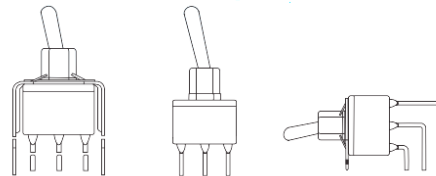




# Series 033TE

## Sealed Miniature Toggle Switches

- Standard through hole terminal configurations
- Compatible with wave soldering and manual soldering
- IP67 Protection
- Excellent operation feels
- UL & cUL certificate
- Lead free and RoHS compliant



### Description

Sealed switches with perfect performance for soldering and cleaning processes. Excellent operation feedback provides the user with simple and intuitive operation. The robust internal structure ensures long product life to meet various application requirements like Instrument, Telecommunications & Medicals.

### Electrical Specifications

Parameter	Conditions & Remarks	Min	Max	Unit
<b>Contact Resistance</b>			10	m-ohms
<b>Insulation Resistance</b>	Between insulated terminals	1000		M-ohms
<b>Dielectric Strength</b>	1500 VAC between adjacent switches	1		minute
<b>Rating current</b> (Detail refers to Contact Material Options)	125VAC 250VAC 28VDC	6 3 3		A

### Mechanical and Environmental

<b>Soldering</b>	Through hole type: Soldering temperature, 260°C for 5 seconds Maximum manual temperature, 350°C for 3 seconds Frequency of solder process: 2 times Max.
<b>RoHS</b>	Lead-Free. Fully compliant to RoHS Directive 2011/65/EU and 2015/863/EU
<b>Operating Force</b>	10N max (applied in operation direction)
<b>Stop strength</b>	30N for 30 seconds
<b>Actuation Life</b>	50,000 cycles
<b>Operating Temperature</b>	-30°C to +85°C
<b>Storage Temperature</b>	-30°C to +85°C

## Ordering Information

Series	Terminal Type	Switch Function	Actuator	Bushing	Termination	Contact Material	Support Bracket	Actuator Cap	Cap Color	O Ring
033TE	S	SA	S	A	1	S	1	S	1	R

Code	Terminal type
S	Straight
H	Horizon right angle
V	Vertical right angle

Code	Switch function
SA	SP on-none-on
SB	SP on-none-(on)
SC	SP on-off-on
SD	SP (on)-off-(on)
SE	SP on-off-(on)
DA	DP on-none-on
DB	DP on-none-(on)
DC	DP on-off-on
DD	DP (on)-off-(on)
DE	DP on-off-(on)
<b>3 way position switches</b>	
TA	DP on-on-on

Code	Actuator
S	12.43
T	7.30

Code	ESD Protection Actuator
A	12.43(black)
B	12.43(white)
C	12.43(silver)
D	7.30(black)
E	7.30(white)
F	7.30(silver)

Code	Bushing
A	Std. non-thread 6.15
B	Thread 8.89 (S terminal only)

Code	Termination
Blank	Right angle
1	Solder lug
2	P.C 1.27 width
3	Quick connect
4	Wire wrap
5	Wire wrap

Code	Actuator cap
Blank	None
S	10.58 (for actuator S)
T	7.56 (for actuator T)

Code	Cap color
0	Transparent
1	White
2	Black
3	Red
4	Orange
5	Yellow
6	Green
7	Blue

Code	Support bracket (S terminal only)
Blank	None
1	11.68
2	16.00
3	11.68
4	16.00
5	Snap-in 11.68
6	Snap-in 16.00
7	Snap-in 11.68
8	Snap-in 16.00

Code	O ring
Blank	None
R	For B bushing only

Code	Contact Material
S	Silver plated
B	Gold plated
G	Gold over silver
T	Tin plated

Mechanical Specifications

Figure 1 – 033TESSASA1S



Name	Switch position		
033TESSA	ON	none	ON
033TESSB	ON	none	(ON)
033TESSC	ON	OFF	ON
033TESSD	(ON)	OFF	(ON)
033TESSE	ON	OFF	(ON)
Term. Comm.	2-3	open	2-1

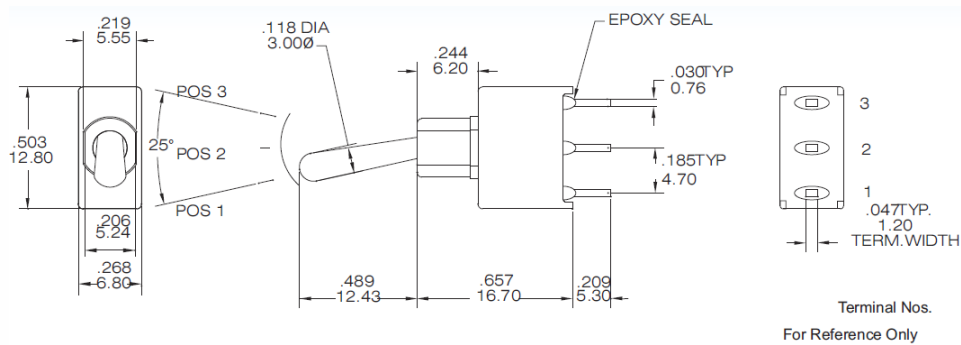


Figure 2 – 033TESDASA1S



Name	Switch position		
033TESDA	ON	none	ON
033TESDB	ON	none	(ON)
033TESDC	ON	OFF	ON
033TESDD	(ON)	OFF	(ON)
033TESDE	ON	OFF	(ON)
Term. Comm.	2-3, 5-6	open	2-1, 5-4
<b>3 Way switch</b>			
033T-E-STA	ON	ON	ON
Term. Comm.	2-3, 5-6	2-3, 5-4	2-1, 5-4

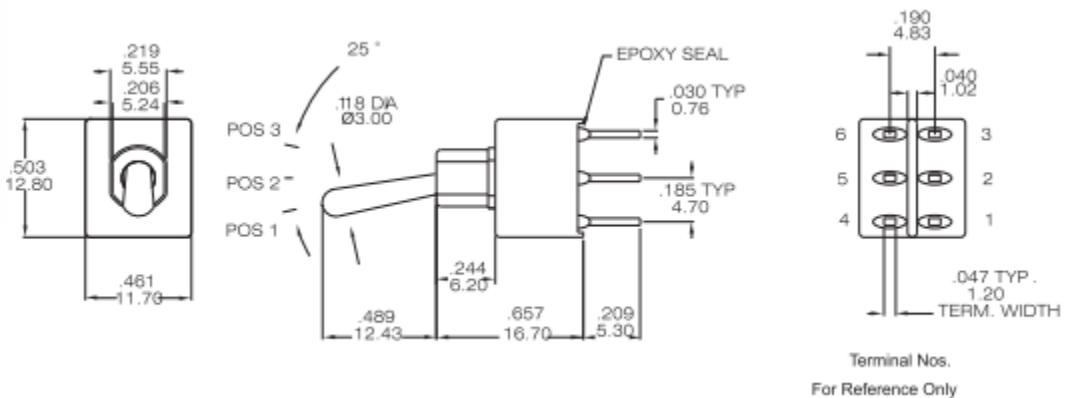


Figure 3 – 033TEHSATAS

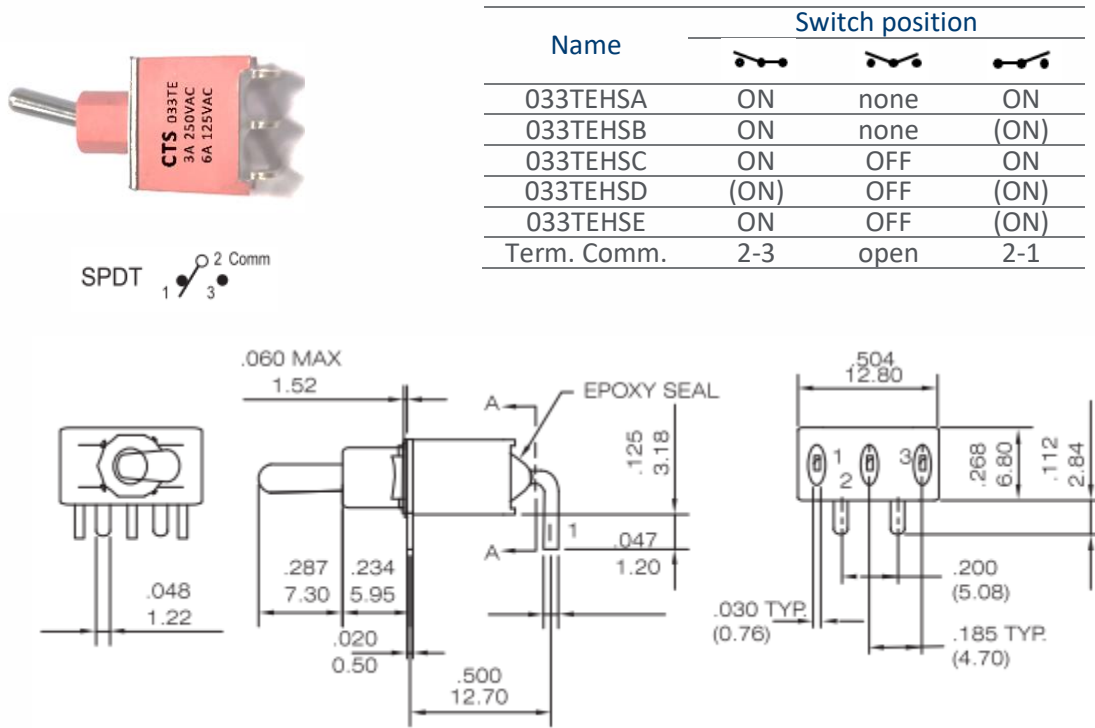


Figure 4 – 033TEHDATAS

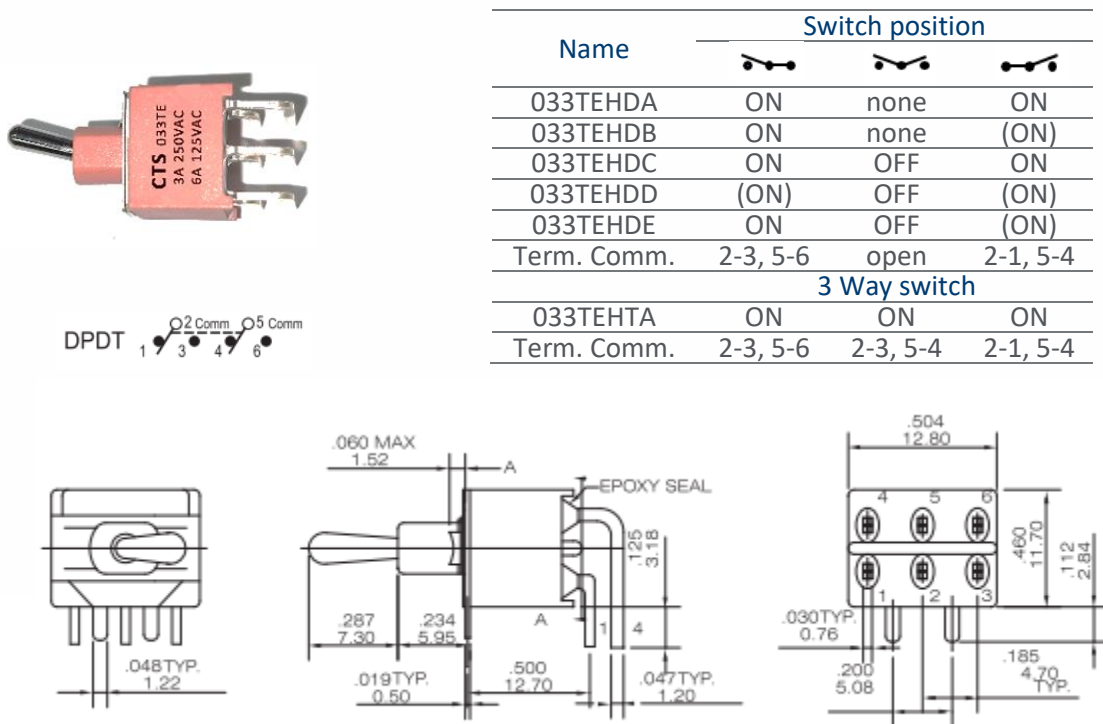


Figure 5 – 033TEVSATAS



Name	Switch position		
033TEVSA	ON	none	ON
033TEVSB	ON	none	(ON)
033TEVSC	ON	OFF	ON
033TEVSD	(ON)	OFF	(ON)
033TEVSE	ON	OFF	(ON)
Term. Comm.	2-3	open	2-1

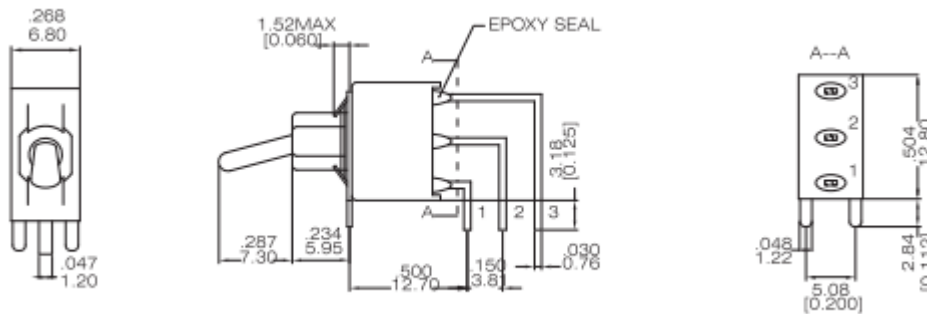
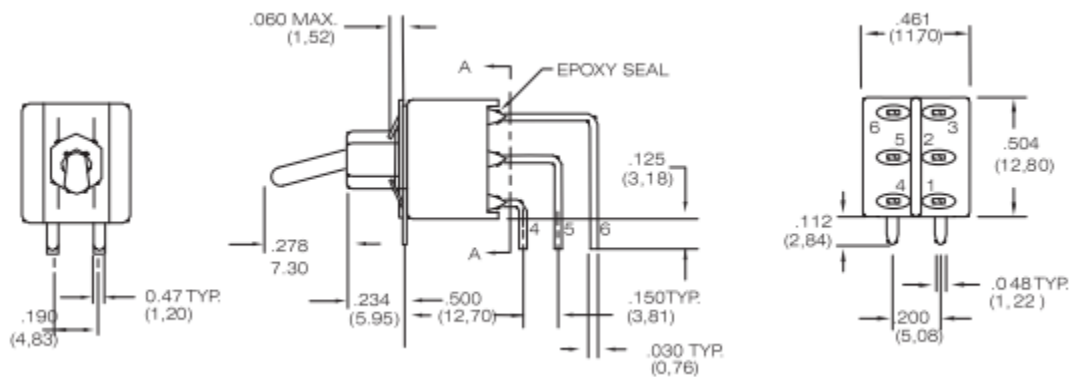


Figure 6 – 033TEVDATAS



Name	Switch position		
033TEVDA	ON	none	ON
033TEVDB	ON	none	(ON)
033TEVDC	ON	OFF	ON
033TEVDD	(ON)	OFF	(ON)
033TEVDE	ON	OFF	(ON)
Term. Comm.	2-3, 5-6	open	2-1, 5-4
3 Way switch			
033TEVTA	ON	ON	ON
Term. Comm.	2-3, 5-6	2-3, 5-4	2-1, 5-4

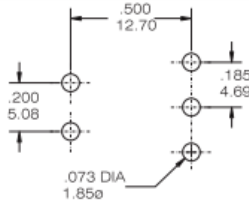


PCB Mounting Suggestions

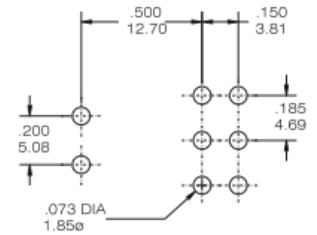
033TESSA ~ SSE



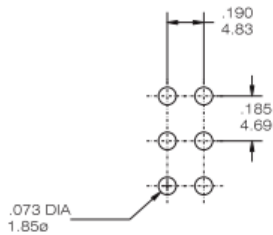
033TEHSA ~ HSE



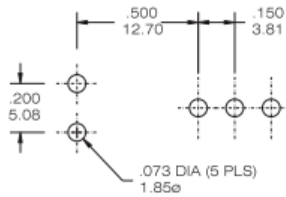
033TEHDA ~ HDE



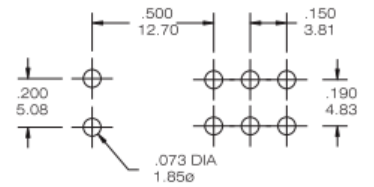
033TESDA ~ SDE



033TEVSA ~ VSE



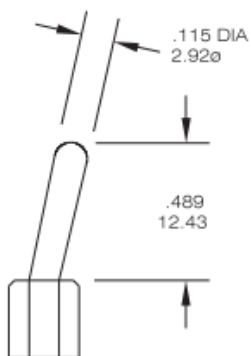
033TEVDA ~ VDE



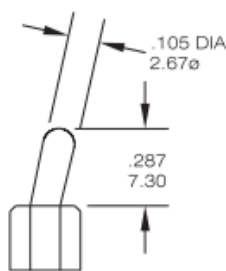
Actuator Options

ESD Protection Toggle

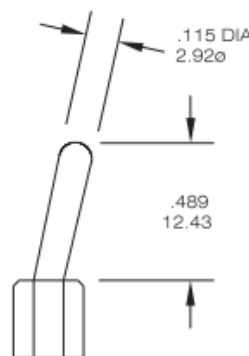
S (std.)



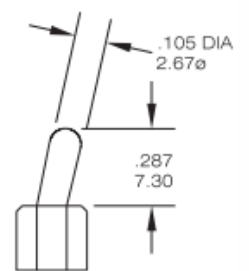
T (std.)



A



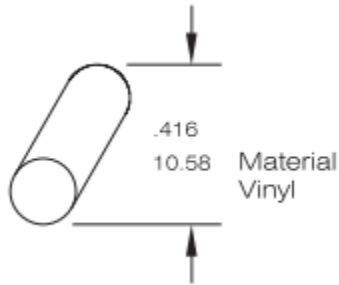
D



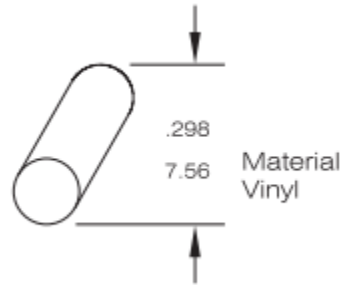
Code	Color
A、D	Black(std.)
B、E	White
C、F	Silver

### Actuator Cap Options

S (for "S" actuator)



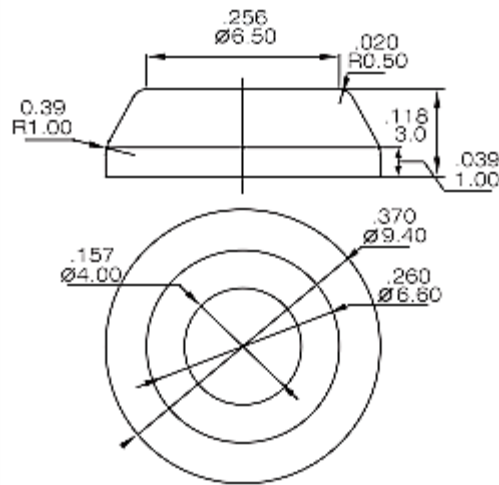
T (for "T" actuator)



Code	Cap color
0	Transparent
1	White
2	Black
3	Red
4	Orange
5	Yellow
6	Green
7	Blue

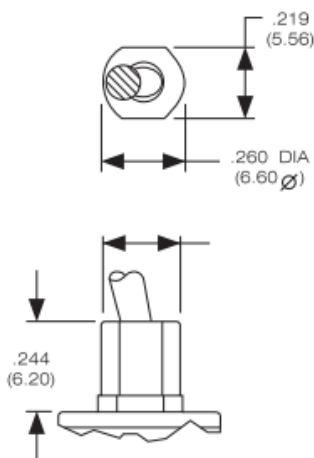
### O Ring

R (for "B" bushing only)

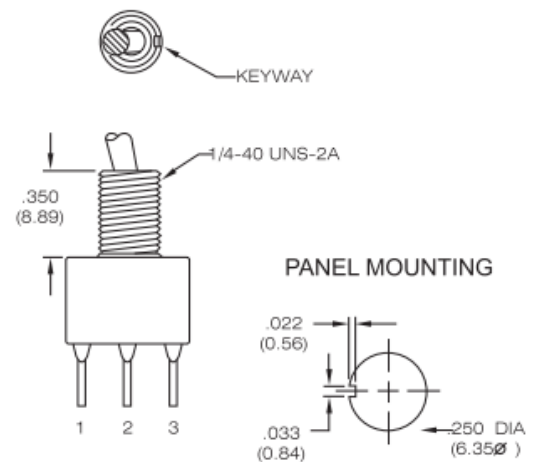


### Bushing Options

A (Std.)

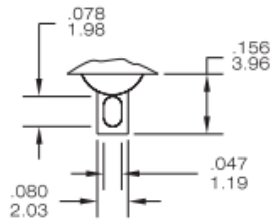


B



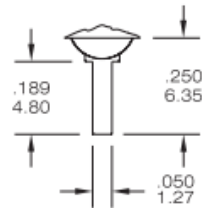
### Termination Options

“1” Solder lug



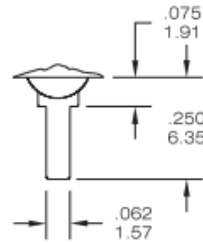
THK 0.76 (.030)

“2” P.C type



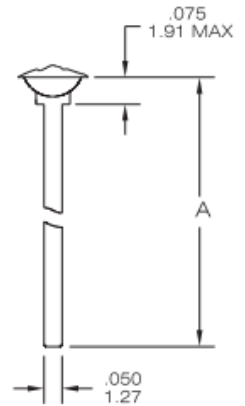
THK 0.76 (.030)

“3” Quick Connect



THK 0.76 (.030)

“4” Wire Wrap



THK 0.76 (.030)

Code	“A” dimension
4	.750 (19.05)
5	.425 (10.8)

### Contact Material Options

Code	Contact Material	Terminal Material	Rating
S	Silver plated	Silver plated	6A@125VAC or 28VDC; 3A@250VAC
B	Gold plated over Nickel plated	Gold plated over Nickel plated	0.4VA Max. @20VAC or DC Max.
G	Gold plated over Silver plated	Gold plated over Silver plated	0.4VA Max. @20VAC or DC Max or 6A@125VAC or 28VDC; 3A@250VAC
T	Gold plated over Nickel plated	Tin over Nickel plated	0.4VA Max. @20VAC or DC Max.

Note: Please contact factory for option “T”.



Vertical Support Bracket Options

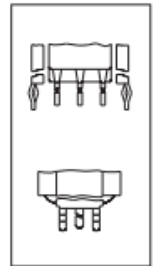
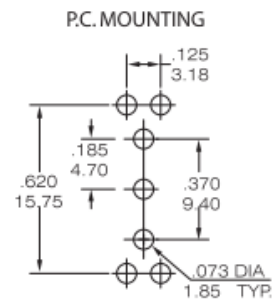
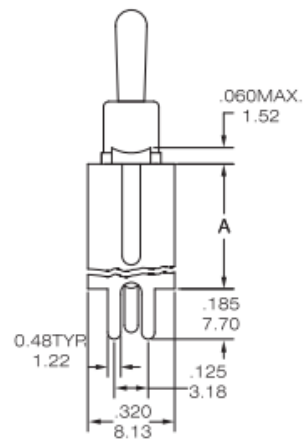
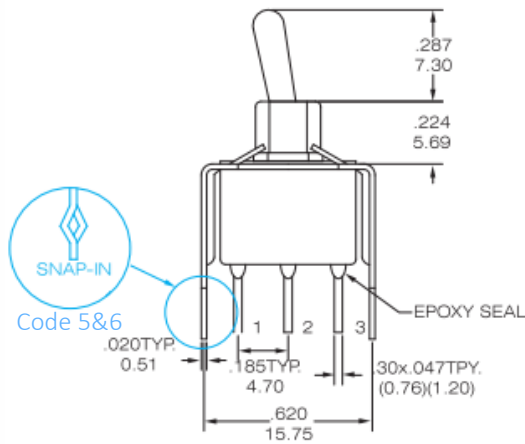


SPDT

DPDT

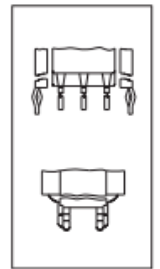
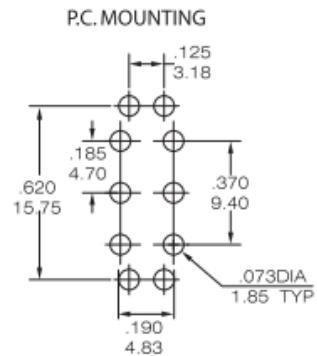
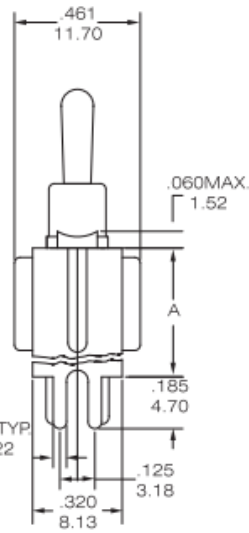
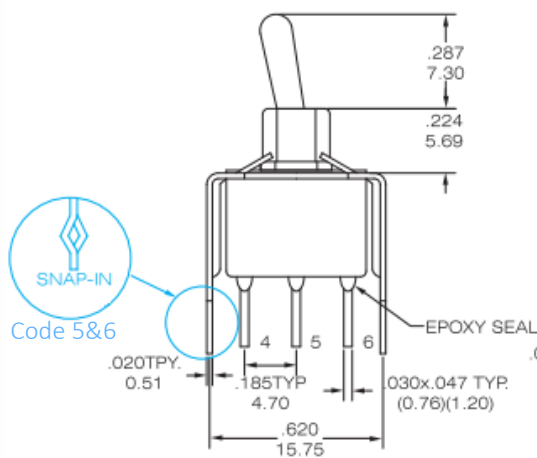
SPDT

Code	"A" dimension
1 & 5	.460 (11.68)
2 & 6	.630 (16.00)
Code 5&6: the Snap-in type	



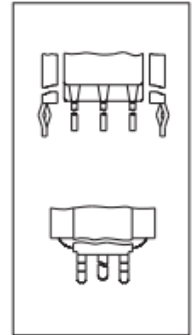
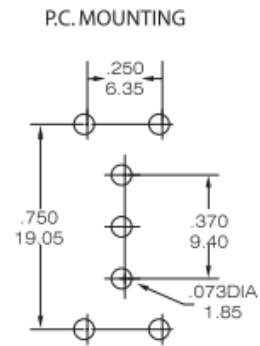
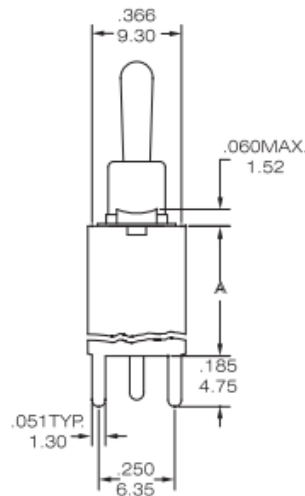
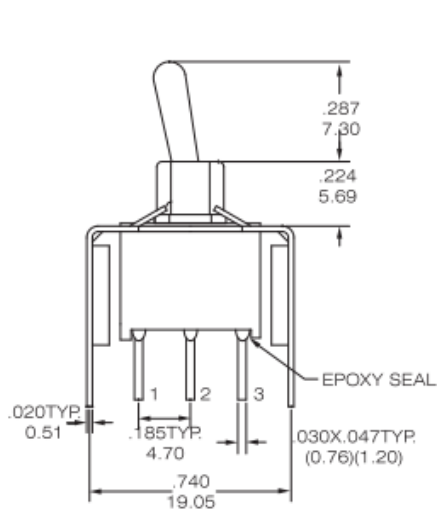
SNAP-IN  
Bracket Code 5&6

DPDT



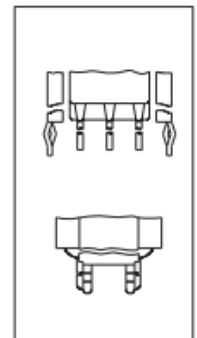
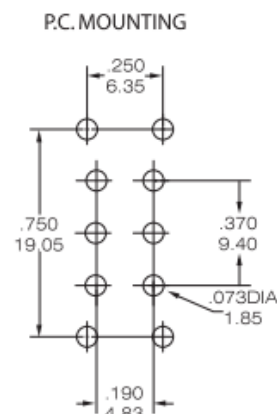
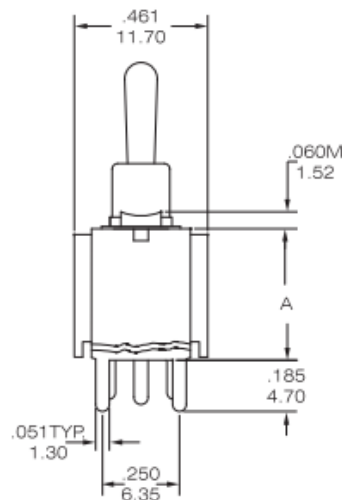
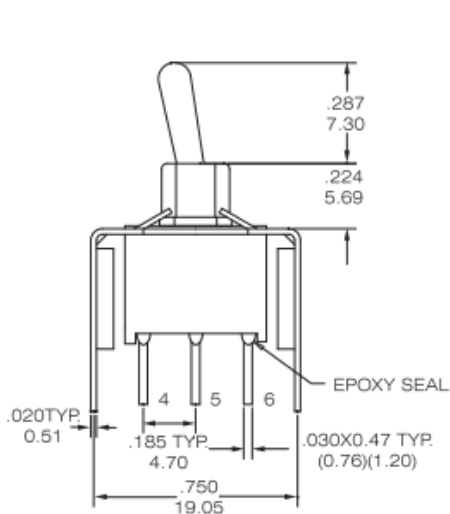
SNAP-IN  
Bracket Code 5&6

Code	"A" dimension
3 & 7	.460 (11.68)
4 & 8	.630 (16.00)
Code 7&8: the Snap-in type	



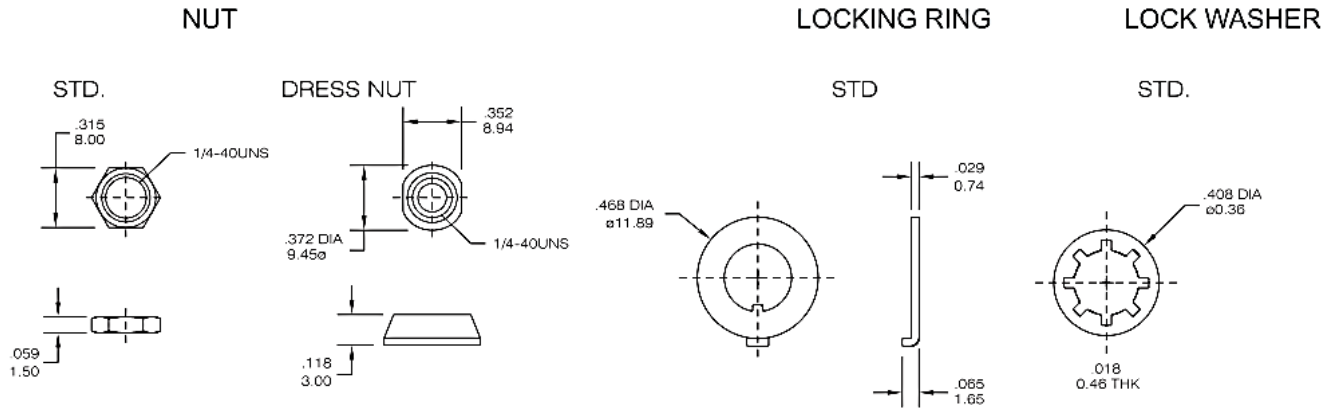
SNAP-IN  
Bracket Code 7&8

Code	"A" dimension
3 & 7	.460 (11.68)
4 & 8	.630 (16.00)
Code 7&8: the Snap-in type	



SNAP-IN  
Bracket Code 7&8

Hardware Options (only for "B" bushing)



3-Way Toggle Switches

