



TAI-SAW TECHNOLOGY CO., LTD.

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Product Specifications Approval Sheet

Product Description: SAW Rx Filter 1842.5MHz LTE Band 3 SMD 1109

TST Part No.: TA1843B(This part is compliant with AEC-Q200)

Customer Part No.: _____

Customer signature required

Company: _____

Division: _____

Approved by : _____

Date: _____

Checked by: _____ Anne Chen 

Approved by: _____ Bob Chau 

Date: _____ 05, 12, 2017

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 1842.5MHz LTE Band 3 SMD 1109 (75MHz BW)

MODEL NO.: TA1843B

REV. NO.:1

A. MAXIMUM RATING:

1. Operating temperature range: -40 °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)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: $Z_s = 50//33\text{nH } \Omega$ (Single-ended)

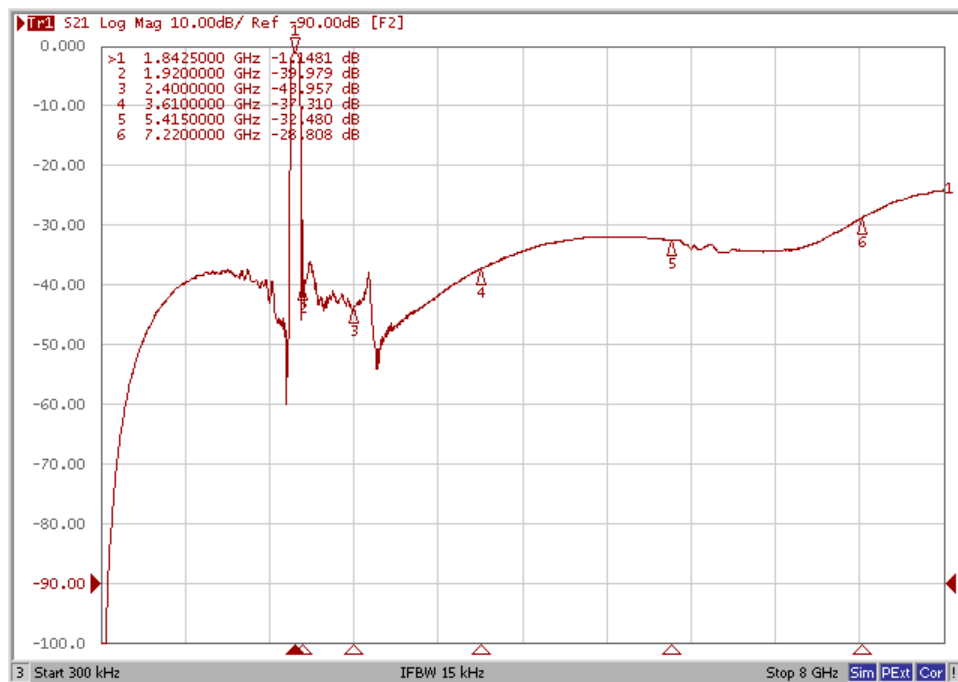
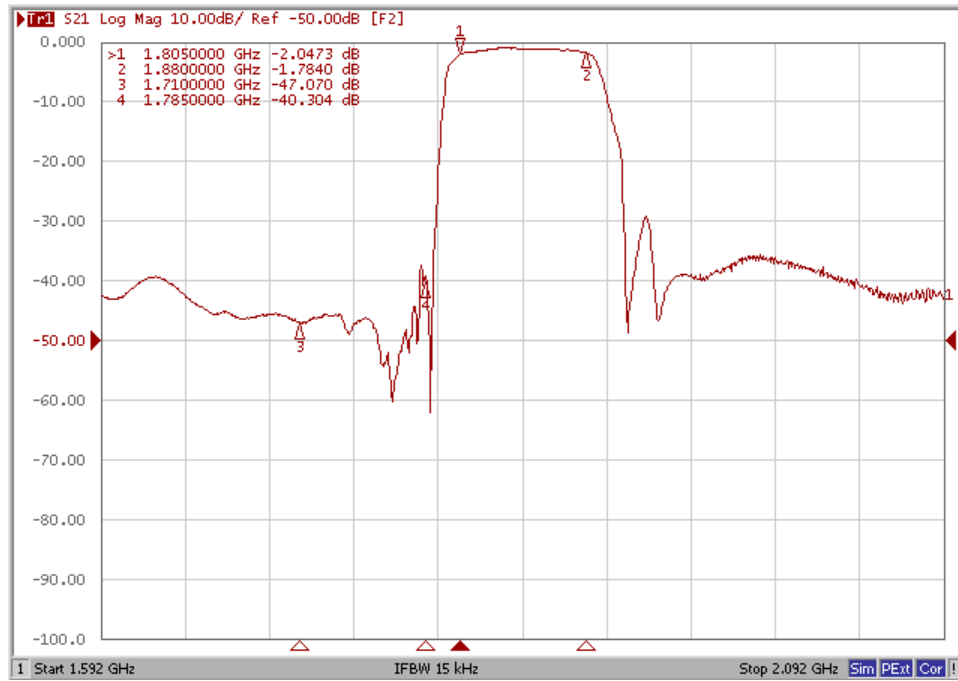
Terminating load impedance: $Z_L = 50//12\text{nH } \Omega$ (Single-ended)

Parameters Description			Unit	Min.	Typ.	Max.
Center Frequency			MHz	-	1842.5	-
Insertion Loss(*1)	1805~1880 MHz		dB	-	2.0	4.0
Amplitude Ripple	1805~1880 MHz		dB	-	-	3.3
VSWR	Input	1805~1880 MHz	-	-	1.9	2.3
	Output	1805~1880 MHz	-	-	1.8	2.2
Attenuation:						
DC~960 MHz			dB	34	37	-
1558~1608 MHz			dB	35	41	-
1710~1785 MHz			dB	34	38	-
1920~2400 MHz			dB	25	35	-
2400~2500 MHz			dB	33	44	-
2500~3610 MHz			dB	25	36	-
3610~3760 MHz			dB	25	36	-
3760~5415 MHz			dB	20	29	-
5415~5640 MHz			dB	20	29	-
5640~7220 MHz			dB	18	24	-
7220~7520 MHz			dB	16	24	-
7520~8000 MHz			dB	14	22	-

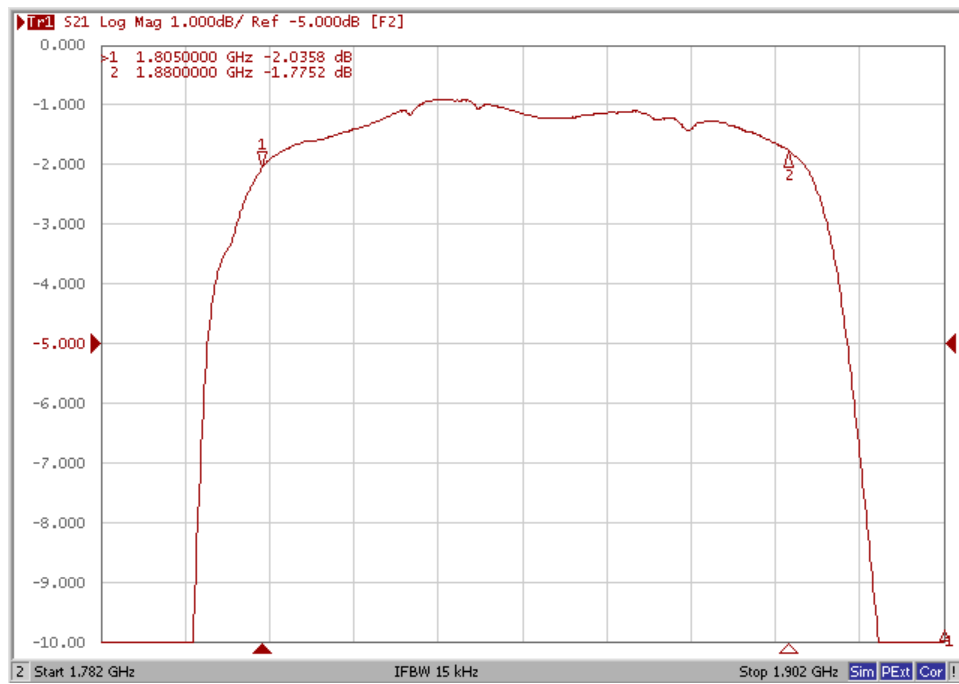
(*1) Specification of insertion loss excludes loss that comes from the test board.

C. FREQUENCY CHARACTERISTICS:

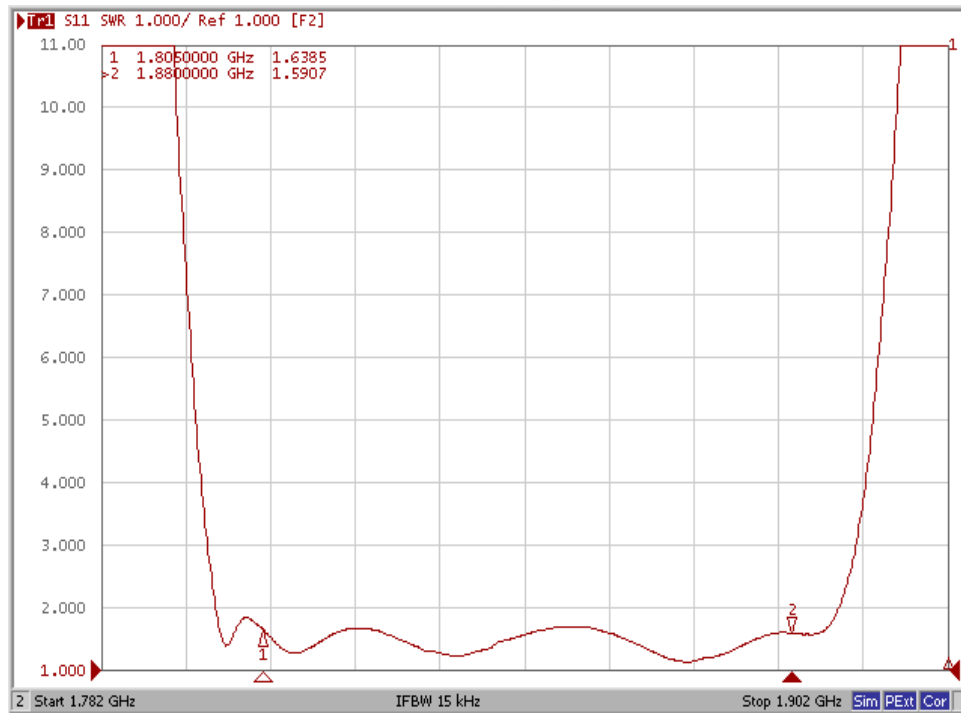
Frequency Response



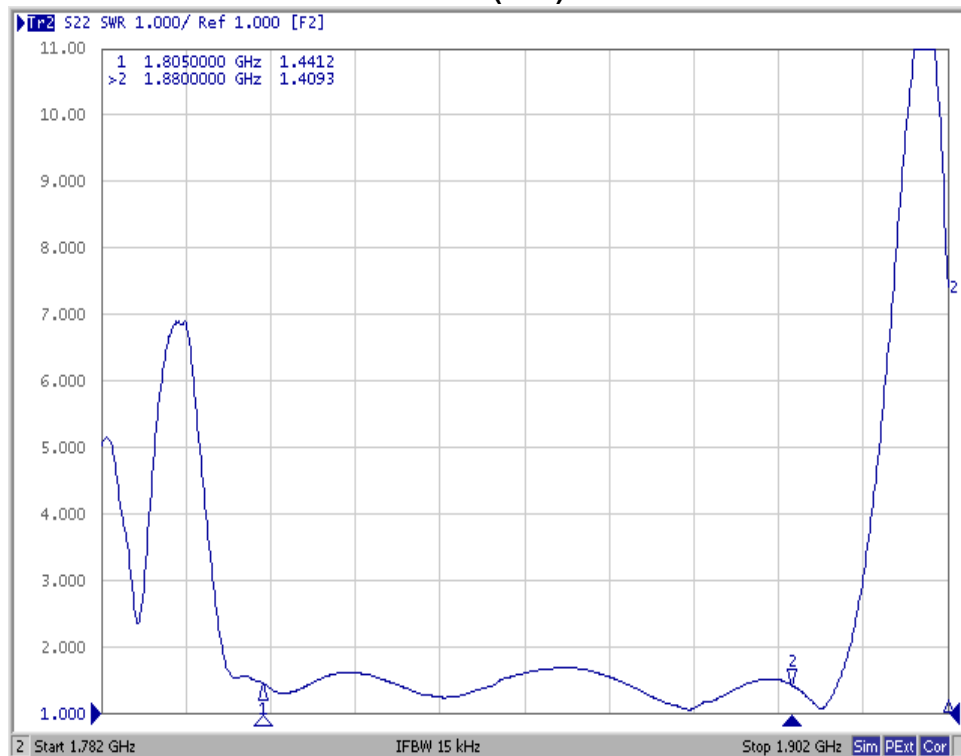
Ripple



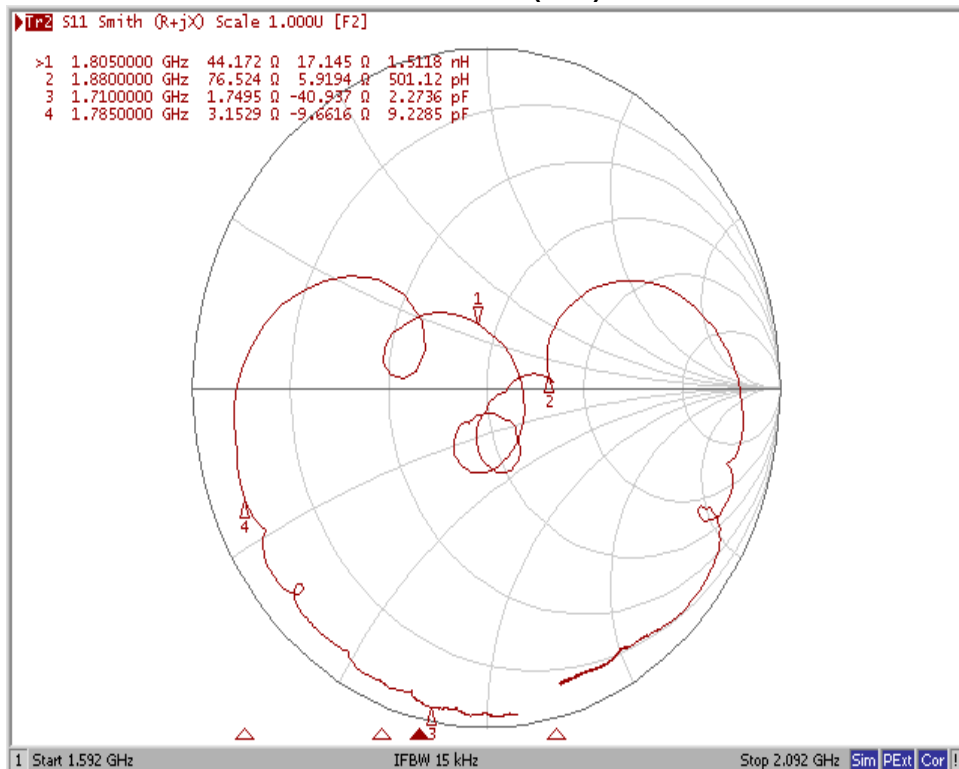
VSWR (S11)



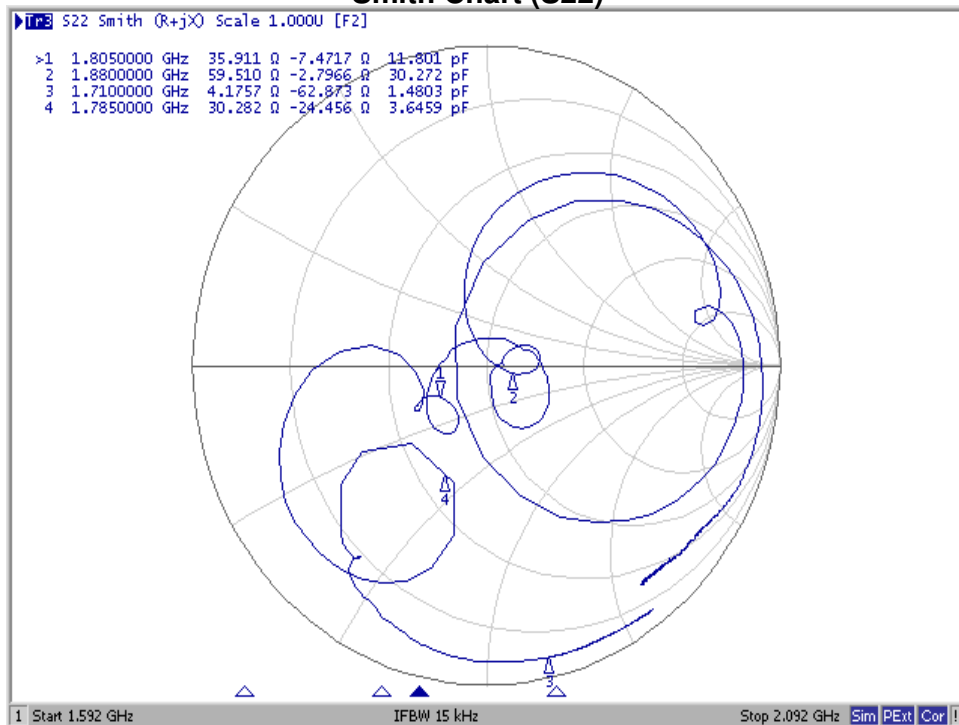
VSWR (S22)



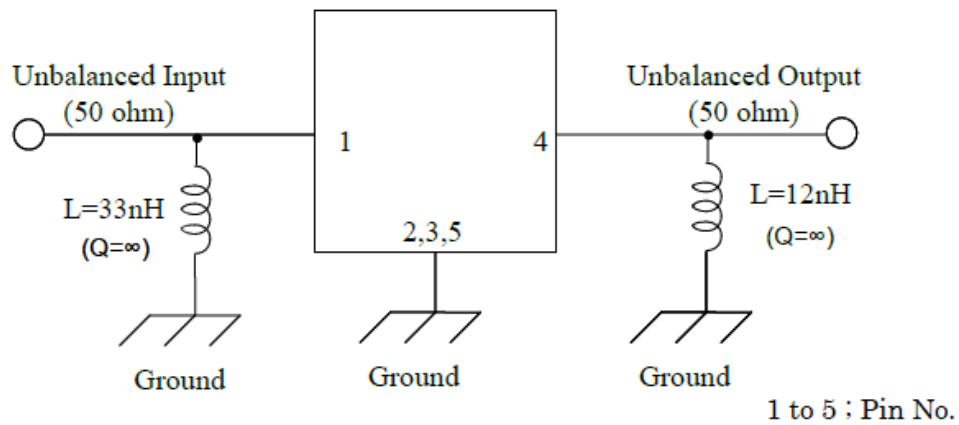
Smith Chart (S11)



Smith Chart (S22)

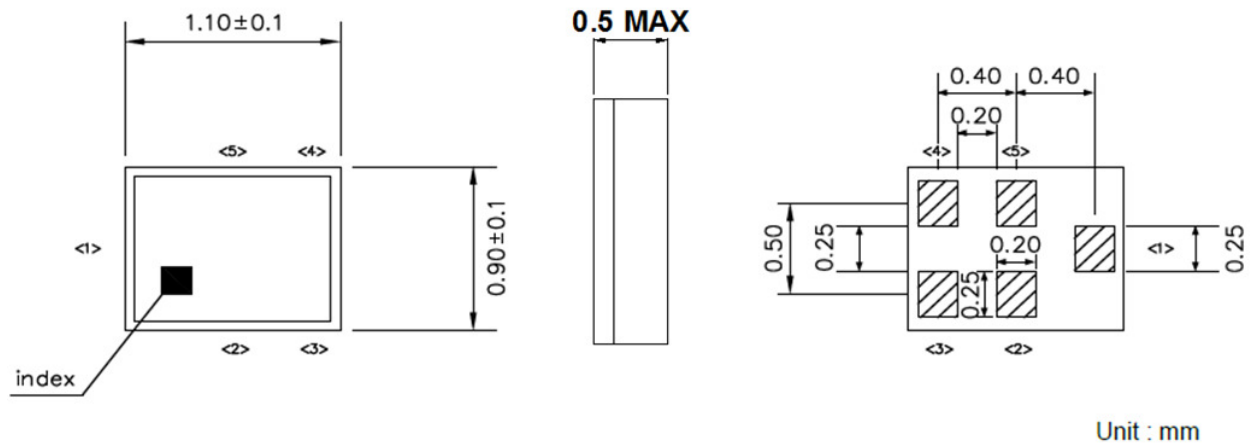


D. MEASUREMENT CIRCUIT:



E. OUTLINE DRAWING:

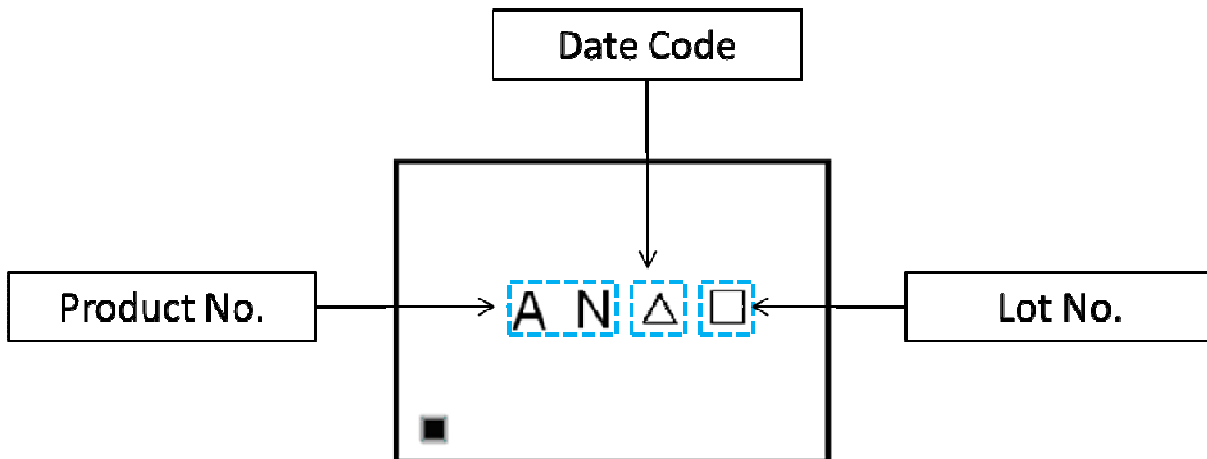
Device size: 1.1typ. x 0.9typ. x 0.5max.



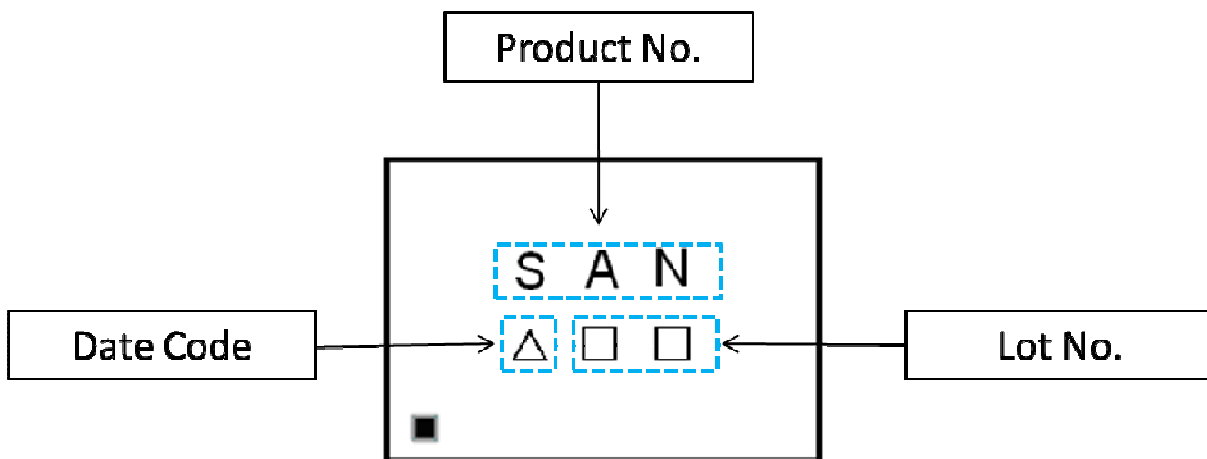
Pin Configuration

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

Top View (Sample Production):



Top View (Mass Production):



△ : Date Code

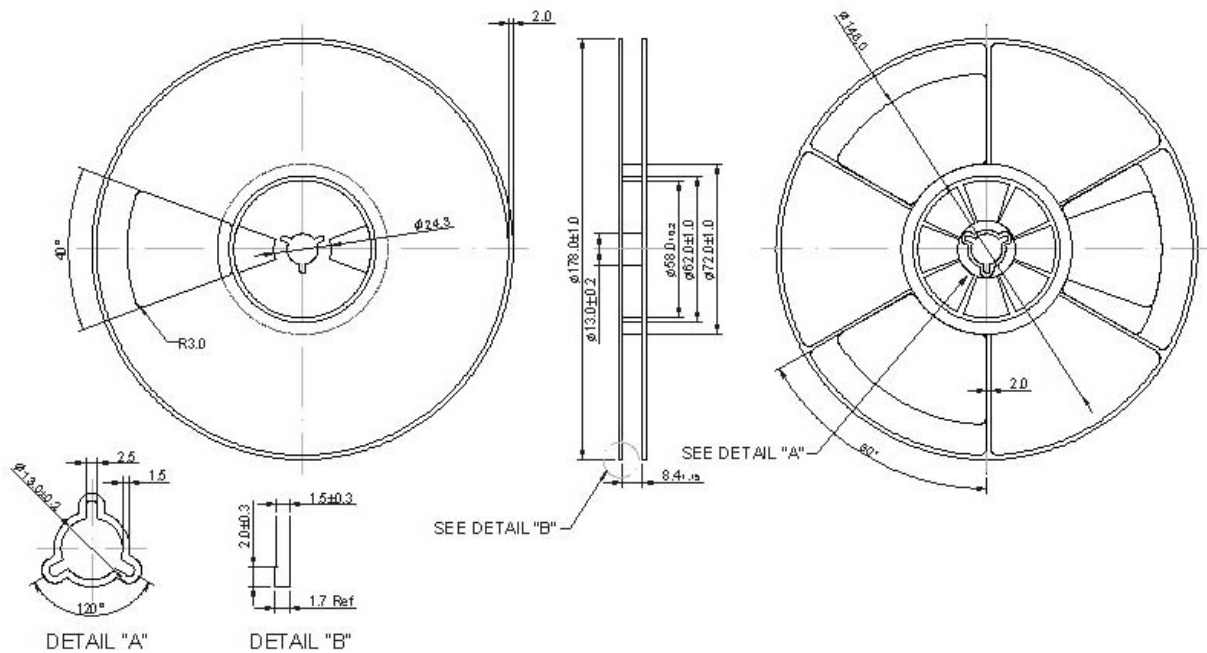
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

Product date Code (EIAJ)

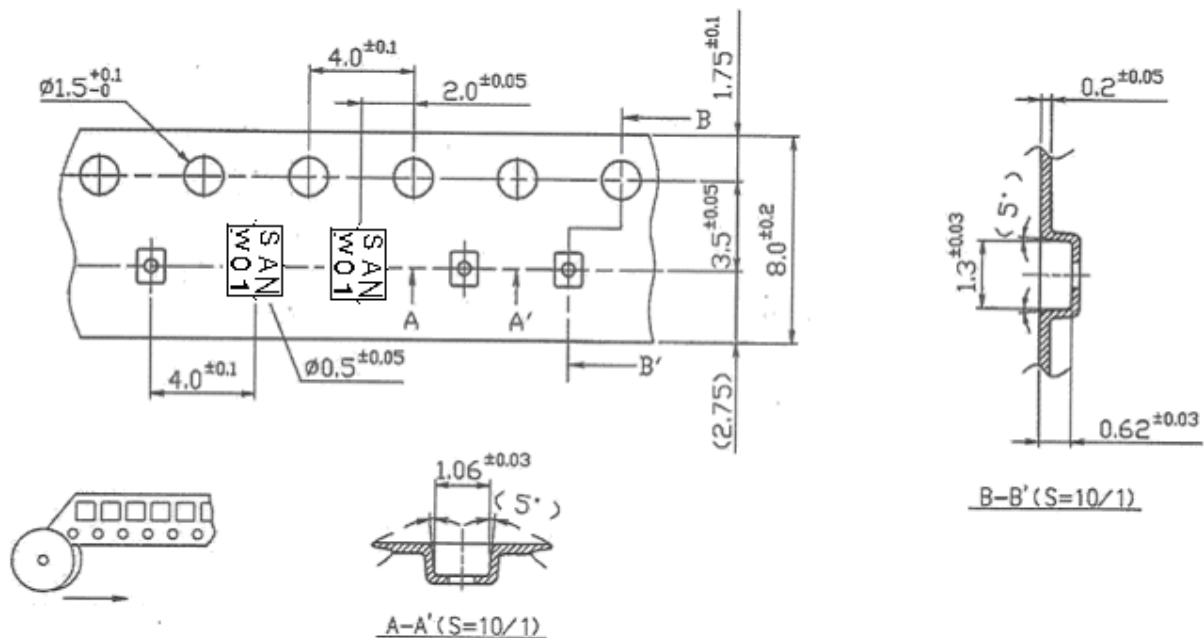
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z

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.

