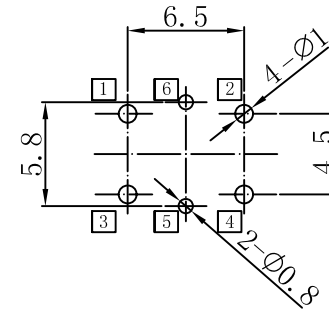
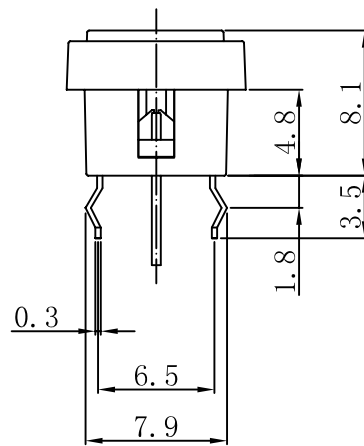
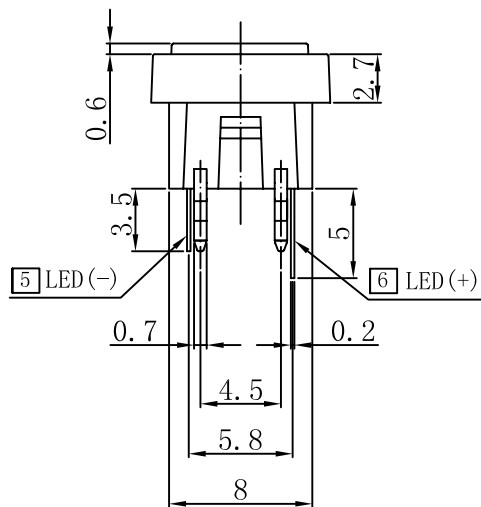
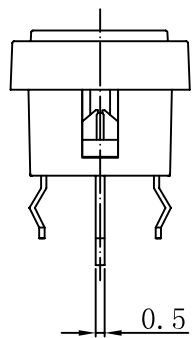


CIRCUIT DIAGRAM



P.C.B. LAYOUT



HOUSING COLOR:

CODE	COLOR
G	GRAY
B	BLACK
BLANK	WITHOUT

COLOR OF LED:

CODE	ONE COLOR
GR	GREEN
R	RED
O	ORANGE
Y	YELLOW
BL	BLUE
W	WHITE
BLANK	WITHOUT

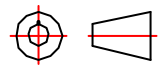
CAP COLOR:

CODE	COLOR
G	GRAY
R	RED
B	BLACK
GR	GREEN
Y	YELLOW
BLANK	WITHOUT

**RoHS Compliance**

CODE NO.				MODLE NAME	TSBL10SV-BS-G8.1R10-R-3M					
PATH :	Switch\Tact Switch\Spec\l-sing			DRAWING NO.	TS-115					
TOLERANCES	APPROVED SIGNATURES	DRAWN BY	CHECKED BY	APPROVED BY	SCALE	1/1	UNIT	m/m	VERSION	A
less than 10	±0.3	鐘學峰	周貴榮	周貴榮						
10 - 100	±0.5									
above 100	±0.8									
angular dimension	±3°	2007.12.20	2007.12.20	2007.12.20						

△				Third Angle Projection
△				
△				
△	2007.12.20	Zhong xue feng	首次出圖	



**可正欣有限公司**  
TOP-UP INDUSTRY CORP.

# (WITH LED) 10mm SERIES TACT SWITCH

1. Pole-Position :1P1T, With LED.
2. Operation Temperature: -20°C~70°C
3. Rating : 12V DC 50mA
4. Electrical Performance :

	Item	Test Conditions	Criteria
4.1	Contact resistance	DC 1.5V 100mA by method of voltage drop.	100mΩ Max.
4.2	Insulation resistance	DC 500V	100MΩ Min.
4.3	Dielectric strength	AC 500V for 1 minute	Breakdown is not allowable

## 5. Mechanical Performance :

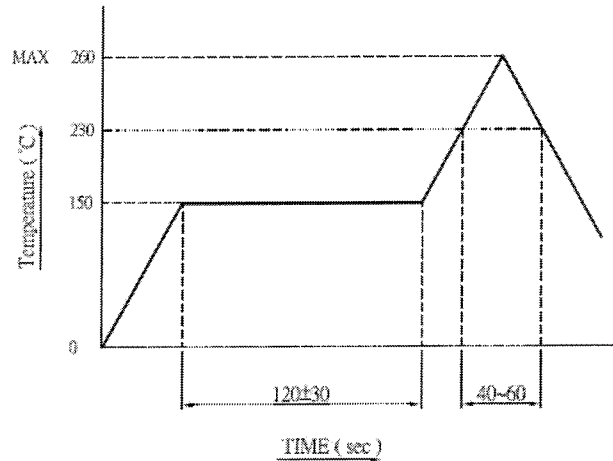
	Item	Test Conditions	Criteria
5-1	Operating force	Along operational direction to apply a static load on top of the stem until it stops movement.	180±50gf
5-2	Full travel	Along operational direction to apply a static load on top of the stem. depress stem gradually until it stops movement.	0.2±0.1mm
5-3	Robustness of terminal	Any direction to apply a static load 200gf at end of terminal for 15 seconds, once for a terminal only.	1. Terminal could be bent but loosened terminal or base frame broken are not allowable. 2. Any damages on switch construction are not allowable. 3. It should meet electrical performance as item 4 stated.
5-4	Robustness of actuator	Along operational direction, to apply a static load on top of stem 2 Kgf to depress switch for 15 seconds.	Any damage on switch construction is not allowable except moving contact.
5-5	Solderability	260±5°C in 3 seconds.	Coverage 75% Min.

## 6. Soldering Heat Resistance

- 6-1. Manual solder : 350±5°C in 3 seconds.
- 6-2. Wave soldering : 260±5°C in 3 seconds.
- 6-3. Soldering by reflow:

					APPD.	CHKD.	DSGD.	DOCUMENT NO. :	
								TSBL10SV-BS-G8.1R10-R-3M	
					周貴榮	周貴榮	鐘學峰	PAGE :	1 OF 2
								VERSION :	A
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# (WITH LED) 10mm SERIES TACT SWITCH



## 7. Durability:

After 500,000 cycles (speed 15~20 cycles/MIN.)  
without load life test:

- 7-1. Contact resistance : 200mΩ MAX.
- 7-2. Insulation resistance : DC 500V 10MΩ MIN.
- 7-3. Dielectric strength : AC 500V for 1 minute.
- 7-4. Operating force : Within the range between ±30% of specification.

## 8. Environmental Performance

	Item	Test Conditions	Criteria
8.1	Cold	- 20°C±2°C for 96 hours	1. It should meet requirements of item 4 and 5. 2. Mechanical performance should remain to normal.
8-2	Dry heat	70°C±2°C for 96 hours	1. It should meet requirements of item 4 and 5. 2. Mechanical performance should remain to normal.
8-3	Damp heat	40°C±2°C 90% ~95%RH for 96 hours	1. It should meet requirements of item 4 and 5. 2. Mechanical performance should remain to normal.

### RoHS Compliance

					APPD.	CHKD.	DSGD.	DOCUMENT NO. :	
								TSBL10SV-BS-G8.1R10-R-3M	
					周貴榮	周貴榮	鐘學峰	PAGE :	2 OF 2
								VERSION :	A
SYMB	DATE	APPD	CHKD	DSGD	2007.12.20	2007.12.20	2007.12.20	DRAWING NO.:	TS-115