



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

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Product Specifications Approval Sheet

Product Name: IF SAW Filter 137.5 MHz SMD 19.0x6.5 mm (BW=1 MHz)

TST Parts No.: TB1373A

Customer Parts No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Hayley Chou *Hayley Chou*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/03/31

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 137.5 MHz

MODEL NO.: TB1373A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 13 dBm
2. DC Voltage: 3 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +95 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)

RoHS Compliant

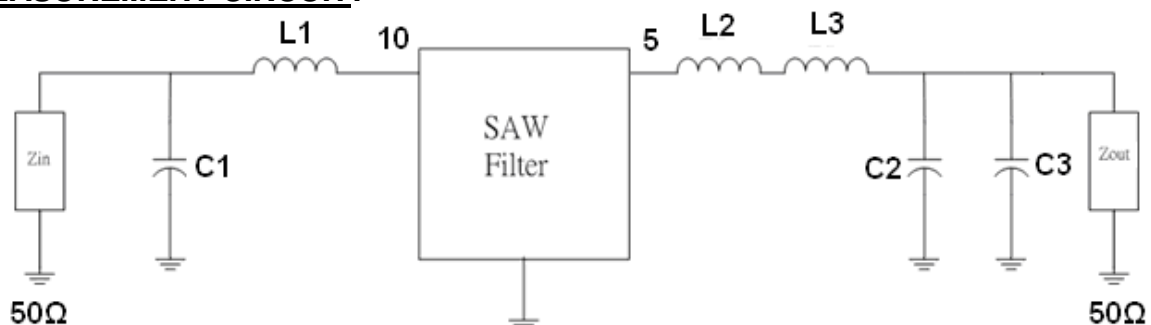
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	137.5	-
Insertion Loss at F _c IL	dB	-	12.3	14
1 dB Bandwidth	MHz	1.0	1.2	-
3 dB Bandwidth	MHz	-	1.4	-
40 dB Bandwidth	MHz	-	2.4	2.6
Amplitude Ripple (F _c ±0.5 MHz)	dB _{p-p}	-	0.5	1.0
Phase Linearity (F _c ±0.5 MHz)	deg _{p-p}	-	2	8
Group Delay Variation (F _c ±0.5 MHz)	nsec _{p-p}	-	160	-
Absolute Group Delay	μsec	-	2.5	2.9
Return Loss (F _c ±0.5 MHz)	dB	-	18	-
Attenuation (Reference level from minimum IL)				
10 ~ 127.5 MHz	dB	40	47	-
147.5 ~ 200 MHz	dB	40	49	-
Temperature coefficient of frequency	ppm/°C	-0.032		

C. MEASUREMENT CIRCUIT:

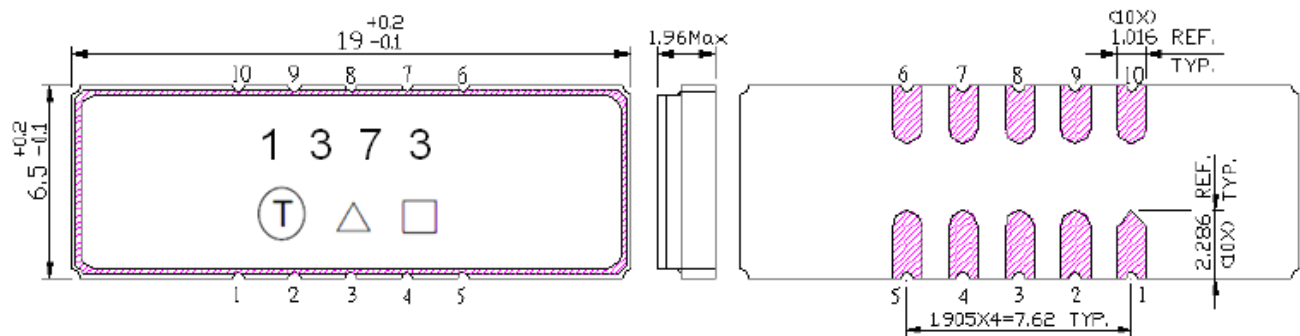


L1=120nH, L2=120nH, L3=27nH, C1=68pF, C2=56pF, C3=3pF

TAI-SAW TECHNOLOGY CO., LTD.

TST DCC
Release document

D. OUTLINE DRAWING:



Pin 10: Input

Pin 5: Output

Others: Ground

Unit: mm

△: Product / Year Code

□: Date Code

Product / Year Code

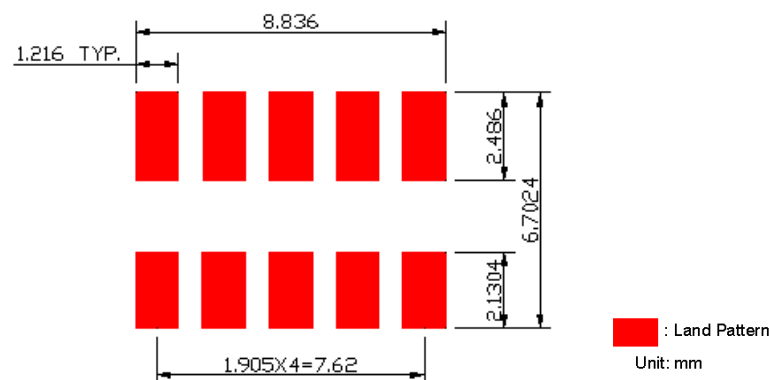
Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	B	b	<u>B</u>	<u>b</u>

This table is four-year cycle (ex: Year 2025,△will show “B”)

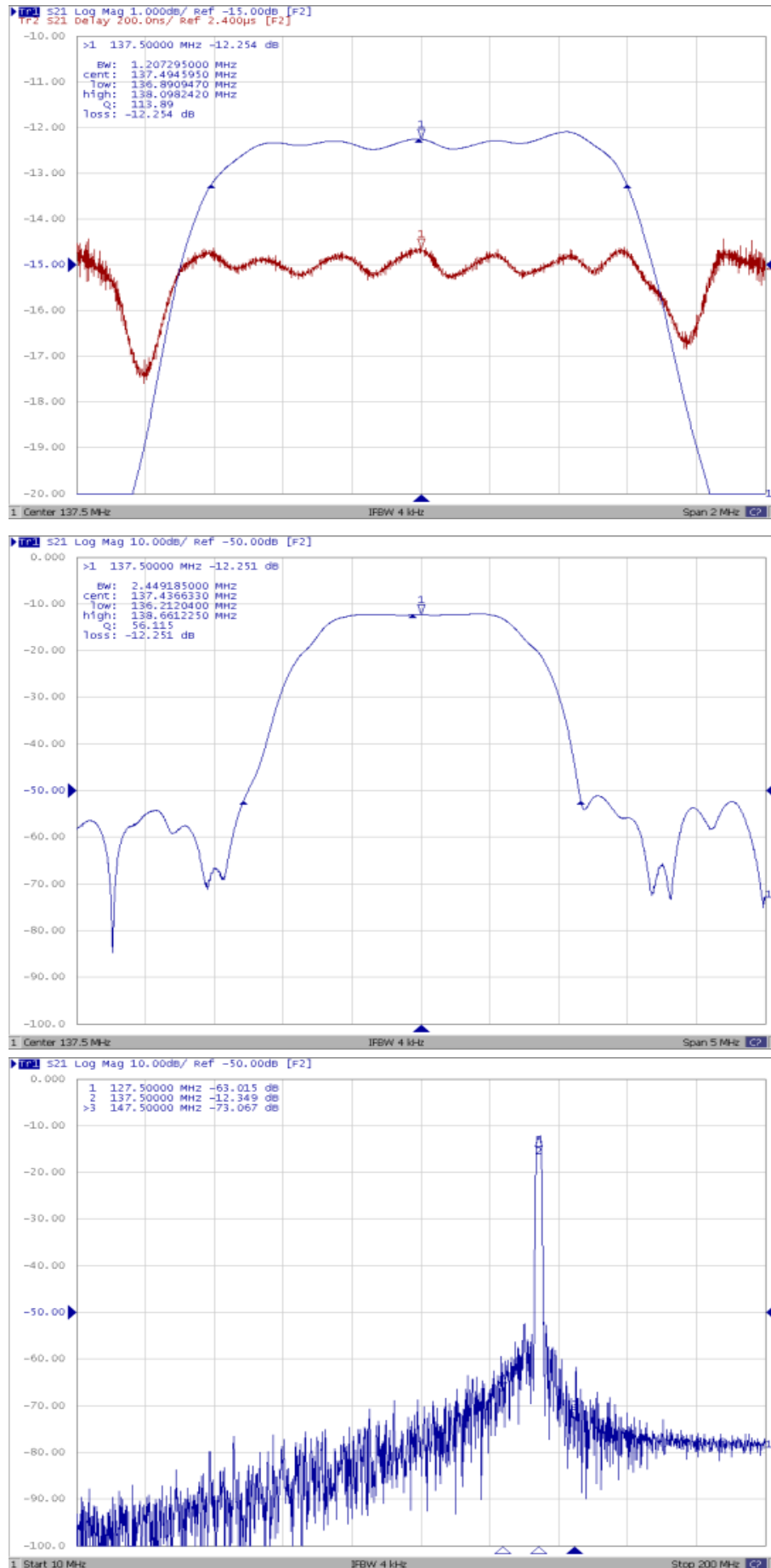
Date Code Table:

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

E. PCB Footprint:

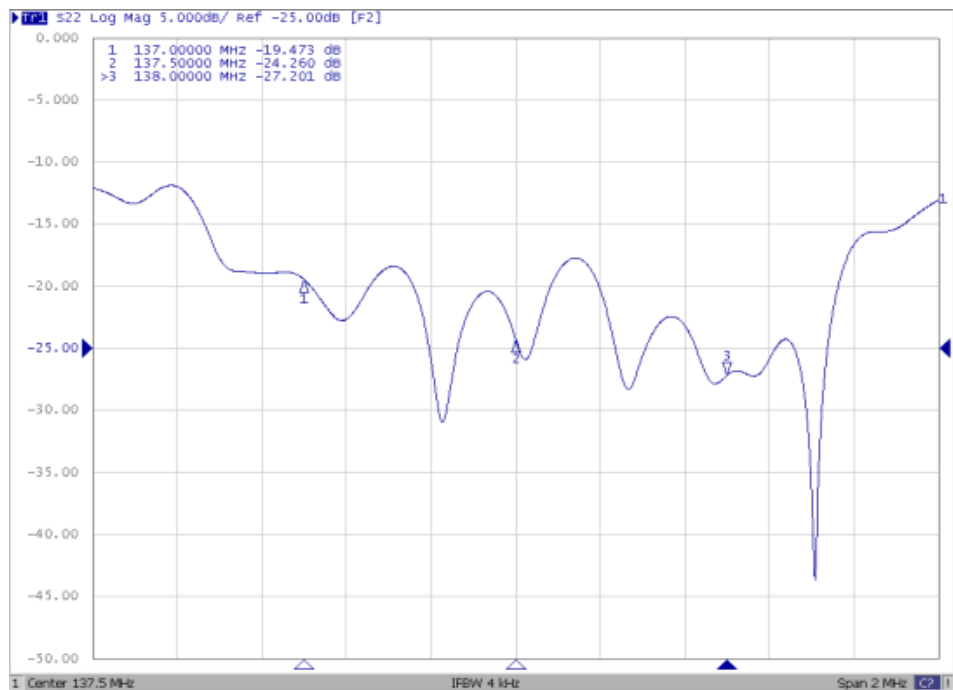
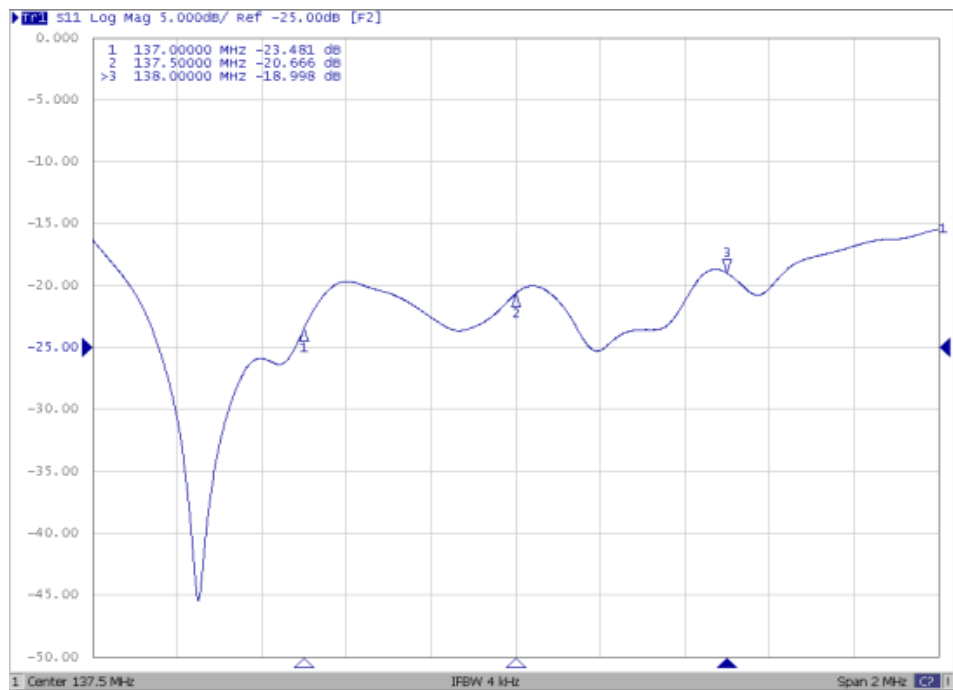


F. FREQUENCY CHARACTERISTIC:

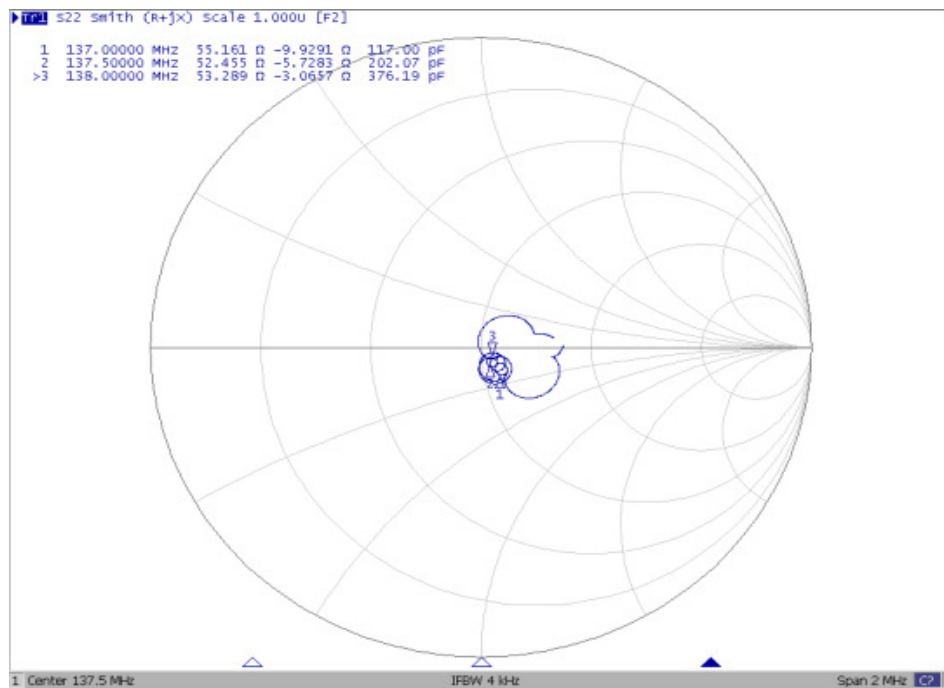
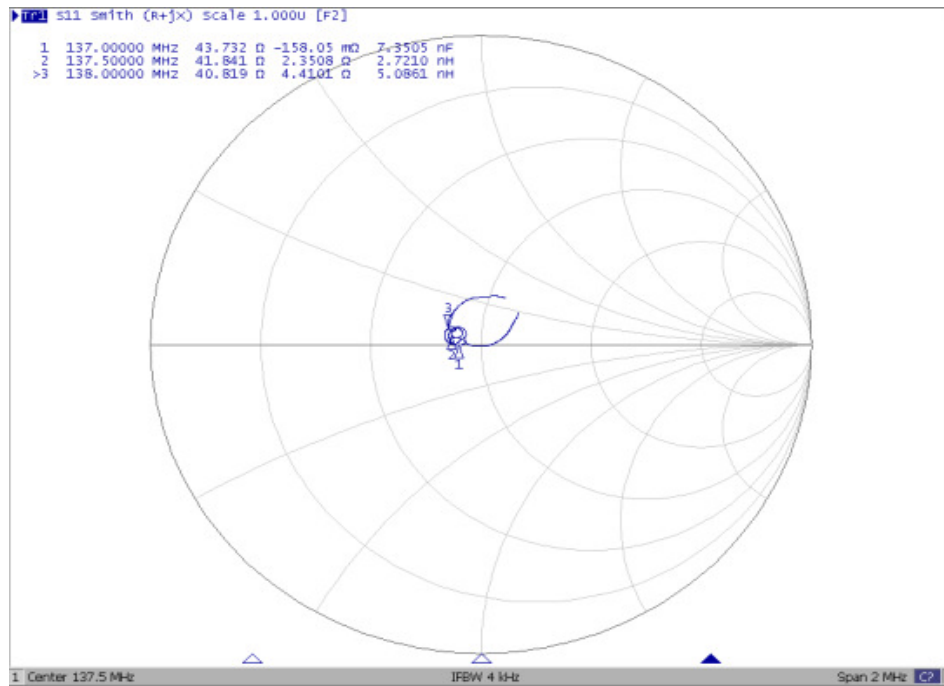


Reflection Functions:

Return Loss



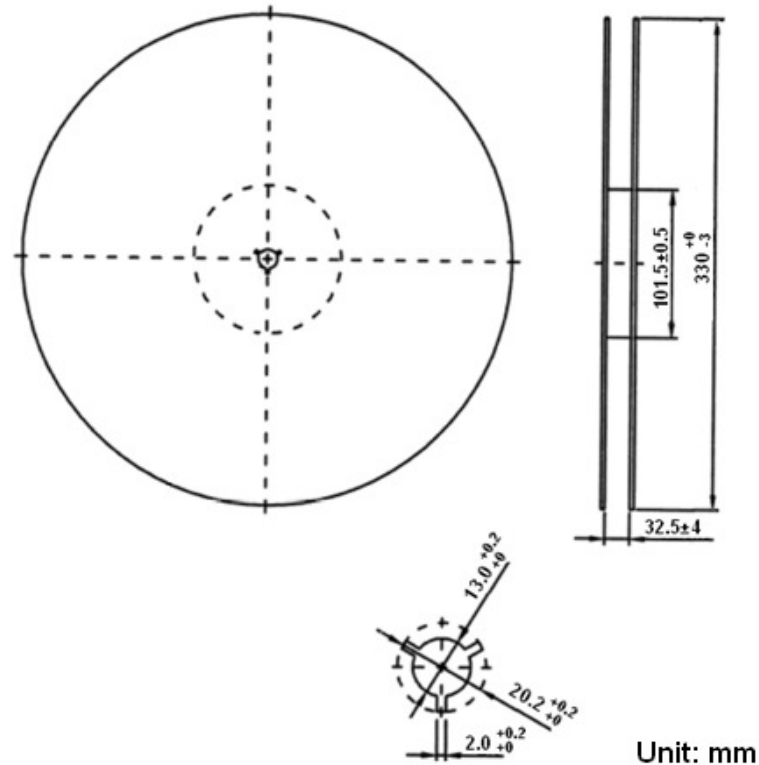
Smith Chart



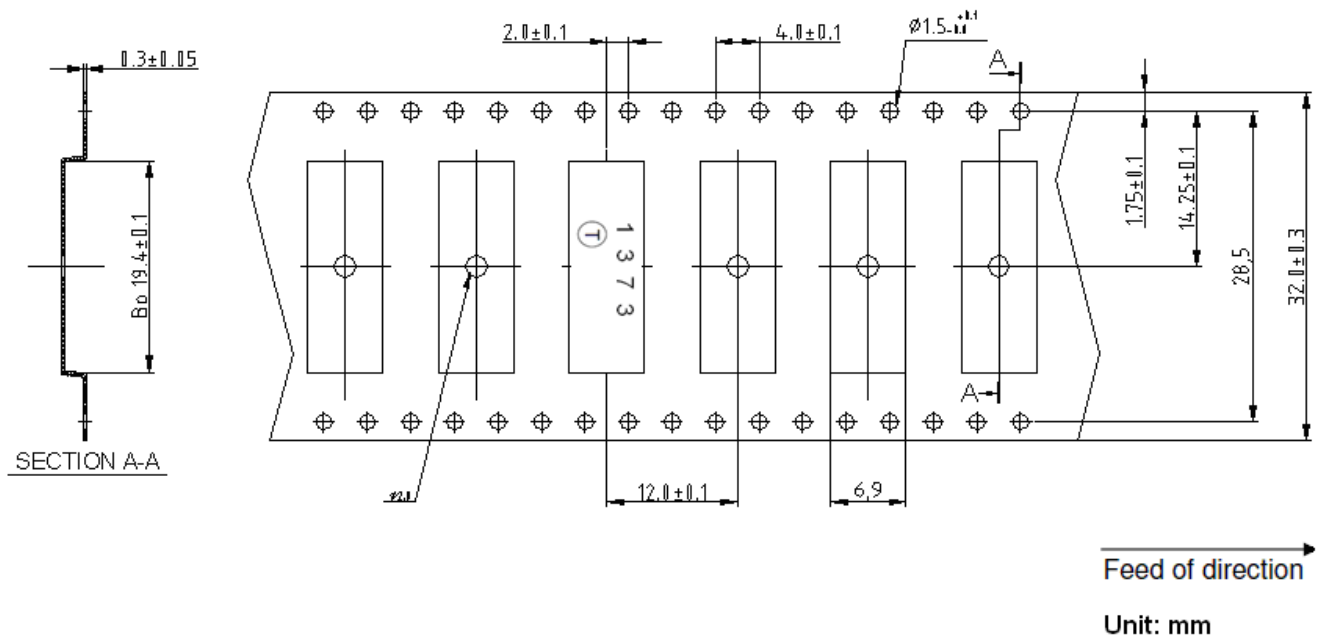
G. PACKING: (Ref. WI-75M03)

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.

