200 g	0.197 (5,0)	Gray	A		
PTS645SH70	PTS645TH70	200 g	0.275 (7,0)	Gray	B		
PTS645SH95	PTS645TH95	200 g	0.374 (9,5)	Gray	C		

NOTE: 160 g version available; to specify part number, replace 'L' or 'H' with 'M'; actuator color is blue. 260 g version available; to specify part number, replace 'L' or 'H' with 'K'; actuator color is red.



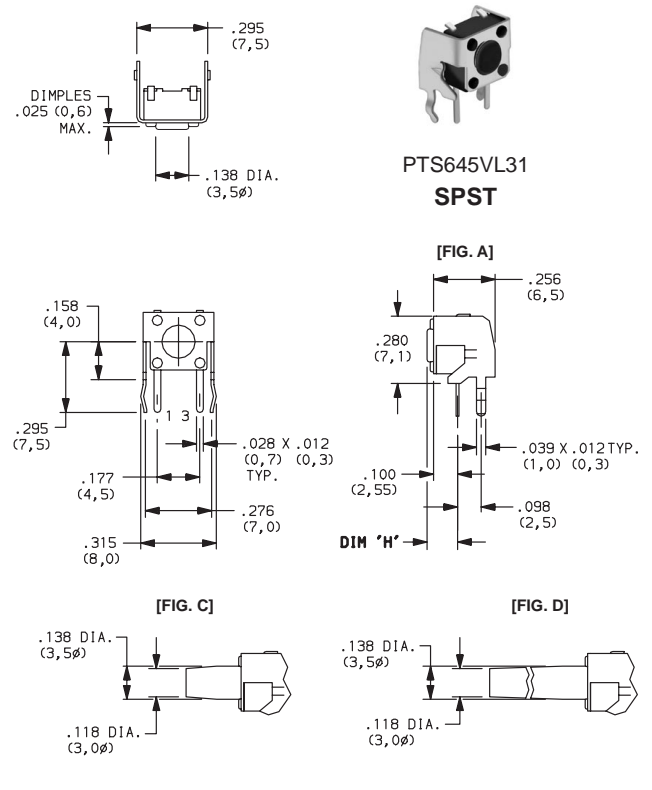
PTS645TL43  
SPST



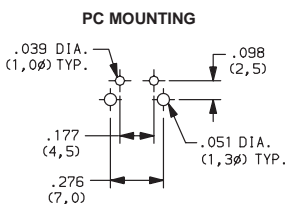
## 6 x 6mm Models Right Angle Models

PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	FIG.	SCHEMATIC
PTS645VL31	130 g	0.124 (3,15)	Black	A	
PTS645VL39	130 g	0.151 (3,85)	Black	A	
PTS645VL58	130 g	0.230 (5,85)	Black	B	
PTS645VL83	130 g	0.329 (8,35)	Black	C	
PTS645VL15	130 g	0.624 (15,85)	Black	D	
PTS645VH31	200 g	0.124 (3,15)	Gray	A	
PTS645VH39	200 g	0.151 (3,85)	Gray	A	
PTS645VH58	200 g	0.230 (5,85)	Gray	B	
PTS645VH83	200 g	0.329 (8,35)	Gray	C	
PTS645VH15	200 g	0.624 (15,85)	Gray	D	

NOTE: 160 g version available; to specify part number, replace 'L' or 'H' with 'M'; actuator color is blue. 260 g version available; to specify part number, replace 'L' or 'H' with 'K'; actuator color is red.



PTS645VL31  
SPST



# PTS Series Subminiature Tactile Switches



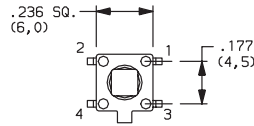
## 6 x 6mm Models

PART NUMBER	PART NUMBER (With ESD Pin)	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC (With ESD Pin)	SCHEMATIC
<b>PTS645SJL73</b>	<b>PTS645TJL73</b>	130 g	0.287 (7,3)	Black		
<b>PTS645SJH73</b>	<b>PTS645TJH73</b>	200 g	0.287 (7,3)	Gray		

**NOTE:** 160 g version available. To specify part number, replace 'L' or 'H' with 'M'. Actuator color is blue. 260 g version available. To specify part number, replace 'L' or 'H' with 'K'. Actuator color is red.

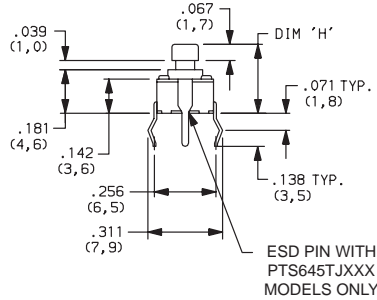
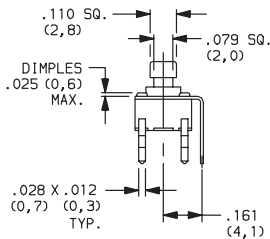
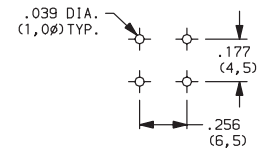
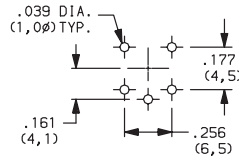


PTS645TJL73  
SPST



PC MOUNTING  
(With ESD Pin)

PC MOUNTING



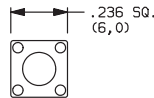
ESD PIN WITH  
PTS645TJXXX  
MODELS ONLY

## 6 x 6mm Models

*New!*

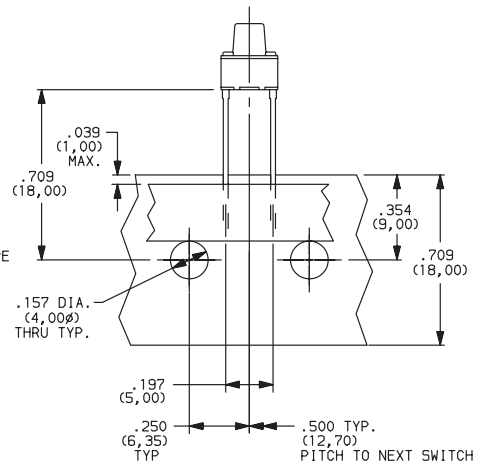
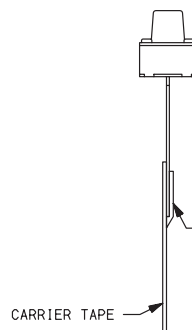
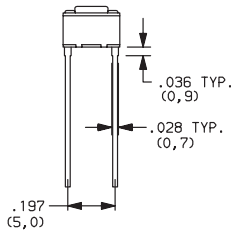
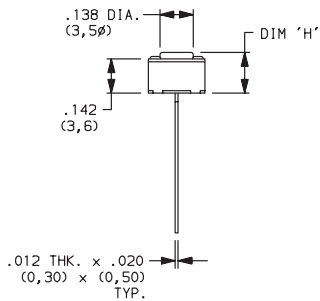


PTS645SL43TR  
SPST



PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR
<b>PTS645SL43TR</b>	130 g	0.169 (4,3)	Black
<b>PTS645SL50TR</b>	130 g	0.197 (5,0)	Black
<b>PTS645SL70TR</b>	130 g	0.275 (7,0)	Black
<b>PTS645SL95TR</b>	130 g	0.374 (9,5)	Black

TAPE & REEL PACKAGING



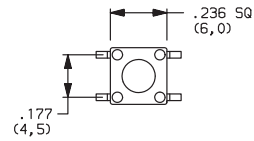
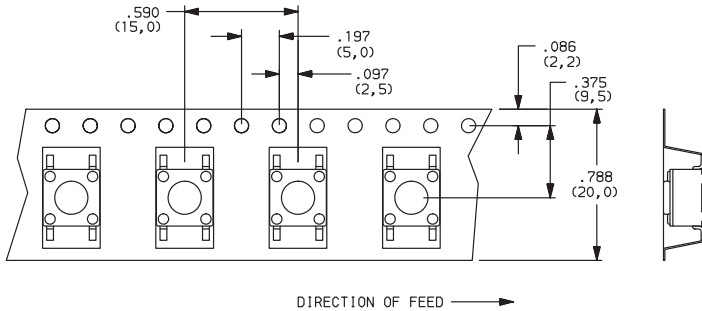
*New!*

## 6 x 6mm Surface Mount Models

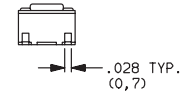
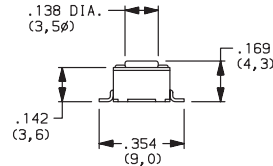
PART NUMBER	OPERATING FORCE (TYP.)	ACTUATOR COLOR	SCHEMATIC
<b>PTS645SL43SM</b>	130 g	Black	 SPST
<b>PTS645SH43SM</b>	200 g		

NOTE: Add suffix 'TR' to part number for tape and reel packaging.

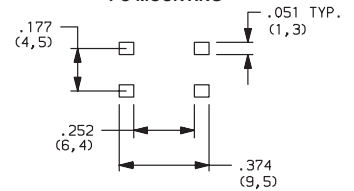
### TAPE & REEL PACKAGING



PTS645SL43SM  
SPST



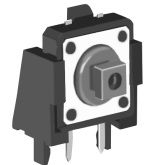
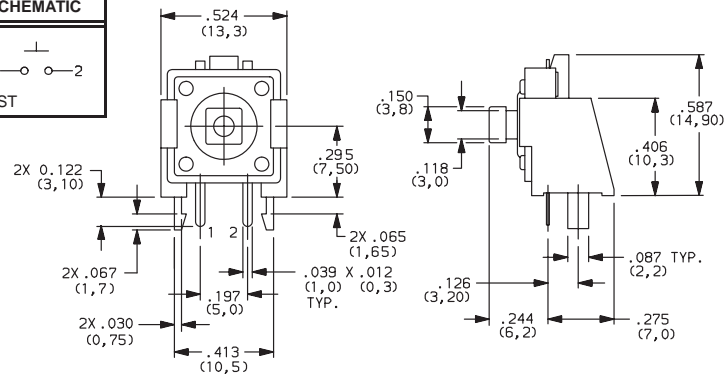
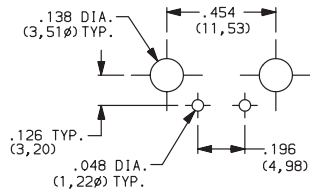
### PC MOUNTING



## 12 x 12mm Right Angle Models

PART NUMBER	OPERATING FORCE (TYP.)	ACTUATOR COLOR	SCHEMATIC
<b>PTS125VJM73</b>	160 g	Gray	 SPST
<b>PTS125VJK73</b>	260 g	Red	

### PC MOUNTING

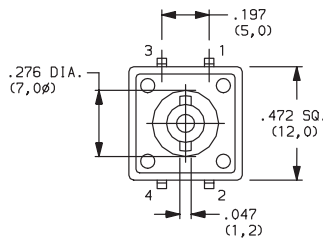
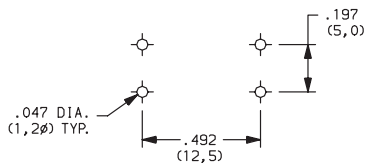


PTS125VJM73  
SPST

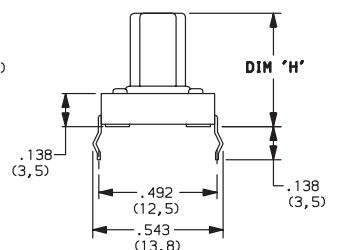
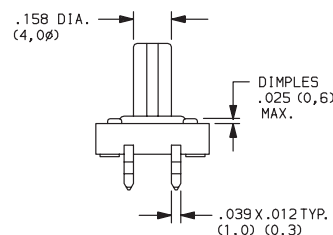
## 12 x 12mm Models

PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
<b>PTS125SM12</b>	160 g	0.472 (12,0)	Gray	 SPST
<b>PTS125SK12</b>	260 g	0.472 (12,0)	Red	

### PC MOUNTING



PTS125SM12  
SPST



C

Tactile

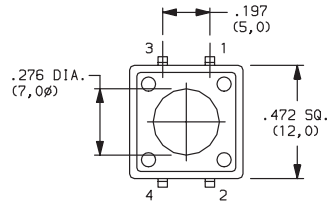
# PTS Series Subminiature Tactile Switches



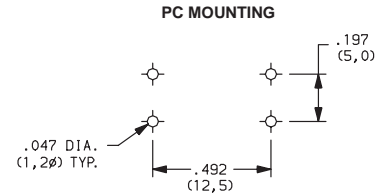
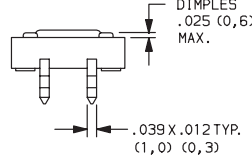
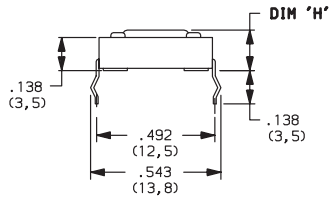
## 12 x 12mm Models



PTS125SM43  
SPST



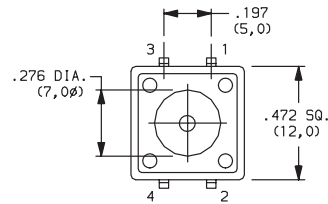
PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
PTS125SM43	160 g	0.169 (4,3)	Gray	
PTS125SK43	260 g	0.169 (4,3)	Red	



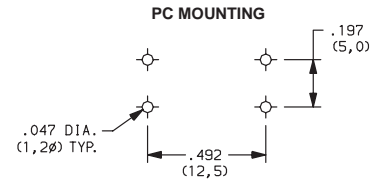
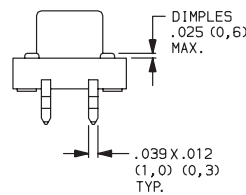
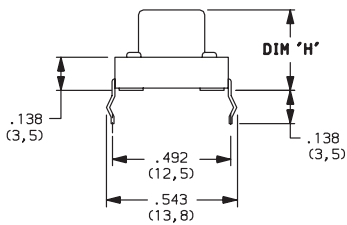
## 12 x 12mm Models



PTS125SM85  
SPST



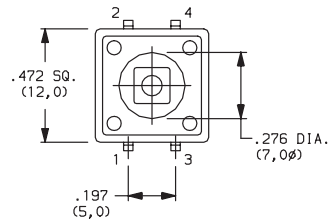
PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
PTS125SM85	160 g	0.335 (8,5)	Black	
PTS125SK85	260 g	0.335 (8,5)	Red	



## 12 x 12mm Models



PTS125SJM73  
SPST



PART NUMBER	OPERATING FORCE (TYP.)	DIM. 'H'	ACTUATOR COLOR	SCHEMATIC
PTS125SJM73	160 g	0.287 (7,3)	Gray	
PTS125SJK73	260 g	0.287 (7,3)	Red	

