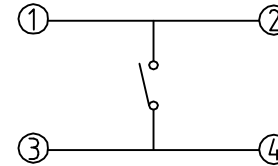


P.C.B MOUNTING SOLDER LAND DIMENSIONS

RevNo	Revision note	Date	Signature	Checked
⚠	계통 사항 변경시에 따른 REDRAWING(리폼,STROKE,필록지양)	02.09.28		
⚠	과상에 따른 모델 추가 필록	02.09.28		
⚠	과상에 따른 모델 추가 필록	03.06.14		
⚠				

MODEL NO.	CODE NO.	"L"	O/FORCE	STEM COLOR	LIFE CYCLES
JTP-1127W	12C24000		250±50gf	BLACK	
⚠ JTP-1127CK	12C32000	1.5	160±50gf	NATURAL(IVORY)	100,000
⚠ JTP-1127H	12C24001		100±50gf	BROWN	



CIRCUIT DIAGRAM

NOTE

- 1.RATING : DC 12V 50mA
- 2.TRAVEL : 0.25 mm
- 3.CONTACT RESISTANCE : 50mΩ Max.
- 4.GENERAL TOLERANCE : ±0.2
- 5.MANUFACTURING SPECIFICATION WOULD BE ACCORDANCE WITH JT0123 - LF

Itemref	Quantity	Title/Name, designation, material, dimension etc			Article No./Reference	
Designed by BONG.SAGONG	Checked by T.H.OH	Approved by - date G.J.KIM	Filename ASS'Y-DIAGRAM	Date 2002.05.28	Scale N/S	
NAMEA Electronics inc.			JTP-1127 _SERIES			
			DRAWING_NUMBER		Edition 0	Sheet 1/1

	SPECIFICATION	PAGE
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1. GENERAL

1.1 Scope : This specification covers the requirements for single key switches which have no keytop (TACT SWITCHES : MECHANICAL CONTACT)

1.2 Operating temperature range : -20 ~ 70°C (normal humidity, normal press)

1.3 Storage temperature range : -30 ~ 80°C (normal humidity, normal press)

1.4 Test conditions

Tests and measurements shall be made in the following standard conditions unless otherwise specified : Normal temperature (temperature 5 ~ 35°C)

Normal humidity (relative humidity 45 ~ 85%)

Normal pressure (pressure 860 ~ 1060 mbars)

In case any question arises from the judgement made, tests shall be conducted in the following conditions : Temperature (20 ± 2°C)

Relative humidity (65 ± 5%)

Pressure (860 ~ 1060mbars)

2. Appearance, style, and dimensions

2.1 Appearance : There shall be no defects that affect the serviceability of the product.

2.2 Style and dimensions : Shall conform to the assembly drawings.

3. Type of actuation : Tactile feedback

4. Contact arrangement : 1 poles 1 throws (Details of contact arrangement are given in the assembly drawings.)

5. Maximum ratings : DC 12V 50mA

6. Performance

6.1 Electrical Performance

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.1.1	Contact resistance	Applying a static load 250gf to the center of the stem, measurements shall be made with a 1kHz small-current contact resistance meter.	* 50mΩ max.
6.1.2	Insulation resistance	Measurements shall be made following application of DC 100V potential across terminals and across terminals and cover for one minute.	* 100MΩ min.

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	TACT SWITCH	2 / 5

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.1.3	Dielectric with standing voltage	Ac 250V (50 ~ 60Hz) shall be applied across terminals and across terminals and cover for one minute.	* There shall be no breakdown
6.1.4	Bounce	<p>Lightly striking the center of the stem at rate encountered in normal use (3 to 4 operation per sec.) bounce shall be tested at "On" and "Off".</p>	* 10m sec max.

6.2 Mechanical Performance

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.2.1	Actuating force	Placing the switch such that the direction of switch operation is vertical and then gradually increasing the load applied to the center of the stem, the maximum load required for the stem to come to a stop shall be measured.	* As per individual manufactured drawing.
6.2.2	Travel	Placing the switch such that the direction of switch operation is vertical and then applying a static load twice the actuating force to the center of the stem the travel distance for the stem to come to a stop shall be measured.	* $0.25^{+0.2}_{-0.1}$ mm
6.2.3	Return force	The sample switch is installed such that the direction of switch operation is vertical and upon depression of the stem in its center the whole travel distance, the force of the stem to return to its free position shall be measured.	<ul style="list-style-type: none"> * 1127H : 20gf min. * 1127CK : 40gf min. * 1127W : 80gf min.

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	SPECIFICATION	PAGE
	TACT SWITCH	3 / 5

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.2.4	Stop strength	Placing the switch such that the direction of switch operation is vertical, a static load of 3kgf shall be applied in the direction of stem operation for a period of 3seconds.	* There shall be no sign of damage mechanically and electrically.

6.3 Environmental Performance

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.3.1	Resistance to low temperatures	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : (1) Temperature : $-30 \pm 2^{\circ}\text{C}$ (2) Time : 96hours (3) Waterdrops shall be removed.	* Item 6.1 Item 6.2.1 Item 6.2.2
6.3.2	Heat resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : (1) Temperature : $85 \pm 2^{\circ}\text{C}$ (2) Time : 96hours	
6.3.3	Moisture resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made : (1) Temperature : $60 \pm 2^{\circ}\text{C}$ (2) Time : 96hours (3) Relative humidity : 90 ~ 95% (4) Waterdrops shall	* Contact resistance : 500m Ω max. * Insulation resistance : 10M Ω min. * Item 6.1.3 Item 6.1.4 Item 6.2.1 Item 6.2.2

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	TACT SWITCH	4 / 5

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.3.4	Temperature cycling	<p>Following five cycles of the temperature cycling test set forth below the sample shall be left in normal temperature and humidity conditions for one hour before measurements are made. During this test, waterdrops shall be removed.</p>	<ul style="list-style-type: none"> * Item 6.1 Item 6.2.1 Item 6.2.2

6.4 Endurance Performance

	PROPERTY	TEST CONDITIONS	PERFORMANCE
6.4.1	Operating life	<p>Measurements shall be made following the test set forth below :</p> <ol style="list-style-type: none"> (1) DC 5V 5mA resistive load (2) Rate of operation : 1 ~ 2 operations per second (3) Depression : With a load of 150% of Actuation force (4) Cycles of operatio 	<ul style="list-style-type: none"> * Contact resistance : 200mΩ max. * Insulation resistance : 10MΩ min. * Bounce : 20m sec max. * Actuating force : +30% or -30% of initial force. * Item 6.1.3 Item 6.2.2

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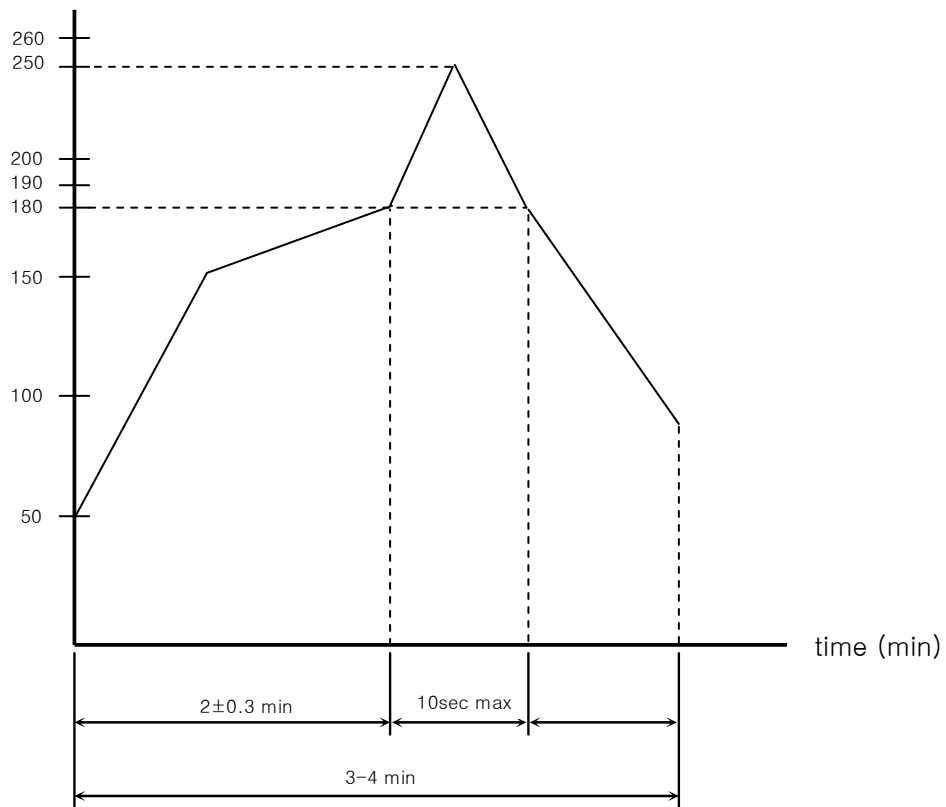
7. Reflow soldering

7.1 Reflow soldering conditions

Preheat ----- Temperature on the copper foil surface should reach 180°C, 2 ± 0.3 minutes after the PWB entered into the soldering equipment.

Soldering heat ----- Temperature on the copper foil surface should reach the peak temperature of 250°C within 10 seconds after the PWB entered into soldering heat zone.

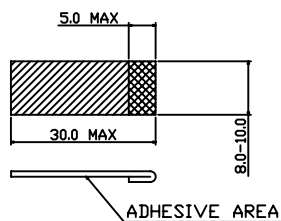
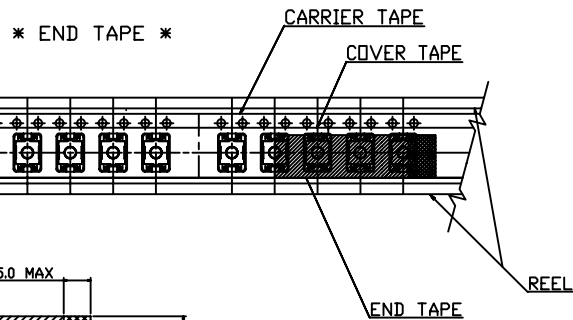
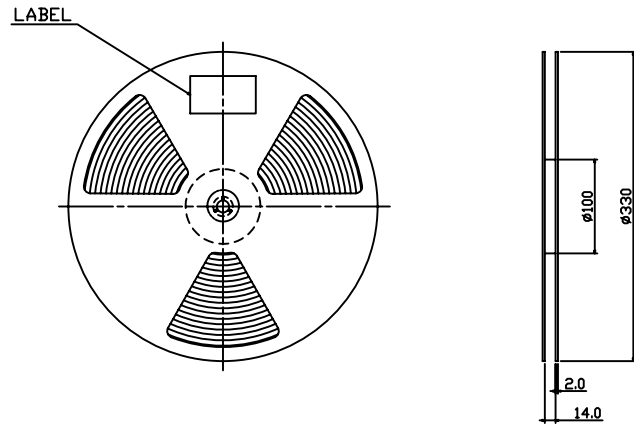
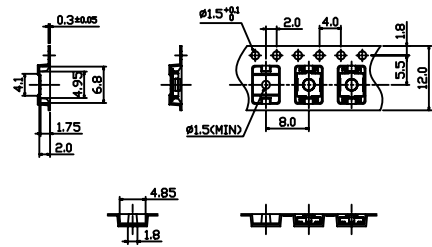
copper foil surface temperature. (°C)



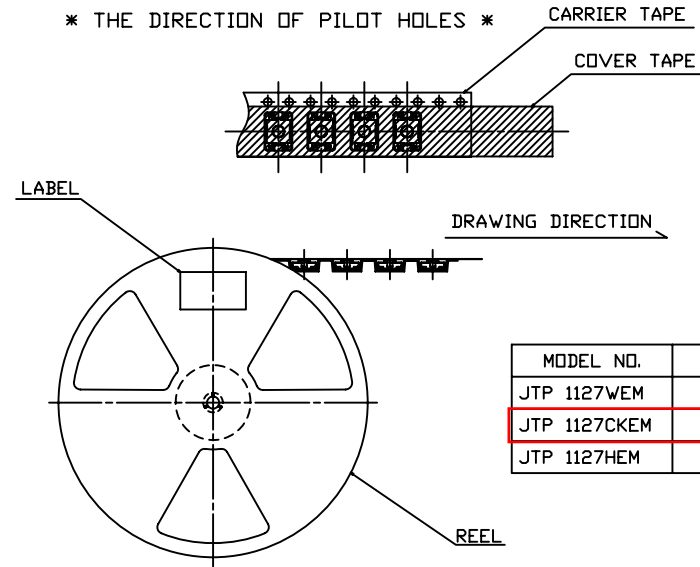
Time inside Soldering Equipment
< Temperature profile >

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									DOCUMENT NO.	JT 0123-LF
ZONE	SYMB	DATE	APPD	CHKD	DSGD					

* THE DIMENSION OF CARRIER TAPE, COVER TAPE AND REEL *

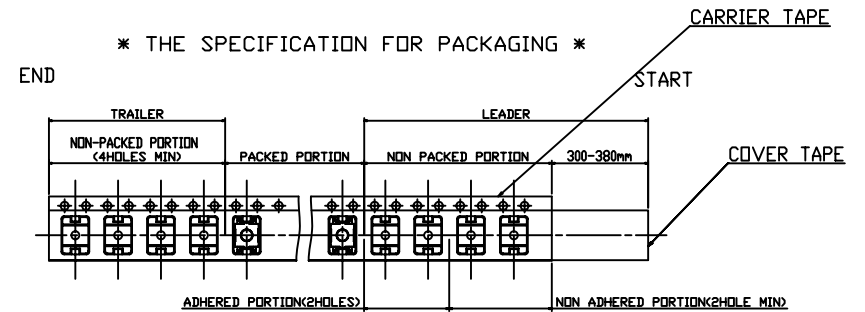


* THE DIRECTION OF PILOT HOLES *



MODEL NO.	CODE NO.	REMARK
JTP 1127WEM	12C25000	
JTP 1127CKEM	12C33000	
JTP 1127HEM	12C24002	

* THE SPECIFICATION FOR PACKAGING *



NOTE

1. 4,000 PCS SWITCHES PER 1 REEL
2. GENERAL TOLERANCE : ± 0.1
3. MATERIAL : CARRIER TAPE-POLYPROPYLENE,PC (CLEAR COLOR) OR POLYSTYRENE
COVER TAPE-POLYESTER
REEL-ABS
END TAPE COLOR-GREEN OR IVORY

No.	PART NAME	Q'TY	MATERIAL	SIZE	TREAT.	REMARKS
△			3RD ANGLE PROJECTION	UNIT m/m	SCALE N S	MODEL JTP-1127 Series
△			APPROVED	CHECKED	DESIGNED	DWG.NAME EMBOSSSED TAPE ASS'Y
△						DWG.NO.
NO.	DATE	NOTE	SIGN			