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 Web: www.taisaw.com

Product Specifications Approval Sheet

Product Description: SAW Filter 1590.155 MHz 31.47MHz BW SMD 1.4X1.1 mm

TST Part No.: TA1500A

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Bob Chau 陳秀宜 _____

Approved by:_____ Bob Chau _____

Date:_____ 03, 25, 2013 _____

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 1590.155MHz

MODEL NO.:TA1500A REV. NO.:2

A. MAXIMUM RATING:

1. Input Power Level: 13 dBm
2. DC Voltage : 3V
3. Operating Temperature: -20°C to +70°C
4. Storage Temperature: -40°C to +85°C

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

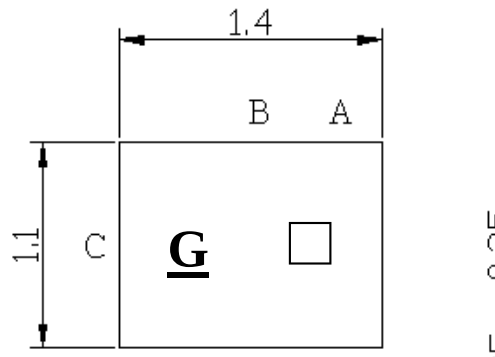
Terminating source impedance (single-ended) : Zs = 50 Ω

Terminating load impedance (single-ended) : Z_L = 50 Ω

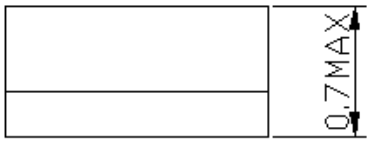
Item	Unit	Min.	Typ.	Max.	Note
Center Frequency **Fc**	MHz	-	1590.155	-	-
Insertion Loss (1574.42~1576.42 MHz) **IL**	dB	-	0.85	1.3	-
Insertion Loss (1597.55~1605.89 MHz) **IL**	dB	-	0.95	1.3	-
Amplitude ripple (1574.42~1605.89 MHz)	dB	-	0.3	0.6	-
Group Delay ripple (1574.42~1605.89 MHz)	ns	-	8	15	-
VSWR (1574.42~1605.89 MHz)		-	1.3	2.1	-
Attenuation (Reference level from 0 dB)					
D.C.~915 MHz	dB	18	21	-	-
915~1525 MHz	dB	17	19	-	-
1660~4500 MHz	dB	17	20	-	-
4500~6000 MHz	dB	12	32	-	-
Temperature Coefficient of Frequency	ppm/℃	-	-36	-	-

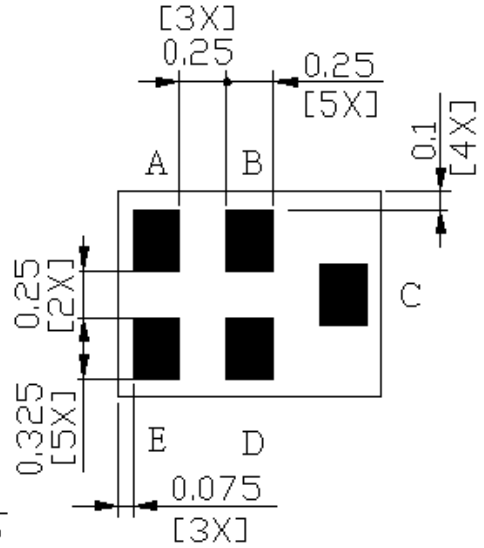
C.OUTLINE DRAWING:

top view



side view





bottom view

C : Input

A : Output

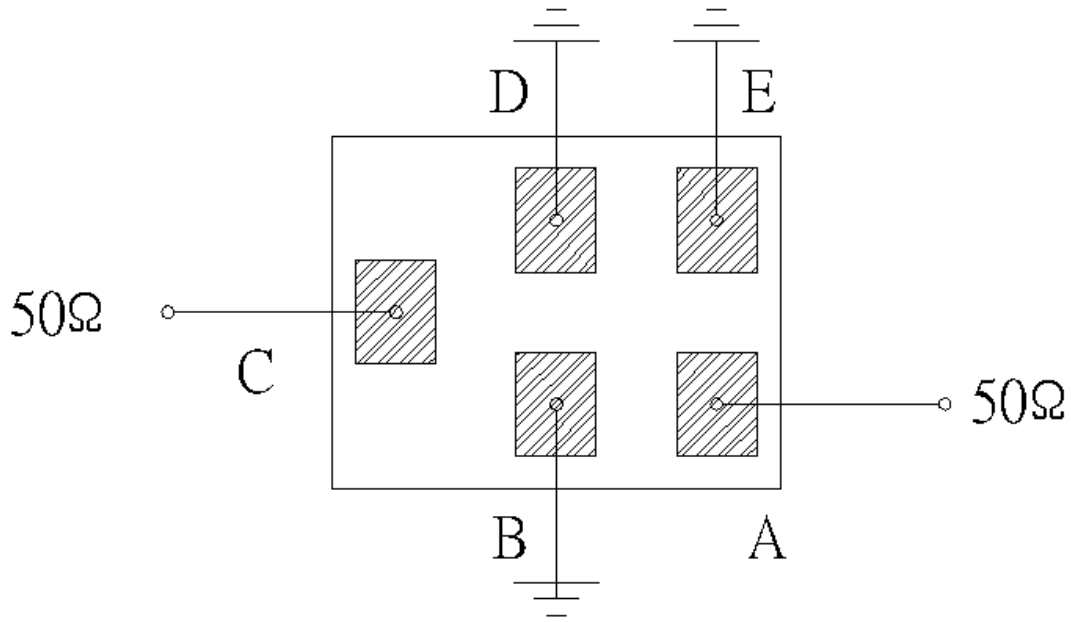
B,D,E : Ground

Unit : mm

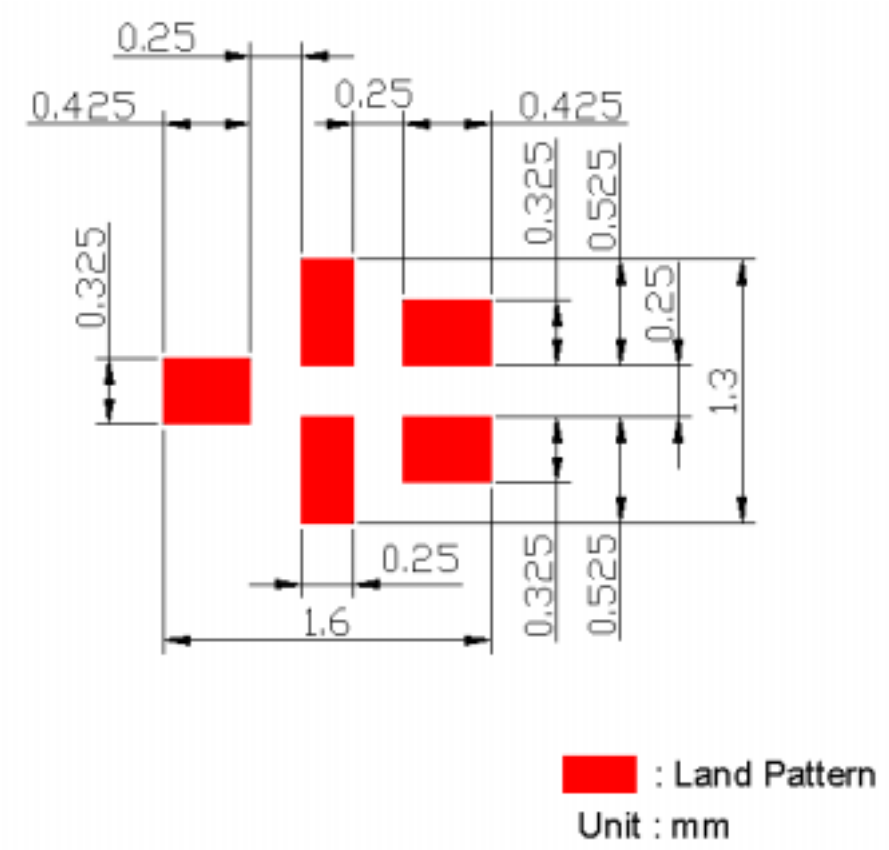
☐ **: Year/Month Code (Follow the table)**

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	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**J**	**K**	**L**	**M**
2018	**N**	**P**	**Q**	**R**	**S**	**T**	**U**	**V**	**W**	**X**	**Y**	**Z**
2019	**a**	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**j**	**k**	**l**	**m**
2020	**n**	**p**	**q**	**r**	**s**	**t**	**u**	**v**	**w**	**x**	**y**	**z**

D. MEASUREMENT CIRCUIT:

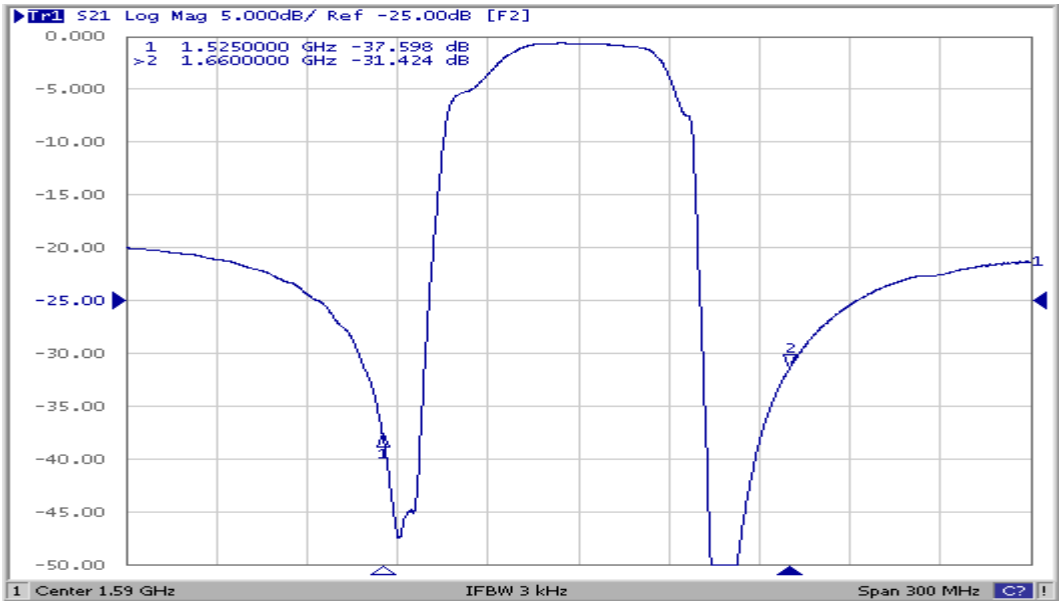


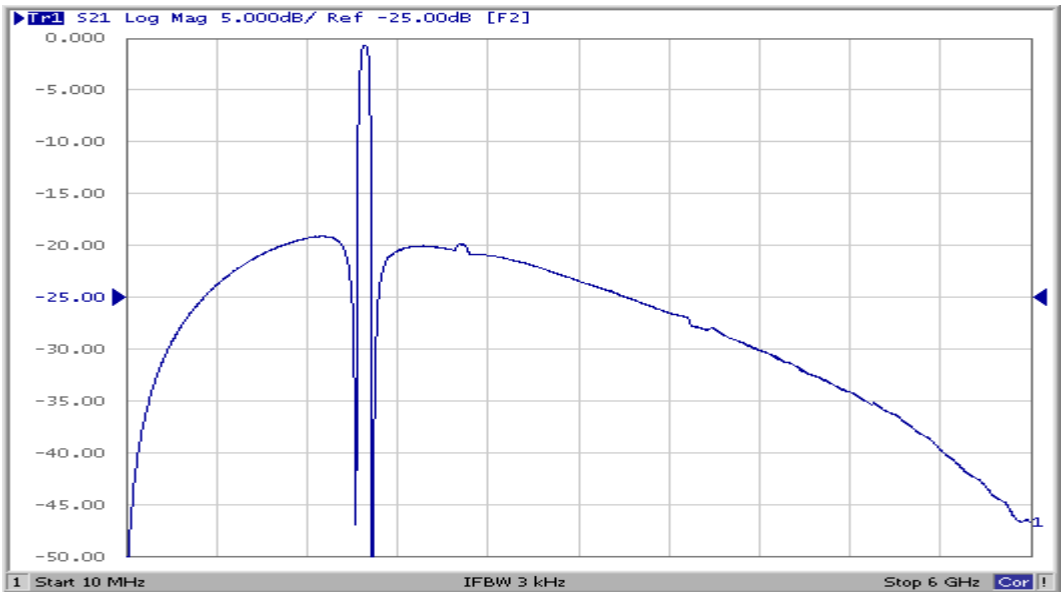
E. PCB Footprint:



F. Frequency Characteristics :

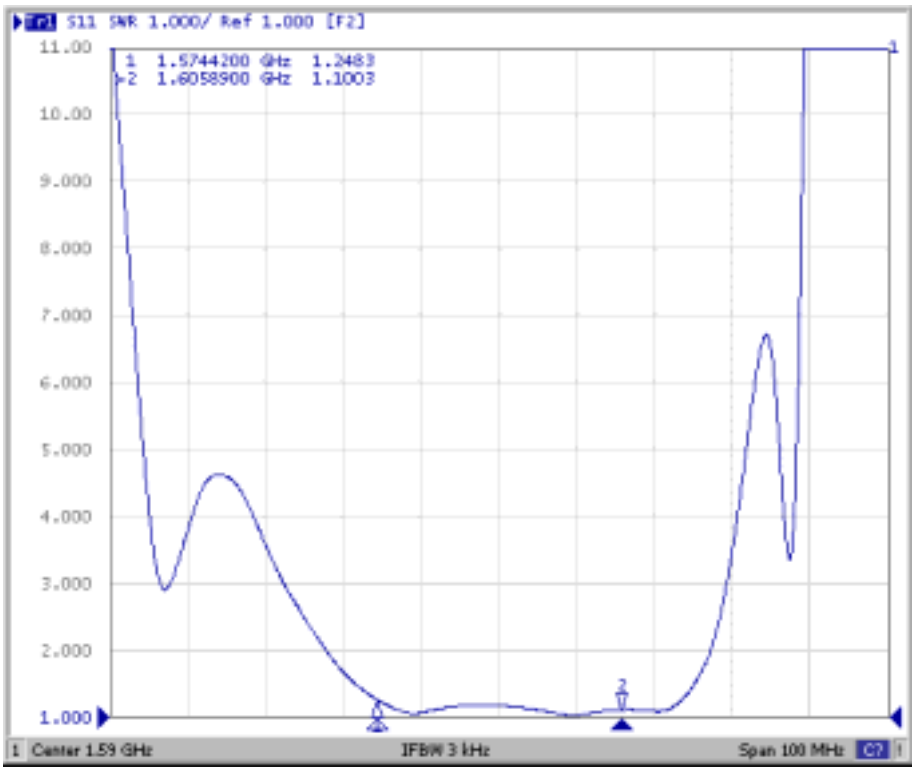

Tr1 S21 Log Mag 1.000dB/ Ref -5.000dB [F2]
Tr2 S21 Delay 10.00ns/ Ref 30.00ns [F2 Smo]
1 1.5744200 GHz -0.7839 dB
>2 1.6058900 GHz -0.9165 dB
0.000
-1.000
-2.000
-3.000
-4.000
-5.000
-6.000
-7.000
-8.000
-9.000
-10.00
1 Center 1.59 GHz
IFBW 3 kHz
Span 100 MHz


Tr1 S21 Log Mag 5.000dB/ Ref -25.00dB [F2]
1 1.5250000 GHz -37.598 dB
>2 1.6600000 GHz -31.424 dB
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
-40.00
-45.00
-50.00
1 Center 1.59 GHz
IFBW 3 kHz
Span 300 MHz

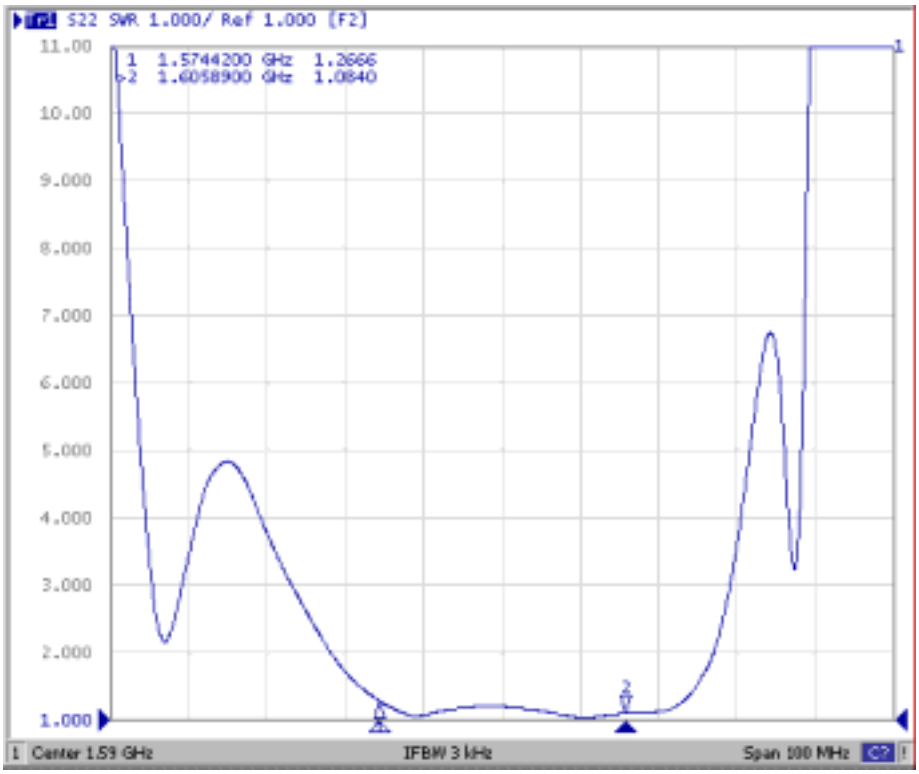

Tr1 S21 Log Mag 5.000dB/ Ref -25.00dB [F2]
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
-40.00
-45.00
-50.00
1 Start 10 MHz
IFBW 3 kHz
Stop 6 GHz

Reflection Functions :

S11



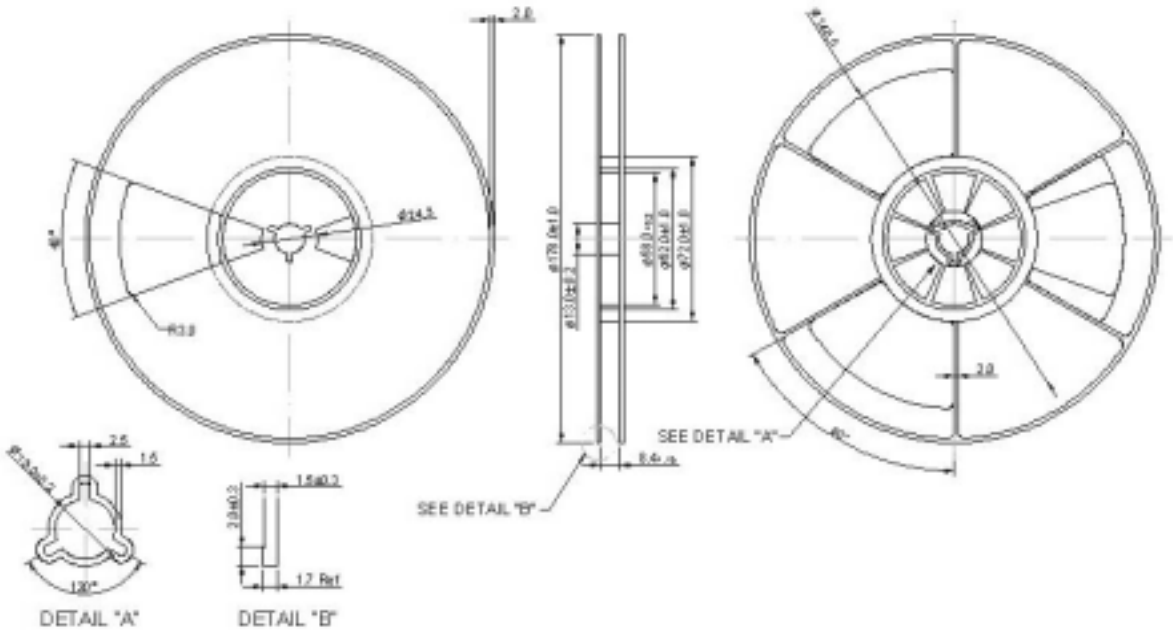
S22



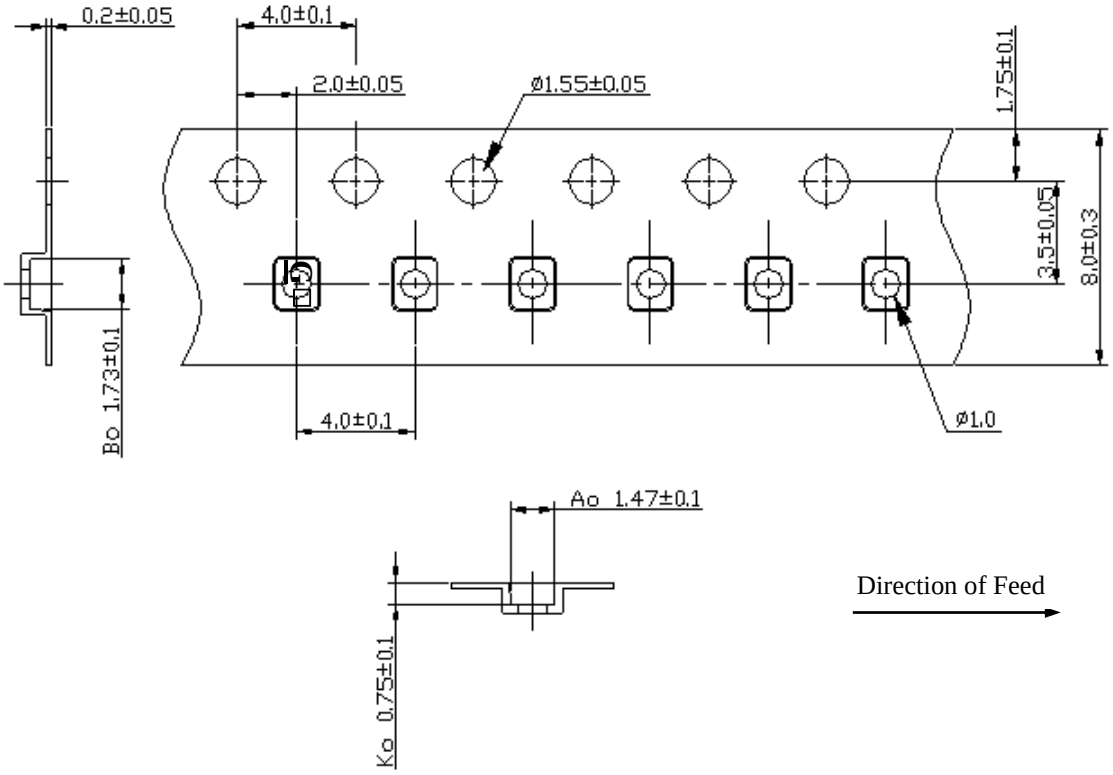
G. PACKING:

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℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 245~260℃ peak (min. 10sec).
4. Time : 2 times.