



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: 161MHz 22MHzBW SMD 5.0mm x 5.0mm SAW IF Filter

TST Parts No.: TB1222A

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Kazuma Lee 

Approval by: _____ Bob Chau 

Date: _____ 04 / 15 / 2016

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 161MHz 22MHz BW (SMD 5.0×5.0 mm)

MODEL NO.: TB1222A

REV. NO.1

A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level : 10 dBm
4. Maximum DC Voltage : 10V

RoHS Compliant
Lead free
Lead-free soldering

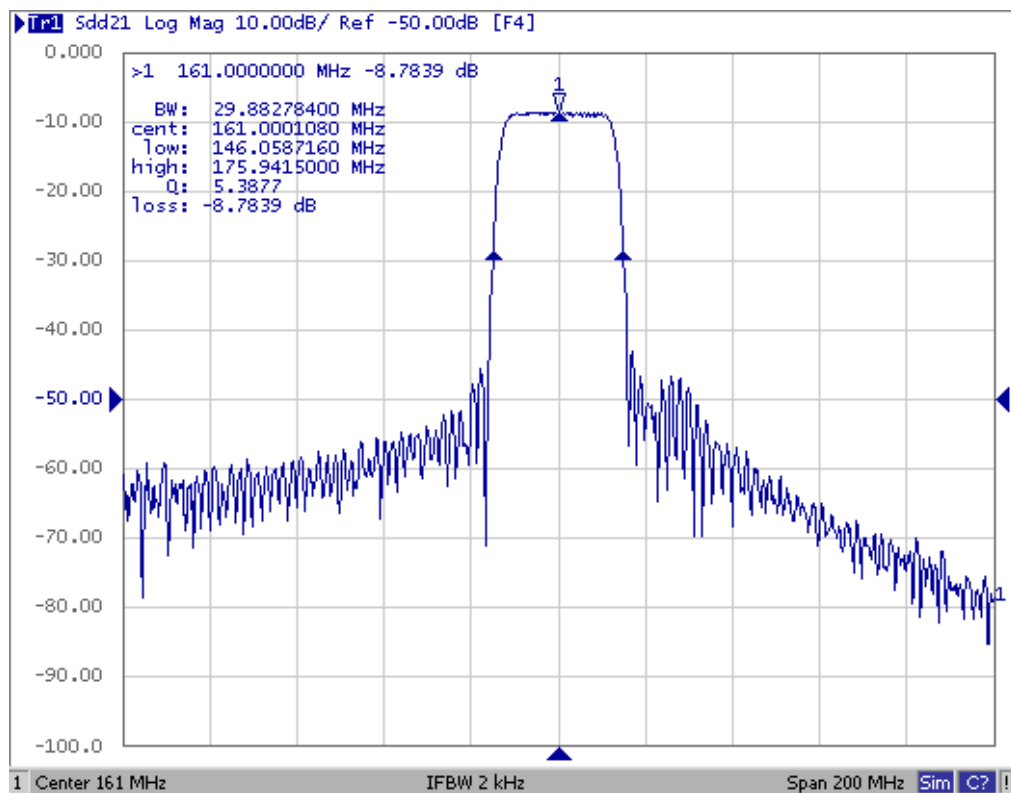
Electrostatic Sensitive Device

B. CHARACTERISTICS:

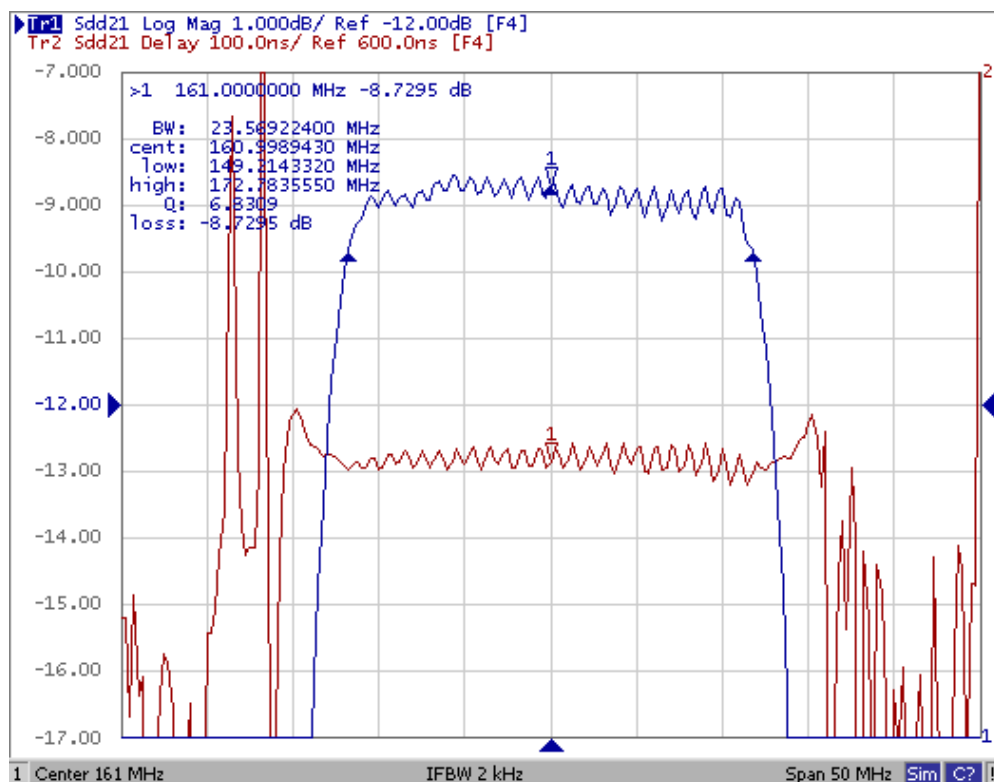
Item	Unit	Min.	Type.	Max.
Center frequency, F_c	MHz	-	161	-
Insertion Loss, IL	dB	-	8.8	11.5
1dB Lower Band Edge	MHz	-	149.2	150.0
1dB Upper Band Edge	MHz	172.0	172.8	-
20dB Lower Band Edge		145	146	
20dB Upper Band Edge			176	178
30dB Lower Band Edge		143.5	145.4	
30dB Upper Band Edge			176.6	180.0
Passband Ripple F _c +/- 9MHz	dB _{p-p}	-	0.6	1.0
Group Delay Variation F _c +/- 9MHz	ns	-	50	80
Attenuation:(Reference level from 0dB)				
10 MHz ~ 121MHz	dB	40	48	-
121 MHz ~ 144MHz	dB	32	37	-
184 MHz ~ 201MHz	dB	32	37	-
201MHz ~ 600MHz	dB	40	48	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance(Balanced)	Ohm	-	200	-
Load Impedance(Balanced)	Ohm	-	200	-

C. FREQUENCY CHARACTERISTICS:

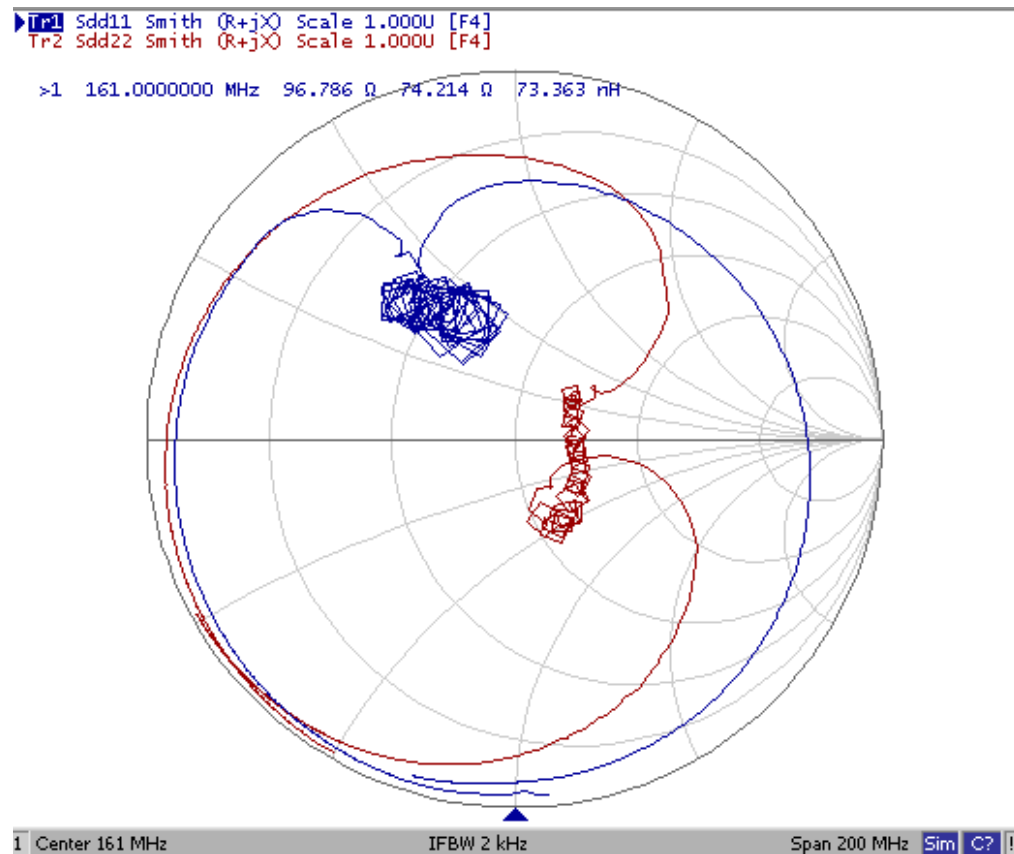
(1) Narrow Band Response:



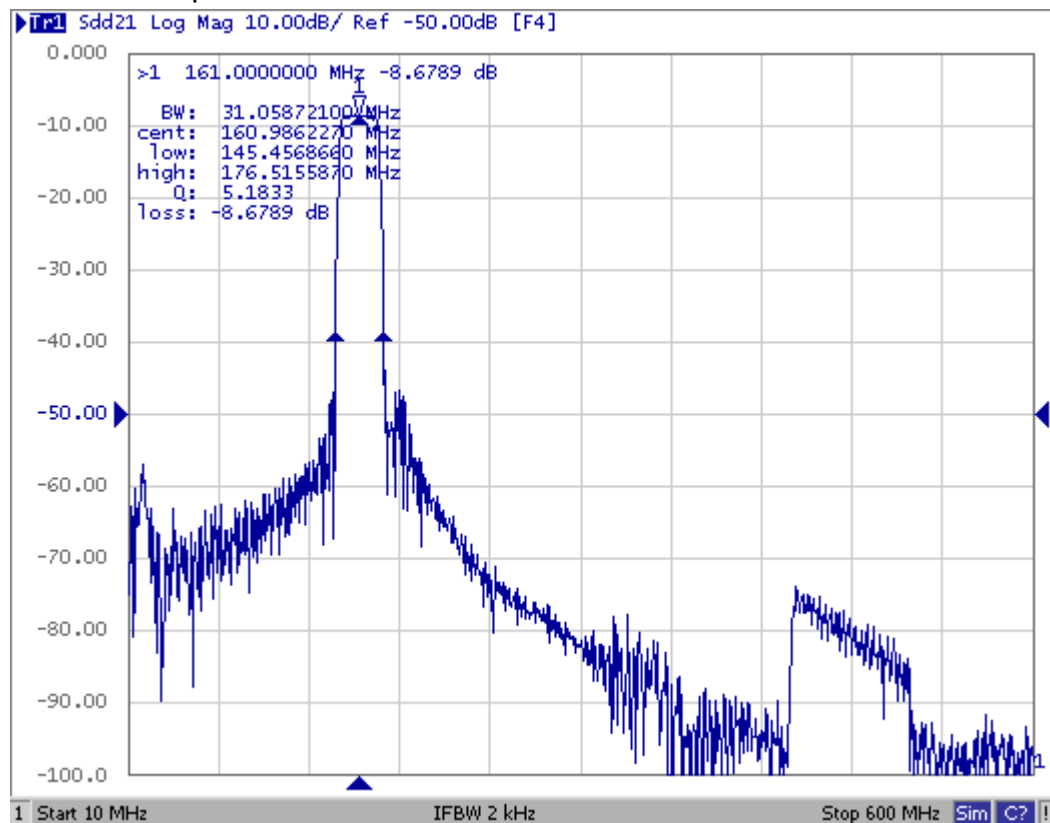
(2) Pass Band Response and Group Delay Response:



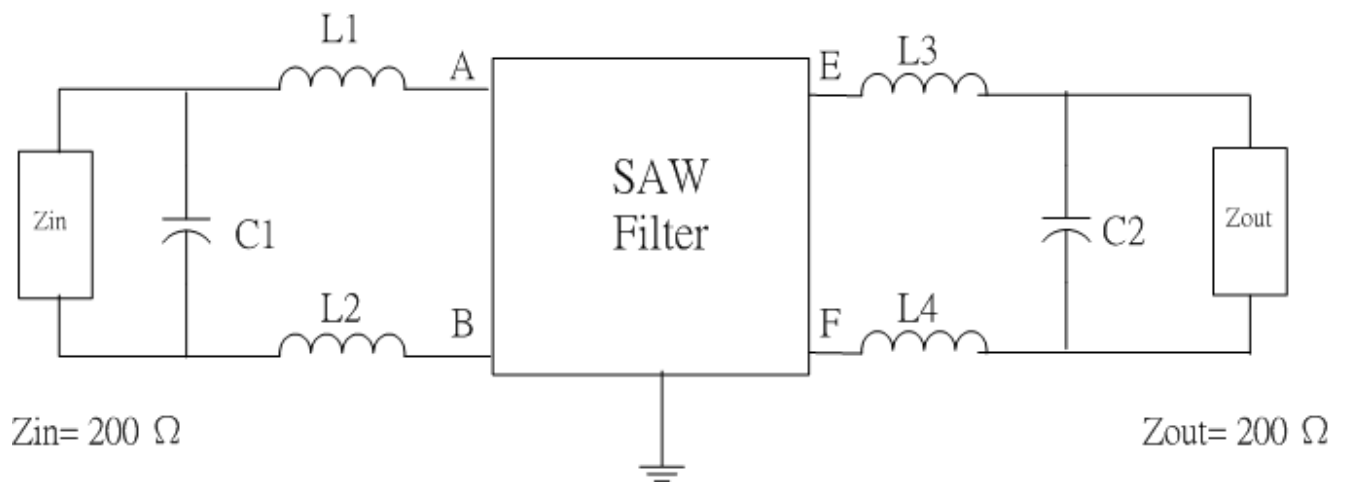
(3) Smith Chart:



(4) Wide Band Response::

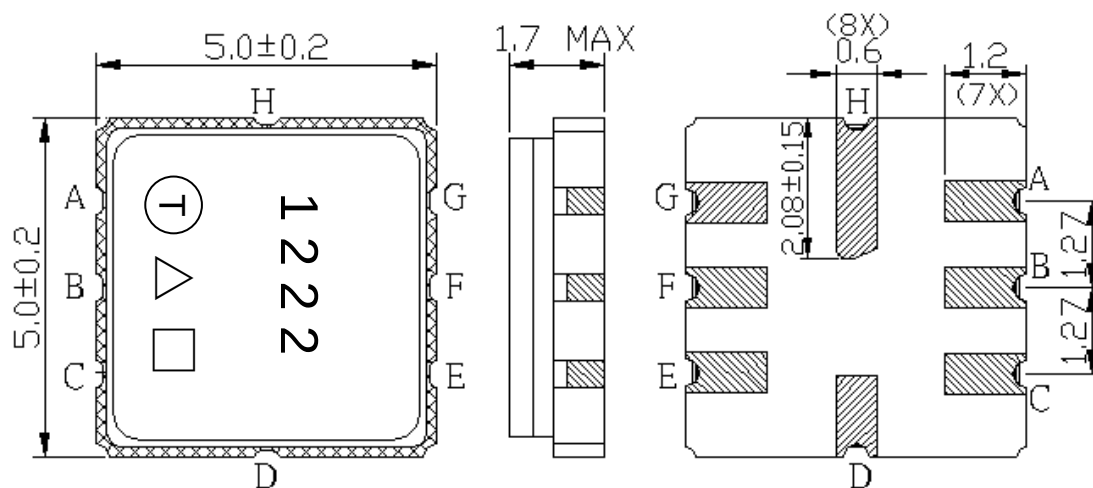


D. MATCHING CIRCUIT:



$$L1=L2=110\text{nH} \quad L3=L4=110\text{nH} \quad C1=5\text{pF} \quad C2=9\text{pF}$$

E. OUTLINE DRAWING:



#A : Input

#B : Balanced Input

#E : Output

#F : Balanced Output

#C,D,G,H : Ground

□ : Week Code

Unit: mm

△ : Product / Year Code

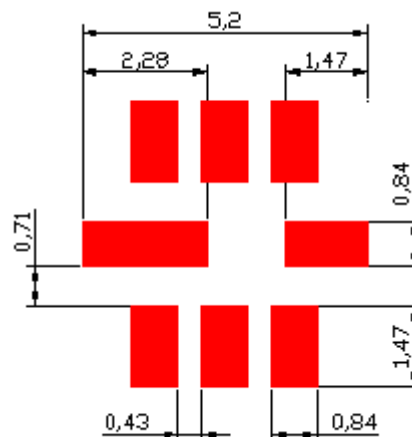
Product / Year Code

Year	2013 2017	2014 2018	2015 2019	2016 2020
Product Code	B	b	<u>B</u>	<u>b</u>

Week Code Table

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

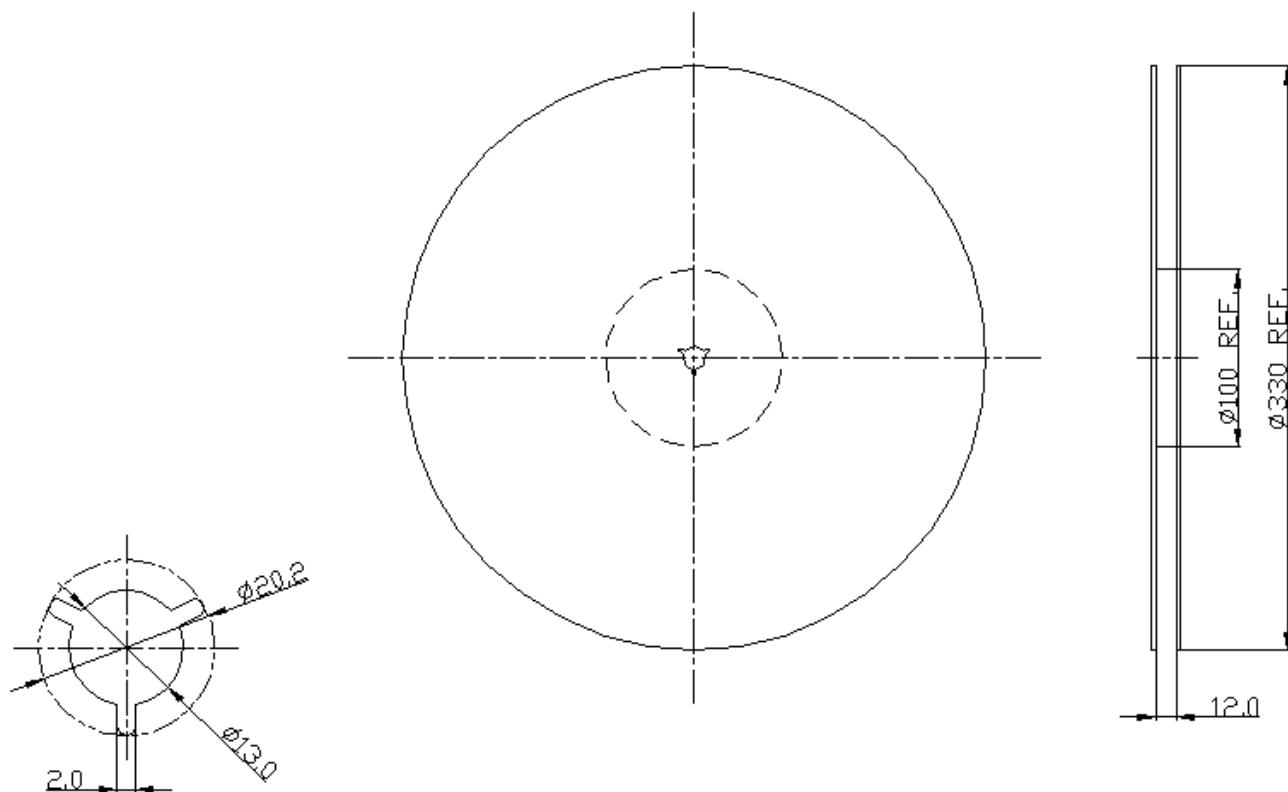
F. PCB FOOTPRINT:



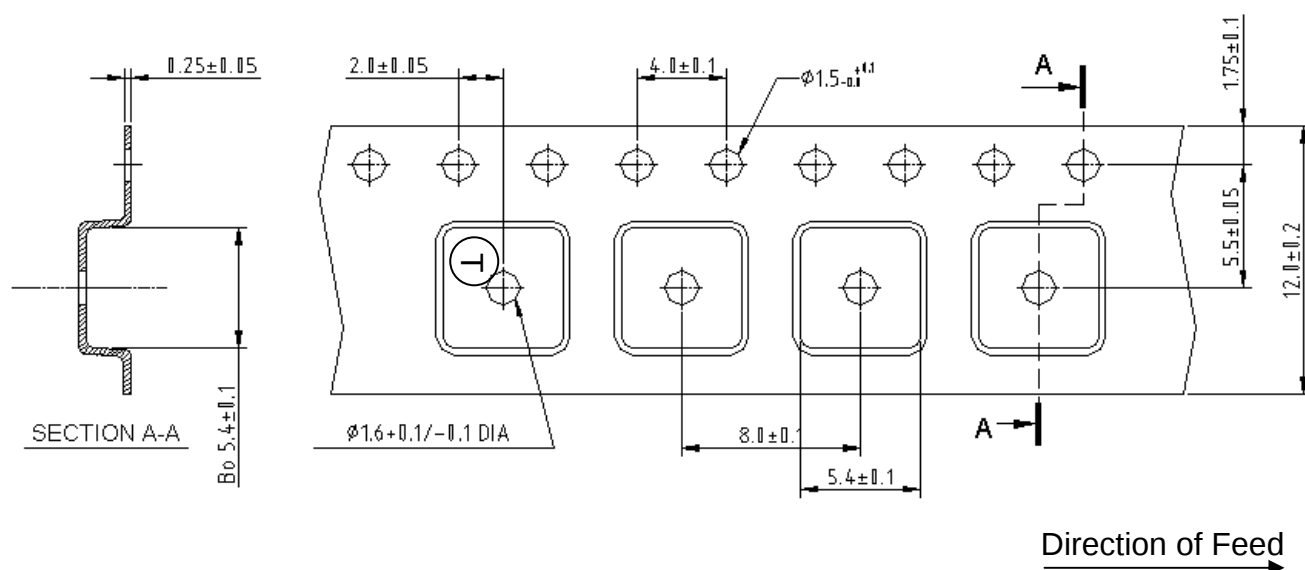
G. PACKING:

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.

