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: IF SAW Filter 70 MHz SMD 19.0x6.5 mm (BW=2.2 MHz)

TST Parts No.: TB0278BA0217

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Macon Lu Macon Lu

Approved by:_____ Andy Yu Andy Yu

Date:_____ 2021/06/30

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 70 MHz

MODEL NO.: TB0278BA0217 REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage: 3 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL1)

RoHS Compliant
Lead-free soldering

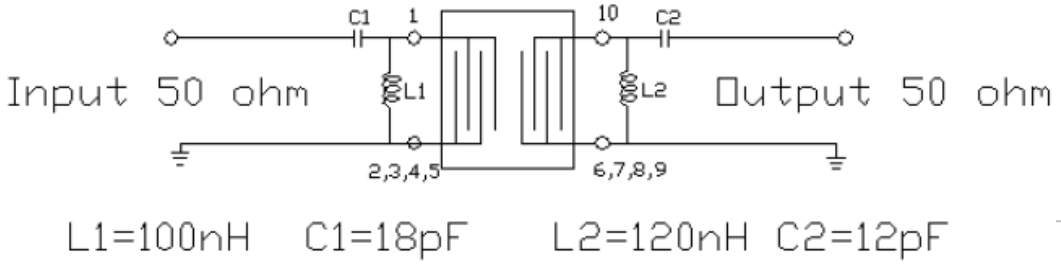
Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

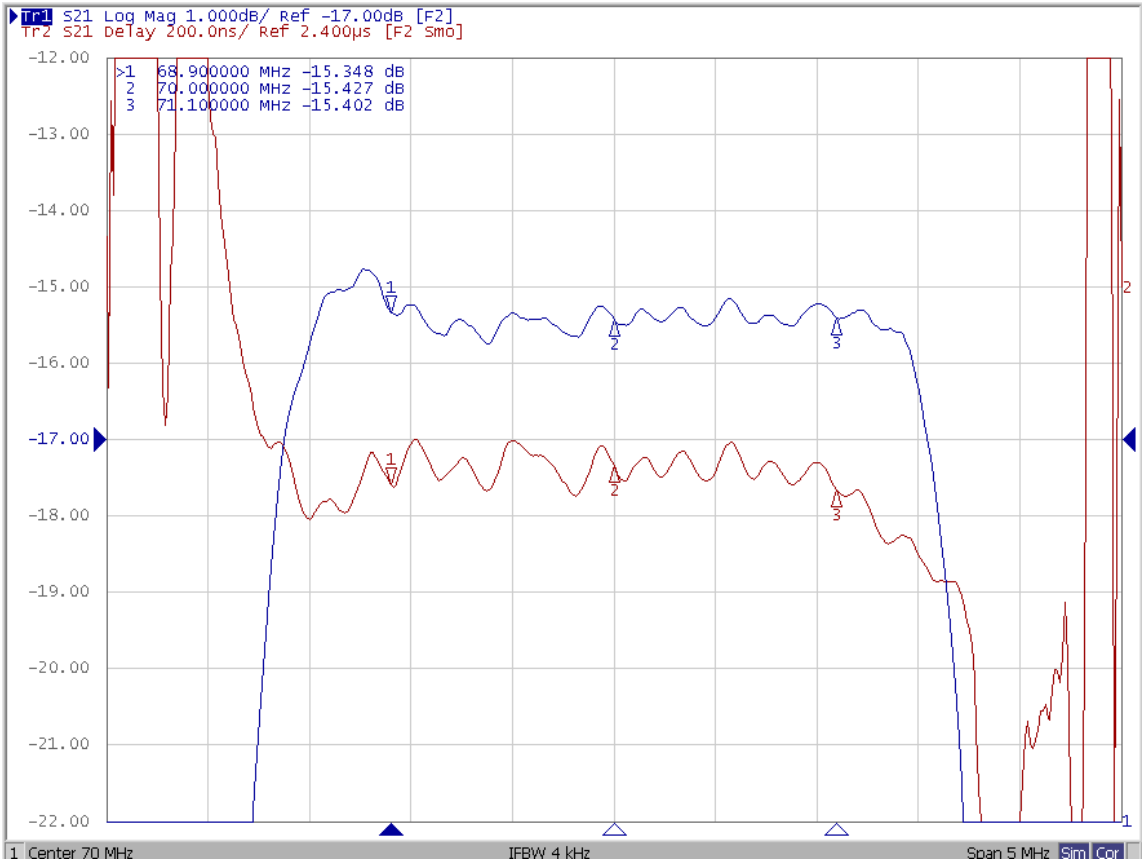
Ambient Temperature: 25 °C

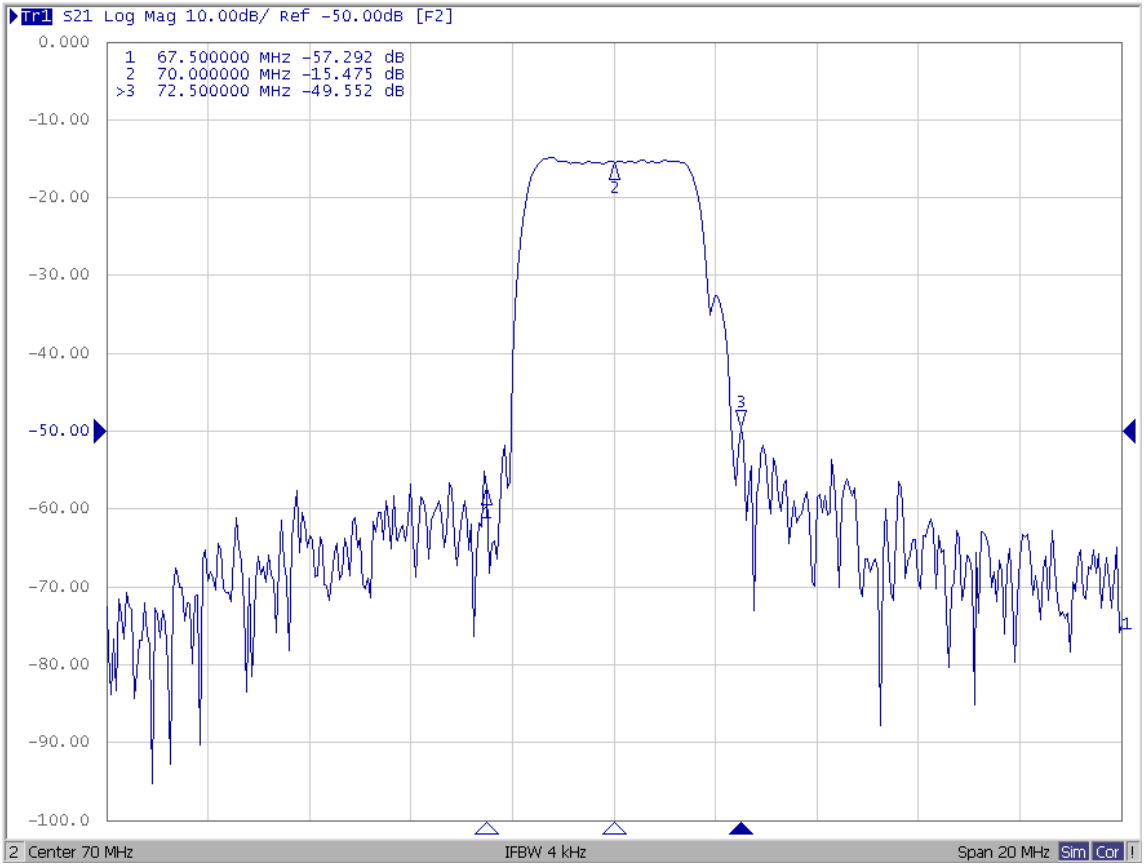
Item		Unit	Min.	Typ.	Max.
Center Frequency	**Fc**	MHz	-	70	-
Minimum Insertion Loss	**IL_{min}**	dB	-	14.8	21.25
Lower 1 dB Bandedge		MHz	-	68.45	69.09
Upper 1 dB Bandedge		MHz	70.83	71.5	-
Lower 3 dB Bandedge		MHz	-	68.35	68.93
Upper 3 dB Bandedge		MHz	71.04	71.57	-
Lower 40 dB Bandedge		MHz	67.38	67.8	-
Upper 40 dB Bandedge		MHz	-	72.6	74.48
Passband Ripple (68.9~71.1 MHz)		dB	-	0.54	1
Group Delay Ripple (68.9~71.1 MHz)		nsec	-	232	250
Phase Linearity (68.9~71.1 MHz)		deg	-	4.26	15
Attenuation (Reference level from IL_{min})					
10 ~ 67.5 MHz		dB	40	41	-
72.5 ~ 125 MHz		dB	25	35	-
125 ~ 150 MHz		dB	18	21	-
150 ~ 200 MHz		dB	35	51	-

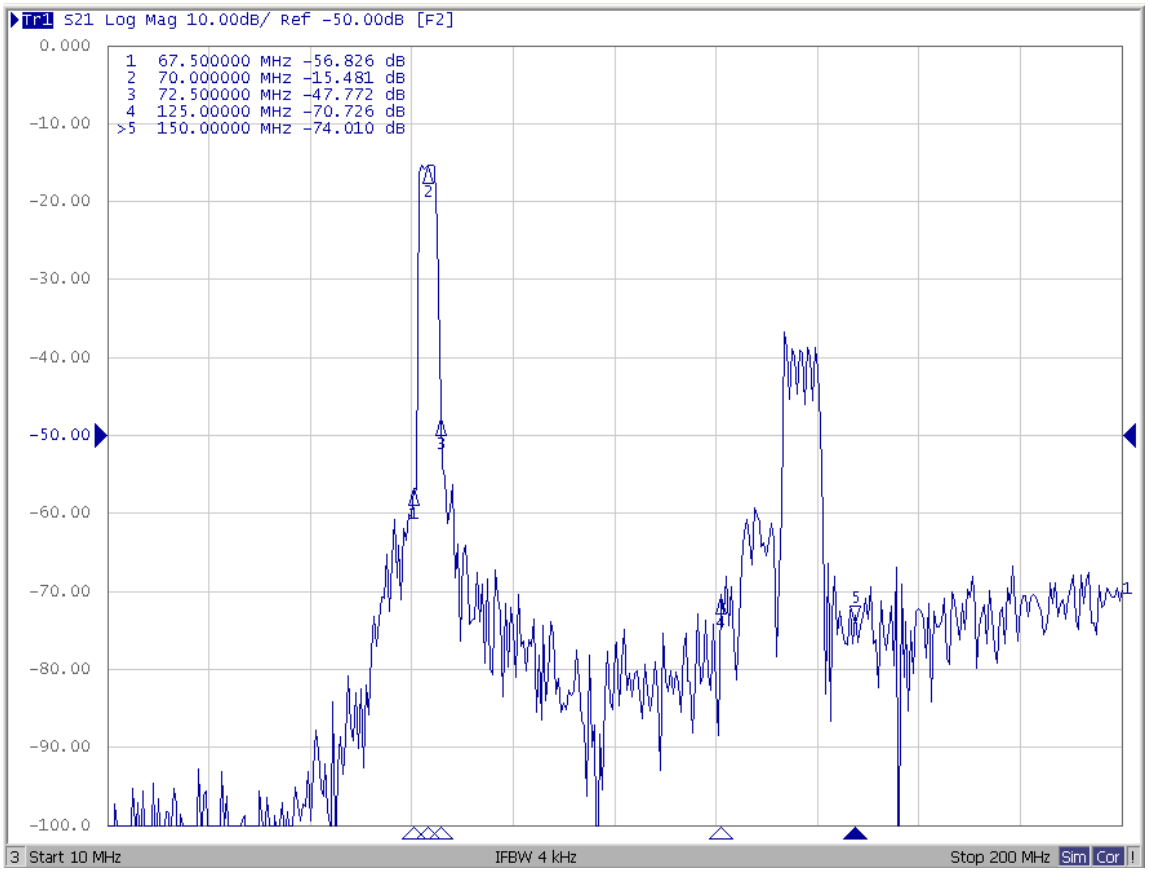
C. MEASUREMENT CIRCUIT:

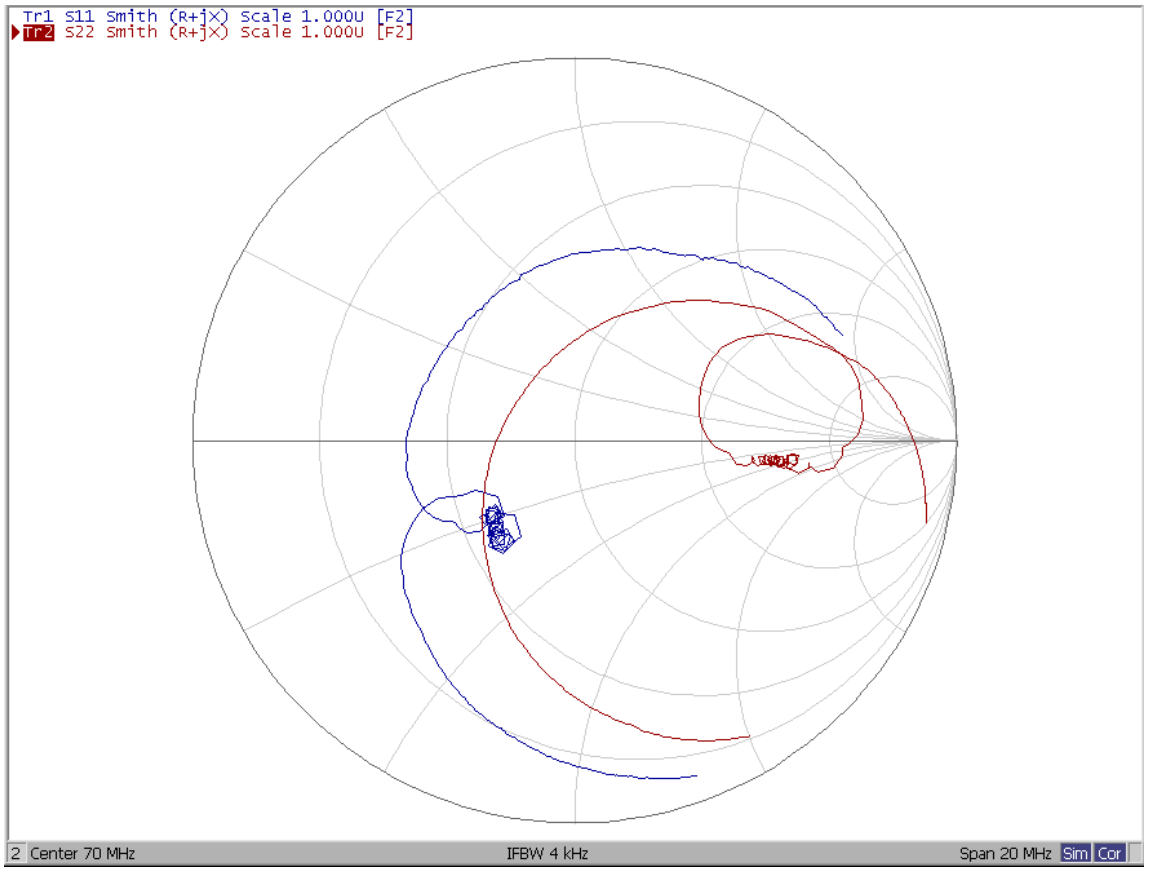


D. FREQUENCY CHARACTERISTICS:

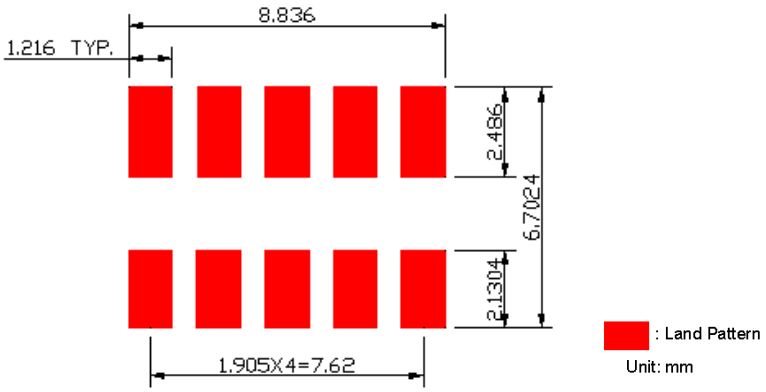




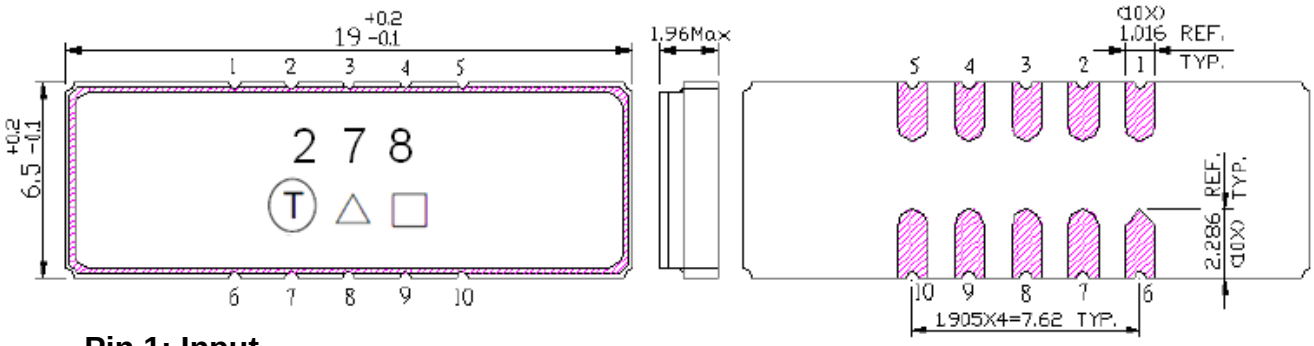

Tr1 S21 Log Mag 10.00dB/ Ref -50.00dB [F2]
1 67.500000 MHz -56.826 dB
2 70.000000 MHz -15.481 dB
3 72.500000 MHz -47.772 dB
4 125.00000 MHz -70.726 dB
>5 150.00000 MHz -74.010 dB
0.000
-10.00
-20.00
-30.00
-40.00
-50.00
-60.00
-70.00
-80.00
-90.00
-100.0
3 Start 10 MHz
IFBW 4 kHz
Stop 200 MHz
Sim
Cor


Tr1 S11 Smith (R+jX) Scale 1.000U [F2]
Tr2 S22 Smith (R+jX) Scale 1.000U [F2]
2 Center 70 MHz
IFBW 4 kHz
Span 20 MHz
Sim
Cor

E. PCB Footprint:



F. OUTLINE DRAWING:



Pin 1: Input

Pin 10: 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	B	b

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

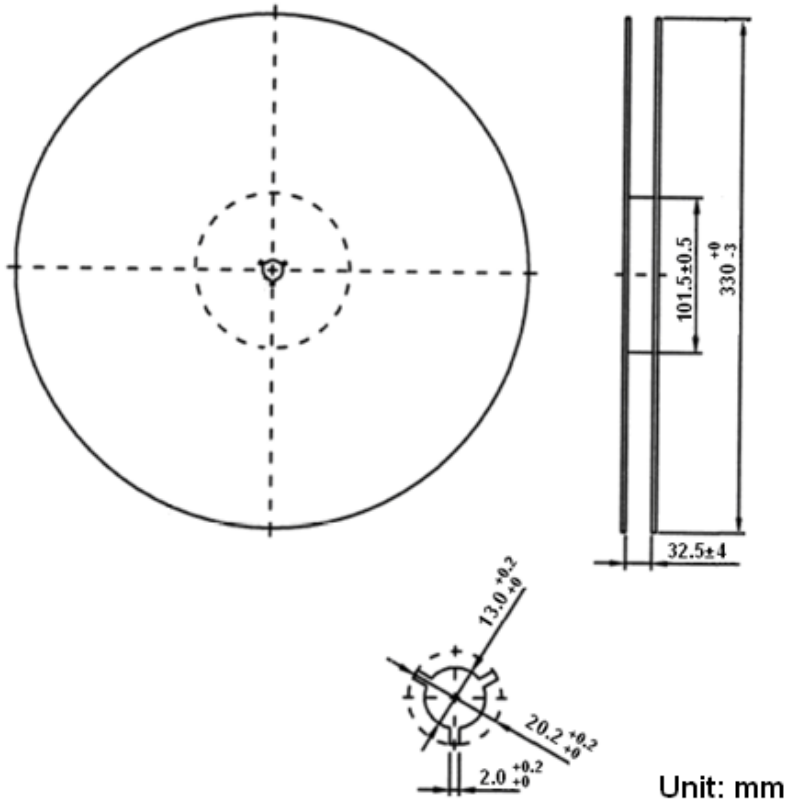
Date Code Table:

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

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

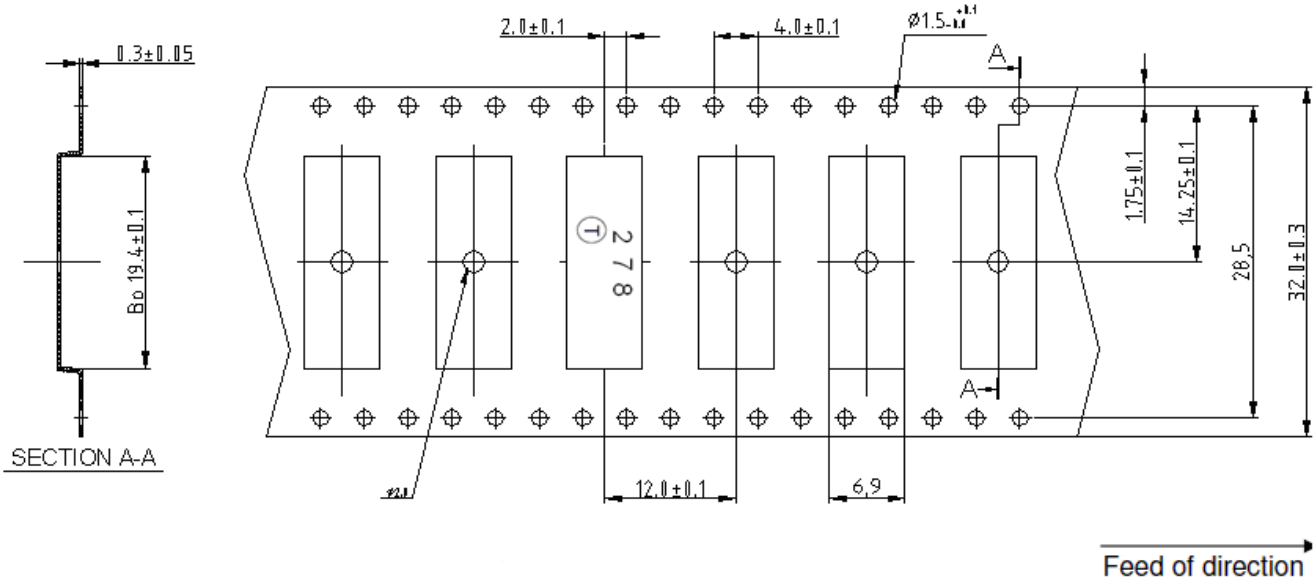
1. REEL DIMENSION

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



Unit: mm

2. TAPE DIMENSION



Unit: mm

H. <u>Recommended Reflow Profile:</u>

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 260℃+0/-5℃ peak (20~40sec).
4. Time: 2 times.