

DATA SHEET

SUNGMUN CODE : STP-1230H

DESCRIPTION : TACT SWITCH

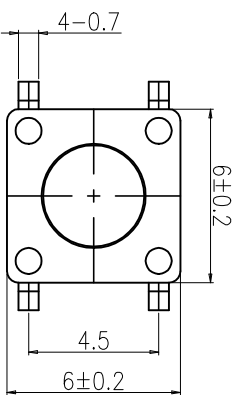
SUNGMUN ELECTRONICS CO., LTD.

Address 301-302,Bucheon Technopark 345, Seokcheon-ro, Ojeong-gu
Bucheon-si, Gyeonggi-do, Korea
TEL. +82-32-328-1941~4
FAX +82-32-328-1945
E-mail sungmun@sungmun.co.kr
Website www.sungmun.com

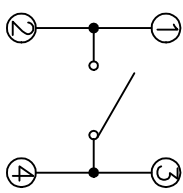


SUNGMUN
ELECTRONICS

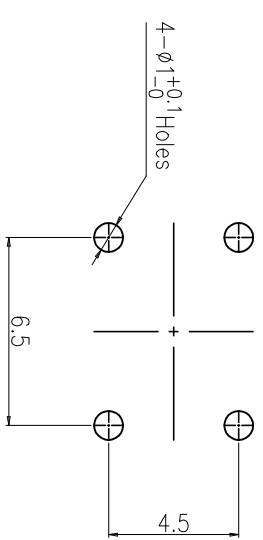
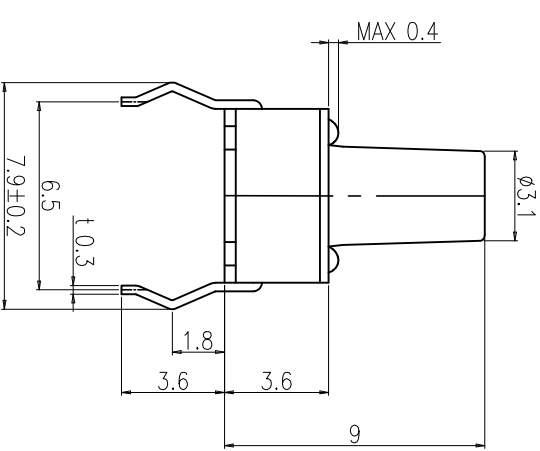
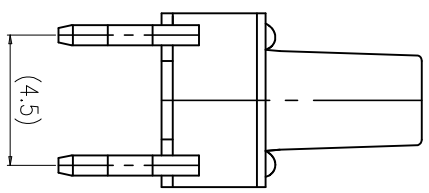
REV. NO.	DATE	REVISION	DR	CH	APP
					



CIRCUIT DIAGRAM



P.C.B MOUNTING PATTERN



SPECIFICATION

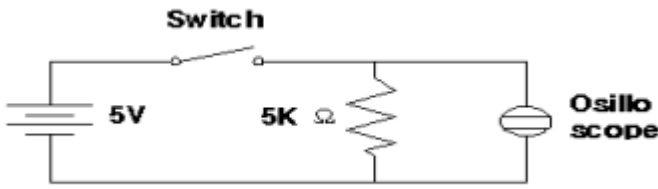
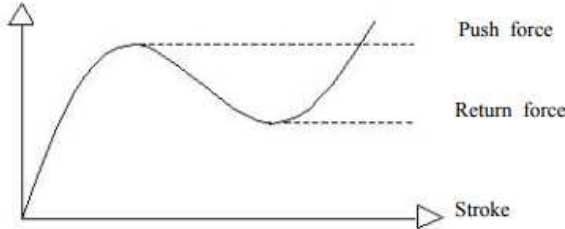
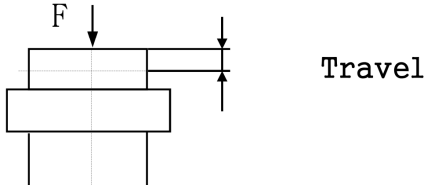
1. RATING : DC 12V 50mA
2. TRAVEL : 0.25±0.1mm
3. CONTACT RESISTANCE : 100mΩ MAX
4. BOUNCE : 10m SEC MAX
5. LIFE CYCLE : 80,000 CYCLE
6. OPERATING FORCE : 160±30gf

DRAW/DESIGNED	CHECKED	APPROVED		6.TOL	TITLE
M.W SHIN	K.N KIM	W.J LEE	UNIT	± 0.2	TACT SWITCH
2025-12-12	2025-12-12	2025-12-12	mm	SCALE	MODEL
				N:S	NO.
			SIZE		DRAW
			A4		NO.
SUNG MUN ELECTRONICS CO.,LTD					STP-1230H-S-01
					REV.
					01

TACT SWITCH SPECIFICATION

STP-1230H

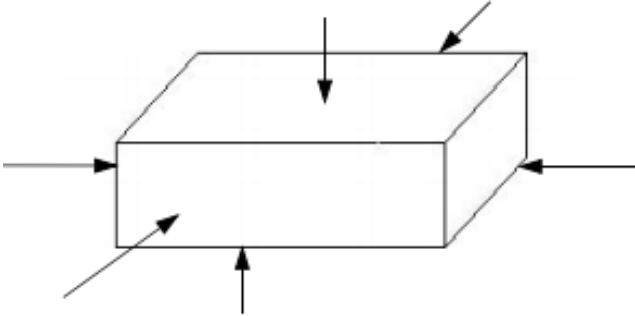
Rev. 01
P : 2 / 5

2.1.4	Bounce	<p>Operation speed : 3 ~ 4 times /sec</p> 	10 msec max
2.2 Mechanical characteristics			
	Items	TEST CONDITIONS	Criteria
2.2.1	Operating force	<p>Push by recommended operating condition</p> 	See outside drawing.
2.2.2	Travel	<p>Push by recommended operating condition</p> <p>$F = (\text{Operation force}) \times 2$</p> 	$0.25 \pm 0.1 \text{ mm}$
2.2.3	Stop Strength	A static load of 3kgf shall be applied in the direction of stem operation for a period of 60 seconds.	No damage (Electrical and mechanical)
2.2.4	Stem strength	The maximum force to withstand a pull applied opposite to the direction of stem operation shall be measured.	0.5 kgf min
2.2.5	Vibration test	<p>(1) Amplitude : 1.5mm</p> <p>(2) Sweep rate : 10-55-10Hz for 1 minute.</p> <p>(3) Sweep method : Logarithmic frequency sweep rate.</p> <p>(4) Vibration direction : X.Y.Z (3 directions)</p> <p>(5) Time : Each direction 2 hours (Total 6 hours)</p>	No 2.1 and 2.2.1 to 2.2.2 shall be satisfied.

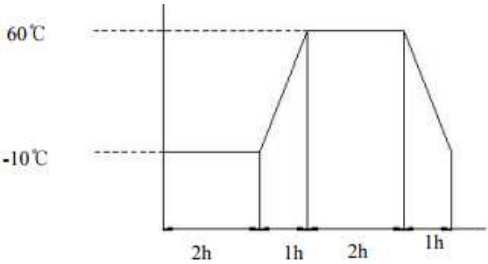
TACT SWITCH SPECIFICATION

STP-1230H

Rev. 01
P : 3 / 5

2.2.6	Impact shock test	<p>(1) Acceleration : 80G (2) Cycle of test : 3 cycles each in 6 directions for a total 18 cycles</p> 	No 2.1 and 2.2.1 to 2.2.2 shall be satisfied.
2.2.6	Soldering heat test	<p>Soldering area : t/2 of P.W.B thickness (P.W.B : t = 1.6) Soldering temperature : 260±5°C Soldering time : 5±1sec</p>	No damage (Electrical and mechanical)

2.3 Climatic characteristics

	Items	TEST CONDITIONS	Criteria
2.3.1	Cold test	<p>(1) Temperature : -30±2°C (2) Duration of test : 96hours (3) Take off a drop water (4) Standard condition after test : 1 hour</p>	<p>Contact resistance : 200mΩ max No 2.1.2 to 2.1.4 and 2.2.1 to 2.2.2 shall be satisfied.</p>
2.3.2	Heat test	<p>(1) Temperature : 80±2°C (2) Duration of test : 96hours (3) Standard condition after test : 1 hour</p>	<p>Contact resistance : 200mΩ max No 2.1.2 to 2.1.4 and 2.2.1 to 2.2.2 shall be satisfied.</p>
2.3.3	Temperature cycle	<p>(1) Test cycles : 5 cycles (2) Standard conditions after test : 1 hour (3) 1 cycle</p> 	<p>Contact resistance : 200mΩ max No 2.1.2 to 2.1.4 and 2.2.1 to 2.2.2 shall be satisfied</p>

TACT SWITCH SPECIFICATION

STP-1230H

Rev. 01
P : 4 / 5

2.3.4	Humidity test	(1) Temperature : $60\pm 2^{\circ}\text{C}$ (2) Relative humidity : 90~95% (3) Duration of test : 96 hours (4) Take off a drop water (5) Standard conditions after test : 1 hour.	Contact resistance : 200m Ω max No 2.1.2 to 2.1.4 and 2.2.1 to 2.2.2 shall be satisfied
2.3.5	Operating life test	(1) DC 12V, 50mA resistance load (2) Operation speed : 2~3 cycles/sec (3) Push force : maximum value of operation force (4) Cycle of operation : See outside drawing	Contact resistance : 200m Ω max Bounce : 20m sec max Actuating force : $\pm 30\%$ initial force No 2.1.2 to 2.1.3 and 2.2.2 shall be satisfied.
2.3.6	Salt mist test	Switch shall be checked after following test (1) Temperature : $35\pm 2^{\circ}\text{C}$ (2) Salt solution : $5\pm 1\%$ (3) Duration of test : 48 hours	Without excessive rust or discoloration.

3. Soldering

3.1 Auto soldering conditions

ITEM	CONDITION
Preheat temperature	110°C max. (Environmental temperature of soldering surface of P.W.B)
Preheat time	60 sec max.
Area of flux	1/2 max. of P.W.B thickness
Temperature of solder	255°C max.
Time of immersion	Within 5 sec
Soldering number	Within 2 time (But should bring down heat of the first soldering)
Printed wiring board	Single sided copper-clad laminates.

- 1) After switches were soldered, please be careful not to clean switches with solvent.
- 2) In the case of using soldering iron, soldering conditions shall be 280°C max. and 3 sec max
- 3) After switches were soldered, please be careful not to load the knobs of switches.

3.2 Manual soldering conditions

Temperature : $350 \pm 5^{\circ}\text{C}$

Time : 3 sec max