

# TST TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: [tstsales@mail.taisaw.com](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Product Specifications Approval Sheet

Product Name: SAW Filter 1588.655 MHz (BW 40.446MHz) SMD 1.4X1.1 mm

TST Parts No.: TA2214A

Customer Parts No.: \_\_\_\_\_

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Michael Yang *Michael*

Approval by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2020/01/13

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: [tstsales@mail.taisaw.com](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## SAW Filter 1588.655MHz

MODEL NO.:TA2214A

REV. NO.:2.0

### A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC Voltage : 0V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +105°C
5. Moisture Sensitivity Level: Level 3(MSL3)

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

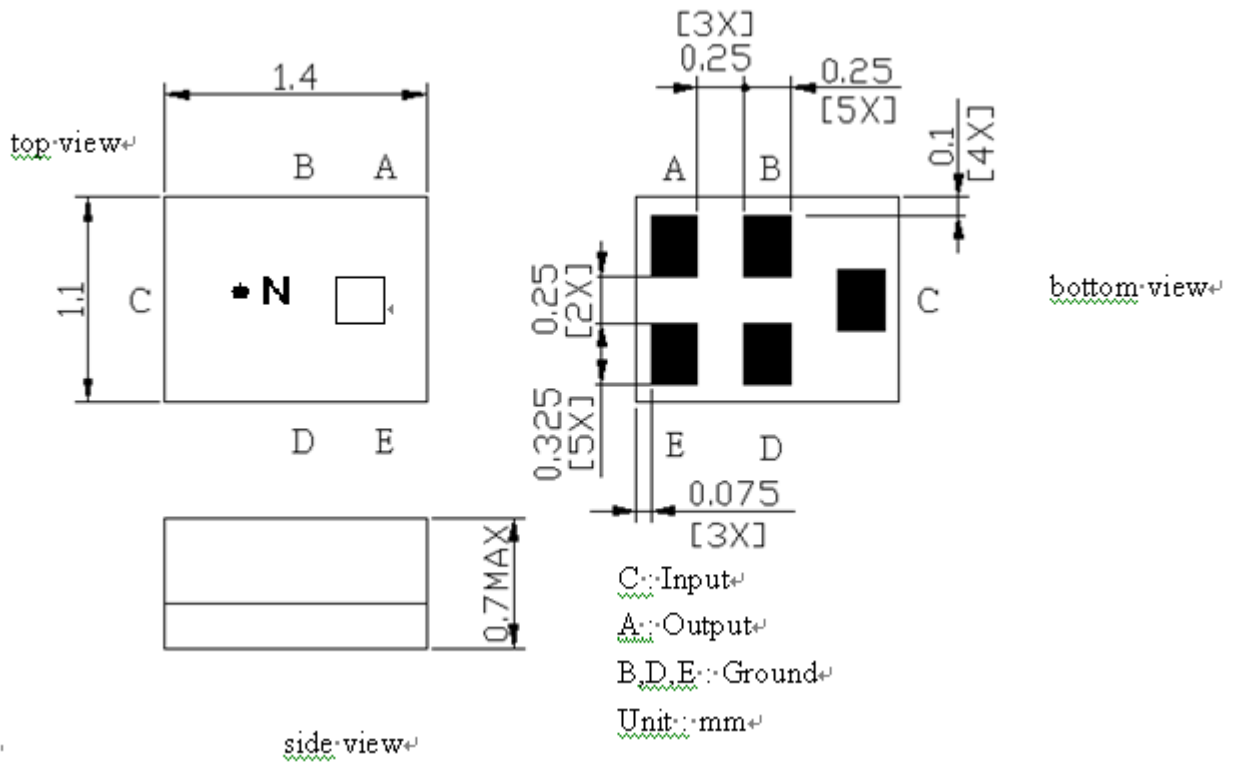
### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance (single) :  $Z_s = 50 \Omega$

Terminating load impedance(single) :  $Z_L = 50 \Omega$

Item	Unit	Min	Type.	Max
Center Frequency <b>Fc</b>	MHz	-	1588.65 5	-
Insertion Loss (1574.42~1576.42MHz) <b>IL</b>	dB	-	1.3	1.5
Insertion Loss (1565.42~1585.42 MHz) <b>IL</b>	dB	-	1.5	1.9
Insertion Loss (1597.5515~1605.886 MHz) <b>IL</b>	dB	-	1.6	1.9
<b>VSWR</b> (1573.42~1577.42 MHz)		-	1.6	2
<b>VSWR</b> (1565.42~1585.42 MHz)		-	1.6	2
<b>VSWR</b> (1597.5515~1605.886 MHz)		-	1.6	2
<b>Amplitude ripple</b>				
(1573.42~1577.42 MHz)	dB	-	0.25	0.8
<b>Attenuation</b>				
DC ~ 925 MHz	dB	32	35	-
925 ~ 960 MHz	dB	30	35	-
1427 ~ 1463 MHz	dB	35	44	-
1710 ~ 1785 MHz	dB	30	38	-
1850 ~ 1910 MHz	dB	35	43	-
1920 ~ 1980 MHz	dB	35	41	-
2401 ~ 2483 MHz	dB	40	49	-
2500 ~ 2570 MHz	dB	40	47	-
Temperature Coefficient	ppm/K	-36		
Package size	mm	1411		

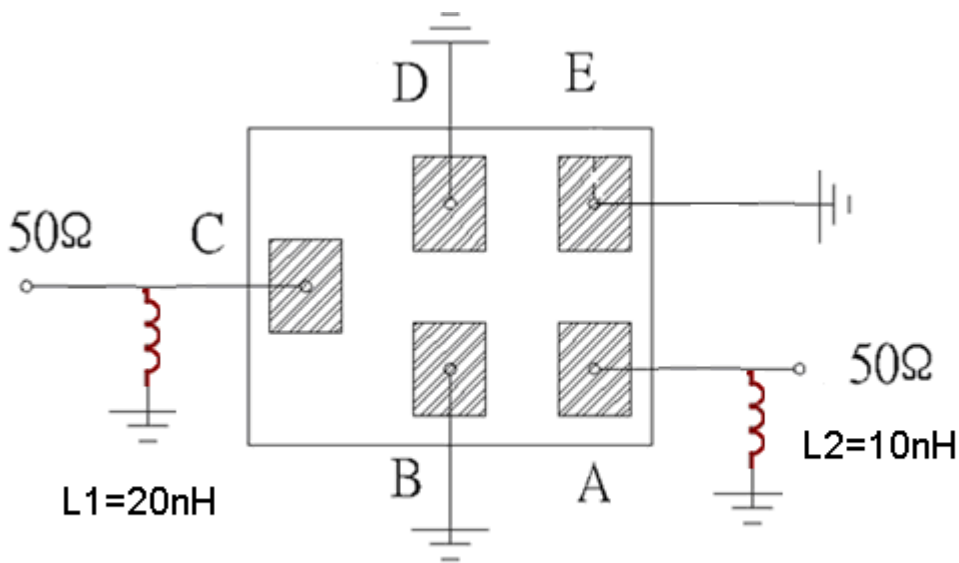
**C.OUTLINE DRAWING:**



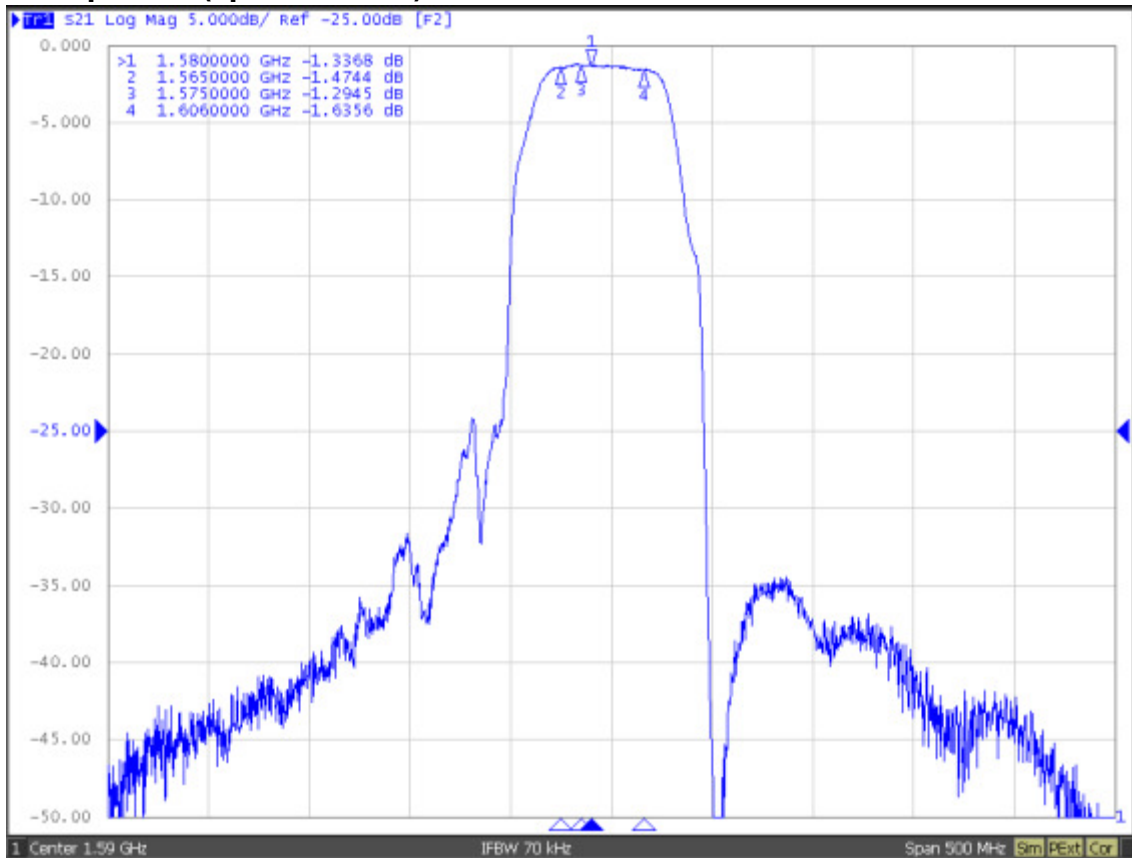
□ : Year/Month Code (Follow the table)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2019	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>i</u>	<u>k</u>	<u>l</u>	<u>m</u>
2020	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

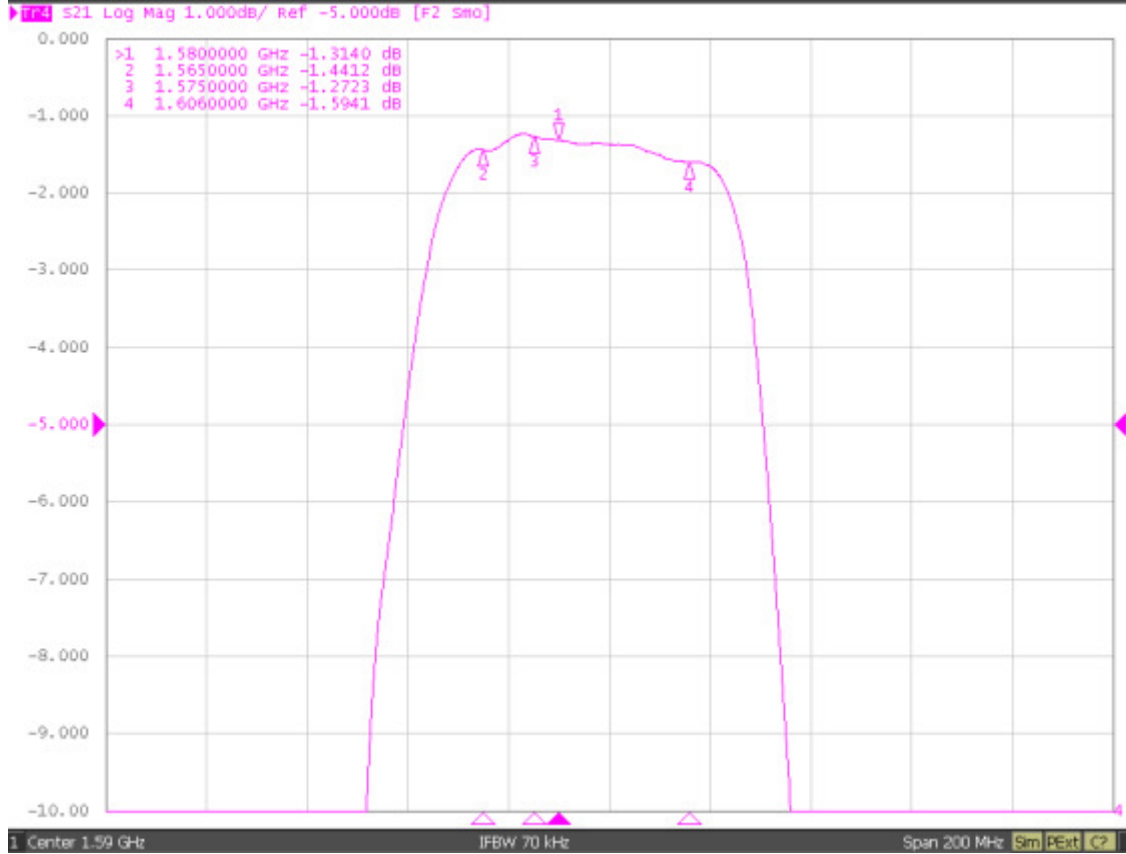
**D. MEASUREMENT CIRCUIT:**



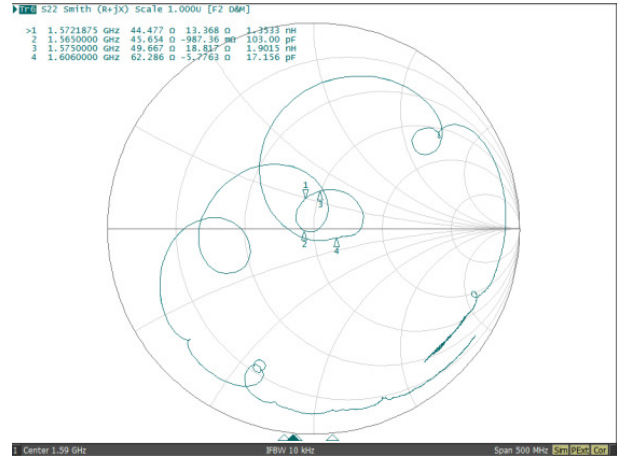
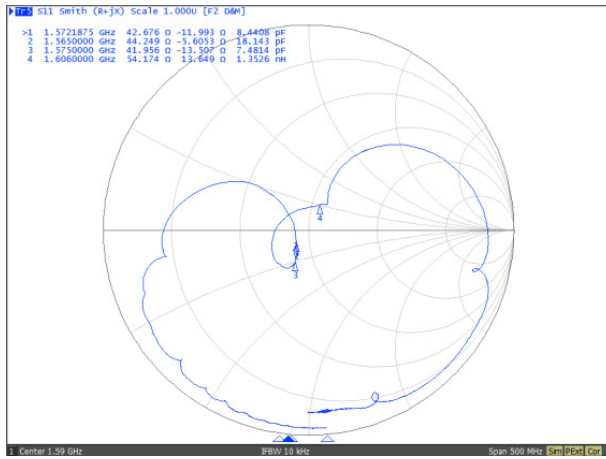
**E. Frequency Characteristics:  
S21 response: (span 500MHz)**



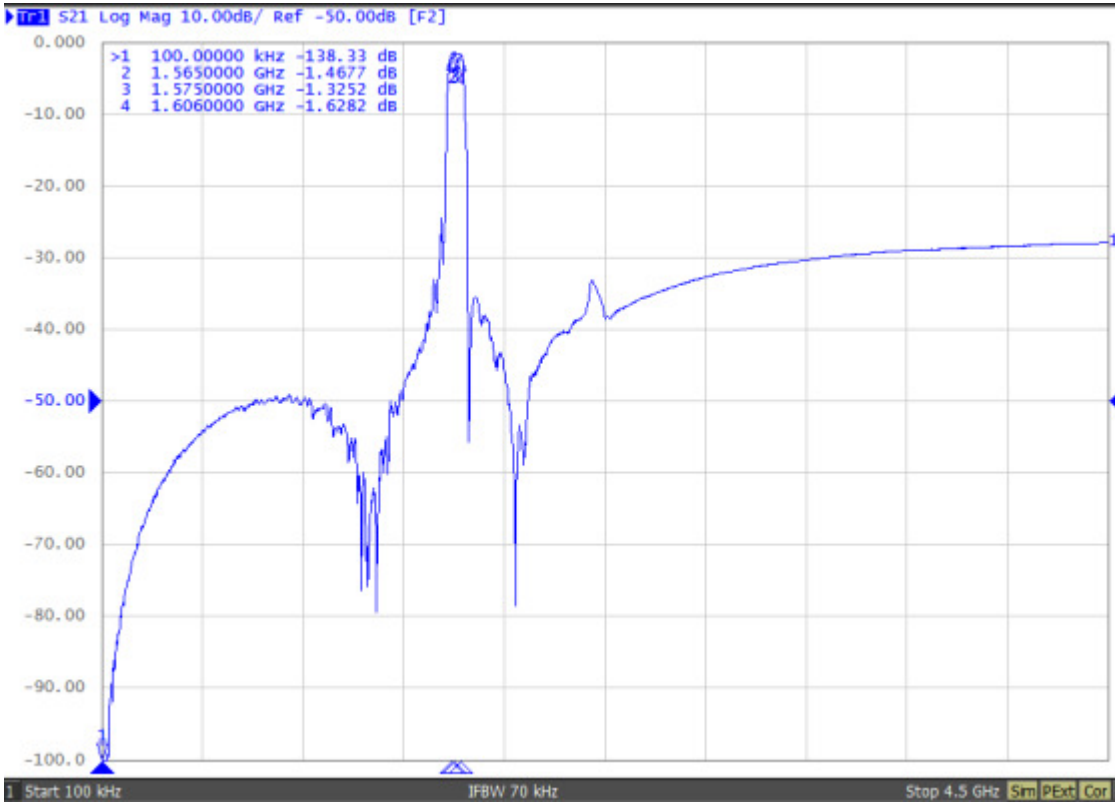
### S21 response: (span 200MHz)



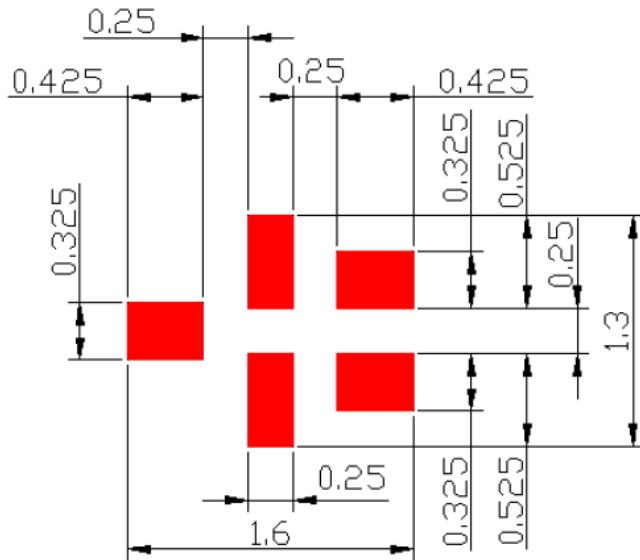
### S11/S22 response :



**S21 response: (span 4.5GHz)**



**F. PCB Footprint:**

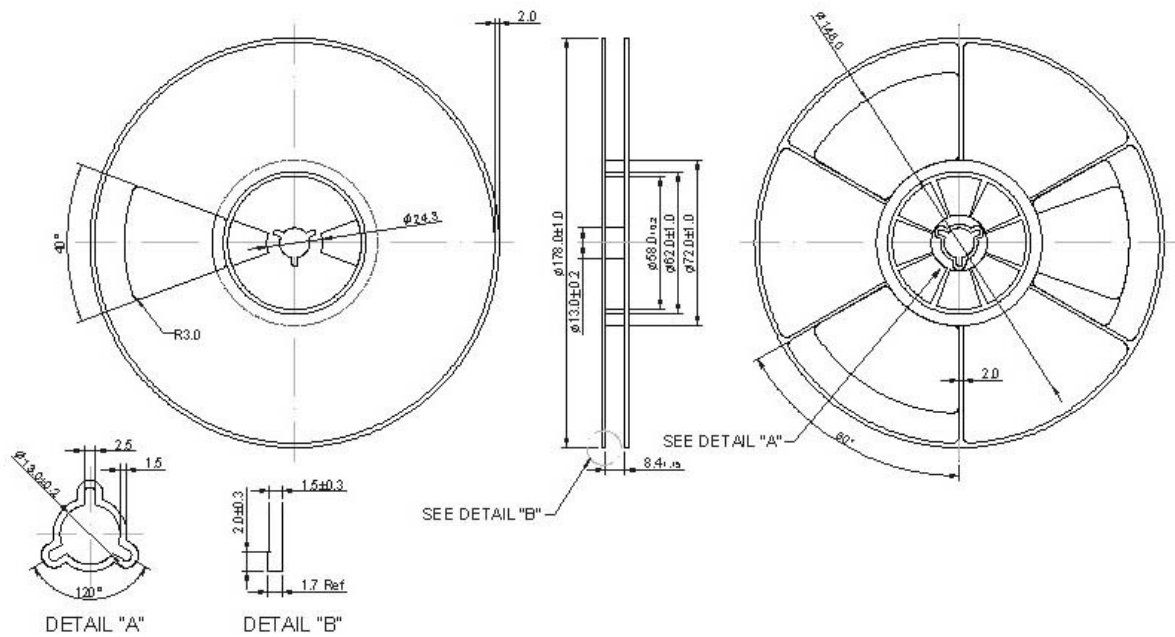


: Land Pattern

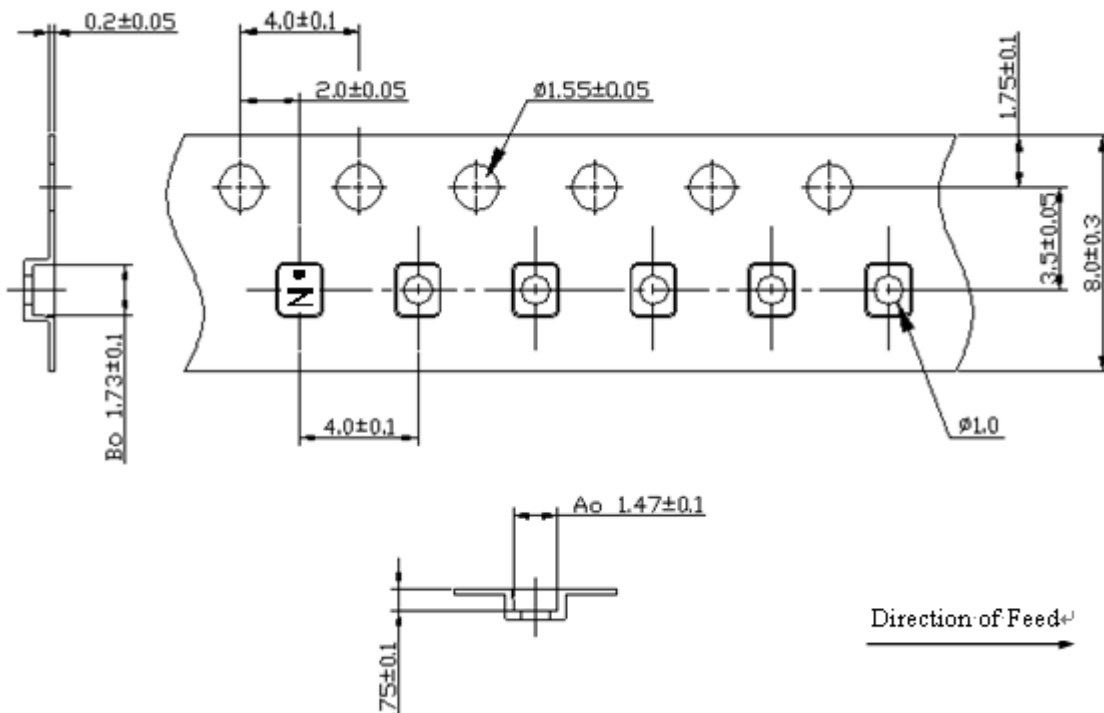
**G. PACKING:**

**1. REEL DIMENSION**

(Please refer to FR-75D10 for packing quantity)



**2. TAPE DIMENSION**



### H. Recommended Reflow Profile:

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (20~40sec).
4. Time: 2 times.

