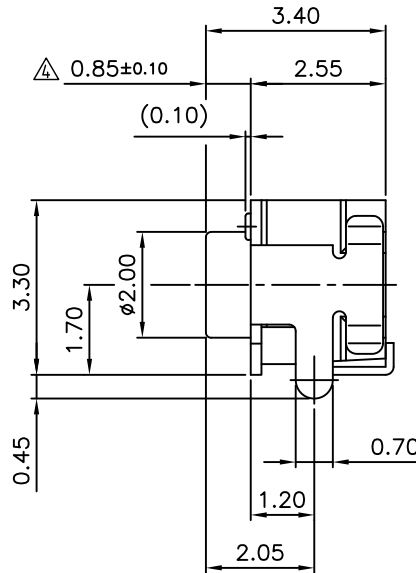
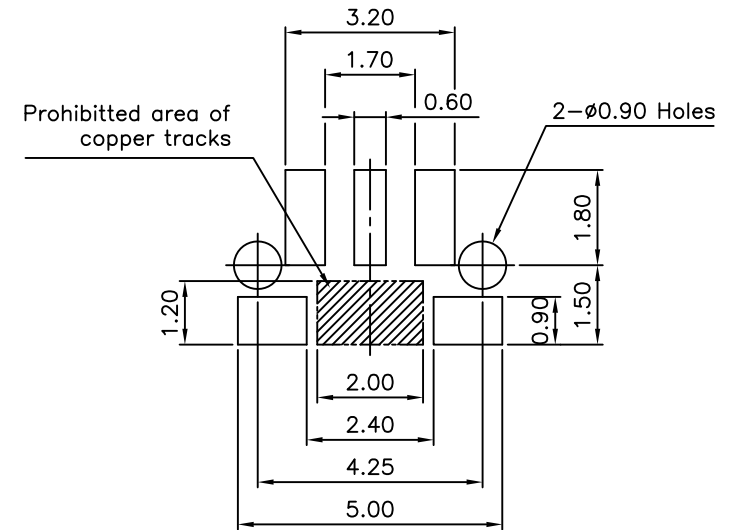
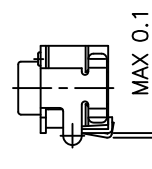


MODEL	ERP CODE	O/FORCE	STEM COLOR
YTP 1133R	110011133034	160 ± 50gf	IVORY
YTP 1133HR	110011133057	80 ± 40gf	GRAY
YTP 1133RE	110011133070	160 ± 50gf	RED

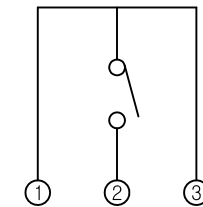


NOTE

1. RATING : 50mA , 12VDC
2. CONTACT RESISTANCE : 500mΩ Max
3. TRAVEL : 0.2 ±0.1mm
4. LIFE CYCLES : 100,000 CYCLES
5. GENERAL TOLERANCE : ±0.3
6. MANUFACTURING SPECIFICATION WOULD BE ACCORDANCE WITH JT0141-LF
7. TER' AND TER' VARIATION HAVE TO BE IN 0.1mm AFTER TER' BENDING



P.C.B MOUNTING SOLDER LAND DIMENSION



CIRCUIT DIAGRAM

RevNo	Revision note	Date	Signature	Checked

Item	material etc				
Designed by	Checked by	Approved by	Filename	Date	Scale
U.H.KIM	M.W.SHIN	T.H.OH		2008.12.10	10/1
MODEL NAME	TACT SWITCH		PART NAME	ASS'Y DIAGRAM	
MODEL NO	YTP-1133R SERIES		CODE NO.	Edition	Sheet
				3	1/1



	SPECIFICATION	Page : 1 / 4
	TACT SWITCH	

1. GENERAL

1.1 Application : This specification is applied to current circuit tactile switch for electronic equipment.

1.2 Operating Temperature Range : $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$, 45 ~ 85% RH

1.3 Storage temperature range : $-30 \sim 80^{\circ}\text{C}$ However, 96 hours maximum for continuous storage
over a range $-20 \sim -30^{\circ}\text{C}$ and a range $70 \sim 80^{\circ}\text{C}$

1.4 Test Conditions : The standard test conditions shall be $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$ in temperature,
45 ~ 85% RH and 860~1060mbar in atmospheric pressure. Should any doubt
arise in judgment, tests shall be conducted at $20 \pm 2^{\circ}\text{C}$,
 $65 \pm 5\%$ RH and 860~1060mbar.

2. RATED VOLTAGE AND CURRENT

DC 12V 50mA

3. ELECTRIC PERFORMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
3.1	Contact arrangement		*1 pole, 1 throw
3.2	Contact resistance	Measured at DC 5V 10mA or by ohmmeter allowing a small current at 1KHz with 150% of Actuating force.	*less than $500\text{m}\Omega$
3.3	Insulation resistance	DC 100V is applied between terminals and between terminals and cover for 1 minute \pm 5 seconds.	*greater than $100\text{M}\Omega$
3.4	Dielectric strength	AC 250V (50~60Hz) is applied between terminals and between terminals and cover for 1 minute.	*No insulation defect shall be observed.
3.5	Bounce	Measured by lightly striking the center of the stem at a rate of 3 operations/sec..	*less than 5m sec.

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									YTP-1133R SERIES
									DOCUMENT
ZONE	SYMB	DATE	APPD	CHKD	DSGD				NO.

	SPECIFICATION	Page : 2 / 4
	TACT SWITCH	

4. MECHANICAL PERFORMANCE

	PROPERTY	TEST CONDITIONS	PERFORMANCE
4.1	Actuating force	A gradually increasing load is applied to the center of the stem.	*As per individual manufactured drawing.
4.2	Return force	After actuating, the load gradually decreased until the stem returns to its free position.	*greater than 50gf.
4.3	Stop strength	A static force of 3Kgf shall be applied to the direction of operation for 3 seconds.	*Shall be free from mechanical and electrical abnormalities.
4.4	Stem withdrawal force	A static load of 500gf is applied to the direction of pulling for 3 seconds.	*Shall be free from mechanical and electrical degradation.
4.5	Solderability	Dip in the solder bath of temperature $230\pm 2^{\circ}\text{C}$ for $2\pm 0.5(\text{sec})$ after dipping in the flux of room temperature for 5 sec to 10 sec. The solder shall be covered on 90% min of dipping area on the plating surface.	
4.6	Travel		*As per individual manufactured drawing.
4.7	Arrangement of action		*Tactile feed-back.

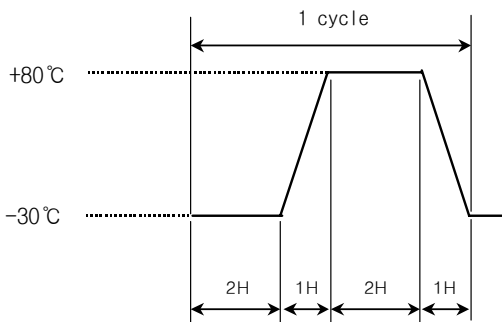
5. DURABILITY

	PROPERTY	TEST CONDITIONS	PERFORMANCE
5.1	Operating life	*100,000 cycle operation with a load of 150% of Actuating force at a rate of 15 ~ 20 cycles/min. with a resistive load supplying DC 12V 50mA	*Contact resistance : 500m Ω max. *Bounce : 20m sec max. *Actuating force : Within $\pm 30\%$ of the initial value.
5.2	Shock resistance	An impact load of 30g is applied according to the method 205. MIL-STD 202.	*The requirement in item 3 and 4 shall be met.

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	TACT SWITCH	

6. WEATHER PROOF

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.1	Cold Heat Proof	After testing at -30°C for 96hrs. The sample is allowed to stand under normal temperature and humidity conditions for 1 hour and measurement is performed within 1 hour after that. Water drops should be wiped off.	*The requirement in item 3 and 4 shall be satisfied.
6.2	Dry Heat Proof	After testing at 85°C for 96hrs. The sample is allowed to stand under normal temperature and for 1 hour and measurement is performed within 1 hour after that.	*The requirement in item 3 and 4 shall be satisfied.
6.3	Damp Heat Proof	After testing at $60\pm 2^{\circ}\text{C}$ and 90~95% in relative humidity for 96hrs, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour and measurement is performed within 1 hour after that. Water drops should be wiped off.	*Insulation resistance : 10M Ω min. *Dielectric strength : same as item 3.4 *Contact resistance : same as item 3.2
6.4	Thermal cycling	 <p>After the test contacted under 5cycles, the sample is allowed to stand under normal temperature and humidity conditions for 1 hour, and the measurement is performed within 1 hour.</p>	*The requirement in item 3 and 4 shall be met.

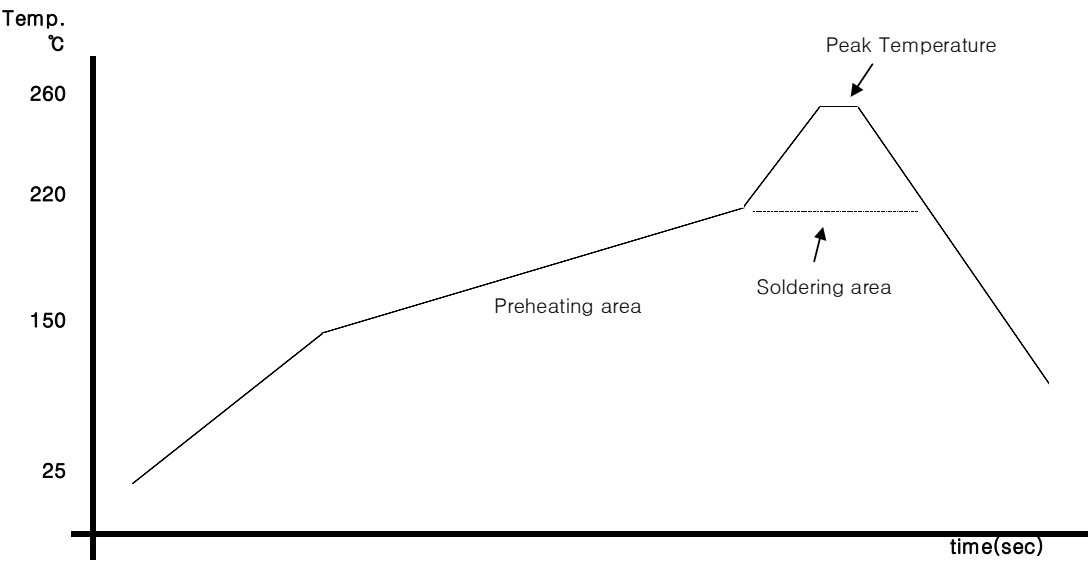
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									YTP-1133R SERIES
									DOCUMENT
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	TACT SWITCH	

7. SOLDERING CONDITIONS

7.1 Reflow soldering conditions

- 1) Preheat ----- 150℃ ~ 200℃, 120 ±20 (sec)
- 2) Peak temperature --- 260℃ max. 10 (sec)
- 3) Soldering area temperature ----- 217℃, 90 ~ 120 (sec), 2 times (MAX)



< Temperature profile >

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7.2 Manual soldering conditions

- 1) Soldering temperature : less than 350℃.
- 2) Soldering time : Within 3 seconds

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