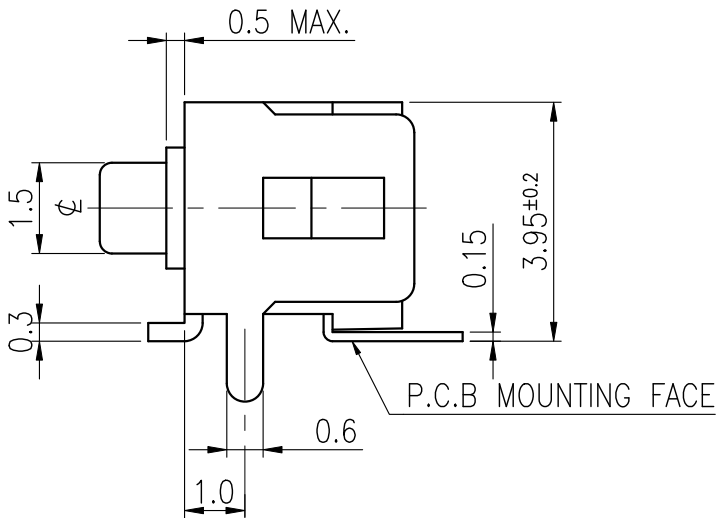
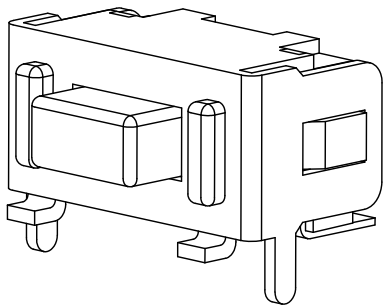
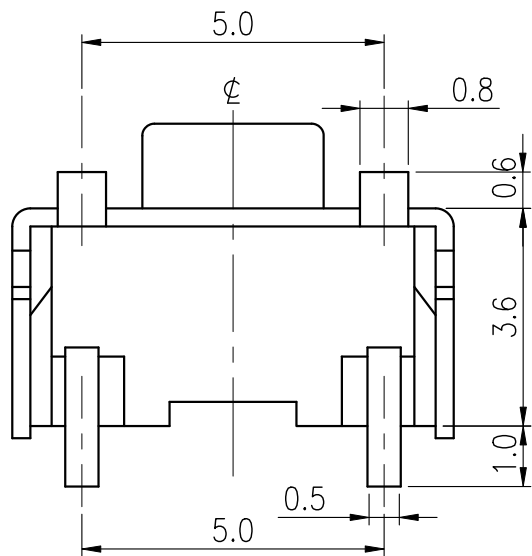
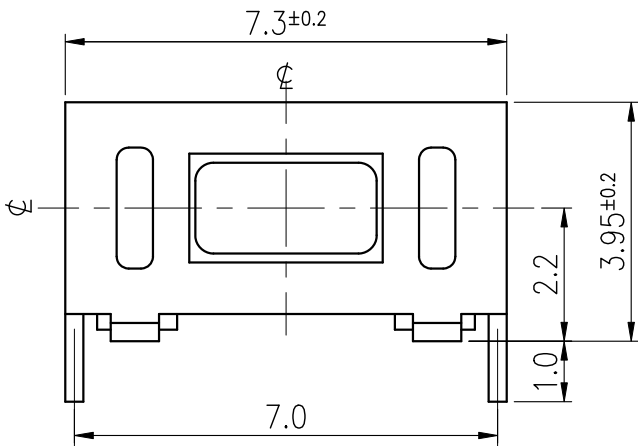
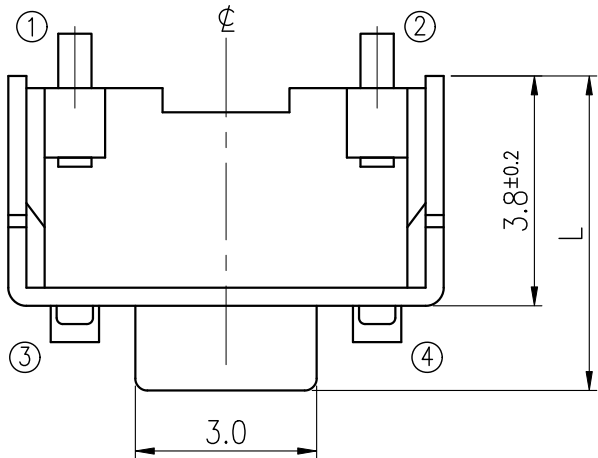


RoHS Compliant

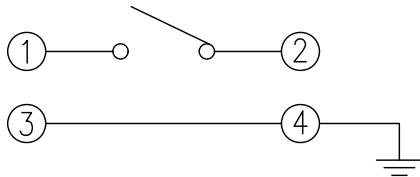
T-MEC  
TAIWAN MISAKI ELECTRONICS CO., LTD.  
ISSUED  
2017.05.24  
RD DCC



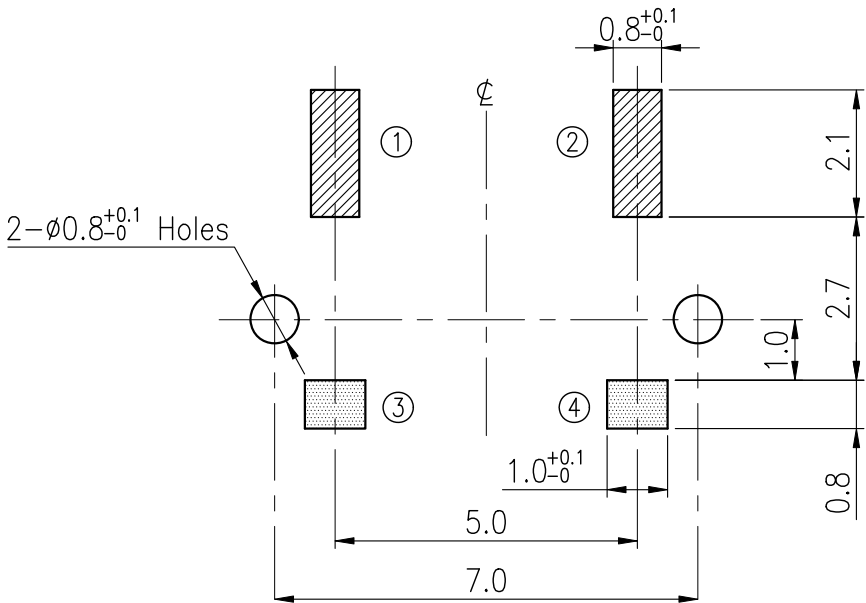
MODEL NO.	L
NTC303-CY1G-A180T	4.5
NTC303-CY1G-B180T	5.2
NTC303-CY1G-C180T	6.8

REVISIONS							
Rev	DESCRIPTION	DATE	DRAWER	Rev	DESCRIPTION	DATE	DRAWER
A	Initial Drawing	2012.11.06	Catherine Lee	C			
B				D			
SPECIFICATIONS							
RATING		DC12V 50mA		TIMING			
CONTACT RESISTANCE		500mΩ MAX.		OPERATION (TORQUE)		180±50 gf	
INSULATION RESISTANCE		DC500V-100MΩ MIN.		STROKE (ANGLE)		0.25±0.1mm	
WITHSTAND VOLTAGE		AC250V-1 MINUTE		CONTACT RESISTANCE		1Ω MAX.	
REMARKS:				(AFTER 50,000 CYCLES LIFE TEST)			

SCHEMATIC



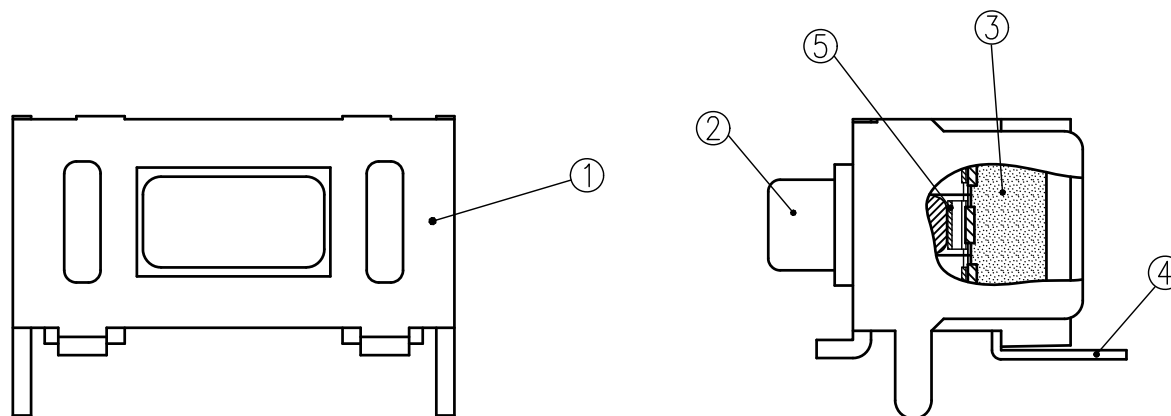
P.C.B LAYOUT

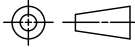


GROUND TERMINAL CAN BE EFFECTIVE EVEN IF NOT SOLDERED.

TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.1			SIGNATURES		DATE	MODEL
			DRAWER	Catherine Lee	2012.11.06	TITLE
			CHECKED			TACT SWITCH
			REVIEWED			NO.
			APPROVALS	Dennis Hung	2012.11.06	See Model No.

TAIWAN MISAKI ELECTRONICS CO., LTD.



5	CONTACT PLATE	2	STAINLESS STEEL PLATE	Ag-PLATING	
4	TERMINAL	2	COPPER ALLOY	Ag-PLATING OVER Ni PLATING	
3	FRAME	1	LIQUID CRYSTAL POLYMER	COLOR: BLACK	
2	STEM	1	LIQUID CRYSTAL POLYMER	COLOR: ■ 180/BLACK, □ 250/NATURE	
1	COVER	1	CARBON STEEL PLATE	MATTE Sn PLATING OVER Ni PLATING	
NO.	PART NAME	Q'TY	MATERIAL	SPECIFICATION	
				SIGNATURES	DATE
				DRAWN Jane Shen	2017.05.22
				CHK'D	
				REV'D <b>Landry Su</b>	2017.05.22
				APP'D <b>Dennis Hung</b>	2017.05.22
SYM	DESCRIPTION	DATE	APPROVED		
TAIWAN MISAKI ELECTRONICS CO.,LTD.					
				DWG NO.	NTC303-07
				TITLE	TACT SWITCH
				NO.	NTC303-CY1G-B180T

# SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

Model:

## 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

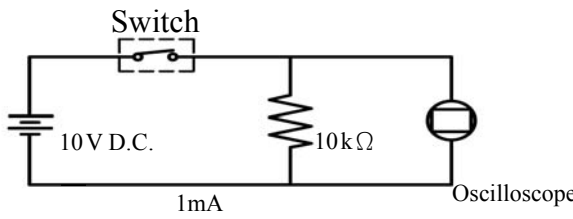
## 3. Construction:

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:

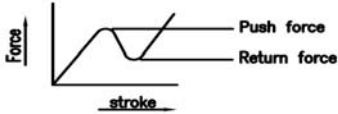
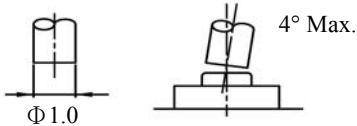
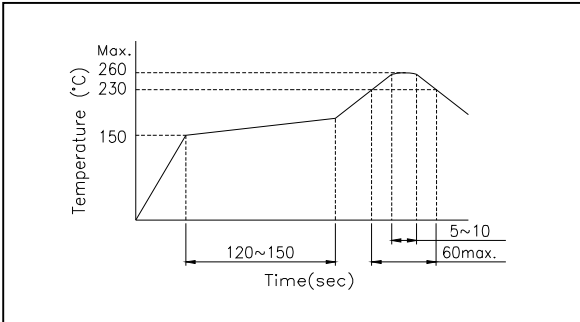
No.	Items	Test conditions	Specifications
5.1	Contact Resistance	Shall be measure at 1kHz±200Hz (MAX. 20mV, MAX. 50mA.) or 10mA, 5V D.C. By voltage drop method.	500mΩ Max.
5.2	Insulation Resistance	Shall be measured by applying 500V D.C. Between all terminals and between the terminals and the frame for 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	Lightly striking the center of the stem at a rate encountered in normal use ( 3 to 4 operations per sec.)  	ON: 10m sec Max. OFF: 10m sec Max.

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
						Ken Lin	SE-TC07N
				Magic Chen	Max Chen	2009.07.20	PAGINATE
				2009.7.20	2009.07.20		
A	NEW RELEASE						
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> 	$180 \pm 50$ 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> 	$0.25 \pm 0.1$ mm.
6.3	Control Strength	The static load of <u>3kgf</u> shall be applied on top of the terminal in every direction for 1 minute, in any direction on condition of once for one terminal.	Shall be free from extreme wobble, vent or electrical and mechanical abnormality. Not deformation of the appearance.
6.4	Solderability	<p>Soldering temperature: <math>235 \pm 5^{\circ}\text{C}</math>. Soldering time: <math>2 \pm 0.5</math> 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: <math>350^{\circ}\text{C}</math> Max. Time: 3 Sec. Max. (2) Reflow Soldering: Number of reflow pass: 2 cycles.</p> 	<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.</p>

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
						Ken Lin	SE-TC07N
						2009.07.20	PAGINATE
A	NEW RELEASE		2009-07-20	Magic Chen 2009.7.20	Max Chen 2009.07.20		
SYM	DISCRIPTION	DATE					2/3

# SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

## 7. Weather Performance:

No.	Items	Test conditions	Specifications											
7.1	Humidity Test	(1) Temperature: 60±2℃. (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: <u>500mΩ</u> 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±2℃. (2) Duration of test: 500 Hour. (3) Standard conditions after test: 1 Hour.												
7.3	Cold Test	(1) Temperature: -40±2℃. (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><tr><td></td><td>Temperature</td><td>Duration of test</td></tr><tr><td rowspan="4">1 cycles</td><td>20±5℃</td><td>1 Hour</td></tr><tr><td>-40±2℃</td><td>1 Hour</td></tr><tr><td>20±5℃</td><td>1 Hour</td></tr><tr><td>85±2℃</td><td>1 Hour</td></tr></table>			Temperature	Duration of test	1 cycles	20±5℃	1 Hour	-40±2℃	1 Hour	20±5℃	1 Hour	85±2℃
	Temperature	Duration of test												
1 cycles	20±5℃	1 Hour												
	-40±2℃	1 Hour												
	20±5℃	1 Hour												
	85±2℃	1 Hour												

## 8. Durability:

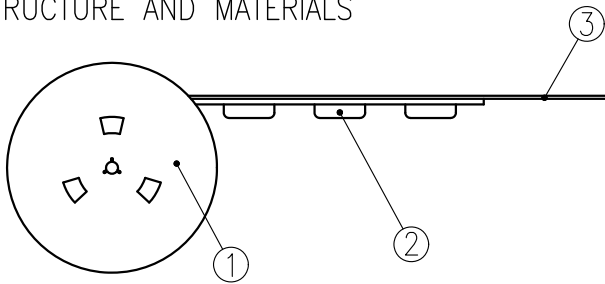
No.	Items	Test conditions	Specifications
8.1	Life Test	(1) 5V D.C. , 5mA Resistance load. (2) Operating speed: 120 cycles/minute. (3) Push force: Maximum value of operation force. (4) Operation number: <u>50,000</u> times.	Contact Resistance: <u>1</u> $\Omega$ MAX. Bounce: 20m sec Max.(ON,OFF) Operating Force: Within $\pm 30\%$ 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.
						Ken Lin	SE-TC07N
				Magic Chen	Max Chen	2009.07.20	PAGINATE
				2009.7.20	2009.07.20		
A	NEW RELEASE						
SYM	DISCRIPTION	DATE					3/3

# THE PACKING SPECIFICATIONS

RoHS Compliant

## 1. STRUCTURE AND MATERIALS

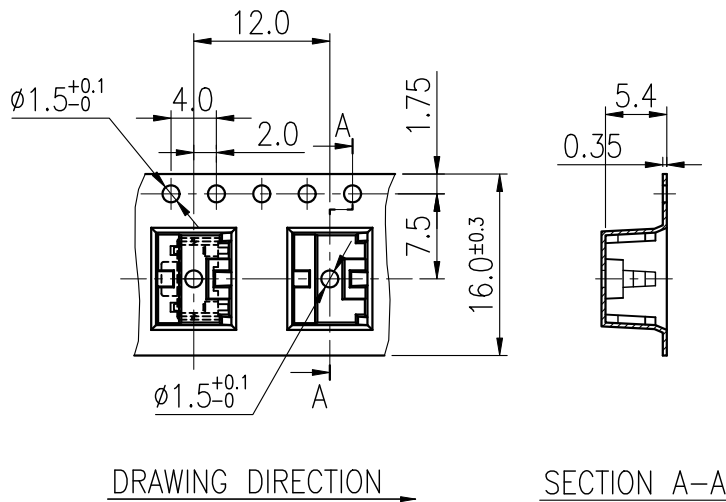


③	COVER TAPE	POLYESTER
②	CARRIER TAPE	POLYSTYRENE
①	REEL	POLYSTYRENE
NO.	PARTS NAME	MATERIALS

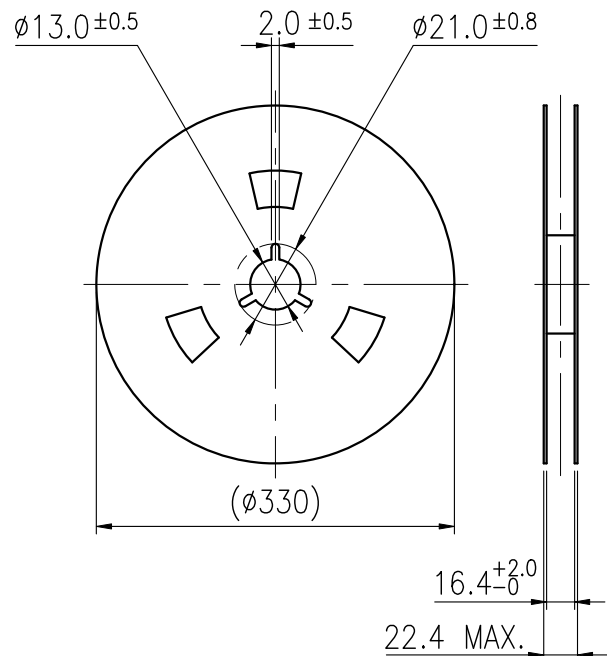
- PACKAGING QUANTITY : 1,000 PCS/REEL
- MORE THAN 10 EMPTY POCKETS SHOULD BE REMAINED AT BOTH ENDS OF THE CARRIER TAPE FOR EACH REEL.
- SHORTAGE LESS THAN 10 PCS A REEL IS ACCEPTABLE BUT MORE THAN 3 RUNNING POCKETS SHORTAGE IS NOT ALLOWED.
- STRIPPING STRENGTH OF COVER TAPE IS BETWEEN 10 gf TO **130** gf AND STRIPPING ANGLE SHOULD BE WITHIN 165° ~ 180°.
- THE PRODUCT IN THE POCKET OF CARRIER TAPE SHOULD BE PLACED IN A SPECIFIED CORRECT POSITION.
- TAPE AND REEL PER EIA-481.
- DIMENSIONS :



CARRIER TAPE



REEL



COVER TAPE



				APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	MODEL NO.
				Dennis Hung		Jamie Li	Catherine Lee	NTC303-CY1G-B180 T
				2012.01.10		2012.01.10	2012.01.10	PAGINATE.
								1/1
								SPEC NO.
								P-695
SYM	DISCRIPTION	DATE	APPROVED					

TAIWAN MISAKI ELECTRONICS CO.,LTD.