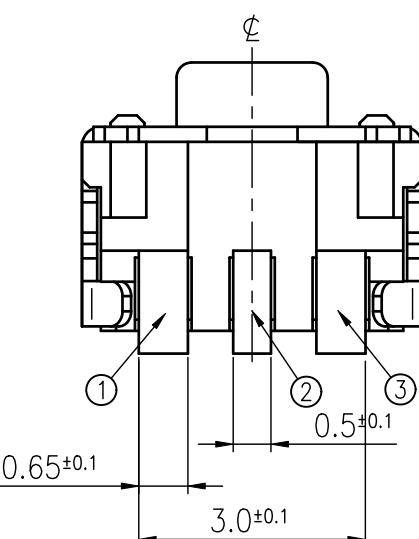
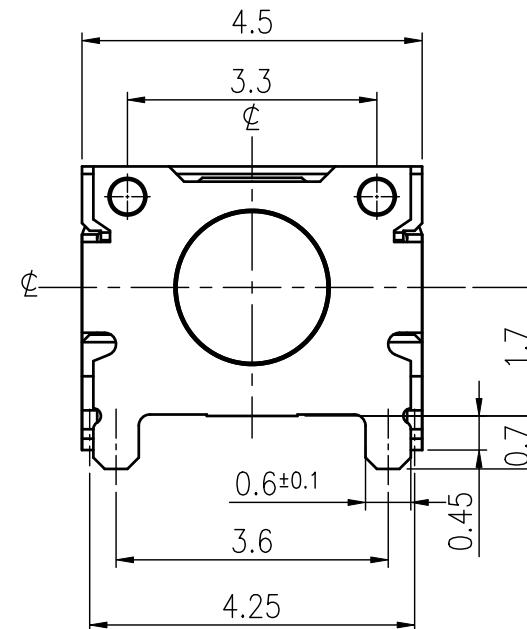
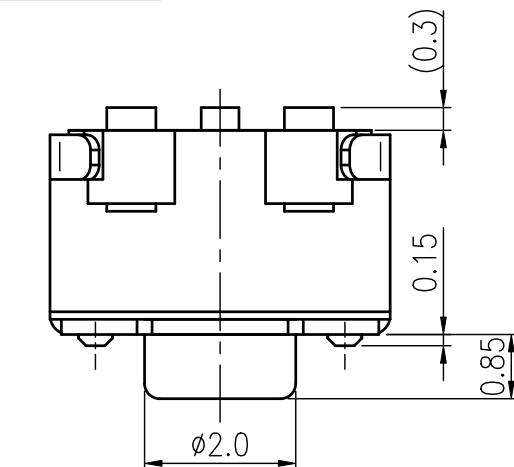


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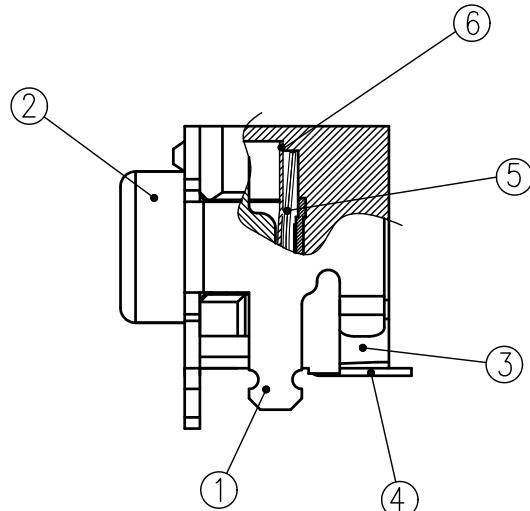


MODEL NO.	OPERATION	LIFE CYCLE
NTC325-ET1J-A160T	160±50gf	200,000
NTC325-ET1J-A250T	250±60gf	100,000

TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.2			SIGNATURES		DATE	MODEL	
			DRAWN	Jane Shen	2018.09.17	TITLE	TACT SWITCH
			CHECKED				
	UNIT mm	SCALE 10/1	REVIEWED	<i>Landy Su</i>	2018.09.17	NO.	See Model No.
			APPROVALS	<i>Dennis Hung</i>	2018.09.17		

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NO.	PART NAME	Q'TY	MATERIAL		SPECIFICATION	
6	TAPE	1	POLYIMIDE			
5	CONTACT PLATE	1	STAINLESS STEEL PLATE		Ag PLATING	
4	TERMINAL	3	COPPER ALLOY		Ag PLATING OVER Ni PLATING	
3	FRAME	1	POLYAMIDE RESIN		BLACK COLOR	
2	STEM	1	LIQUID CRYSTAL POLYMER		NATURE COLOR	
1	COVER	1	COPPER ALLOY		GOLD FLASH OVER Ni PLATING AT SOLDER TAIL	
SYM	DESCRIPTION	DATE	APPROVED	SIGNATURES	DATE	MODEL
				DRAWN <i>Jane Shen</i>	2017.06.20	TITLE TACT SWITCH
				CHK'D		
				REV'D <i>Landry Su</i>	2017.06.20	NO. NTC325-ET1J-A160T
				APP'D <i>Dennis Hung</i>	2017.06.20	
				DWG NO.	NTC325-21	
TAIWAN MISAKI ELECTRONICS CO.,LTD.						

SPECIFICATIONS FOR TACT SWITCH

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Model: NTC325-_T1J _Series

1. Test condition:

Standard test conditions shall be 5~35°C in temperature, 45~85%RH in humidity and 86~106Kpa in atmospheric pressure. Should any doubt arise in judgment, tests shall be conducted at 20±2°C in temperature, 60~70% RH in Humidity and 86~106 kpa in atmospheric pressure.

2. Operating temperature range: -40 ~ +85°C

Preservative temperature range: Single condition: -40 ~ +85°C ; Taping condition: -20 ~ +60°C

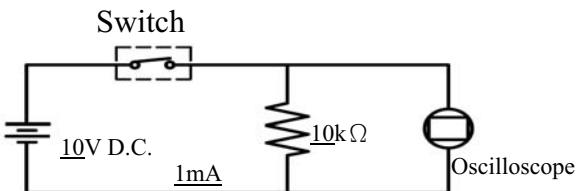
3. Construction:

3.1 Shape and dimension are subject to attached drawing regulation.

3.2 Appearance: Whole should be a good completion, no rust, no crack and good plating.

4. Rating: 12V D.C. , 50mA.

5. Electrical Performance:

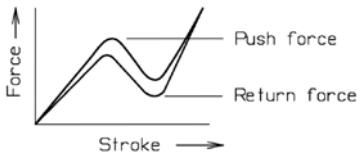
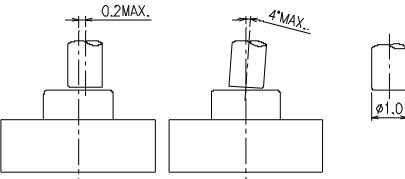
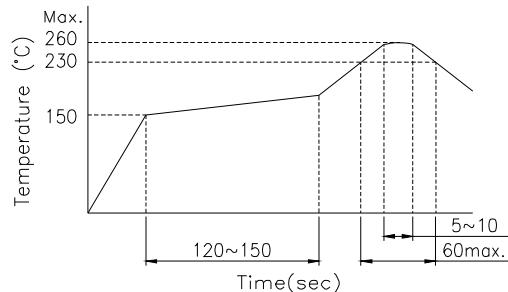
No.	Items	Test conditions	Specifications
5.1	Contact Resistance	Shall be measure at 1kHz±200Hz (MAX. 20mV, MAX. 50mA.) or 1 A, 5V D.C. By voltage drop method.	500mΩ Max.
5.2	Insulation Resistance	Shall be measured by applying 500V D.C. Between all terminals and between the terminals and the frame for 1 minute ± 5 seconds.	100MΩ Min.
5.3	Withstand Voltage	250V A.C. (50~60Hz 2mA) shall be applied between all terminals and between the terminals and the frame for 1 minute.	No dielectric breakdown shall be occurred.
5.4	Bounce	<p>Lightly striking the center of the stem at a rate encountered in normal use (3 to 4 operations per sec.)</p> 	<p>ON: 10m sec Max. OFF:10m sec Max.</p>

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
							SE-TC52N
B						Jane Shen 2015.10.20	PAGINATE
A							
SYM	DISCRIPTION	DATE					1/3

SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

6. Mechanical Performance:

No.	Items	Test conditions	Specifications
6.1	Operating Force	<p>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 switch to come to a stop shall be measured.</p> 	$160 \pm 50 \text{ gf.}$ $250 \pm 60 \text{ gf.}$
6.2	Travel	<p>Placing the switch such that the direction of switch operation is vertical and then applying a below static load to the center of the stem, the travel distance for the switch to come to a stop shall be measured.</p> 	$0.2 \pm 0.1 \text{ mm.}$
6.3	Control Strength	<p>The static load of <u>2kgf</u> shall be applied on top of the terminal in every direction for 15 seconds in any direction on condition of once for one terminal.</p>	Shall be free from extreme wobble, vent or electrical and mechanical abnormality. Not deformation of the appearance.
6.4	Solderability	<p>Soldering temperature: $235 \pm 5^\circ\text{C}$. Soldering time: 2 ± 0.5 seconds.</p>	75% or more of surface area of the portion immersed in solder shall be satisfied.
6.4	Solder Heat Resistance	<p>(1) Manual soldering temperature: Temperature: 350°C Max. Time: 3 Sec. Max. (2) Reflow Soldering: Number of reflow pass: 2 cycles.</p> 	Shall be free from pronounced deforming in appearance. Of item 5.1~5.4 shall be satisfied. Of item 6.1~6.2 shall be satisfied.
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SYM	DISCRIPTION	DATE	Jane Shen 2015.10.20
			SE-TC52N
			PAGINATE
			2/3

SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

7. Weather Performance:

No.	Items	Test conditions	Specifications												
7.1	Humidity Test	(1) Temperature: $60\pm2^{\circ}\text{C}$. (2) Relative humidity: 90~95% (3) Duration of test: 500 Hour. (4) Take off a drop water. (5) Standard conditions after test: 1 Hour.	Contact resistance: 500mΩ Max Of item 5.2~5.4 shall be satisfied. Of item 6.1~6.2 shall be satisfied.												
7.2	Heat Test	(1) Temperature: $85\pm2^{\circ}\text{C}$. (2) Duration of test: 500 Hour. (3) Standard conditions after test: 1 Hour.													
7.3	Cold Test	(1) Temperature: $-40\pm2^{\circ}\text{C}$. (2) Duration of test: 500 Hour. (3) Take off a drop water. (4) Standard conditions after test: 1 Hour.													
7.4	Temperature cycle	(1) Test cycle: <u>20</u> cycles. (2) Standard conditions after test: 1 Hour.	<table border="1"> <thead> <tr> <th></th> <th>Temperature</th> <th>Duration of test</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1 cycles</td> <td>$20\pm5^{\circ}\text{C}$</td> <td>1 Hour</td> </tr> <tr> <td>$-40\pm2^{\circ}\text{C}$</td> <td>1 Hour</td> </tr> <tr> <td>$20\pm5^{\circ}\text{C}$</td> <td>1 Hour</td> </tr> <tr> <td>$85\pm2^{\circ}\text{C}$</td> <td>1 Hour</td> </tr> </tbody> </table>		Temperature	Duration of test	1 cycles	$20\pm5^{\circ}\text{C}$	1 Hour	$-40\pm2^{\circ}\text{C}$	1 Hour	$20\pm5^{\circ}\text{C}$	1 Hour	$85\pm2^{\circ}\text{C}$	1 Hour
	Temperature	Duration of test													
1 cycles	$20\pm5^{\circ}\text{C}$	1 Hour													
	$-40\pm2^{\circ}\text{C}$	1 Hour													
	$20\pm5^{\circ}\text{C}$	1 Hour													
	$85\pm2^{\circ}\text{C}$	1 Hour													

8. Durability:

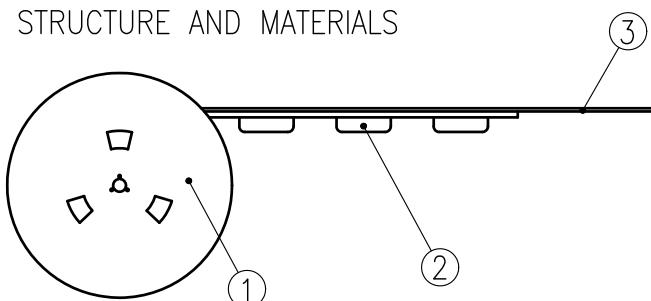
No.	Items	Test conditions	Specifications
8.1	Life Test	(1) Operating speed: 120 cycles/minute. (2) Push force: Maximum value of operation force. (3) Operation number: 160gf: 200,000 times. 250gf: 100,000times.	Contact Resistance: 1Ω MAX. Operating Force: Within $\pm30\%$ of specifications. Of item 5.2 shall be satisfied. Of item 6.2 shall be satisfied.

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
							SE-TC52N
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SYM	DISCRIPTION	DATE	Dennis Hung			Jane Shen 2015.10.20	PAGINATE 3/3

THE PACKING SPECIFICATIONS

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1. STRUCTURE AND MATERIALS

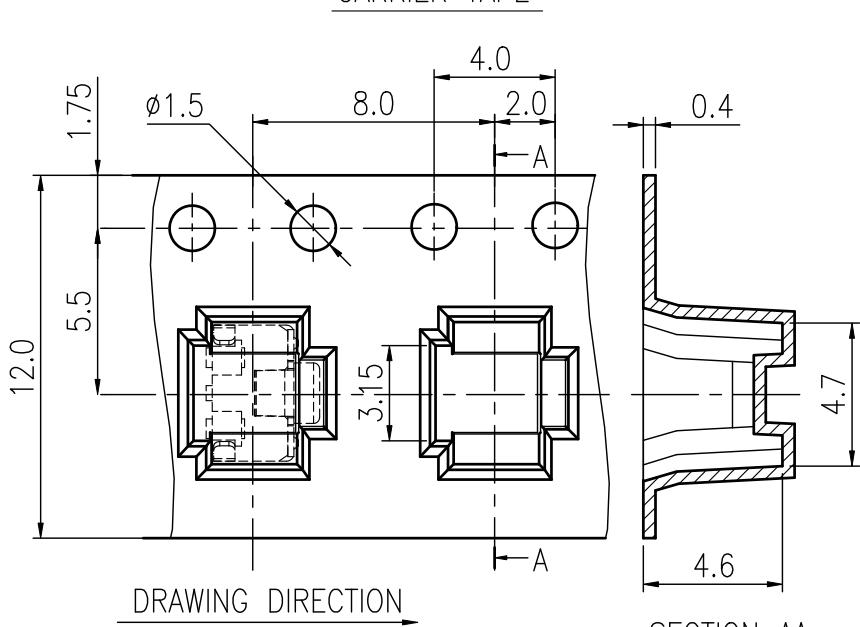


NO.	PARTS NAME	MATERIALS
(3)	COVER TAPE	POLYESTER
(2)	CARRIER TAPE	POLYSTYRENE
(1)	REEL	POLYSTYRENE

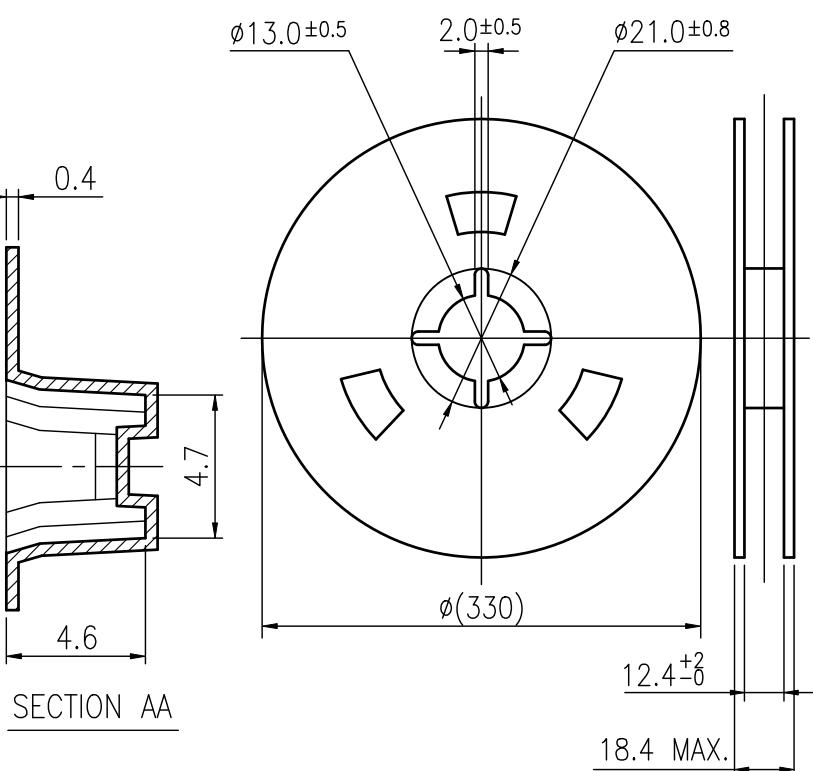
- PACKAGING QUANTITY : 1,800 PCS/REEL.
- MORE THAN 10 EMPTY POCKETS SHOULD BE REMAINED AT BOTH ENDS OF THE CARRIER TAPE FOR EACH REEL.
- SHORTAGE LESS THAN 10 PCS A REEL IS ACCERABLE BUT MORE THAN 3 RUNNING POCKETS SHORTAGE IS NOT ALLOWED.
- STRIPPING STRENGTH OF COVER TAPE IS BETWEEN 10 gf TO 130 gf AND STRIPPING ANGLE SHOULD BE WITHIN 165°~180°.
- THE PRODUCT IN THE POCKER OF CARRIER TAPE SHOULD BE PLACED IN A SPECIFIED CORRECT POSITION.
- TAPE AND REEL PER EIA-481
- DIMENSIONS :



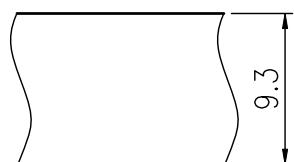
CARRIER TAPE



DRAWING DIRECTION



COVER TAPE



SYM	DISCRIPTION	DATE	APPROVED	APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	MODEL NO.
				Qiyuyuan Chuang			Jane Shen	NTC325-(D,E)_J-
								PAGINATE.
								1/1
								SPEC NO.
								P-753