



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,

Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Description: SAW Filter 876.5 MHz (BW 35MHz) SMD 1.1X0.9mm

TST Parts No.:TA2016B

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

Customer signature required

Company:\_\_\_\_\_

Division:\_\_\_\_\_

Approved by :\_\_\_\_\_

Date:\_\_\_\_\_

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

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

Date:\_\_\_\_\_2021/08/02

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.



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## SAW Filter 876.5 MHz (BW 35MHz) SMD 1.1x0.9x0.5mm

MODEL NO.:TA2016B

REV. NO.:2.0

### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : 3V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -55°C to +125°C
5. Moisture Sensitive Level : Level 3(MSL3)
6. ESD 100V(MM) 200V(HBM)

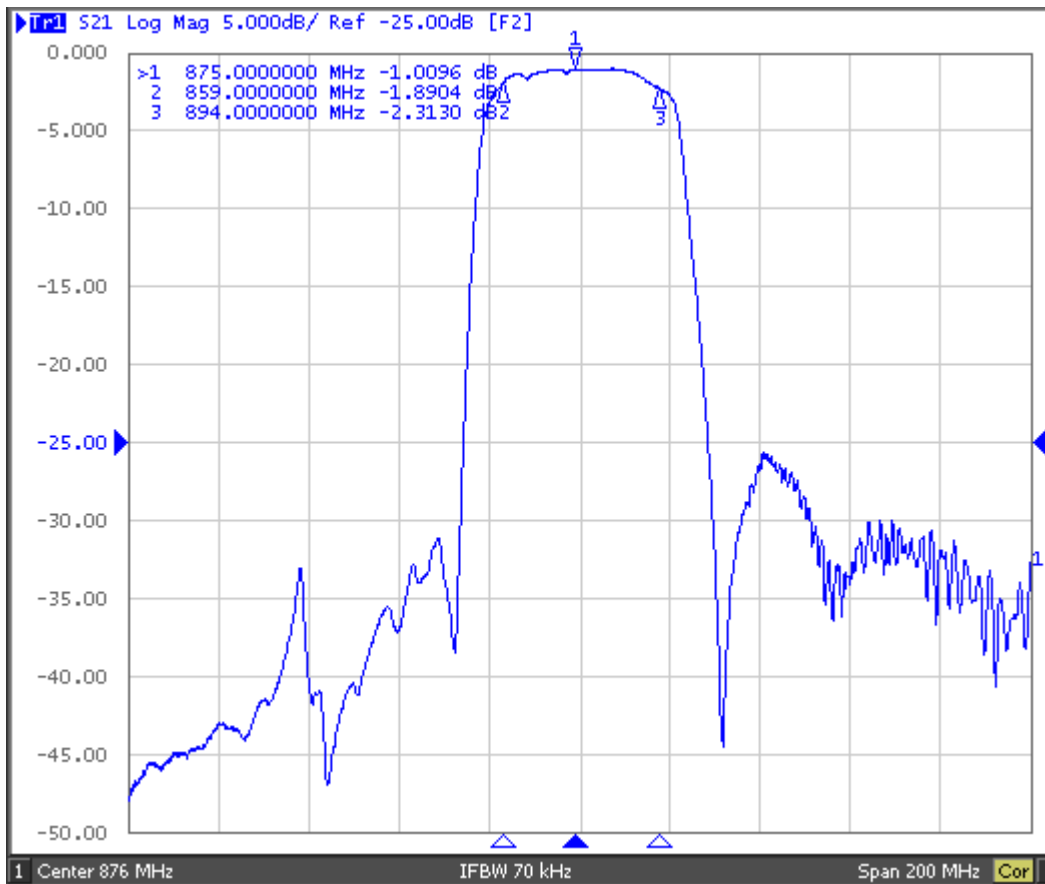


Electrostatic Sensitive Device

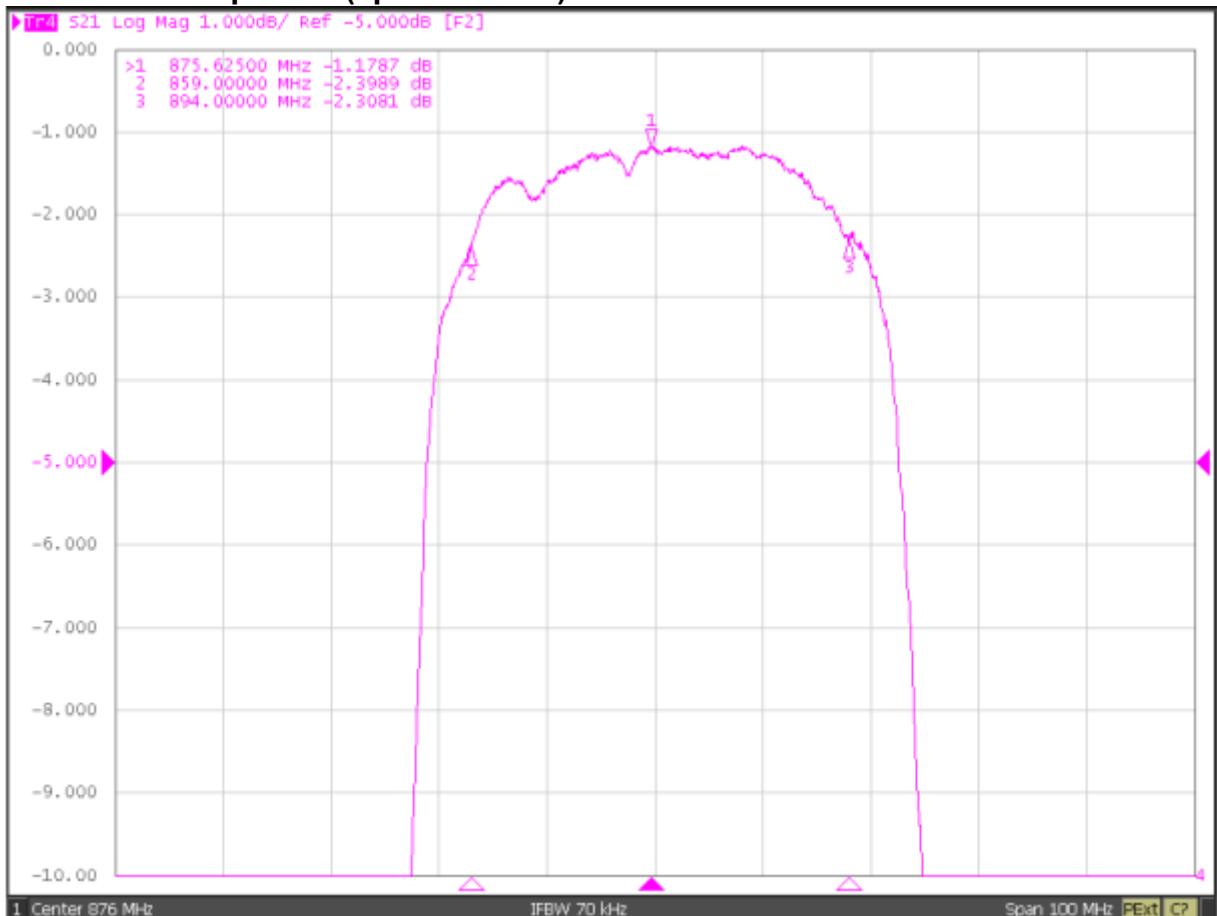
### B. ELECTRICAL CHARACTERISTICS:

| Item                                          | Unit | Min.        | Type. | Max. | Note       |
|-----------------------------------------------|------|-------------|-------|------|------------|
| <b>Center Frequency</b> <b>Fc</b>             | MHz  | -           | 876.5 | -    | -          |
| <b>Insertion Loss</b> (859~894 MHz) <b>IL</b> | dB   | -           | 2.1   | 3    | -          |
| (859~894 MHz) <b>IL</b>                       | dB   | -           | 2.1   | 2.5  | 23 to 27°C |
| <b>VSWR</b> (859~894 MHz)                     |      | -           | 2     | 2.3  | -          |
| <b>Amplitude ripple</b> (859~894 MHz)         | dB   | -           | 1.2   | 2.2  | -          |
| <b>Attenuation</b>                            |      |             |       |      |            |
| 1 ~ 447 MHz                                   | dB   | 40          | 46    | -    | -          |
| 814 ~ 849 MHz                                 | dB   | 30          | 35    | -    | -          |
| 849 ~ 854 MHz                                 | dB   | 3           | 22    | -    | -          |
| 849 ~ 854 MHz                                 | dB   | 10          | 22    | -    | 23 to 27°C |
| 909 ~ 979 MHz                                 | dB   | 25          | 32    | -    | -          |
| 979 ~ 6000 MHz                                | dB   | 20          | 34    | -    | -          |
| 6013 ~ 6258 MHz                               | dB   | 20          | 34    | -    | -          |
| 6258 ~ 12750 MHz                              | dB   | 10          | 15    | -    | -          |
|                                               |      |             |       |      |            |
| Package size                                  | mm   | SMD 1.1x0.9 |       |      |            |

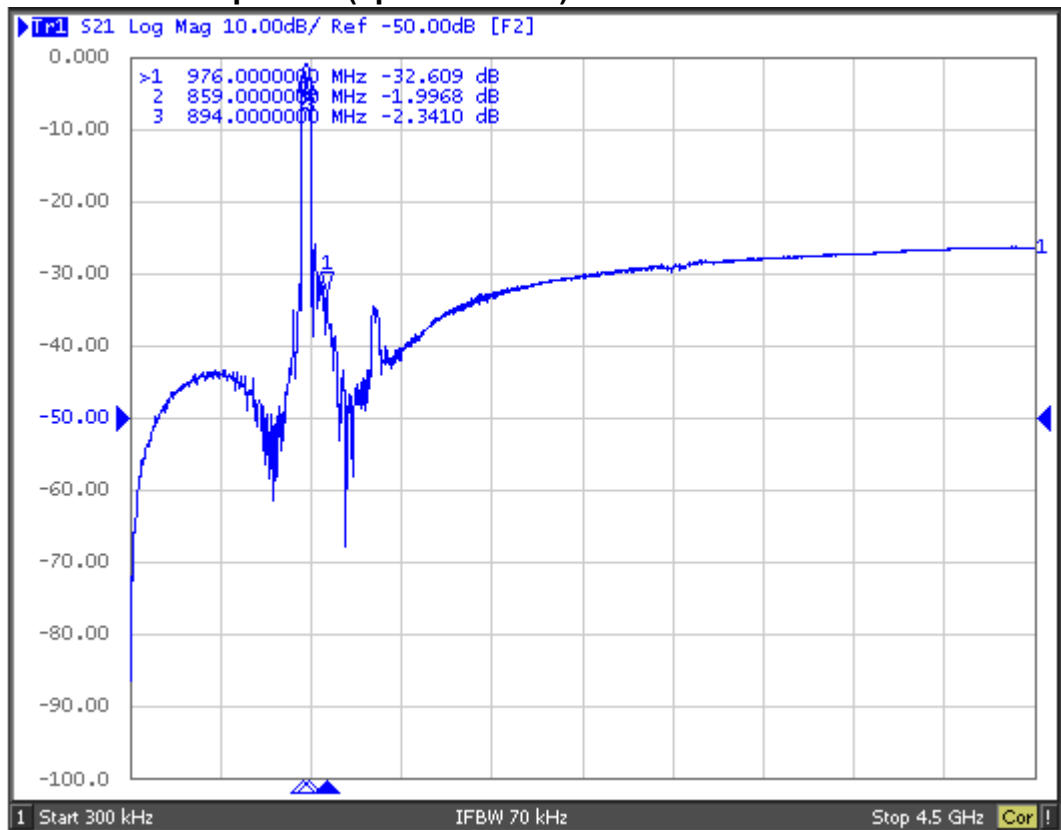
**C.FREQUENCY CHARACTERISTICS:**  
**S21 response: (span 200MHz)**



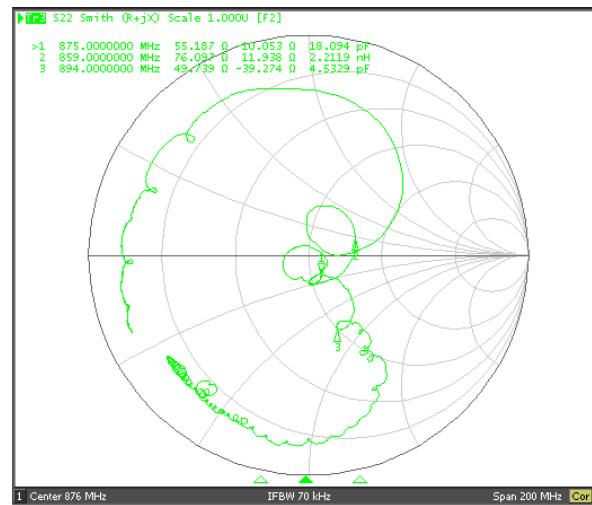
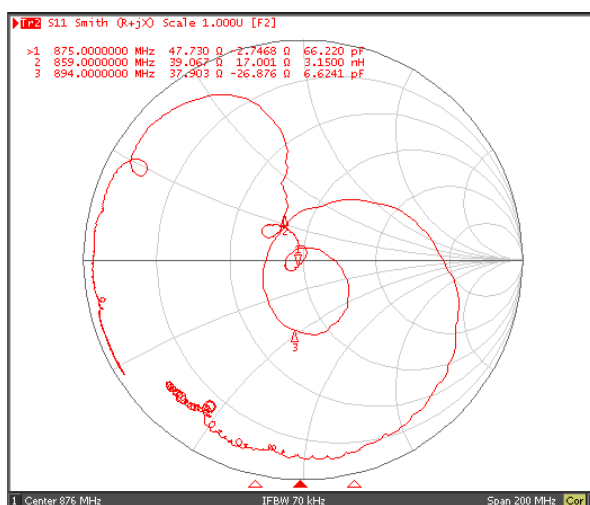
**S21 response: (span 100MHz)**



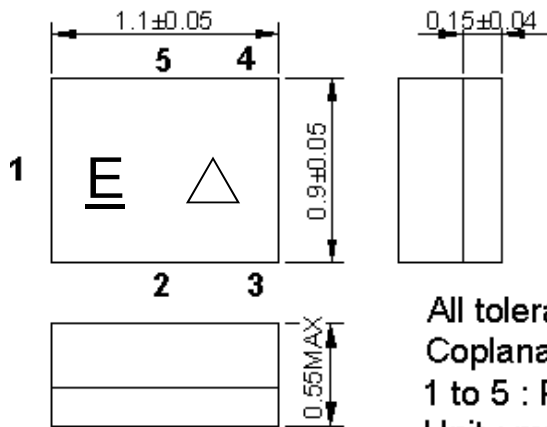
## S21 response: (span 100MHz)



## S11/S22 :



## D. OUTLINE DRAWING:

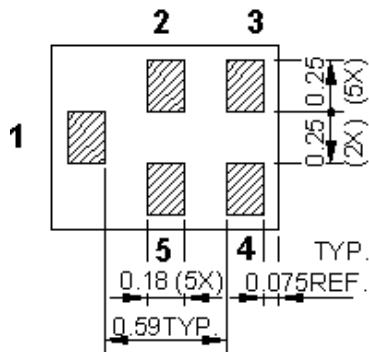


All tolerances are  $\pm 0.05$  mm unless otherwise specified

Coplanarity : 0.1 mm max.

1 to 5 : Pin No.

Unit : mm



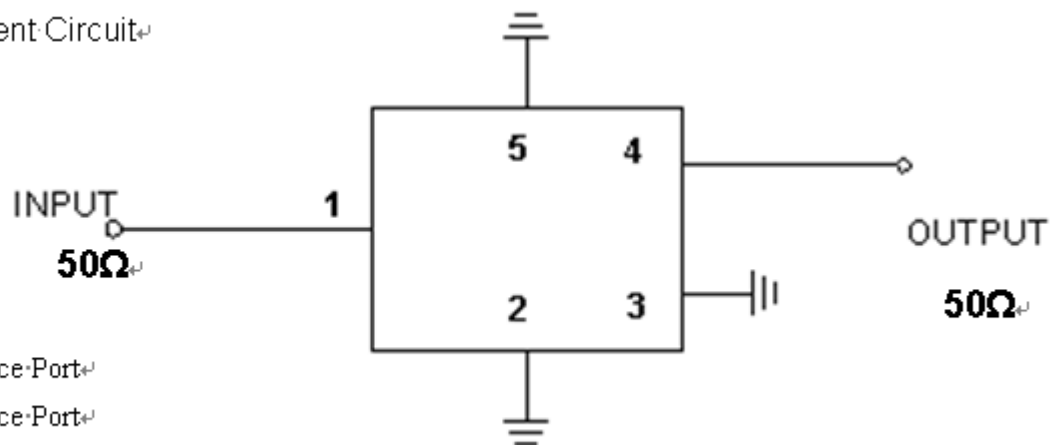
| Pin No. | Symbol | Function |
|---------|--------|----------|
| 1       | IN     | Input    |
| 2       | GND    | Ground   |
| 3       | GND    | Ground   |
| 4       | OUT    | Output   |
| 5       | GND    | Ground   |

## $\Delta$ : Year/Month Code (Follow the table)

| YEAR/Month | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       | 11       | 12       |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2021       | A        | B        | C        | D        | E        | F        | G        | H        | J        | K        | L        | M        |
| 2022       | N        | P        | Q        | R        | S        | T        | U        | V        | W        | X        | Y        | Z        |
| 2023       | a        | b        | c        | d        | e        | f        | g        | h        | j        | k        | l        | m        |
| 2024       | n        | p        | q        | r        | s        | t        | u        | v        | w        | x        | y        | z        |
| 2025       | <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> |
| 2026       | <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> |
| 2027       | <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> |
| 2028       | <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> |

## E. MEASUREMENT CIRCUIT:

Measurement Circuit

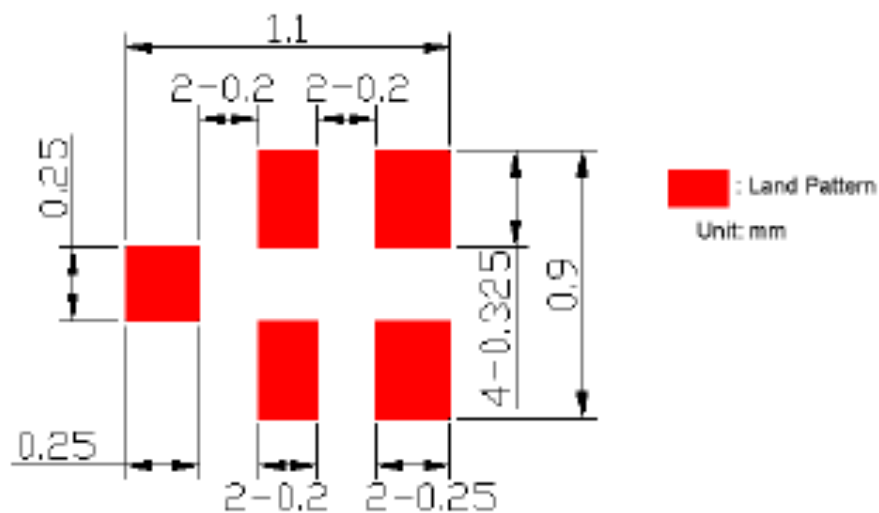


(1): Unbalance Port

(4): Unbalance Port

Others: Ground

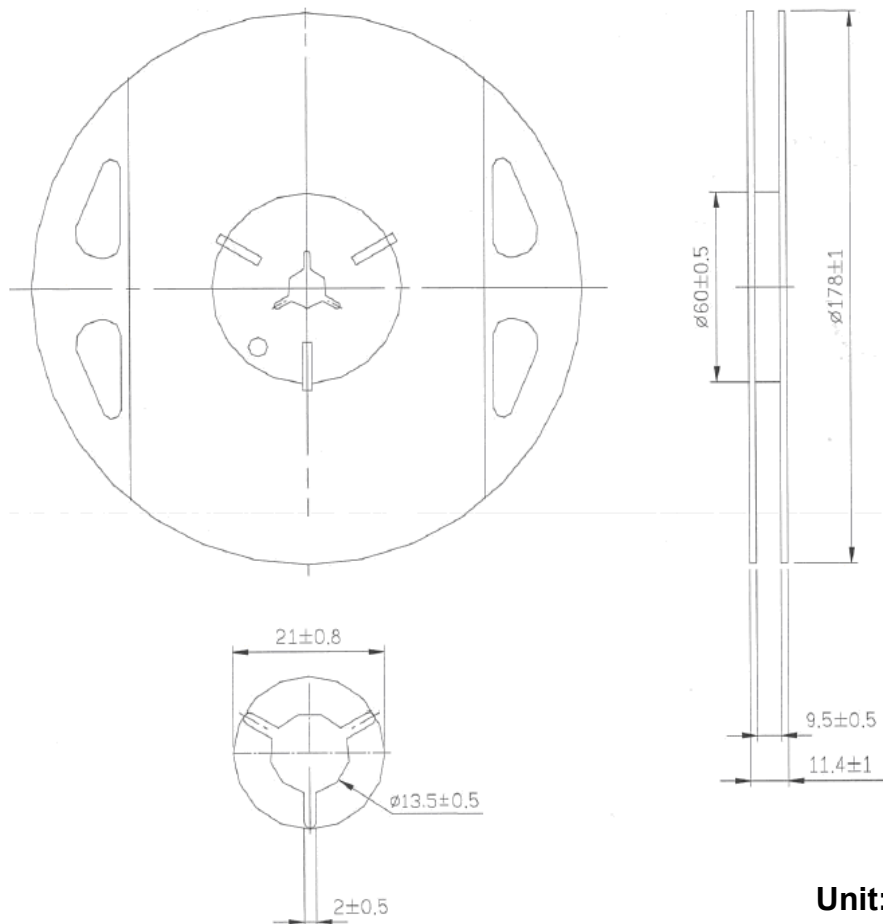
## F. FOOT PRINT :



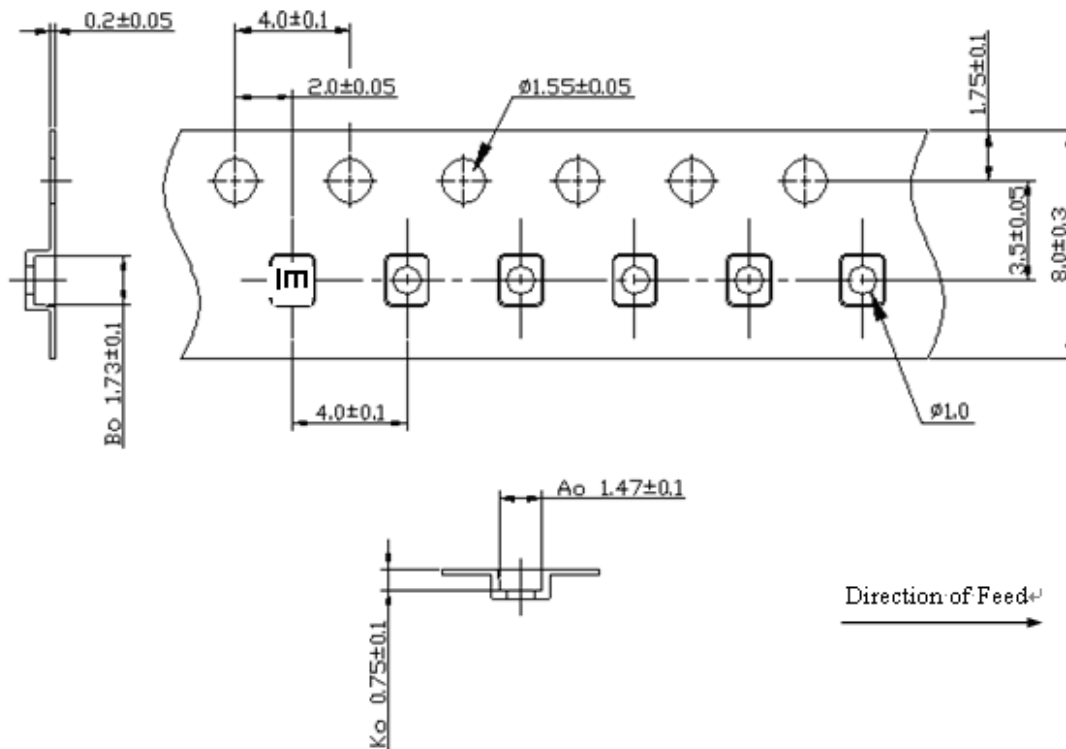
## G. PACKING:

### 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.

