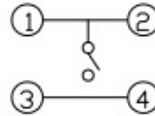
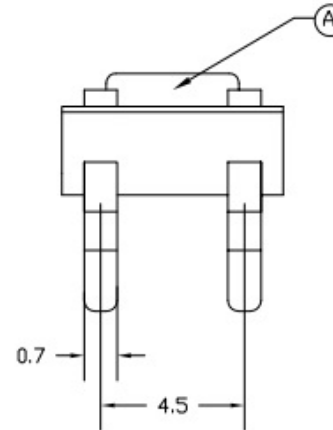
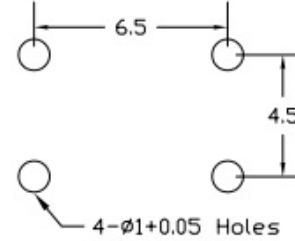


Circuit Diagram



P.C.B Lay out



NOTE

- 1.RATING : DC 12V 50mA MAX
- 2.TRAVEL : 0.25±0.1mm
- 3.CONTACT RESISTANCE : 100m ohm MAX
- 4.OPERATING FORCE ;

MODEL	OPERATING FORCE	LIFE CYCLES	
JST-1105 -0, 0S	100±30gf	80,000	1,000,000
JST-1105 -1, 1S	130±30gf	80,000	1,000,000
JST-1105 -2, 2S	160±50gf	80,000	1,000,000
JST-1105 -3, 3S	250±50gf	50,000	300,000
JST-1105 -4, 4S	350±80gf	50,000	200,000
JST-1105 -5, 5S	500±100gf	30,000	100,000

5.LIFE TEST : 100,000 CYCLES MIN

KNOB HEIGHT

MODEL	H(mm)
1105	4.3
1105A	5.0
1105B	7.0
1105C	8.0
1105D	9.5
1105E	7.3
1105F	12.5
1105G	13.5
1105H	11.0
1105I	17.0
1105K	13.0
1105N	9.0
1105O	10.8
1105Q	9.7
1105R	8.5
1105Y	16.3
1105M	6.0



JAE SANG ELECTRONICS CO.

MODEL : JST-1105 Series TACT S/W

DRAWN	DATE	SIZE	FSCM NO.	DWG NO.	REV
CHECKED		SCALE		SHEET	OF
DESIGN					

TITLE	<b>PRODUCTION SPECIFICATIONS</b>	
MODEL No.	<b>TACT SWITCHES (JST1105 SERIES)</b>	PAGE 1/3

### 1. GENERAL

- 1.1 Switch rating : DC 12V, 50mA
- 1.2 Operating temperature range : -20°C ~ 70°C
- 1.3 Preservative temperature range : -40°C ~ 80°C
- 1.4 Appearance and dimensions : See outside drawing page
- 1.5 Standard conditions : Unless otherwise specified, the test and measurements shall be carried out as follows;
- \*Ambient temperature : 5 ~ 35°C
  - \*Relative humidity : 45 ~ 85%RH
  - \*Air pressure : 86 ~ 106kpa (860 ~1060 mbar)
- However, if doubt arises on the decision based on the measured values under the above-mentioned conditions, the following conditions shall be employed.
- \*Ambient temperature :20 ± 2°C
  - \*Relative humidity : 60 ± 5% RH
  - \*Air pressure : 86 ~ 106kpa (860 ~ 1060mbar)

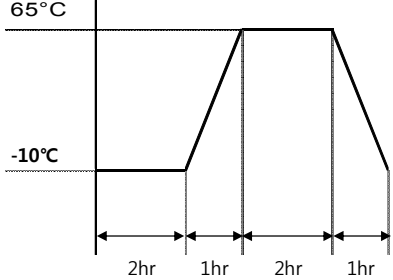
### 2. Performance

#### 2.1 Electrical Specifications

	Items	Test Conditions	Criteria
2.1.1	Contact resistance	Applying a static load twice the actuating force to the center of the stem, measurements shall be made with a 1kHz small-current contact resistance meter.	100mΩ MAX
2.1.2	Insulation resistance	Measurements shall be made following application of DC 100V potential across terminals and frame for one minute.	100MΩ MIN
2.1.3	Dielectric Withstanding voltage	AC 250V (50Hz or 60Hz) shall be applied across terminals and frame for one minute.	There shall be no breakdown.
2.1.4	Bounce	Measured by lightly striking the center of the button stem at a rate of 3 operating/sec.	Less than 10m SEC.

#### 2.2 Mechanical Specifications

	Items	Test conditions	Criteria
2.2.1	Operating Force		Refer to individual product drawing
2.2.2	Travel		
2.2.3	Stop strength	A static force of 3kgf shall be applied to the direction of operation for 3 seconds.	No damage (Electrical & mechanical)
2.2.4	Stem withdrawal force	A static load of 500gf is applied to the direction of pulling for 3 seconds.	Shall be free from mechanical degradation.

TITLE	<b>PRODUCTION SPECIFICATIONS</b>		
MODEL No.	<b>TACT SWITCHES (JST1105 SERIES)</b>		PAGE 2/3
2.3 Environmental specifications			
	Items	Test conditions	Criteria
2.3.1	Cold test	(1) Temperature : - 30 ± 2°C (2) Duration of test : 96 hours (3) Take off a drop water (4) Standard condition after test : 1 hour	Contact resistance : 200mΩ MAX No.2.1.2 to 2.1.4 & 2.2.1 to 2.2.2 shall be satisfied.
2.3.2	Heat test	(1) Temperature : 80 ± 2°C (2) Duration of test : 96 hours (3) Standard condition after test : 1 hour	
2.3.3	Humidity test	(1) Temperature : 40 ± 2°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	
2.3.4	Temperature cycle	(1) Test cycles : 5 cycles (2) Standard conditions after test : 1 hour (3) 1 cycle  	
2.4. Durability			
	Items	Test conditions	Criteria
2.4.1	Operating life test	80,000 cycles operation with a load of 250gf at a rate of 20/MIN with a resistive load supplying 12V DC, 50mA	Contact resistance : 200mΩ MAX Bounce : 20m sec MAX Operating force : initial value ±30% No.2.1.2 to 2.1.3 & 2.2.2 shall be satisfied
2.4.2	Shock resistance	An impact load of 30g is applied according to the method 205. MIL-STD 202.	The requirement in item 4 and 5 shall be met.
2.4.3	Vibration resistance	The test is conducted according to the method 201. MIL-STD 202	The requirement in item 4 and 5 shall be satisfied without any degraation in both apparance and actuation.

TITLE	<b>PRODUCTION SPECIFICATIONS</b>		
MODEL No.	<b>TACT SWITCHES (JST1105 SERIES)</b>		PAGE 3/3
2.5. Soldering conditions (In case the automatic flow soldering is to be used-----dipping)			
	Items	Test conditions	Criteria
2.5.1	Soldering Test	Soldering temperature : 255°C MAX. Soldering time : Within 5 sec.	NO DAMAGE
2.5.2	Preheat Temperature	100°C MAX	
2.5.3	Preheat Time	Within 45 SEC.	
2.5.4	Flux Streaming	Flux streaming shall be controlled so that it shall not swell beyond the printed wiring board where components are installed.	
2.5.5	Other Precautions	Flux shall not be applied to the switch terminals and the part mounting surface of the P.W. board before soldering. Do not wash the switch after soldering	