



Speed & Technique

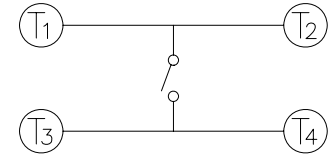
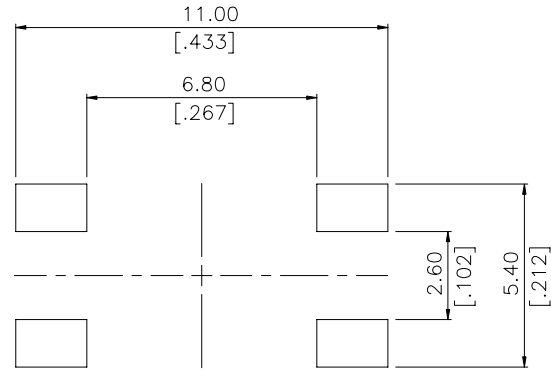
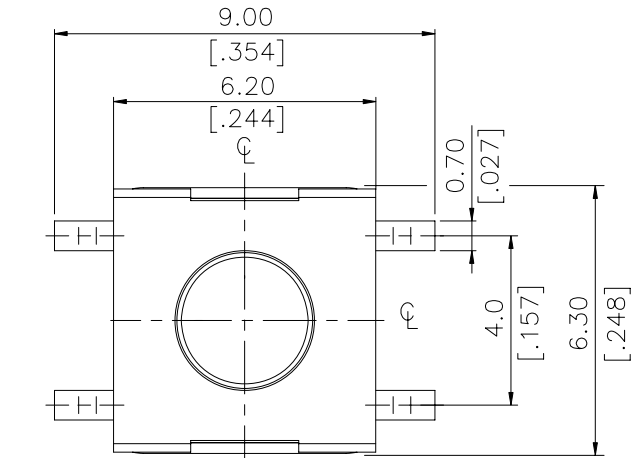
DIPTRONICS MANUFACTURING INC.

# DTSHW-6, DTS(G)MW-6 SERIES



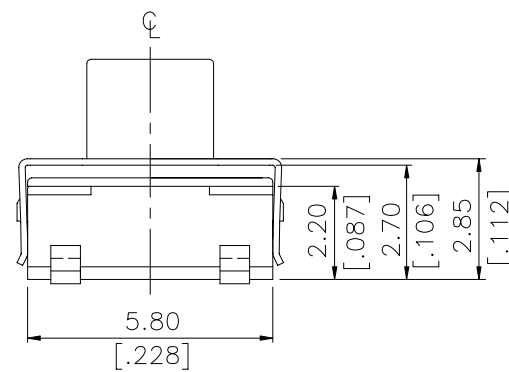
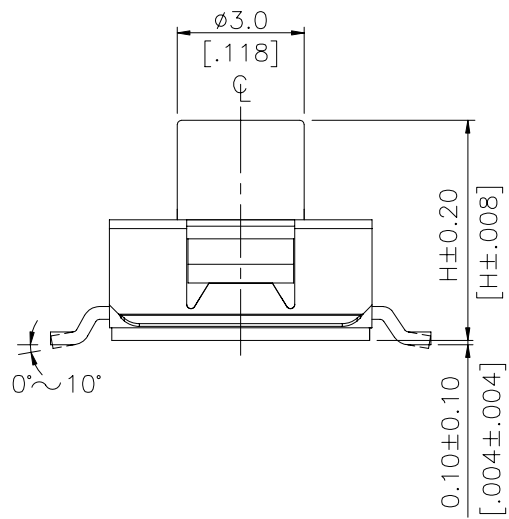
## DIMENSIONS

DTSMW-64.65.67.69



P.C.B. LAYOUT

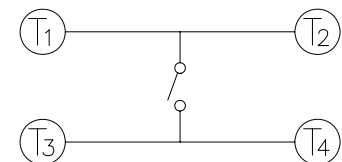
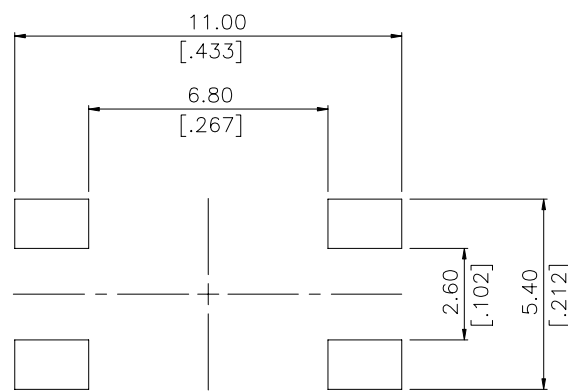
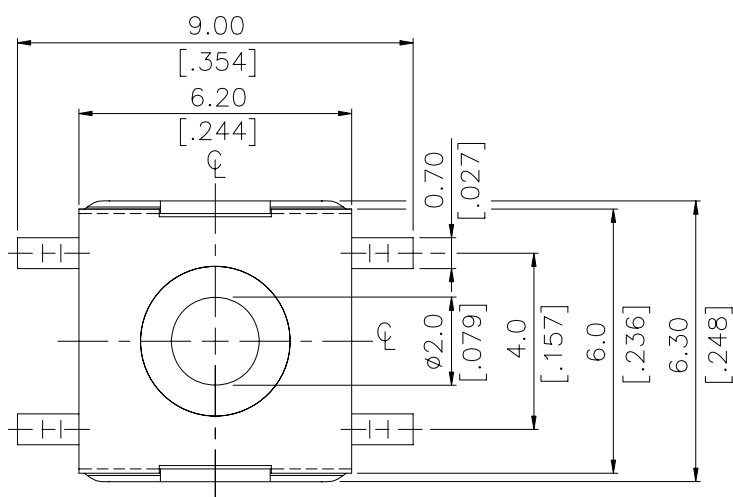
CIRCUIT DIAGRAM



DTSMW-69	3.8mm [.150]
DTSMW-67	5.2mm [.205]
DTSMW-65	3.5mm [.138]
DTSMW-64	4.5mm [.177]
PART NO:	H

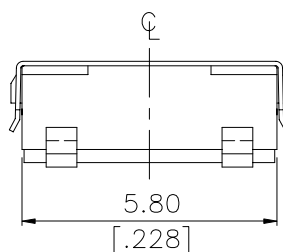
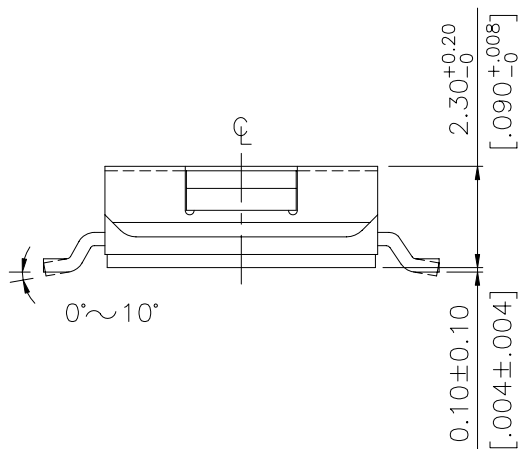
General Tolerance :  $\pm 0.2\text{mm}$

## DTSMW-68



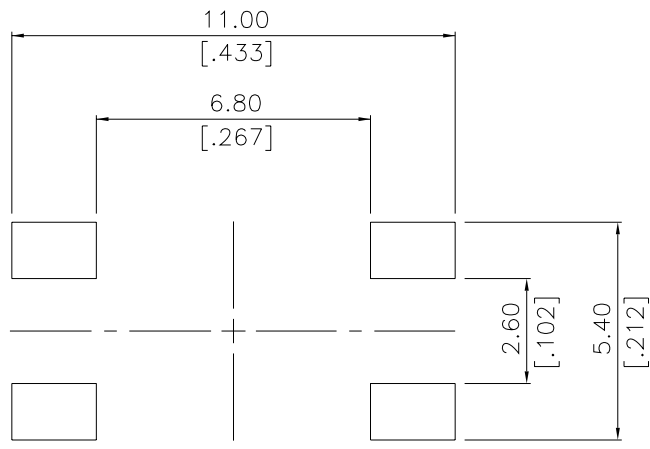
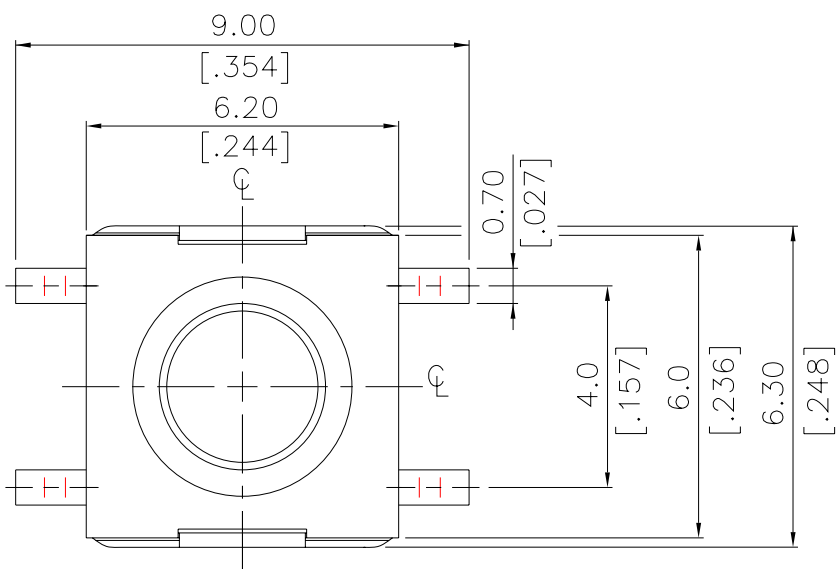
(SCALE 8:1)  
P.C.B. LAYOUT

CIRCUIT DIAGRAM

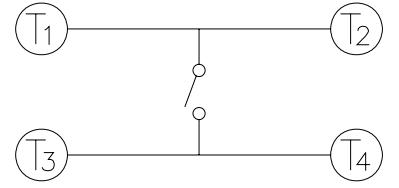


General Tolerance :  $\pm 0.2\text{mm}$

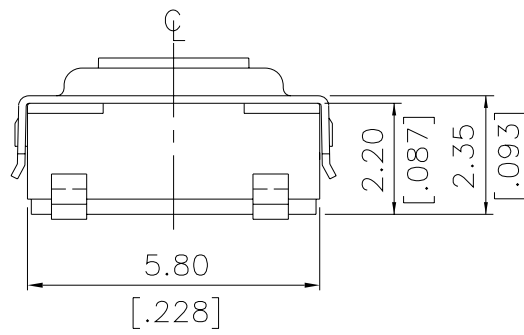
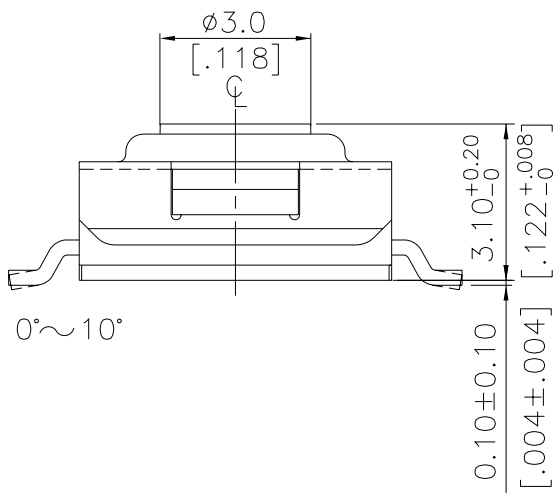
**DTSMW-66**



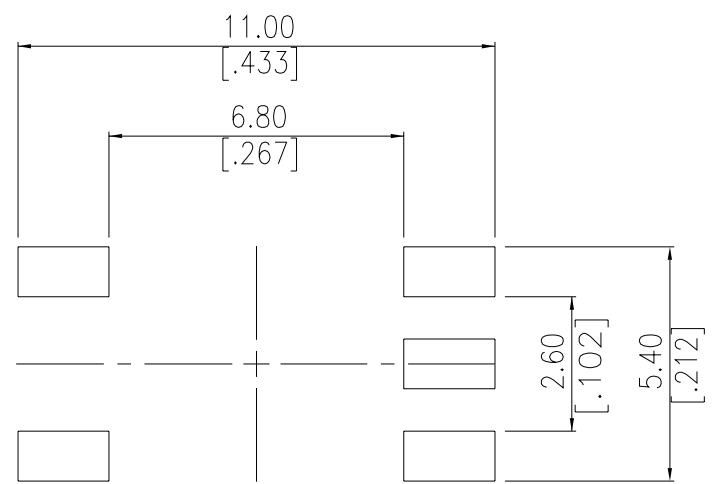
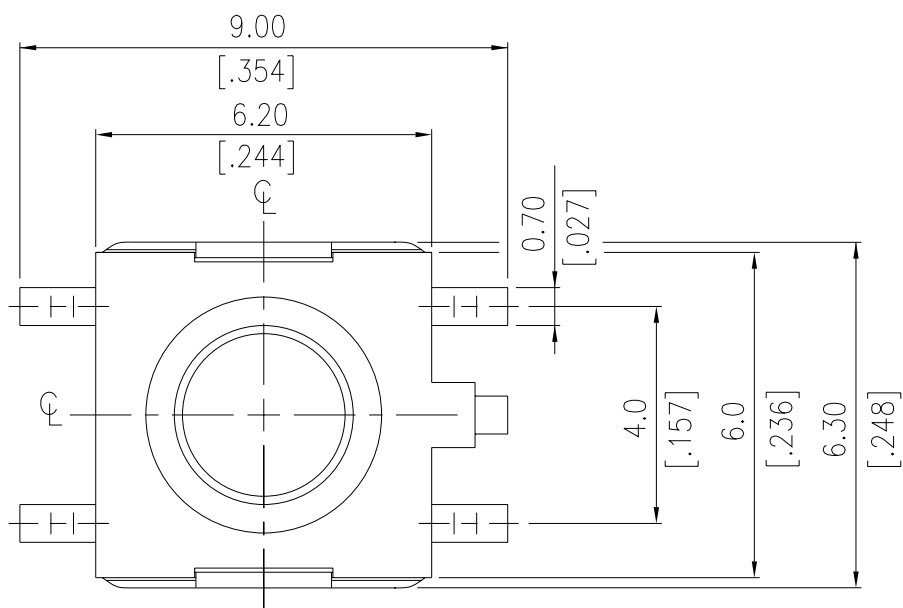
(SCALE 8:1)  
P.C.B. LAYOUT



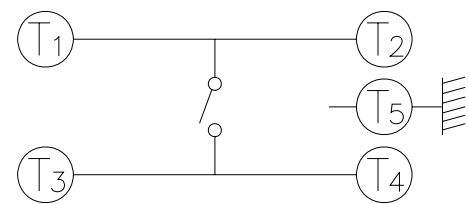
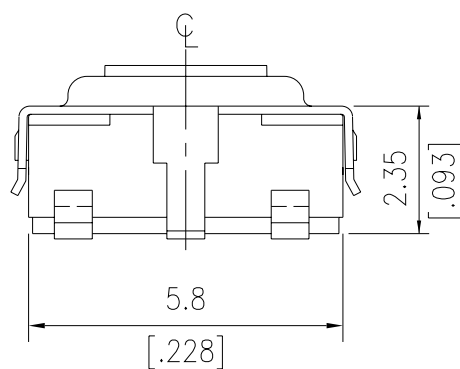
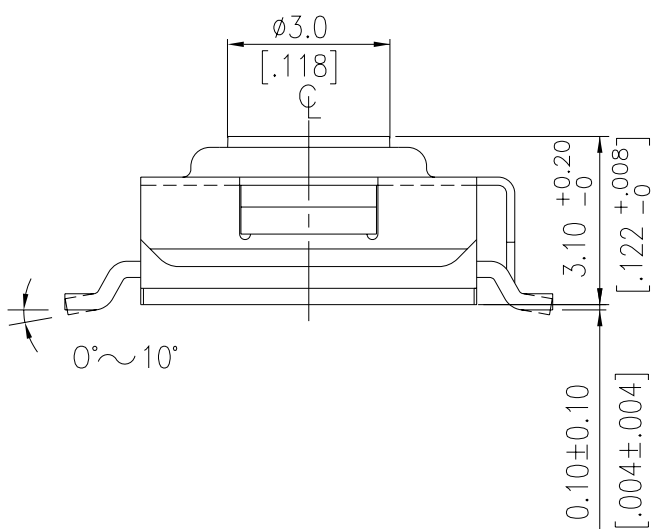
CIRCUIT DIAGRAM



**DTSGMW-66**



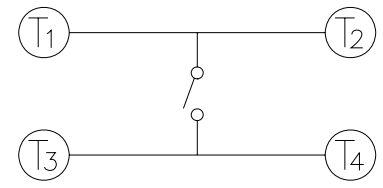
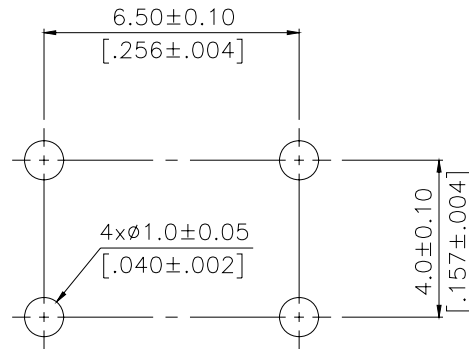
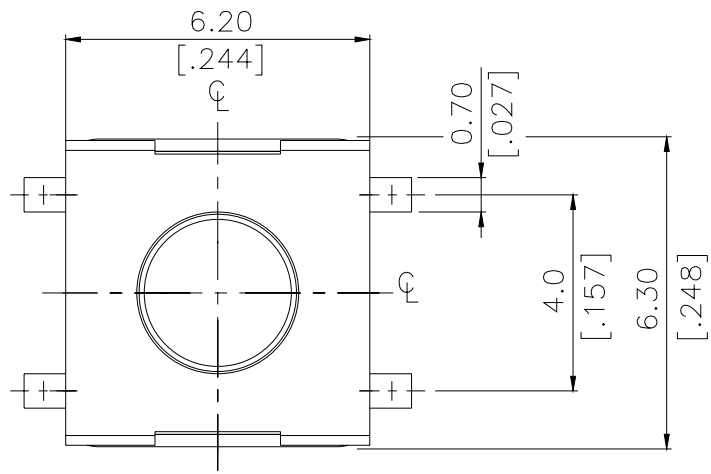
P.C.B. LAYOUT



CIRCUIT DIAGRAM

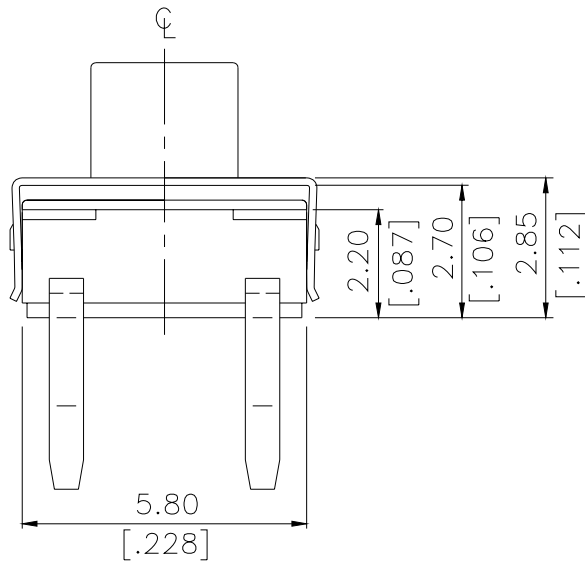
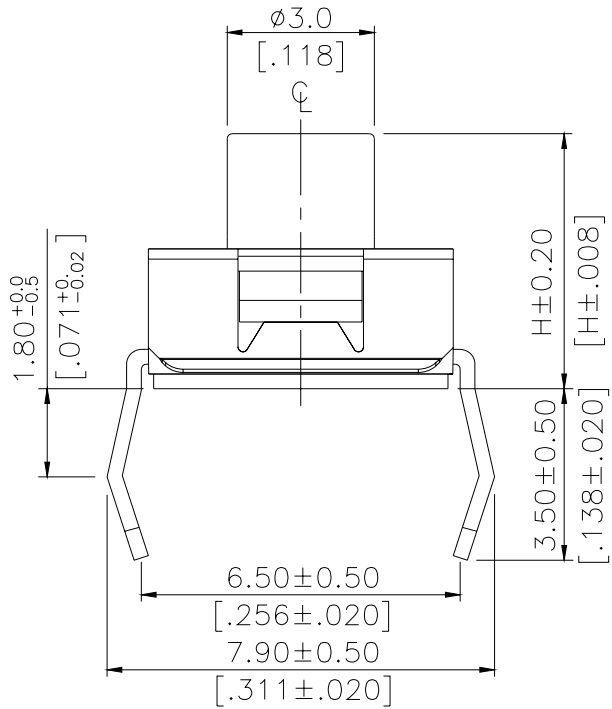
**General Tolerance : ±0.2mm**

**DTSHW-64.65.67.69**



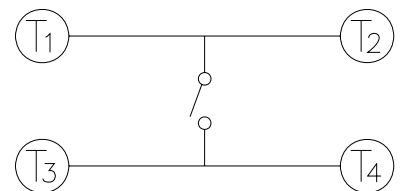
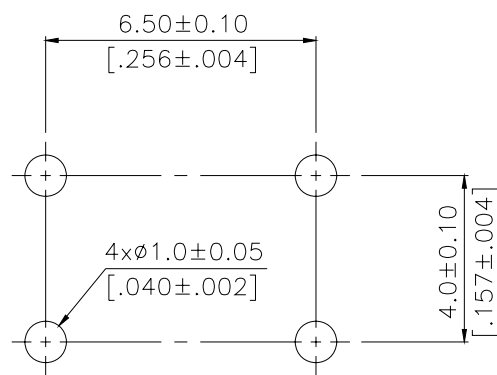
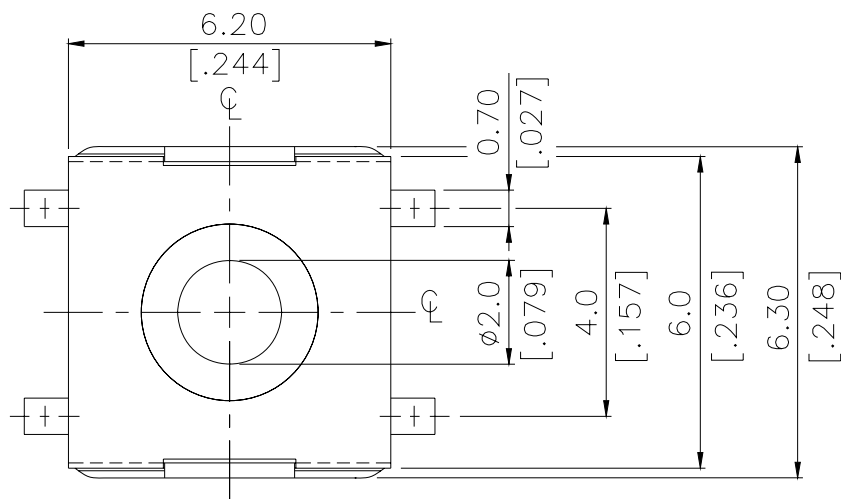
P.C.B. LAYOUT

CIRCUIT DIAGRAM



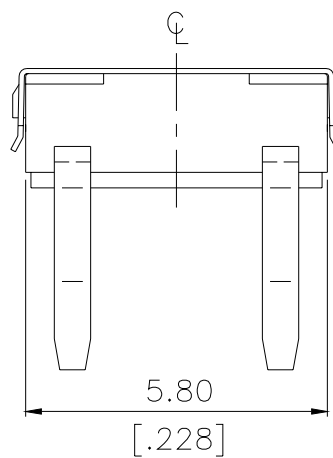
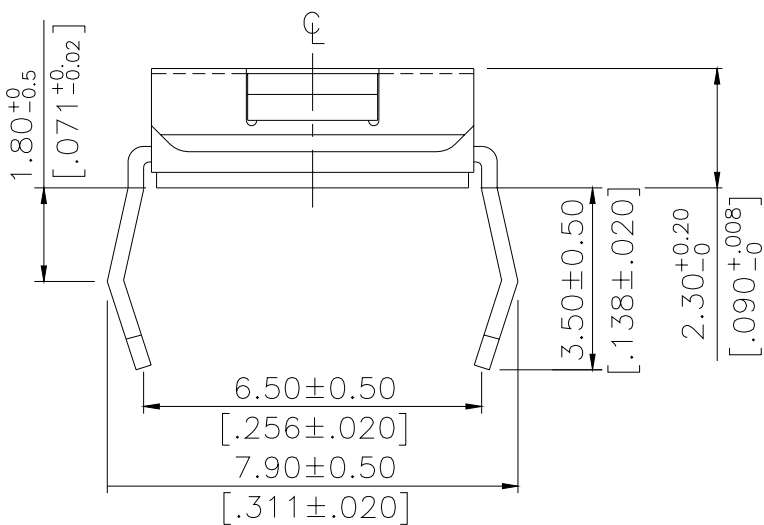
DTSMW-69	3.8mm[.150]
DTSMW-67	5.2mm[.205]
DTSMW-65	3.5mm[.138]
DTSMW-64	4.5mm[.177]
PART NO:	H

**DTSHW-68**



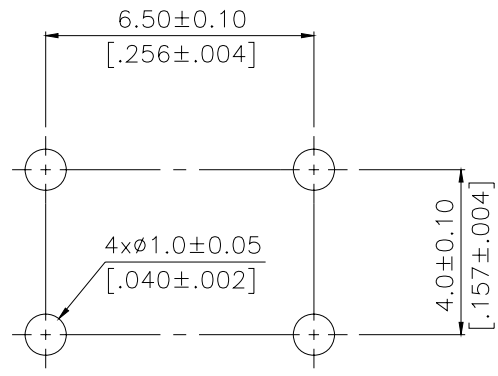
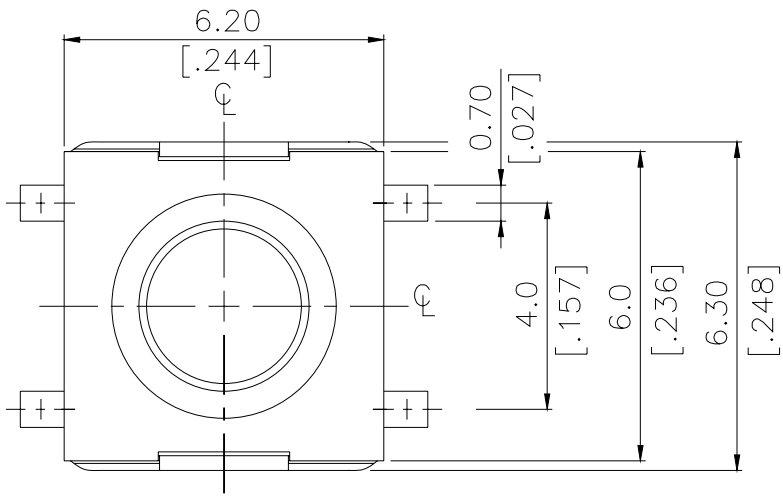
P.C.B. LAYOUT

CIRCUIT DIAGRAM



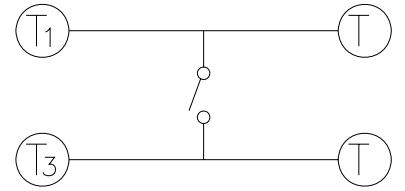
**General Tolerance : ±0.2mm**

**DTSHW-66**

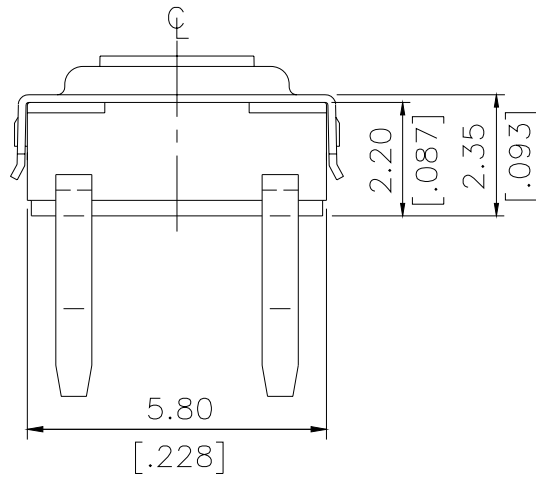
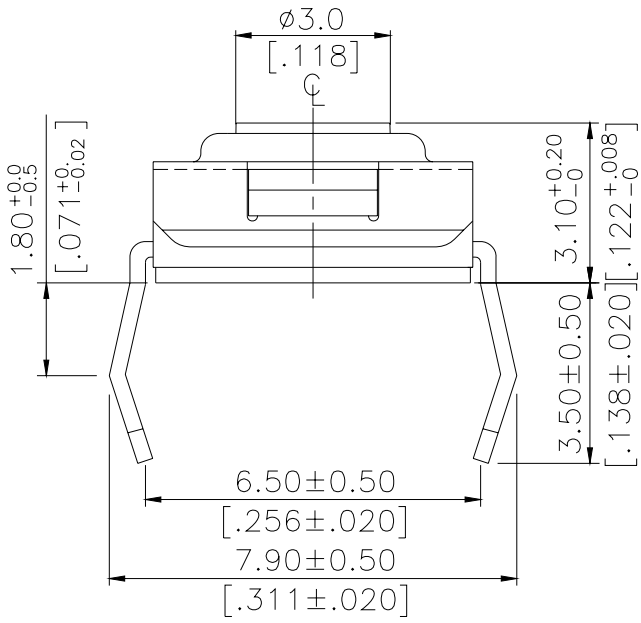


(SCALE 8:1)

P.C.B. LAYOUT



CIRCUIT DIAGRAM



**General Tolerance : ±0.2mm**

## HOW TO ORDER

DTS □ W - □ □ □ - □ - □

**Package Style:**  
**B = Tube**  
**T/R = Tape & Reel**

**Soldering**  
**V=Lead Free Solderable**  
**Q=Halogen Free**  
**Color of Stem for**  
**Operating Force:**  
**N = Brown, 160g (66N)**  
**180gf (69N, 65N, 64N, 67N)**  
**S = Silver, 160gf**  
**R = Red, 260gf**  
**T = Transparent, 360gf (69T, 65T, 67T)**

**Dimension H:**  
**66 = 3.1mm (N)**  
**68 = 2.3mm (S)**  
**69 = 3.8mm (N,R,T)**  
**67 = 5.2mm (N,R,T)**  
**65 = 3.5mm (N,R,T)**  
**64 = 4.5mm (N,R)**  
**H = Through Hole Terminals**  
**M = Surface Mounting Terminals**  
**GM = S.M.T & With Ground Terminal (For 66 Only)**

## SPECIFICATION

### △MECHANICAL

#### Operation Force:

360± 90gf, Transparent (T), DTSH(M)W – 69, 67, 65  
 260± 70gf Red (R), DTSH(M)W – 69,67,65,64  
 180± 50gf Brown (N), DTS(M)W – 69,67,65,64  
 160 ± 50gf Brown (N), DTS(M)W – 66, DTSGMW-66  
 160 ± 50gf Silver (S), DTSH(M)W – 68

**Stop Strength: Max 3kgf vertical static load continuously for 15 seconds**

**Stroke: 0.25 +0.20 / - 0.1 mm 66N, 68S**

**0.6 ±0.2mm, 69, 67T**

**0.45 ±0.2mm, 69, 67, 64,65N(R),65T**

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

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

### △ELECTRICAL

#### Electrical Life:

500,000 cycles min. for DTS□W-69, 65N(R)T, 64N(R)

500,000 cycles min. for DTS□W-67N(R)T

100,000 cycles min. for DTS□W-66N,68S, DTSGMW-66N

**Rating: 50mA, 12VDC**

**Contact Resistance: 100mΩ max.**

**Insulation Resistance: 100MΩ min. at 500VDC**

**Dielectric Strength: 250VAC/ minute**

**Contact Arrangement: 1 pole 1 throw**

## MATERIAL

### △COVER: Stainless steel

**Nickel Silver (DTSGMW-66)**

### △TERMINAL: Brass with silver plated

### △BASE: UL94V-0 Nylon High-Temp. Thermoplastic Color: Black

ITEM NO.	DTSGMW-66N DTSHW-66N DTSMW-66N	DTSMW-68S DTSHW-68S	DTS(H)MW- 69,65N(R)	DTS(H)MW- 67N(R)T
STEM	High-Temp Thermoplastic Nylon UL94V-0 Color : Brown (N),160gf	None	Silicone Rubber	Silicone Rubber
ADHESIV TAPE	TEFLON	TEFLON(standard) KAPTON(V-option)	None	None
METAL STEM	Brass with Nickel plated	Brass with Nickel plated Color: silver(s),160gf	None	None
FILLER	None	None	None	Nylon
CONTACT	Stainless steel			

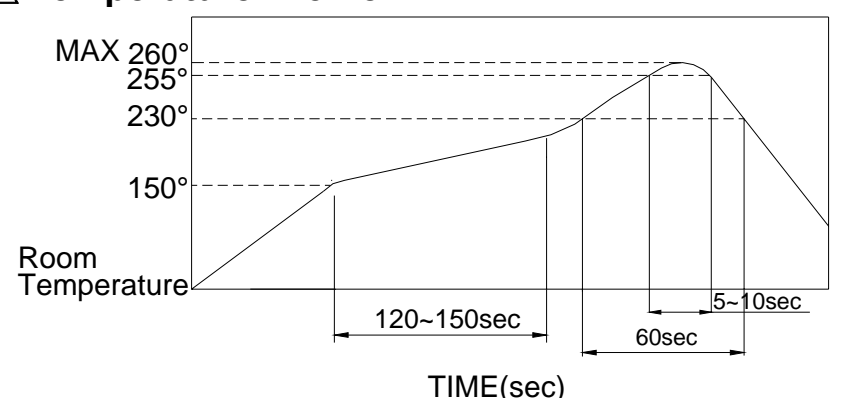
## SOLDERING PROCESS

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

△ **HAND SOLDERING** : Use a soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

△ **REFLOW SOLDERING** :

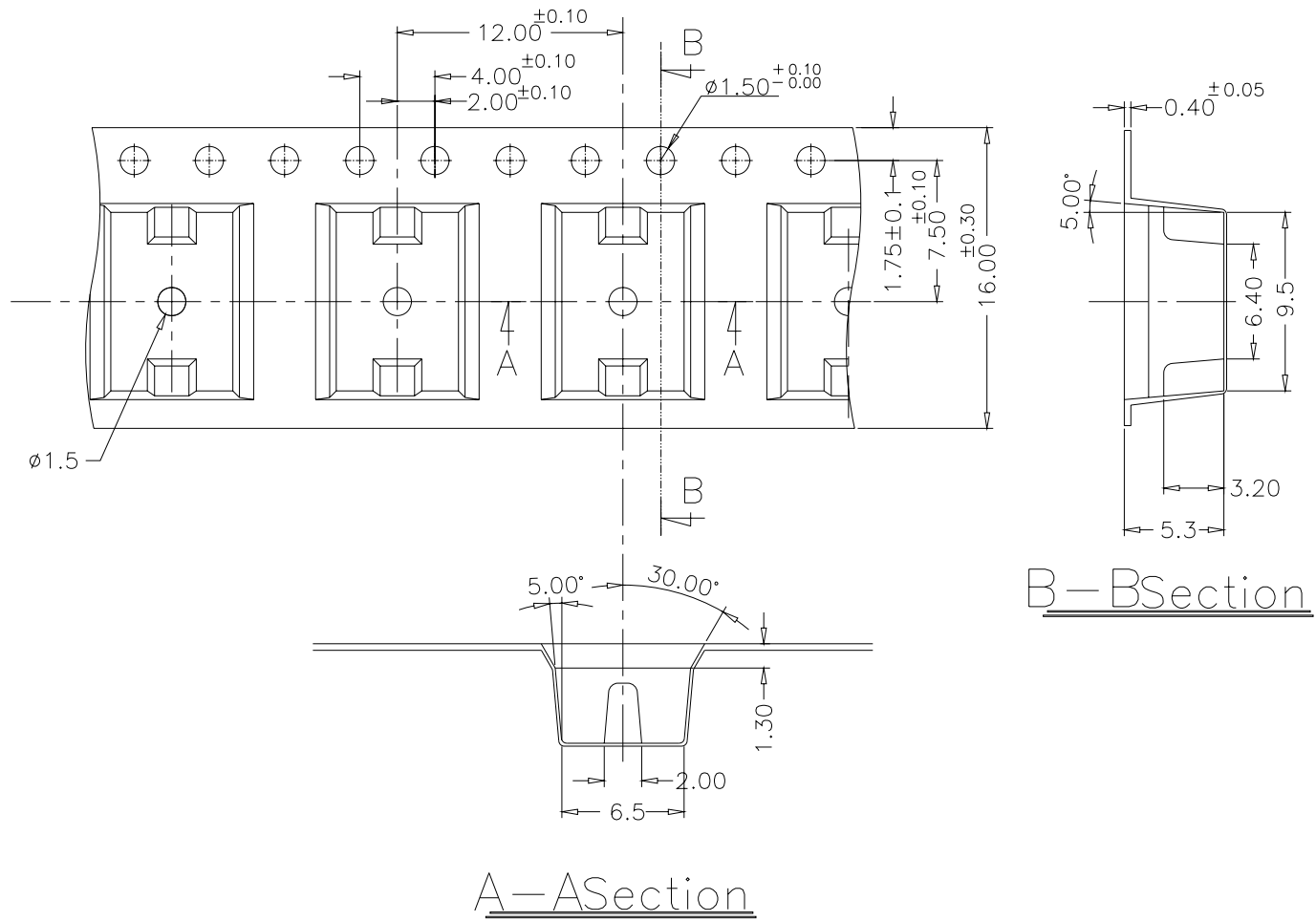
### △ Temperature Profile:



# PACKING

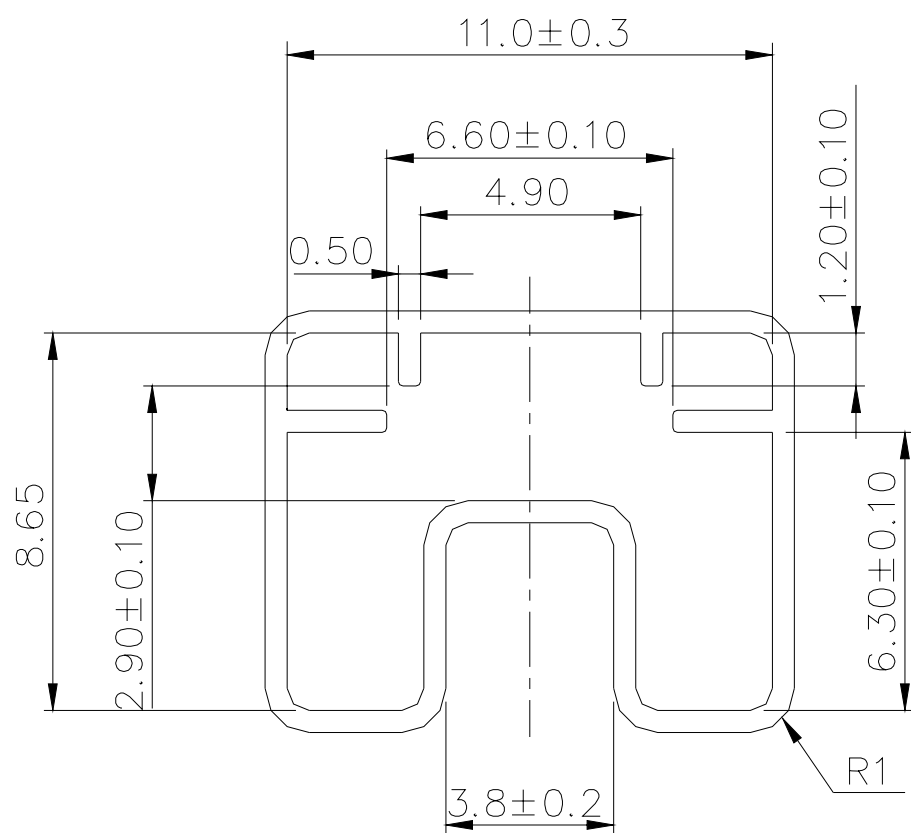
Part Number	Number Per Tube	Number Per Reel
DTSHW-6□	75	-
DTSGMW-66	-	2000
DTSMW-66	75	2000
DTSMW-68	75	2000
DTSMW-69	75	1900
DTSMW-65	75	1900
DTSMW-67	75	900
DTSMW-64	75	900

## DTSMW-67、64 REEL



General Tolerance :  $\pm 0.1\text{mm}$

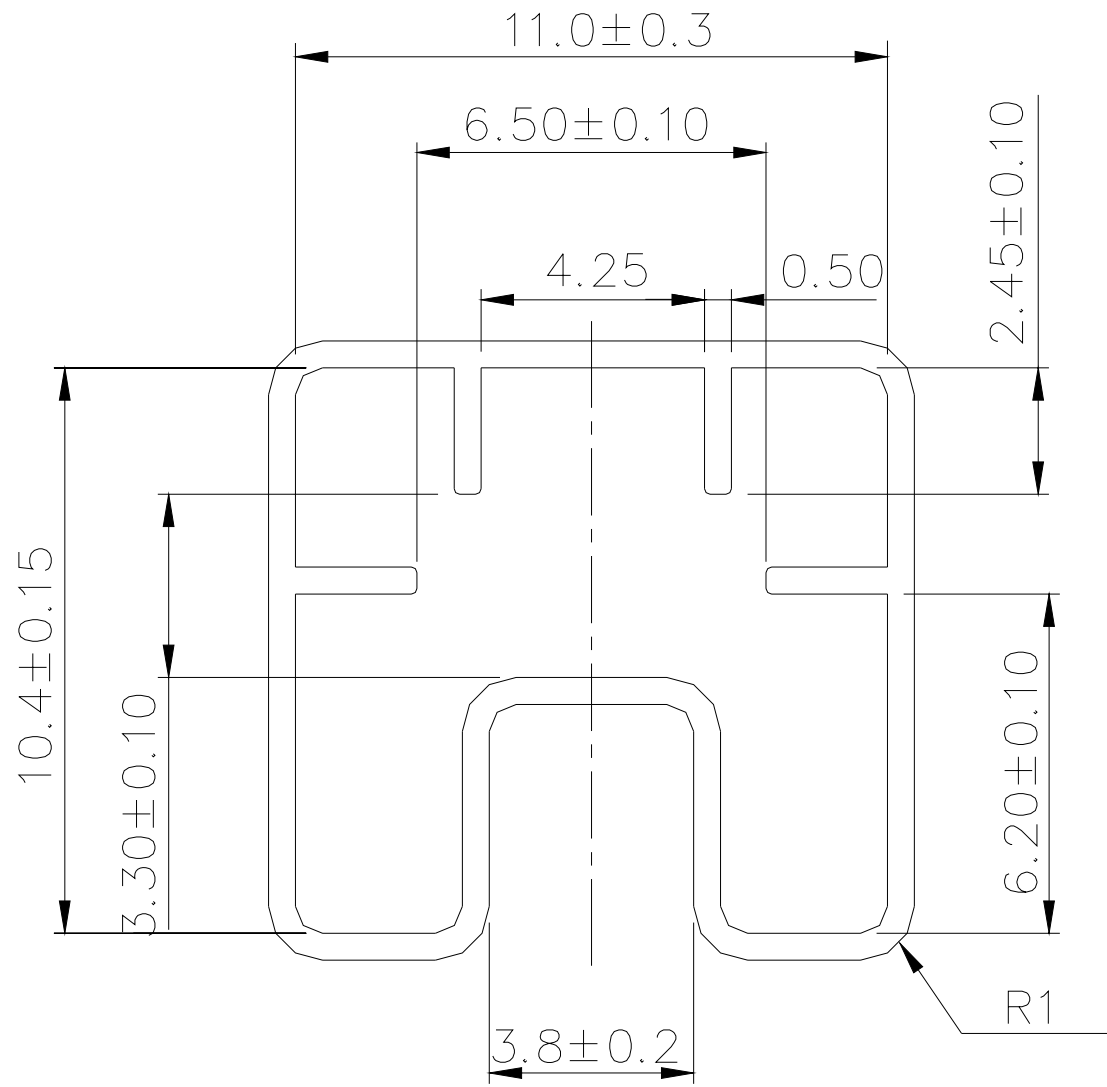
## DTSHW-66.68 TUBE



General Tolerance :  $\pm 0.2\text{mm}$

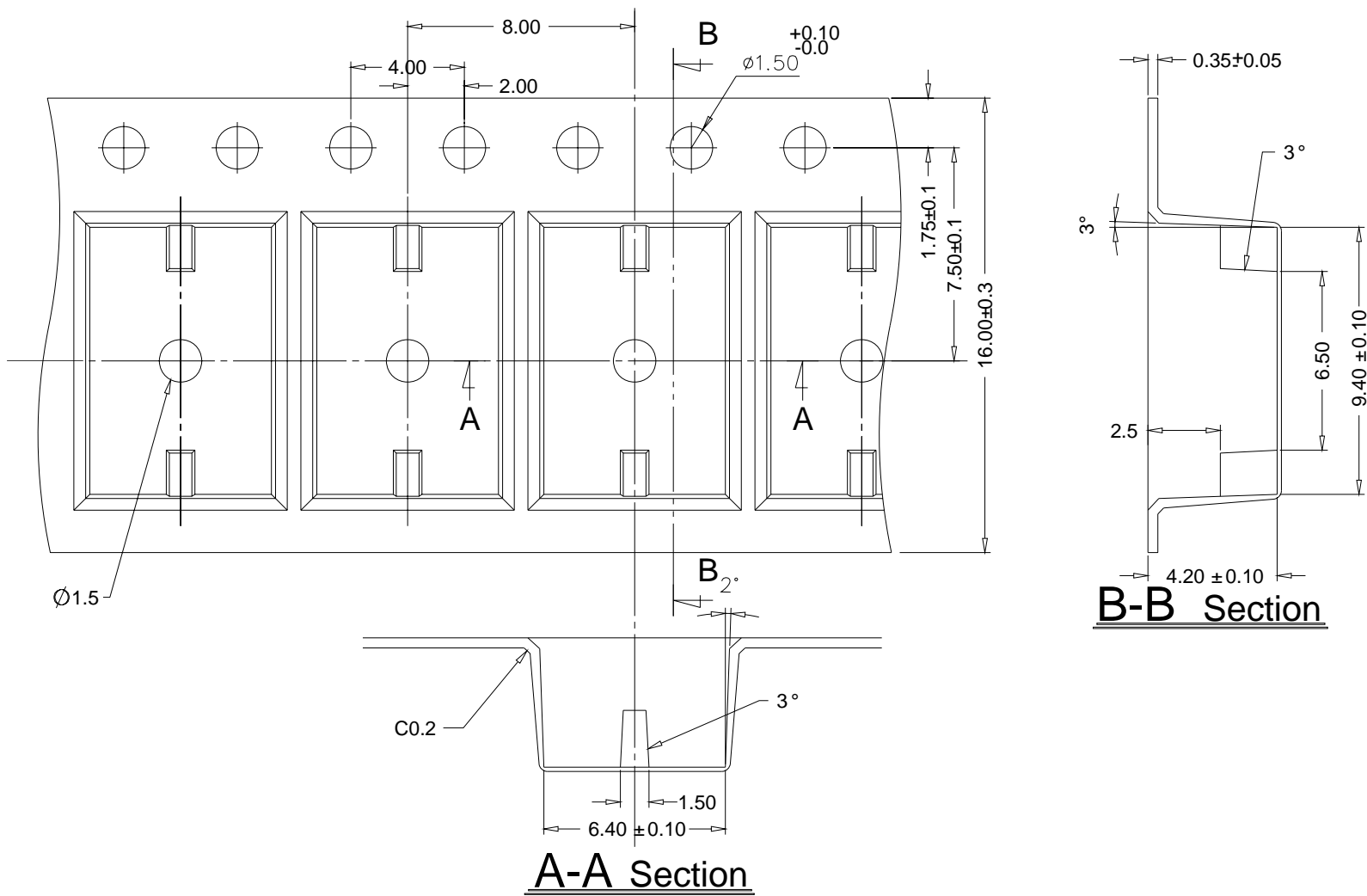


**DTSHW-64.5.7.9 TUBE**



**General Tolerance :  $\pm 0.1\text{mm}$**

**DTSMW-65.9 REEL**



**General Tolerance :  $\pm 0.2\text{mm}$**