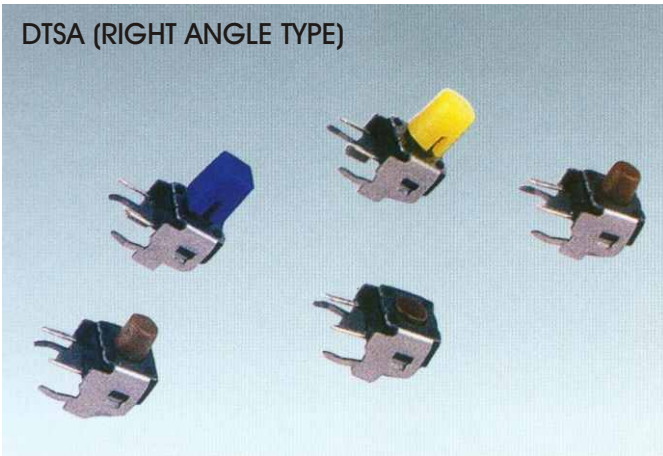


# DTSA (RIGHT ANGLE) & DTSG(P) (GROUND TERMINAL) SERIES(OR SQUARE HEAD WITH CAP): MECHANICAL CONTACT STYLE

DTSA (RIGHT ANGLE TYPE)



DTSG (GROUND TERMINAL TYPE)



## FEATURES

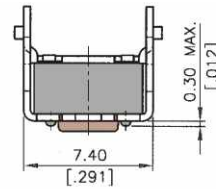
1. Available sharp click feel with a positive tactile feedback. Due to small movement distance (stroke), user experiences distinct sensation when the switch "clicks" into place.
2. Ultraminiature and light weight structure suitable for high density mounting. Economic but high reliability.
3. Insert molding in the contact with special treatment prevents flux build-up during soldering and permits auto-dipping.

## MATERIALS

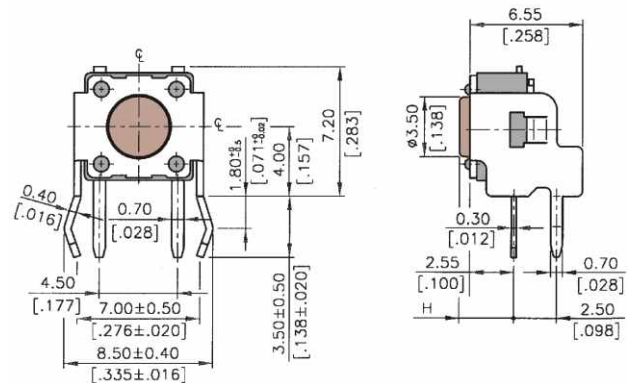
- COVER: Steel, Tin plated
- BASE: UL94V-0 Nylon Thermoplastic.  
Color: Black.
- STEM: UL94V-0 Nylon Thermoplastic.  
Color: Black(100gf), Brown(160gf), Red(260gf), Salmon(320gf), Yellow(520gf).
- CONTACT DISC: Phosphor bronze with silver cladding.
- TERMINAL: Brass with silver cladding.
- CAP: Thermoplastic ABS.

## DIMENSIONS

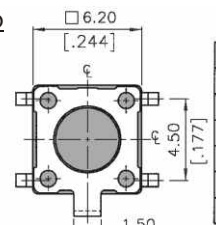
DTSA-6



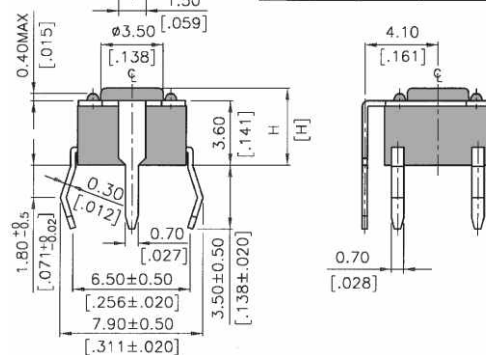
DTSA-6 6	11.85[.467]
DTSA-6 5	8.35[.329]
DTSA-6 3	5.85[.230]
DTSA-6 2	3.85[.152]
DTSA-6 1	3.15[.124]
PROD. NO.	H



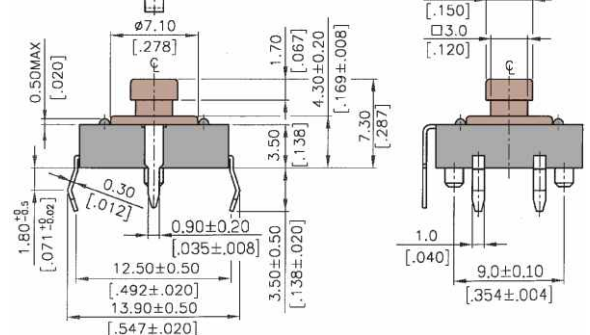
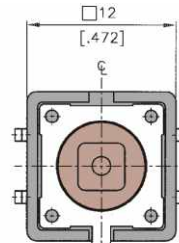
DTSG-6



DTSG-6 6	13.0[.512]
DTSG-6 5	9.5[.374]
DTSG-6 4	7.3(SQ)[.287]
DTSG-6 3	7.0[.275]
DTSG-6 2	5.0[.197]
DTSG-6 1	4.3[.169]
PROD. NO.	H



DTSG(P)-2



General Tolerance:  $\pm 0.2\text{mm}$  ( $\pm 0.008''$ )

# SPECIFICATION

## MECHANICAL

	520±130gf	Yellow	(Y)
	320±80gf	Salmon	(S)
Operation Force:	260±50gf	Red	(R)
	160±50gf	Brown	(N)
	100±50gf	Black	(K)

Stop Strength: Place the switch such that vertical, a static load of 3 kgf shall be applied in the direction of stem operation for a period of 15 seconds

Stroke: (6x6)  $0.25^{+0.2}_{-0.1}$  mm

(12x12)  $0.35 \pm 0.1$  mm

Operation Temperature Range: -25°C to +70°C

Storage Temperature Range: -30°C to +80°C

Vibration Test: MIL-STD-202F METHOD 201A.

Frequency: 10-55-10Hz/1 minute.

Directions: X,Y,Z, three mutually perpendicular directions.

Time: 2 hours each direction.

High reliability.

Shock Test: MIL-STD-202F METHOD 213B.

CONDITION A.

Gravity: 50G (peak value), 11 msec.

Direction and times: 6 sides and 3 times in each direction.

High reliability.

## ELECTRICAL

Electrical Life: 300,000 cycles for 320gf, 520gf.

500,000 cycles for 260gf.

1,000,000 cycles for 100gf, 160gf.

Rating: 50mA, 12VDC.

Contact Resistance: 100mR max.

Insulation Resistance: 100MR min. at 500VDC.

Dielectric Strength: 250VAC/1 minute.

Contact Arrangement: 1 pole 1 throw.

## SOLDERING PROCESSES

- WAVE SOLDERING: Recommended solder temperature at 500°F (260°C) max. 5 seconds subject to PCB 1.6mm thickness. (For through hole type)

- HAND SOLDERING: Use a soldering iron of 30 watts, controlled at 608°F (320°C) approximately 2 seconds while applying solder.

# HOW TO ORDER

D T S - - - - ( - - )

(165) = Cover Terminal W/O Bending  
(923) = Cover = General Type  
(046) = Total H:7.0 mm

Color Of Stem For Operating Force :  
\*K = Black, 100 gf  
N = Brown, 160 gf  
R = Red, 260 gf  
S = Salmon, 320 gf  
\*Y = Yellow, 520 gf  
<\*12x12, K, Y Unavailable>

Dimension H:

CODE (SQ.)x2.4 mm (SQ.)x2.8 mm	DTSA-6	DTSG-6	DTSG(P)-2
1	= 3.15 mm	4.3 mm	4.3 mm
2	= 3.85 mm	5.0 mm	5.0 mm
3	= 5.85 mm	7.0 mm	CODE(4)
44	= 6.15 mm	7.3 mm	(SQ.)x3.8 mm
48	= 6.15 mm	9.5 mm	7.3 mm
5	= 8.35 mm	13.0 mm	
6	= 11.85 mm		

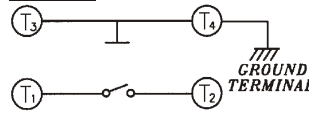
Prod. Size:  
6 = 6x6 mm  
2 = 12x12 mm

- = None Post  
\*P = With Post  
<\*Only For 12x12>

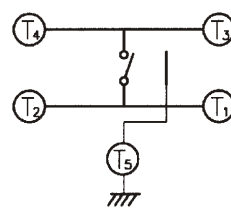
DTSA = Right Angle Type Tactile Switch  
DTSG = With Ground Terminal Type Tactile Switch

## CIRCUIT

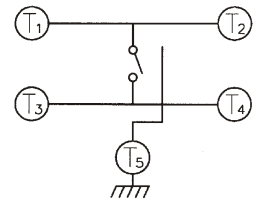
### DTSA-6



### DTSG-6

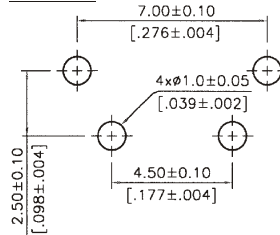


### DTSG(P)-2

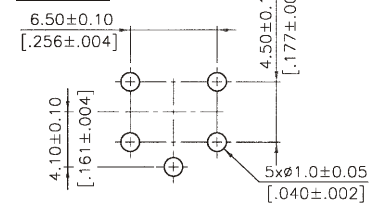


## P.C.B. LAYOUT

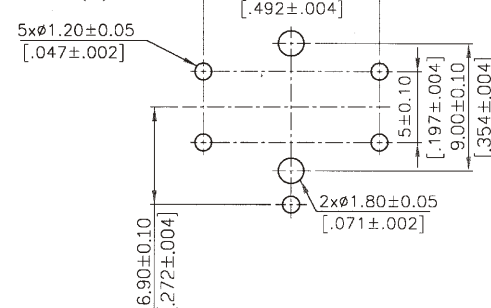
### DTSA-6



### DTSG-6



### DTSG(P)-2



SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.  
\*MORE UPDATE INFORMATION,PLEASE CONSULT DIPTRONICS.