



# 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](mailto:tstsales@mail.taisaw.com) Web: [www.taisaw.com](http://www.taisaw.com)

## Product Specifications Approval Sheet

Product Description: SAW Rx Filter 2140MHz LTE Band 1 SMD 1109

TST Part No.: TA1845C

Customer Part No.: \_\_\_\_\_

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ Hayley Chou *Hayley Chou*

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2017, 04. 05

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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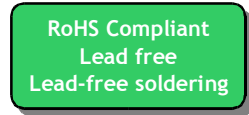
## SAW Rx Filter 2140MHz LTE Band 1 SMD 1109 (60MHz BW)

MODEL NO.: TA1845C

REV. NO.:2

### A. MAXIMUM RATING:

1. Operating temperature range: -30 °C to +85 °C
2. Storage temperature range: -40 °C to +100 °C
3. Maximum Input Power: +10 dBm
4. Maximum DC Voltage: +/-5 V
5. Moisture Sensitivity Level: Level 1
6. ESD 50V(MM) 100V(HBM)



Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance:  $Z_s = 50 \Omega$  (Single-ended)

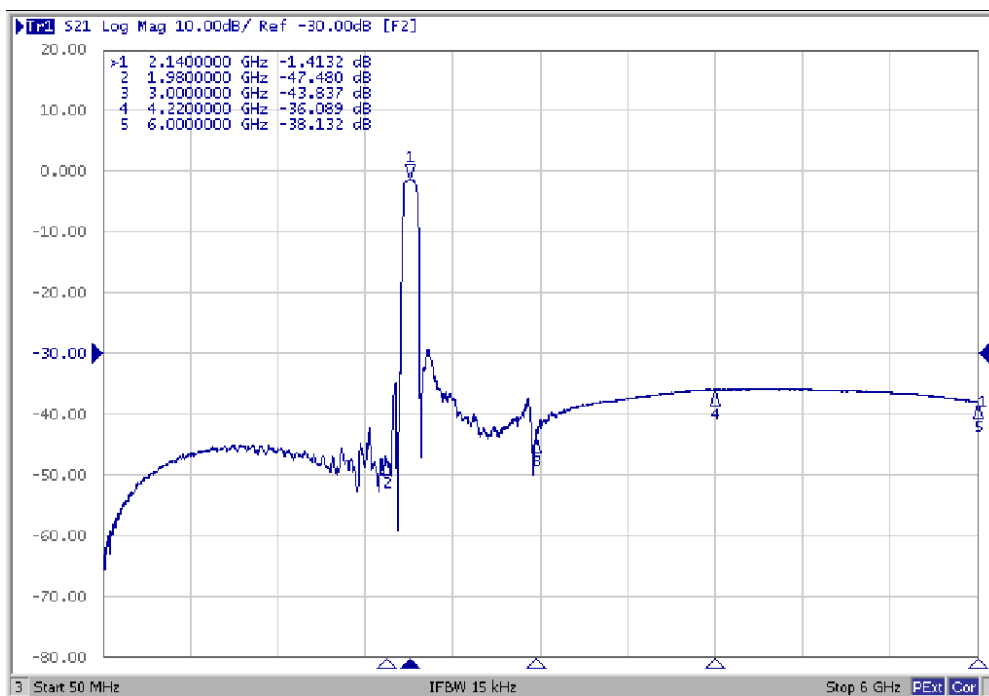
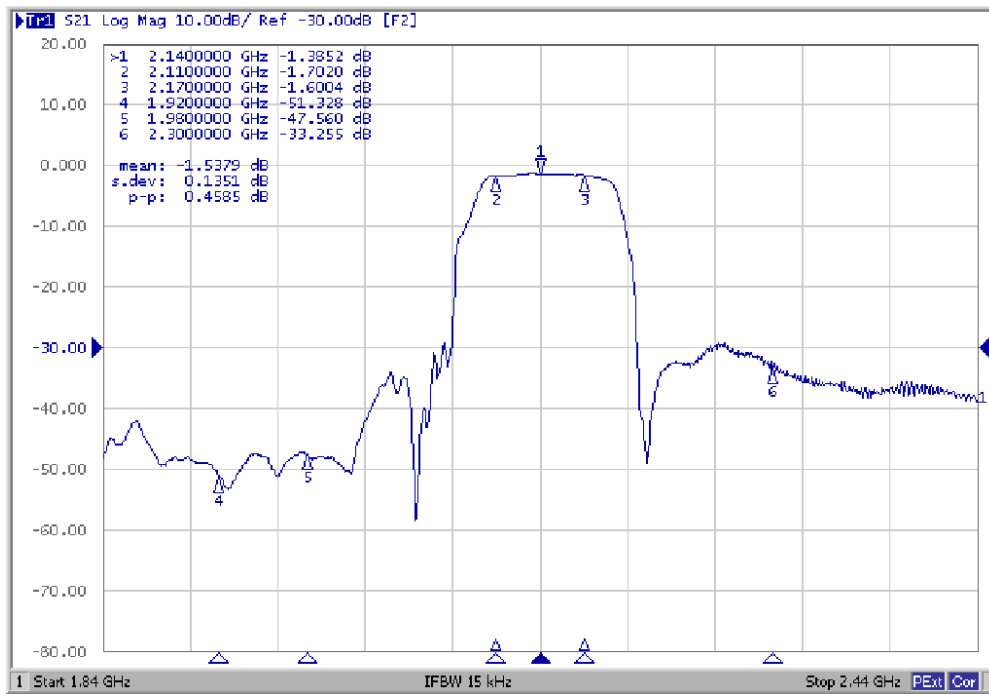
Terminating load impedance:  $Z_L = 50 \Omega$  (Single-ended)

Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency		MHz	-	2140	-
Insertion Loss	2110~2170 MHz	dB(*1)	-	1.9	2.5
	2110~2155 MHz	dB	-	1.9	2.5
Amplitude Ripple	2110~2170 MHz	dB	-	0.7	1.5
	2110~2155 MHz	dB	-	0.7	1.5
VSWR	Input 2110~2170 MHz	-	-	1.8	2.3
	Output 2110~2155 MHz	-	-	1.8	2.3
<b>Attenuation:</b>					
50-1710 MHz		dB	35	43	-
1710-1755 MHz		dB	40	44	-
1920-1980 MHz		dB	42	46	-
4220-4340 MHz		dB	30	40	-

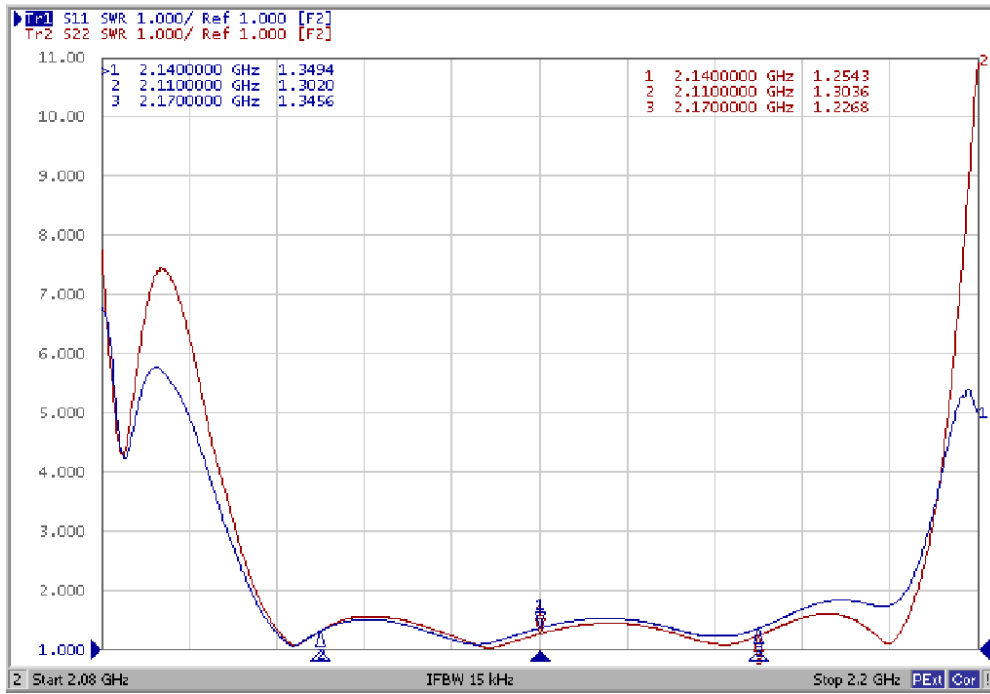
(\*1) Specification of insertion loss excludes loss that comes from the test board.

### C. FREQUENCY CHARACTERISTICS:

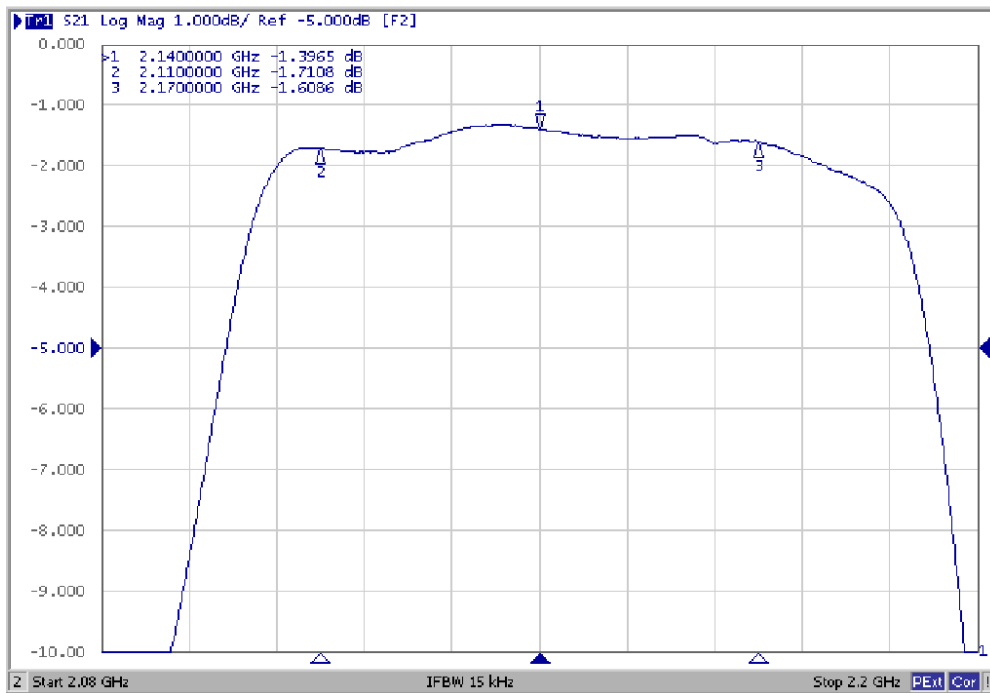
#### Frequency Response



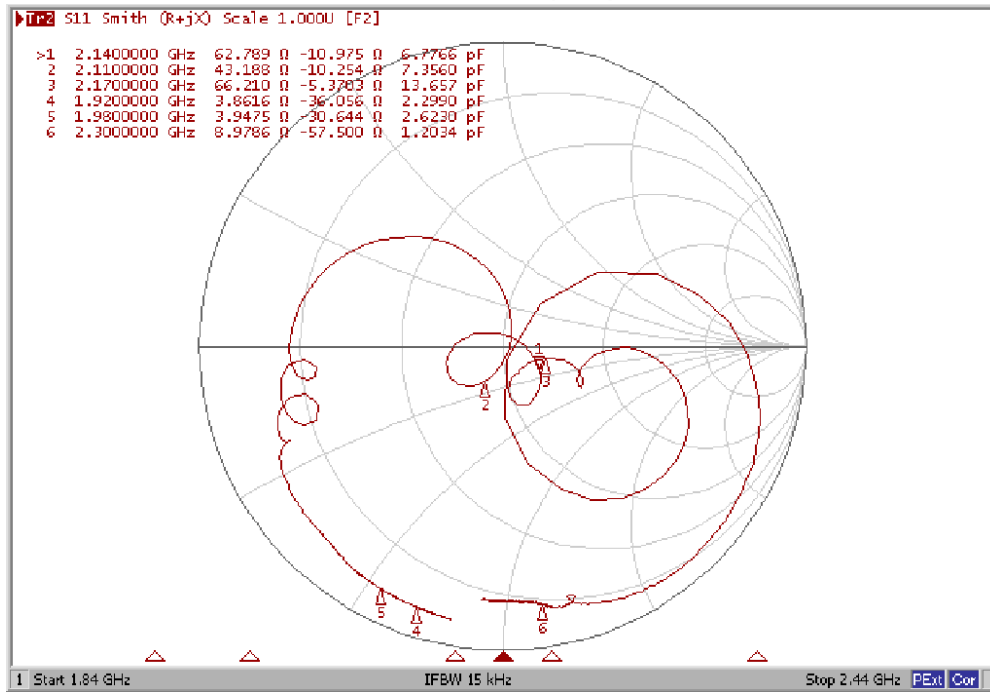
## VSWR



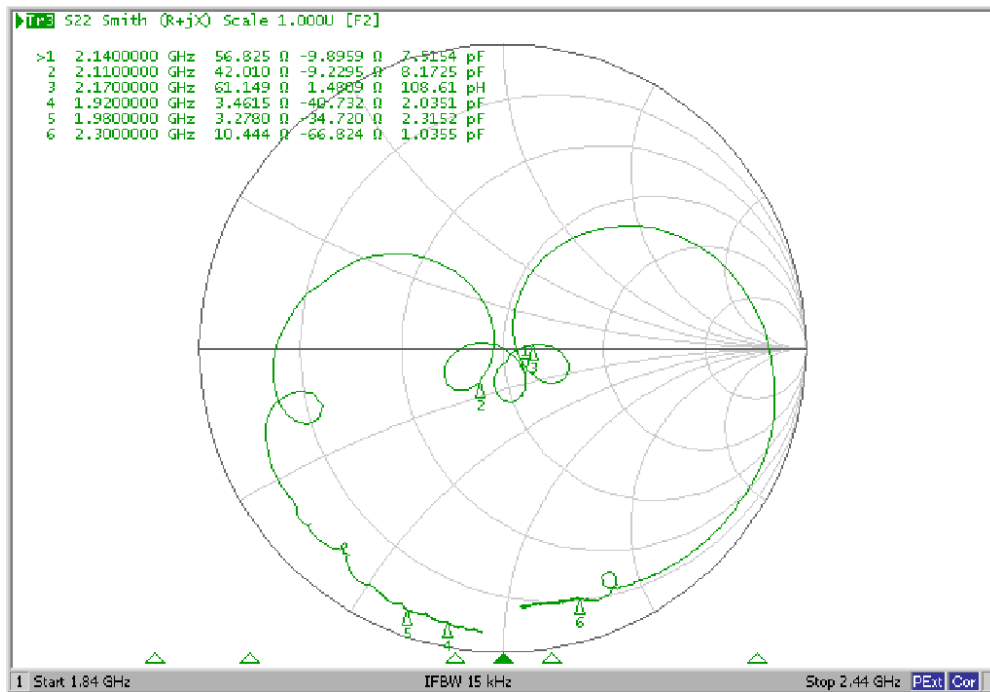
## Ripple



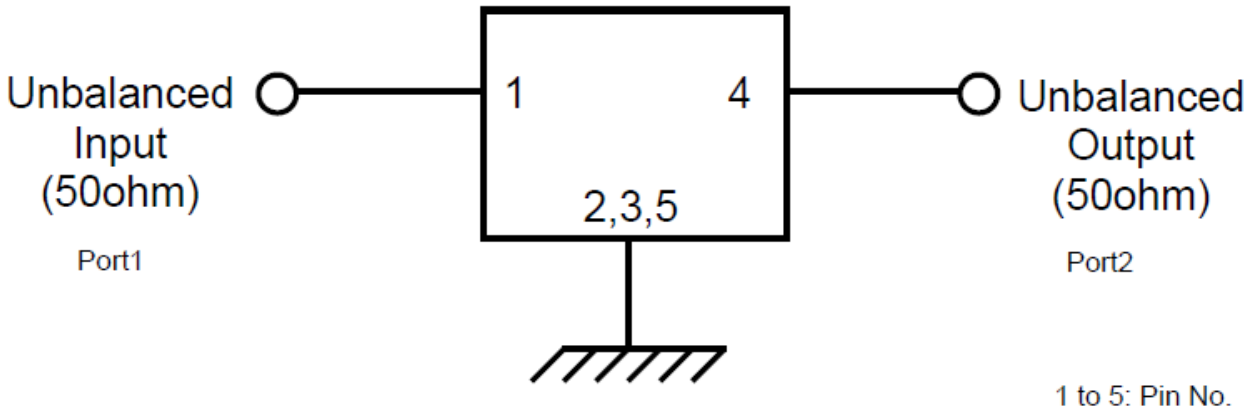
### Smith Chart (S11)



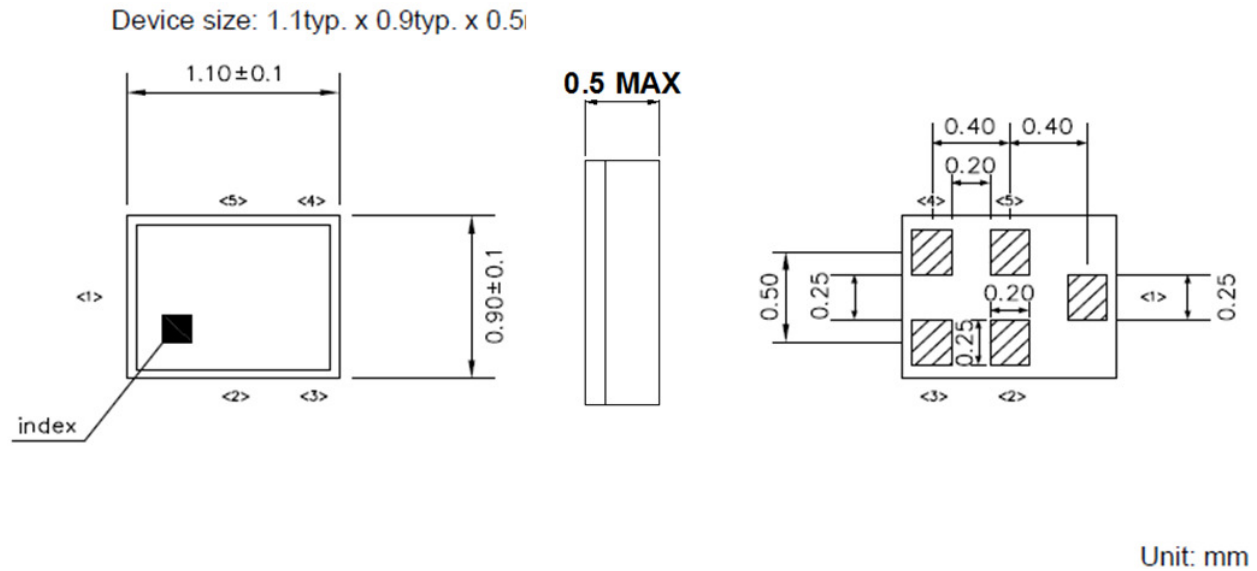
### Smith Chart (S22)



**D. MEASUREMENT CIRCUIT:**



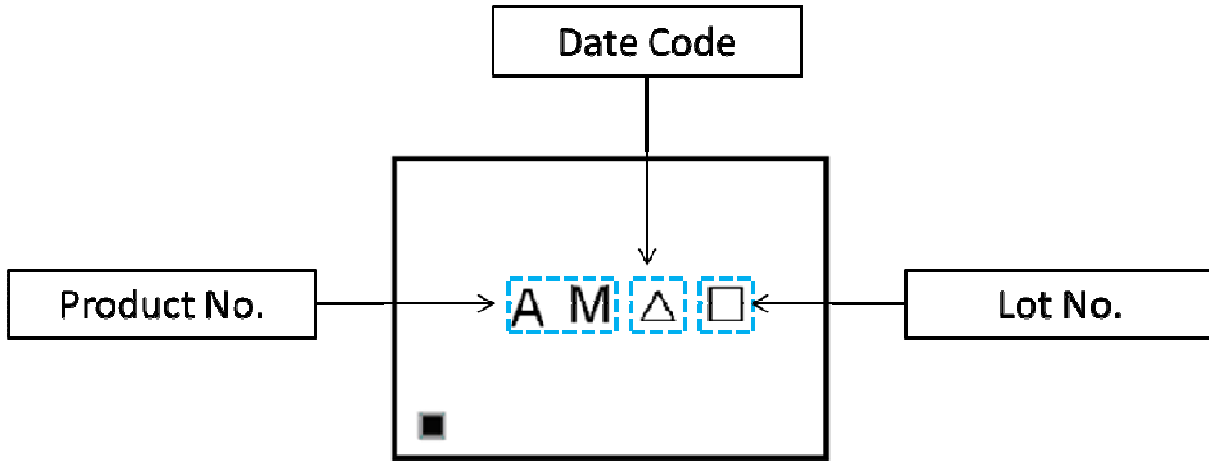
**E. OUTLINE DRAWING:**



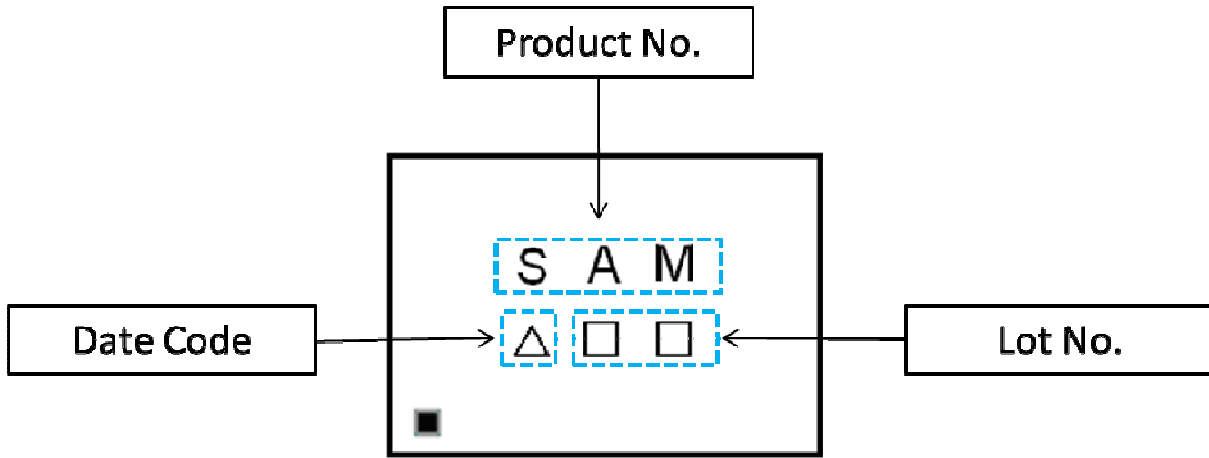
**Pin Configuration**

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

**Top View (Sample Run):**



**Top View (Pilot Run):**



△ : Date Code

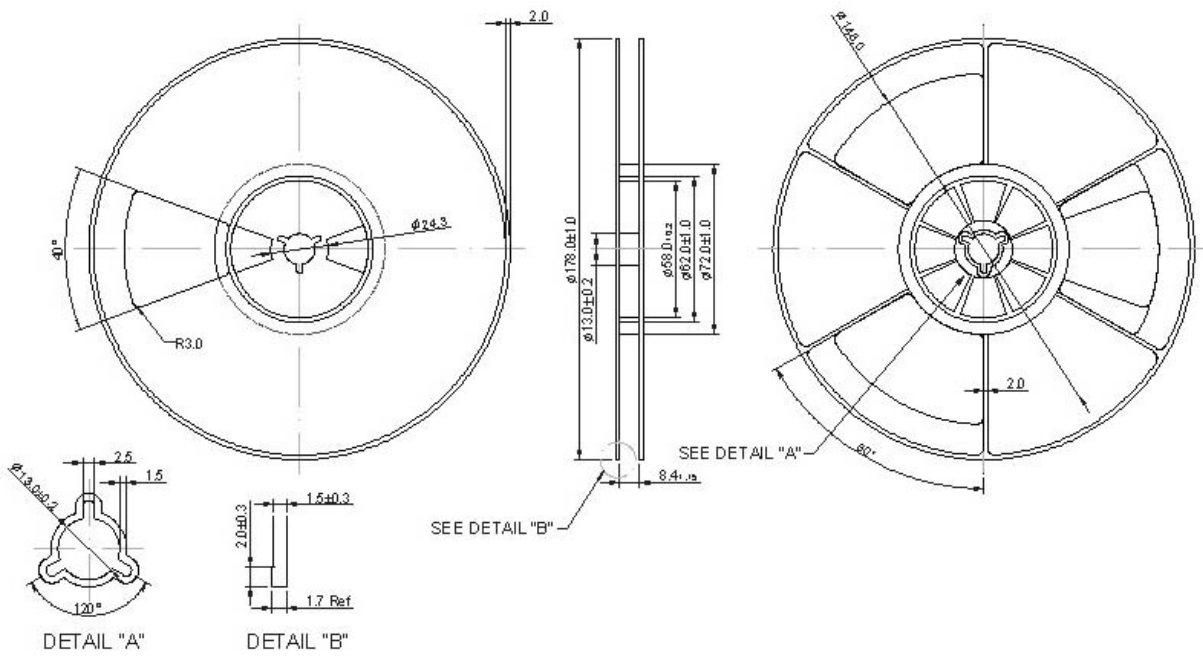
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

**Product date Code (EIAJ)**

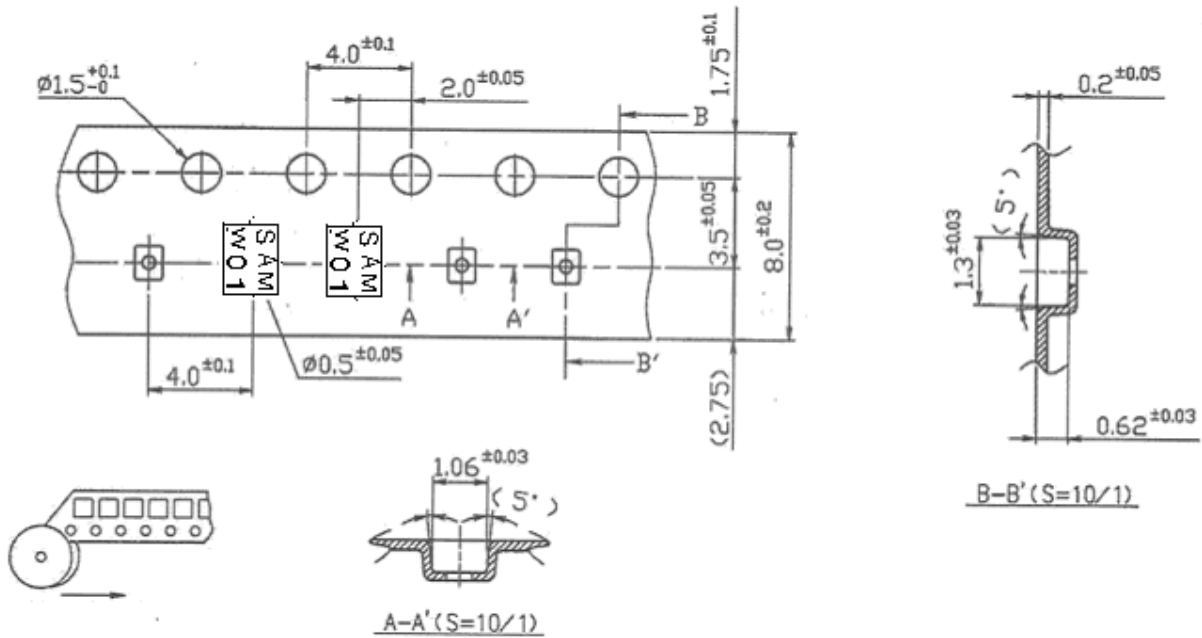
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z

**F. PACKING:**

**1. REEL DIMENSION**



**2. TAPE DIMENSION**





### G. 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.

