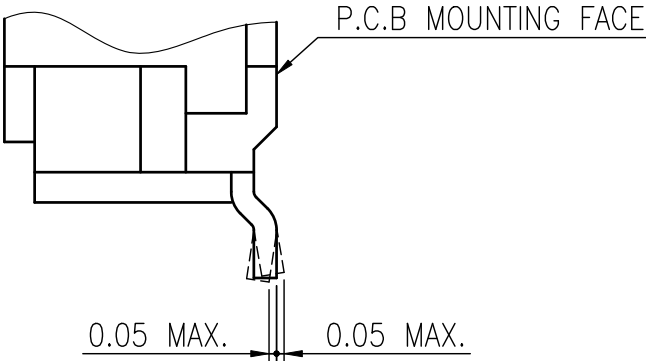
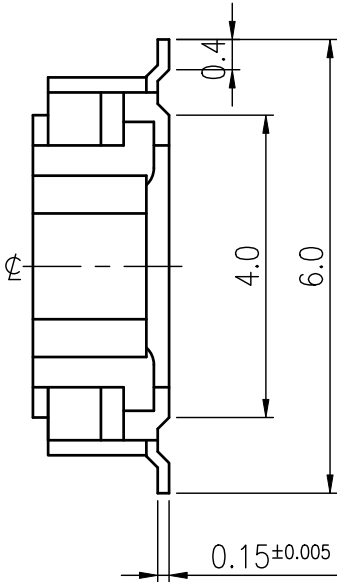
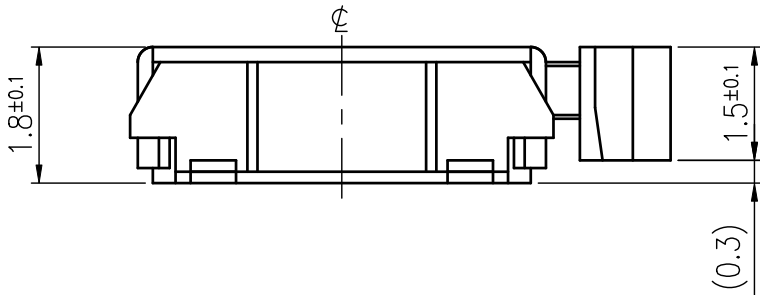
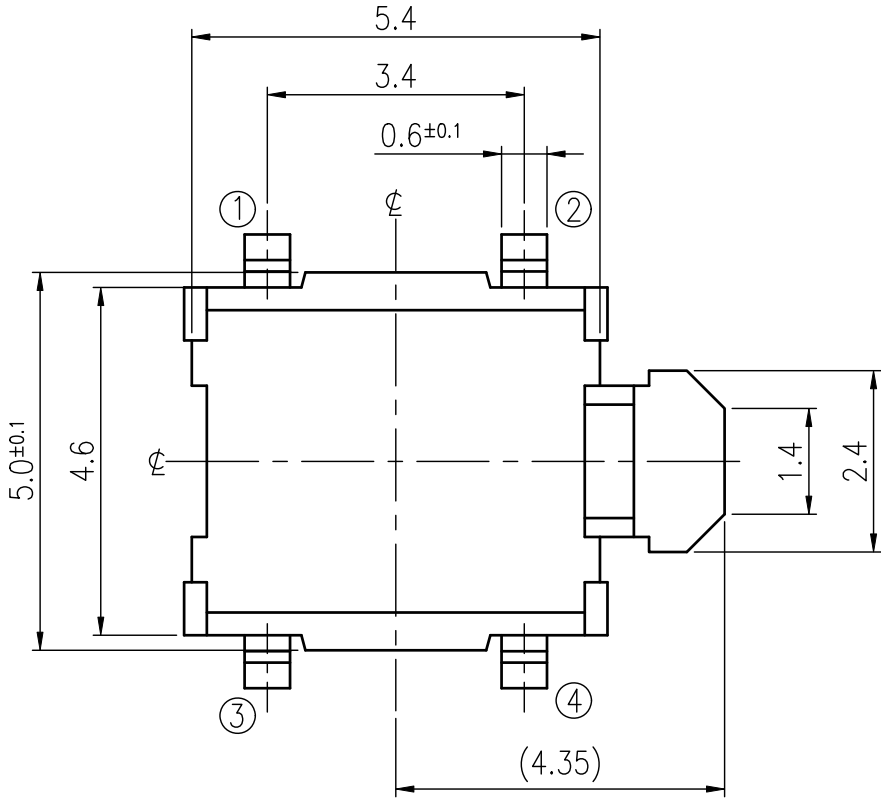
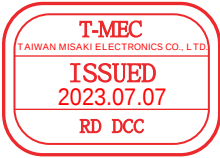
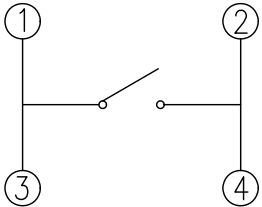


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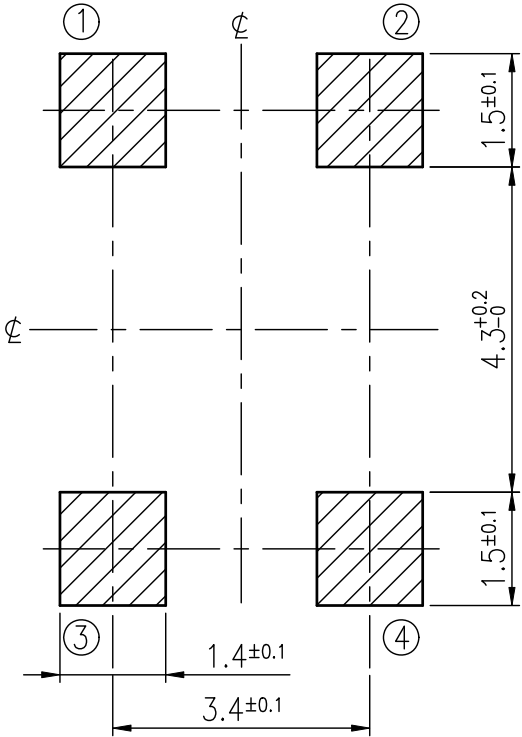


TERMINAL DETAIL (20/1)

SCHEMATIC



P.C.B. LAYOUT



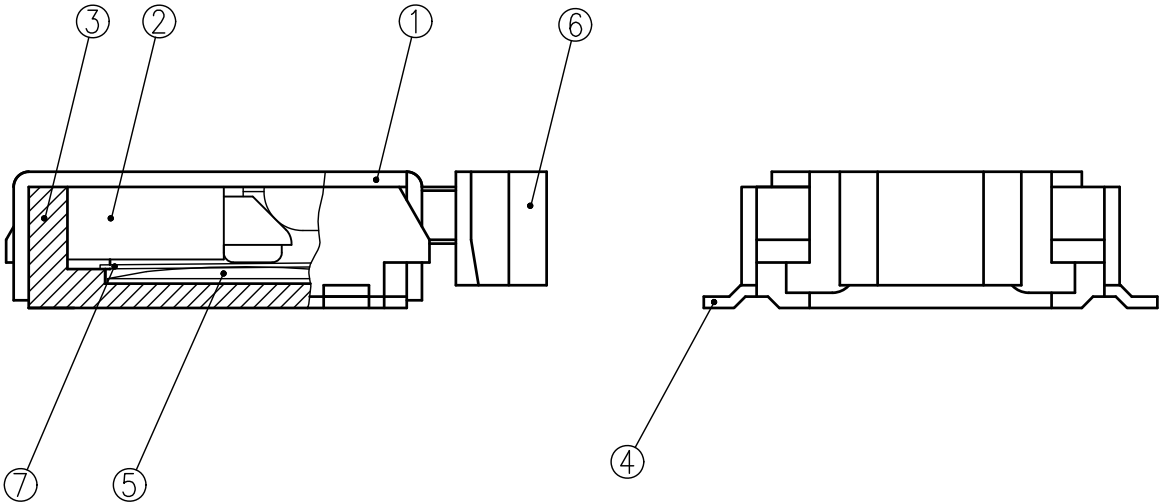
HATCHED AREA SHOWS SOLDERING LAND

MODEL NO.	OPERATING FORCE
NTC315-AF1G-A180T	180 $\pm$ ⁸⁰ ₄₀ gf
NTC315-AF1G-A350T	350 $\pm$ 80gf

REVISIONS							
Rev	DESCRIPTION	DATE	DRAWER	Rev	DESCRIPTION	DATE	DRAWER
A	Initial Drawing	2019.11.27	Jane Shen	C			
B				D			
SPECIFICATIONS							
RATING		DC12V 50mA		TIMING			
CONTACT RESISTANCE		500mΩ MAX.		OPERATION (TORQUE)			
INSULATION RESISTANCE		DC500V-100MΩ MIN.		STROKE (ANGLE)		0.2 $\pm$ 0.12 mm	
WITHSTAND VOLTAGE		AC250V-1 MINUTE		LIFE		50,000 CYCLES	
REMARKS:							

TOLERANCES UNLESS OTHERWISE SPECIFIED ±0.3		SIGNATURES		DATE	MODEL
		DRAWER	Jane Shen	2019.11.27	TITLE
		CHECKED			TACT SWITCH
		REVIEWED			NO.
		APPROVALS		2019.11.27	See Model No.

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7	TAPE	1	POLYIMIDE			
6	STEM	1	LIQUID CRYSTAL POLYMER	□180/BLACK, ■350/NATURAL COLOR		
5	CONTACT PLATE	1	STAINLESS STEEL PLATE	Ag PLATING		
4	TERMINAL	4	COPPER ALLOY	Ag PLATING OVER Ni PLATING		
3	FRAME	1	LIQUID CRYSTAL POLYMER	NATURAL COLOR		
2	STOPPER	1	LIQUID CRYSTAL POLYMER	BLACK COLOR		
1	COVER	1	STAINLESS STEEL PLATE			
NO.	PART NAME	Q'TY	MATERIAL	SPECIFICATION		
				SIGNATURES	DATE	M O D E L
				DRAWN Jane Shen	2019.11.27	TITLE TACT SWITCH
				CHK'D		
				REV'D		
				APP'D Qiuyuan Chuang	2019.11.27	NO. NTC315-AF1G-A350T
SYM	DESCRIPTION	DATE	APPROVED	DWG NO. TC315-13		
TAIWAN MISAKI ELECTRONICS CO.,LTD.						

SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

Model: NTC315-A(E,F)1G_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

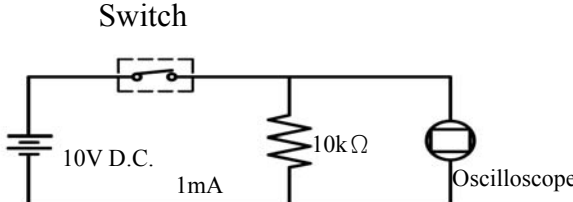
3. Construction:

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.	100 MΩ 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.)  Switch 10V D.C. 1mA 10kΩ Oscilloscope	ON: 10m sec Max. OFF:10m sec Max.

APPROVED BY

REVIEWED BY

CHECKED BY

DESIGNED BY

SPEC NO.

Qiuyuan Chuang

Jane shen

SE-TC04N

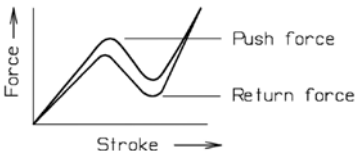
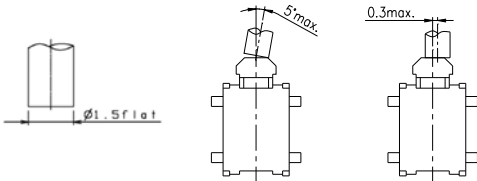
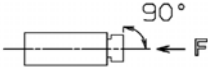
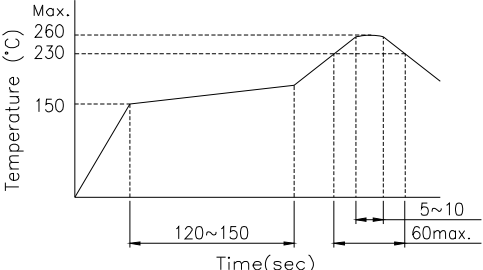
PAGINATE

1/3

SPECIFICATIONS FOR TACT SWITCH

RoHS Compliant

6. Mechanical Performance:

No.	Items	Test conditions	Specifications
6.1	Operating 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 switch to come to a stop shall be measured. 	$180 \begin{smallmatrix} +80 \\ -40 \end{smallmatrix} \text{ gf.}$ $350 \pm 80 \text{ gf}$
6.2	Travel	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. 	$0.2 \pm 0.12 \text{ mm.}$
6.3	Push Strength	Placing the switch such that the direction of switch operation is vertical and then a below station load shall be applied in the direction of stem operation. 3kgf for 60 seconds. 	No damage. (Electrical and mechanical)
6.4	Solderability	Soldering temperature: $235 \pm 5^\circ\text{C}$. Soldering time: 2 ± 0.5 seconds.	75% or more of surface area of the portion immersed in solder shall be satisfied.
6.5	Solder Heat Resistance	(1) Manual soldering temperature: Temperature: 350°C Max. Time: 3 Sec. Max. (2) Reflow Soldering: Number of reflow pass: 2 cycles. 	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.

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
						Jane shen	SE-TC04N
	No.: 6.3 UPDATE	2020.06.29	Qiuyuan Chuang				PAGINATE
A	NEW RELEASE	2017.07.27					
SYM	DISCRIPTION	DATE					2/3

SPECIFICATIONS FOR TACT SWITCH

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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: 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±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: 20 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:

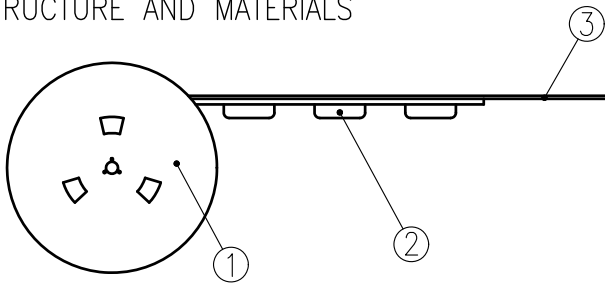
No.	Items	Test conditions	Specifications
8.1	Life Test (Without Load)	(1) Operating speed: 120 cycles/minute. (2) Push force: Maximum value of operation force. (3) Operation number: 50,000 times.	Contact Resistance: 1 Ω MAX. Bounce: 20m sec Max.(ON,OFF) Operating Force: Within $\pm 30\%$ of specifications. Of item 5.2 shall be satisfied. Of item 6.2 shall be satisfied.

			APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	SPEC NO.
			Qinyuan Chuang			Jane shen	SE-TC04N
	No.: 6.3 UPDATE	2020.06.29					PAGINATE
A	NEW RELEASE	2017.07.27					
SYM	DISCRIPTION	DATE					3/3

THE PACKING SPECIFICATIONS

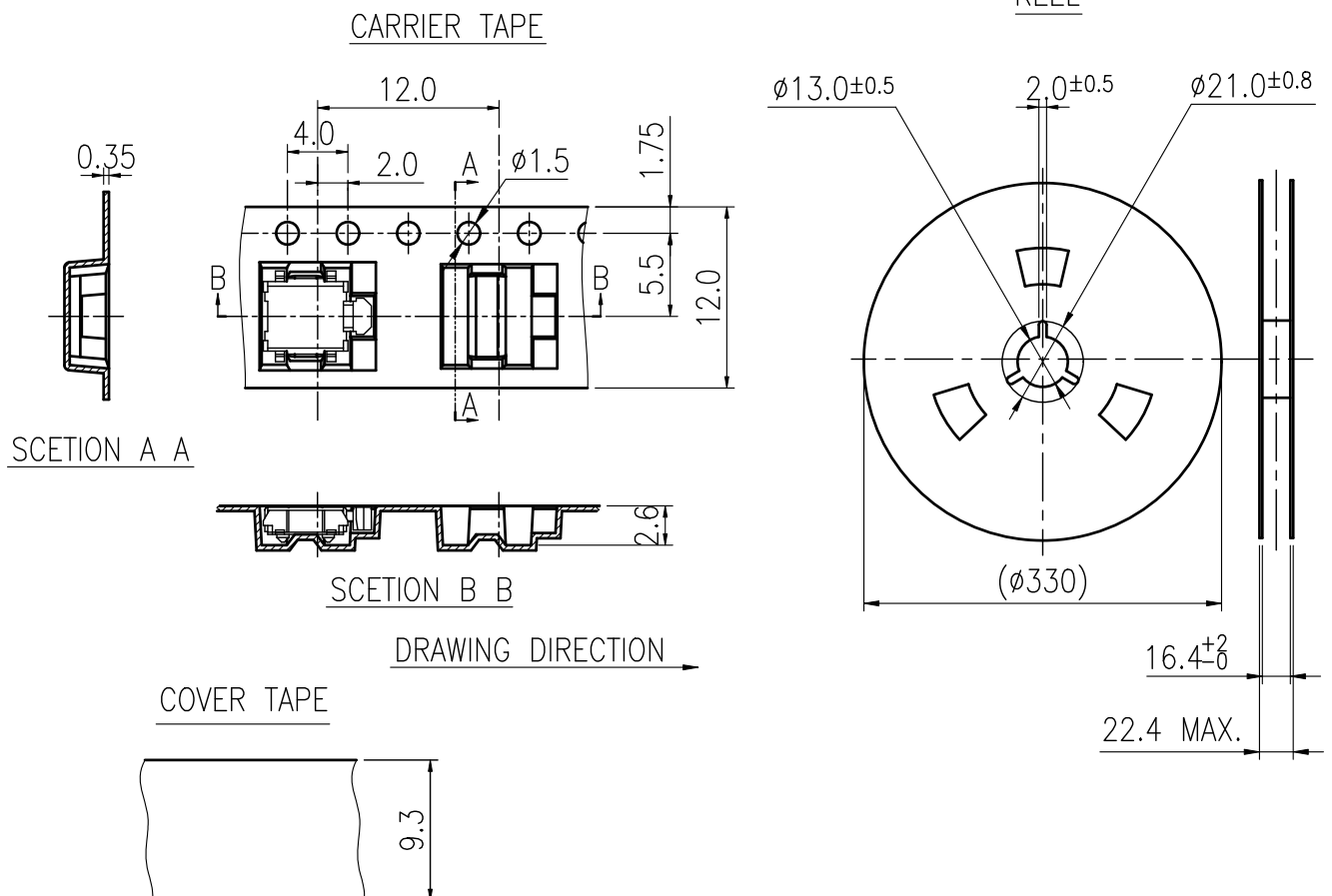
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1.STRUCTURE AND MATERIALS



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

- PACKAGING QUANTITY : 2,000 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 ACCETABLE 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 :



				APPROVED BY	REVIEWED BY	CHECKED BY	DESIGNED BY	MODEL NO.
							Jane Shen	NTC315-A 1G-A OT
								PAGINATE.
								1/1
								SPEC NO.
								P-543
SYM	DISCRIPTION	DATE	APPROVED					

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