



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Name: BAW Filter 2442MHz 79MHz BW Rx SMD 1.4x1.1 mm

TST Parts No.: TA1869A

Customer Parts No.: \_\_\_\_\_

Customer signature required

Company: \_\_\_\_\_

Division: \_\_\_\_\_

Approved by : \_\_\_\_\_

Date: \_\_\_\_\_

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

Approval by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2015/05/25

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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## BAW Filter 2442MHz 79MHz BW Rx SMD 1.4x1.1 mm

MODEL NO.:TA1869A

REV.1.0

### A. MAXIMUM RATING:

Temperature range: -30°C to +85°C

RoHS Compliant  
Lead free  
Lead-free soldering

### B. ELECTRICAL CHARACTERISTICS:

Electrostatic Sensitive Device (ESD)

Terminating source impedance:  $Z_s = 50 // 15nH(Q=\infty) \Omega$  (Single)

Terminating load impedance:  $Z_L = 50 // 15nH(Q=\infty) \Omega$  (Single)

Parameters Description		Unit	Minimum	Typical	Maximum	Remarks
Center Frequency		MHz	-	2442	-	
Insertion Loss	2402.5~2421.5 MHz	dB	-	1.9	2.3	(*1)(*2)
	2407.5~2426.5 MHz	dB		1.6	2.2	(*1)(*2)
	2412.5~2471.5 MHz	dB		1.6	2.2	(*1)(*2)
	2457.5~2476.5 MHz	dB		1.8	2.2	(*1)(*2)
	2462.5~2481.5 MHz	dB		2.5	3.0	(*1)(*2)
Amplitude Ripple	2402.5~2421.5 MHz	dB	-	0.3	1.9	(*2)
	2407.5~2426.5 MHz	dB		0.2	1.7	(*2)
	2412.5~2471.5 MHz	dB		0.5	1.7	(*2)
	2457.5~2476.5 MHz	dB		0.4	1.7	(*2)
	2462.5~2481.5 MHz	dB		0.8	2.5	(*2)
VSWR(Input)	2402.5~2481.5 MHz	-	-	1.8	2.2	+25°C
VSWR(Output)	2402.5~2481.5 MHz	-	-	1.8	2.2	+25°C
Maximum RF Input Power (CW)		dBm		+28		CW, 50°C, 10kh
<b>Attenuation:</b>						
800~2300 MHz		dB	37	40		
2300~2365 MHz		dB	48	54	-	
2365~2370 MHz		dB	48	56	-	(*3)
2500~2505 MHz		dB	40	56	-	-30~-10°C (*3)
		dB	47		-	-10~+25°C (*3)
		dB	52		-	+25~+85°C (*3)
2505~2690 MHz		dB	45	49	-	(*3)
2570~2620 MHz		dB	47	53		(*3)
2690~7500 MHz		dB	30	37		

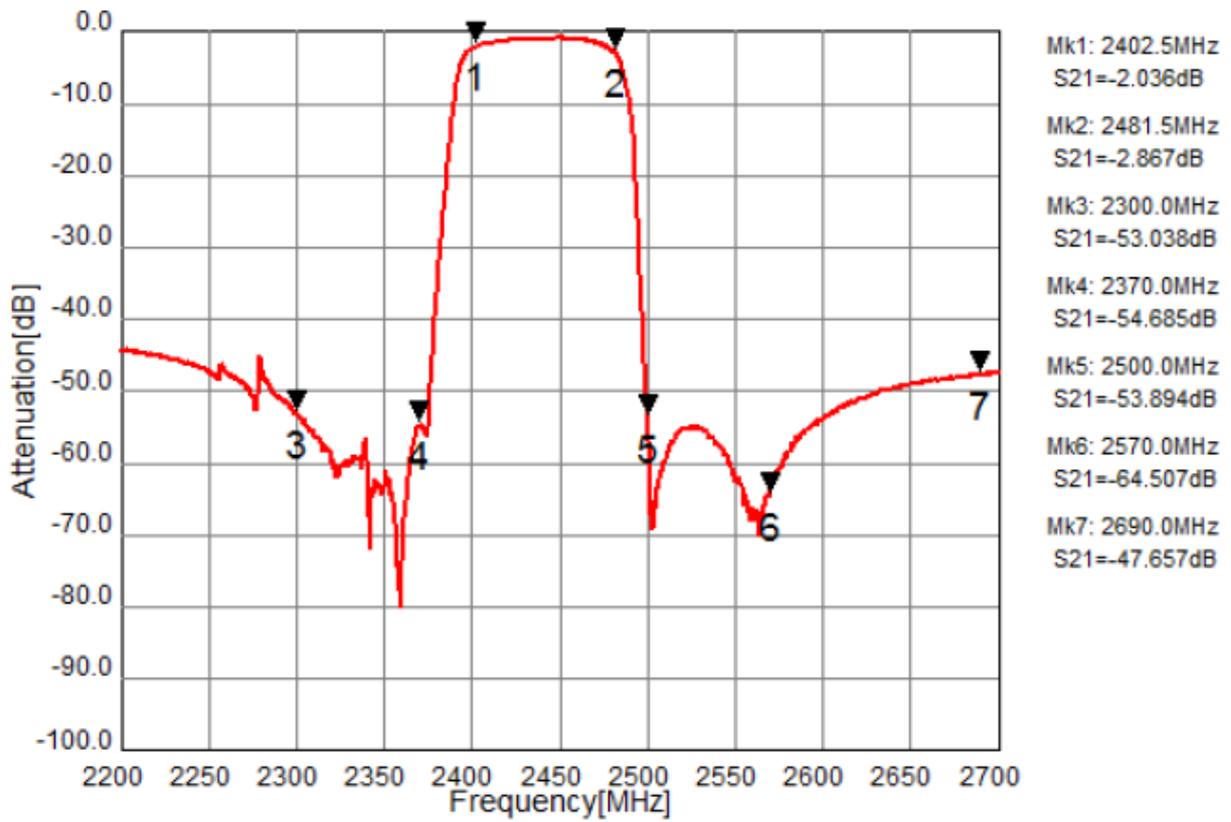
(\*1)Specification of insertion loss excludes loss that comes from the test board.

(\*2)The integrated loss over any 19MHz channel within the band.

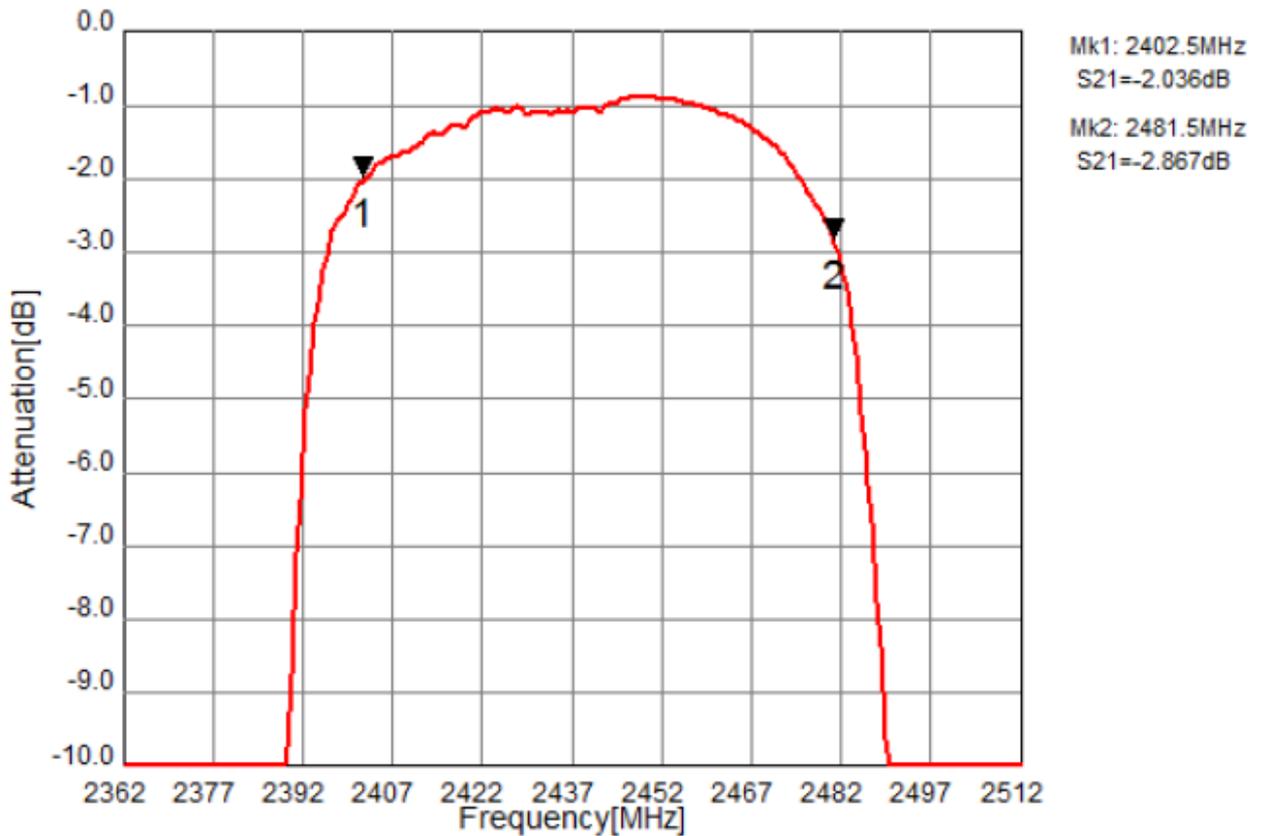
(\*3)The integrated loss over any 5MHz channel within the band.

**C. Frequency Characteristics:**

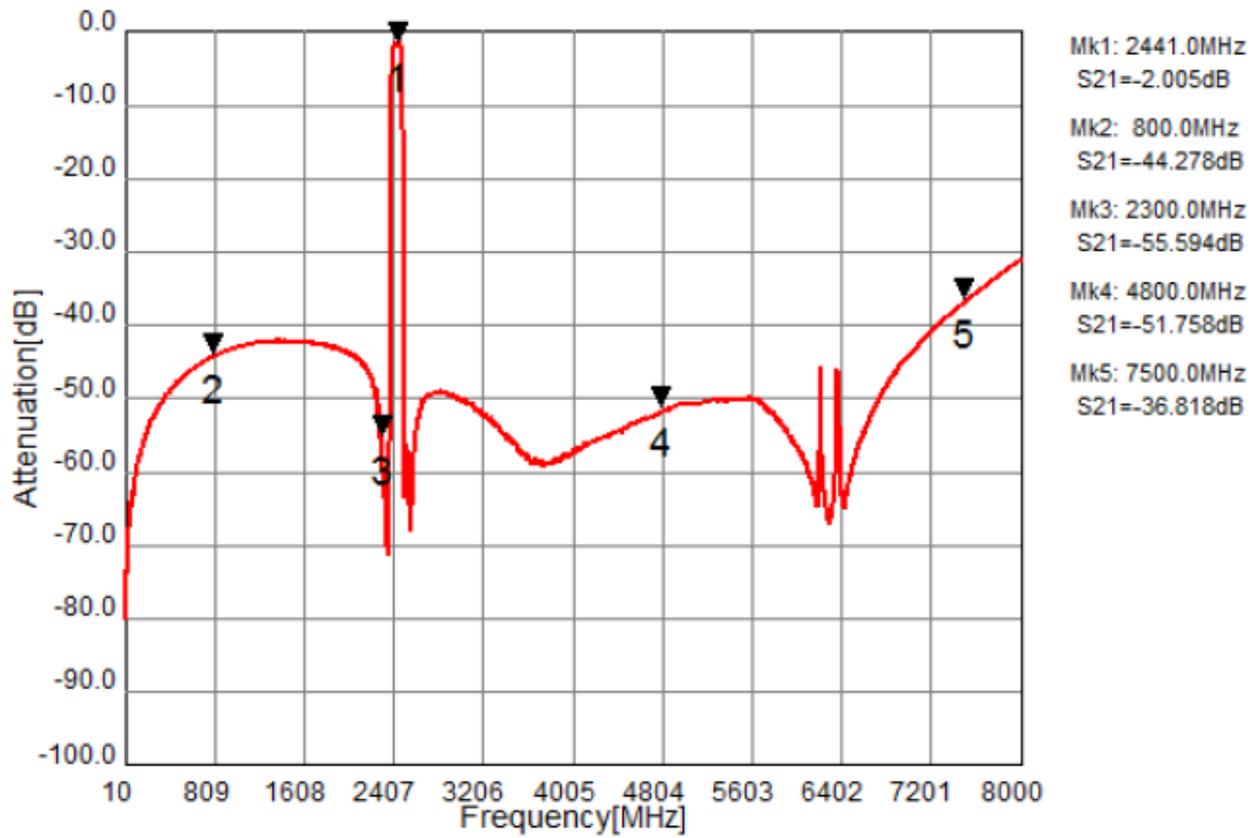
**Pass-band**



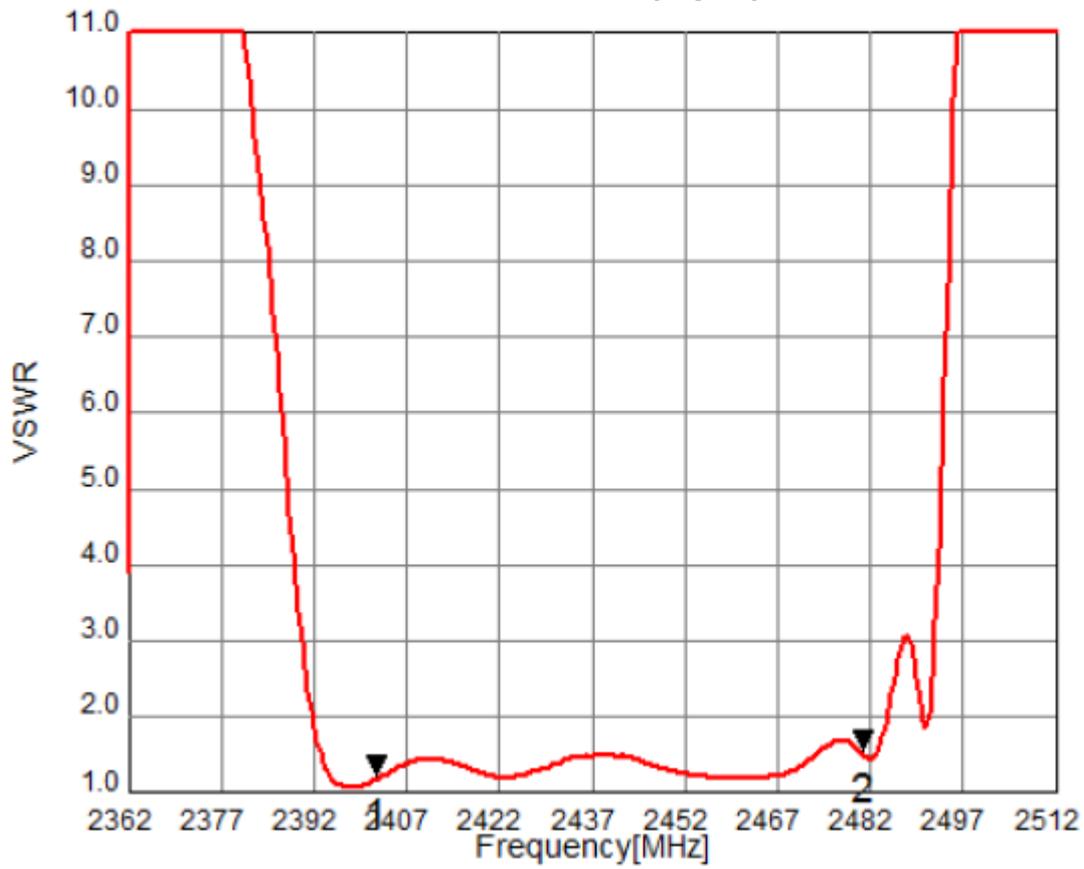
**In-band**



## Wide-band

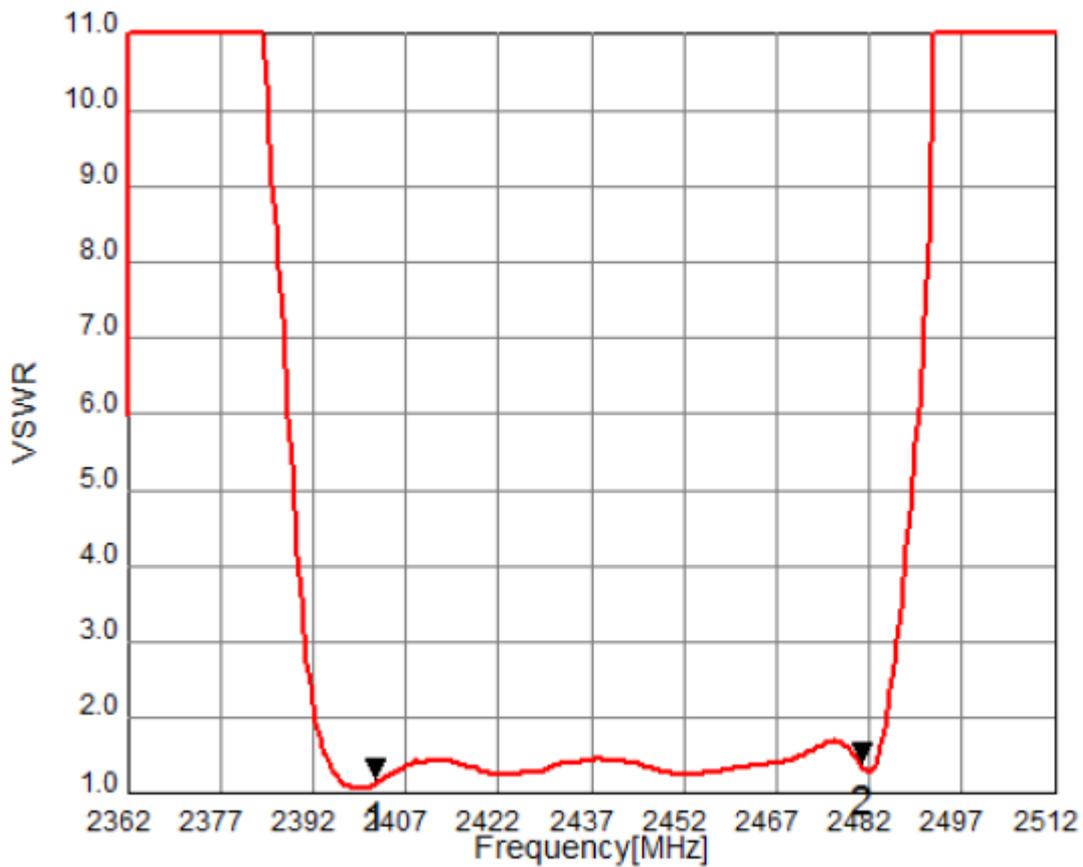


### VSWR (Input)



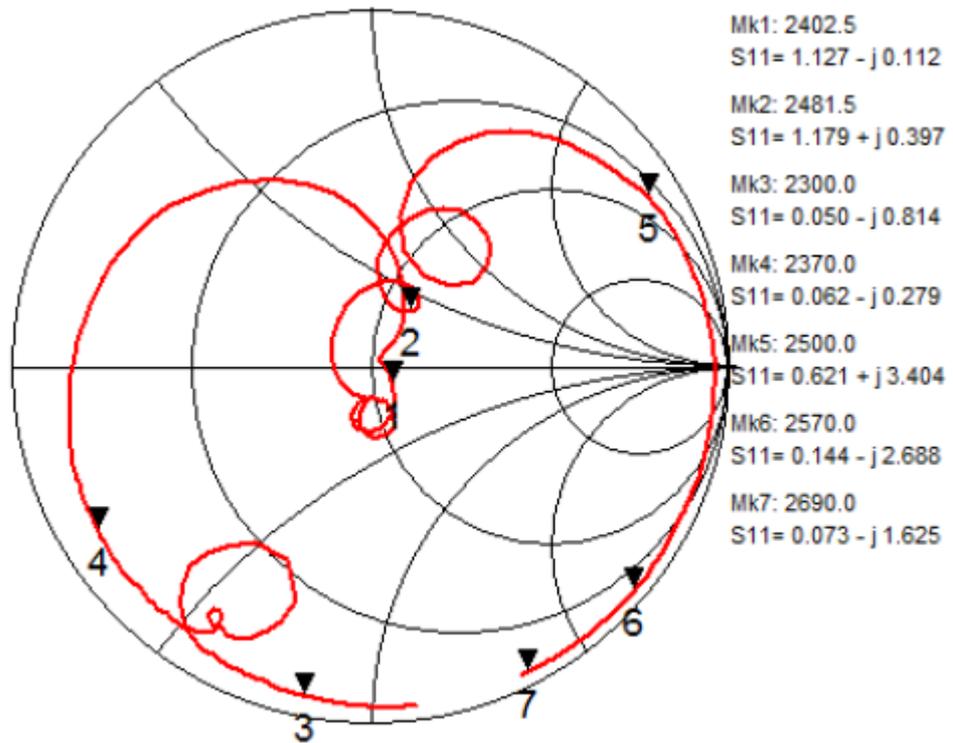
Mk1: 2402.5MHz  
VSWR1= 1.173  
Mk2: 2481.5MHz  
VSWR1= 1.490

### VSWR (Output)

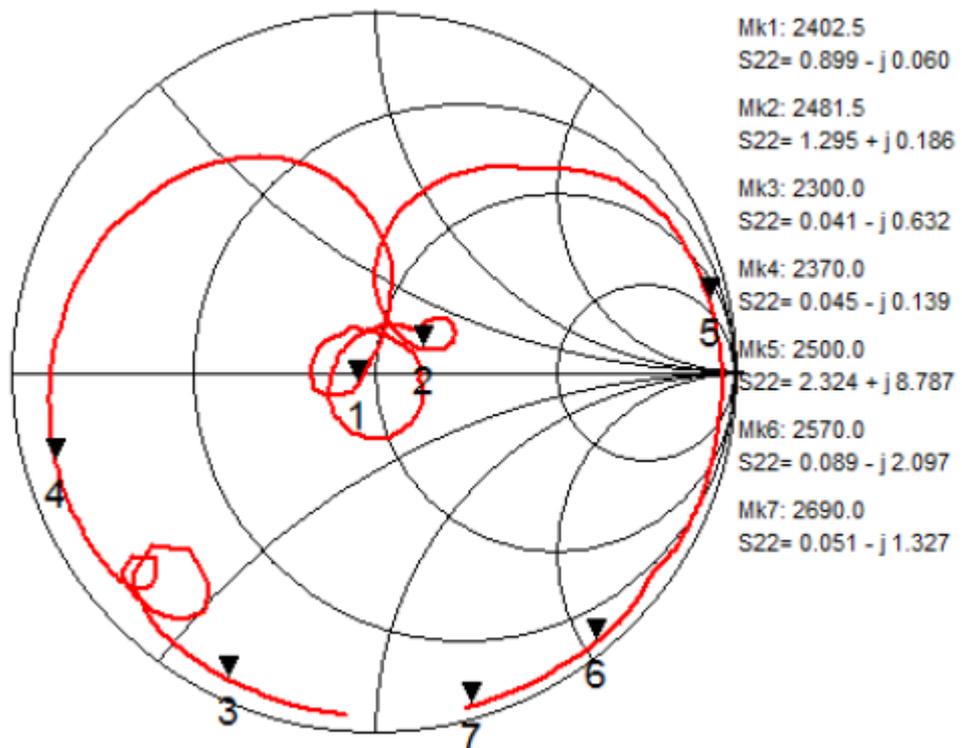


Mk1: 2402.5MHz  
VSWR2= 1.131  
Mk2: 2481.5MHz  
VSWR2= 1.358

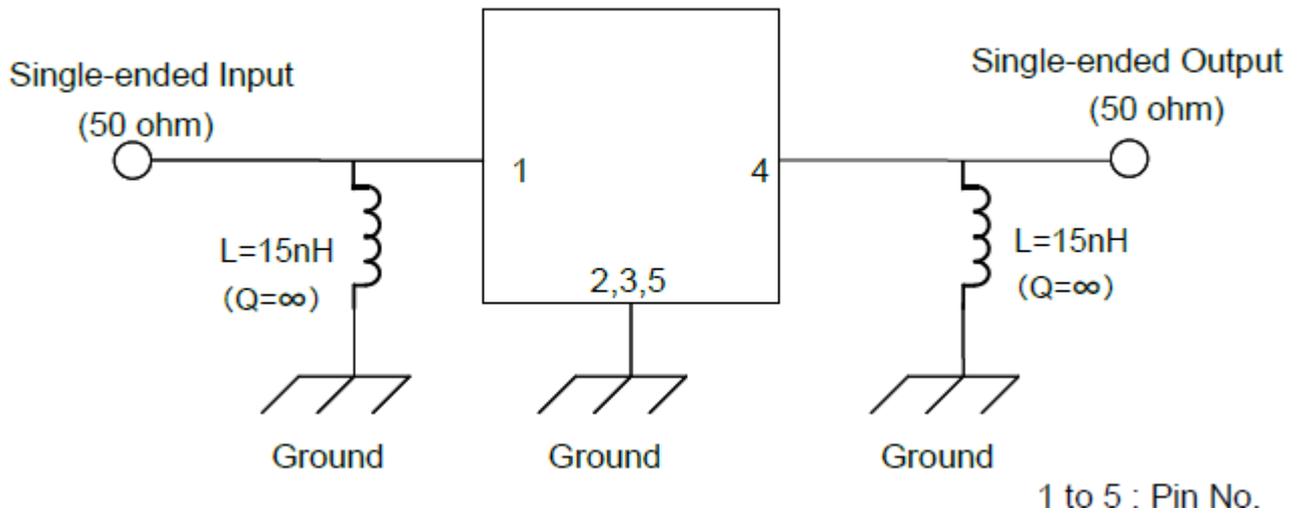
### Input Impedance



### Output Impedance

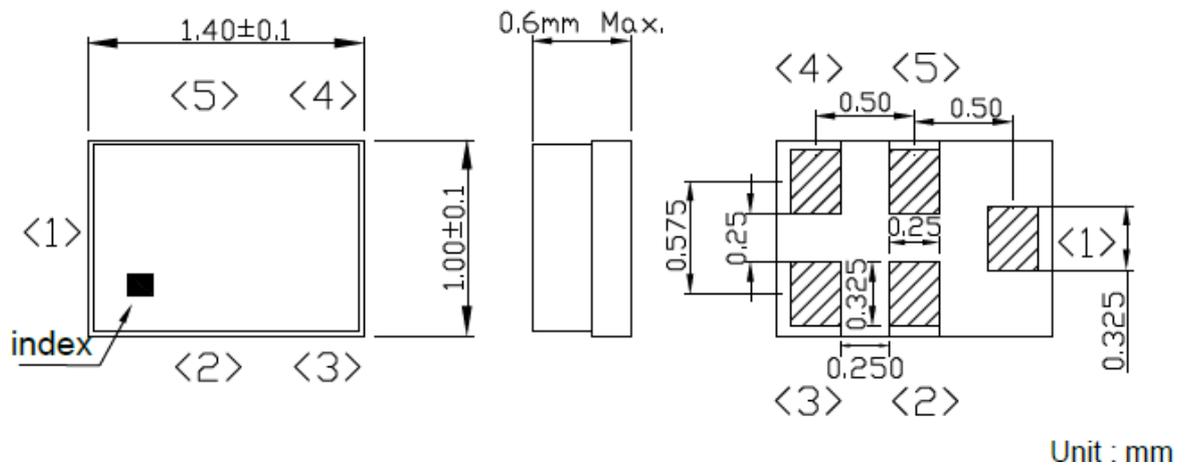


**D. MEASUREMENT CIRCUIT:**



**E. OUTLINE DRAWING:**

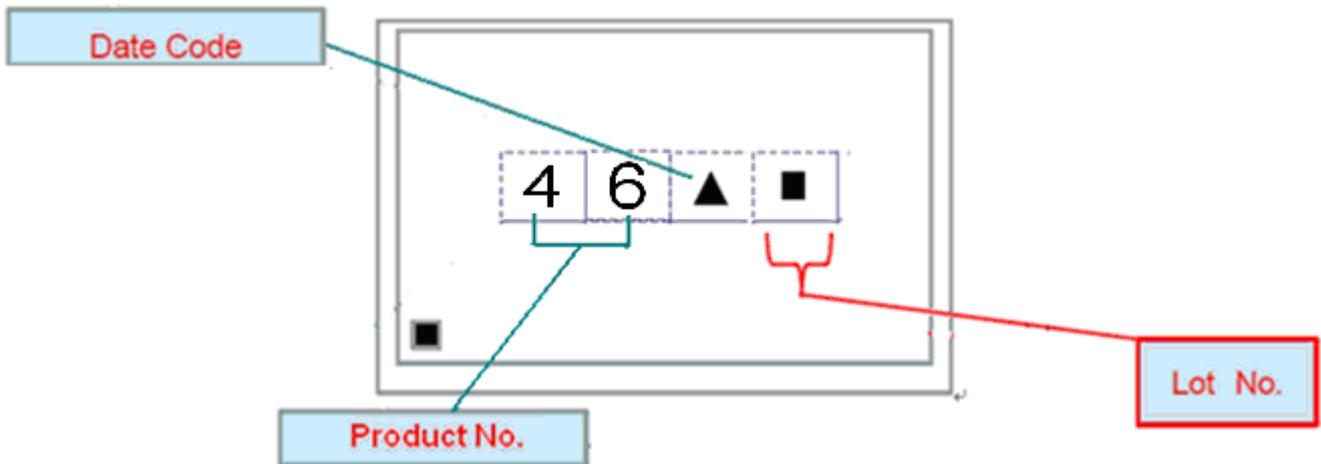
Device size: 1.4typ. x1.0typ. x 0.6max



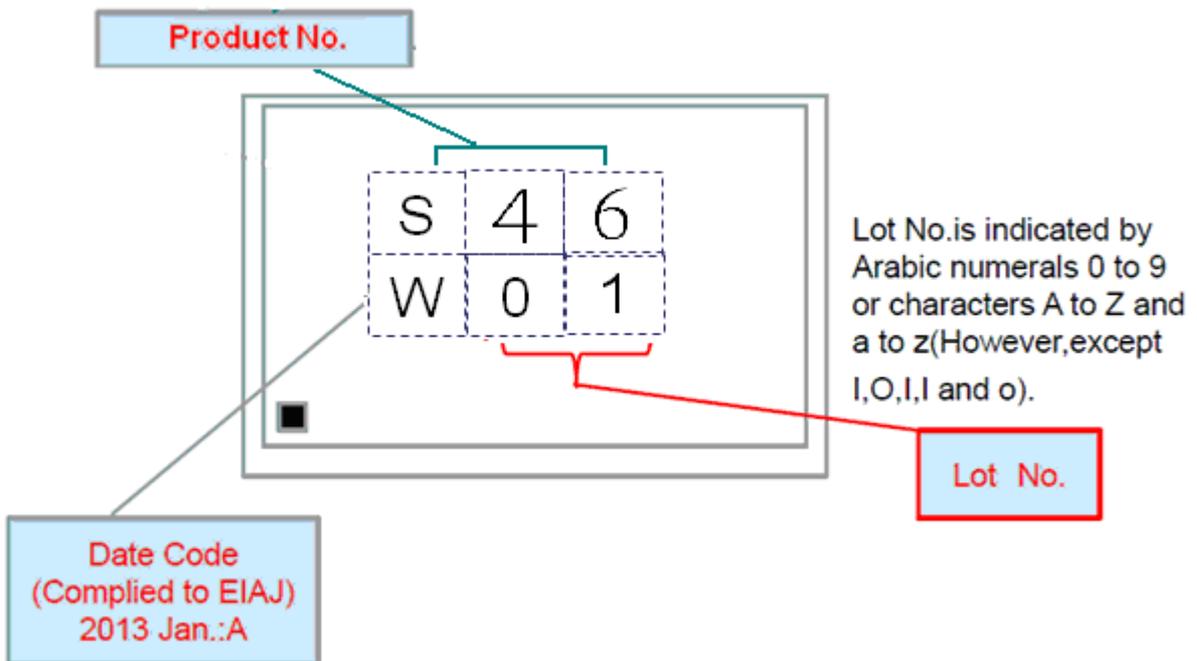
**Pin Configuration**

Pin No.	Symbol	Function
1	IN	Single-ended pin
2	GND	Ground
3	GND	Ground
4	OUT	Single-ended pin
5	GND	Ground

**Top View (Sample Run):**



**Top View (Pilot Run):**

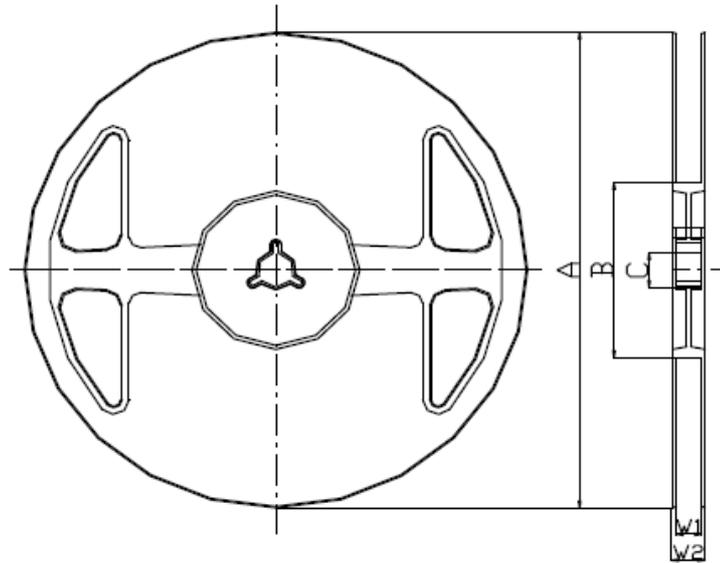


**Date Code**

Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
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

**F. PACKING:**

**1. REEL DIMENSION**



**Materials of Reel**

Material : Polystyrene + Carbon

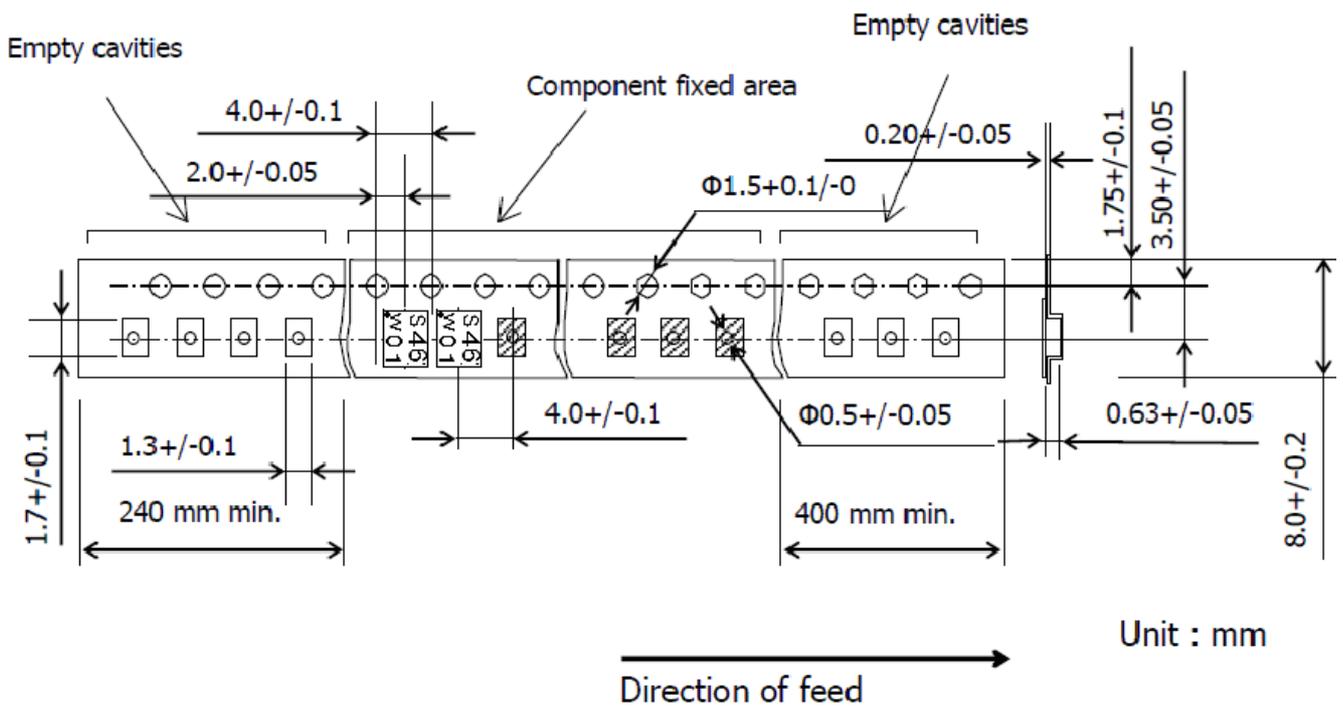
Color : Black

Surface resistance (reference value) :  $10^9 \Omega/\text{sq}$  Max.

Unit : mm

Code	Quantity	A	B	C	W1	W2
Z	3,000 pcs	$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

**2. TAPE DIMENSION**



Unit : mm

**G. RECOMMENDED REFLOW PROFILE:**

