

## Features

SAW filter for Band 12 and Band 13

- High stability and reliability with good performance
- Single ended to Single ended
- Narrow and sharp pass band characteristics. RoHS compatible
- Low insertion loss and deep stop band attenuation for interference
- Package size 1.1mm\*0.9mm

## Electrical Specification

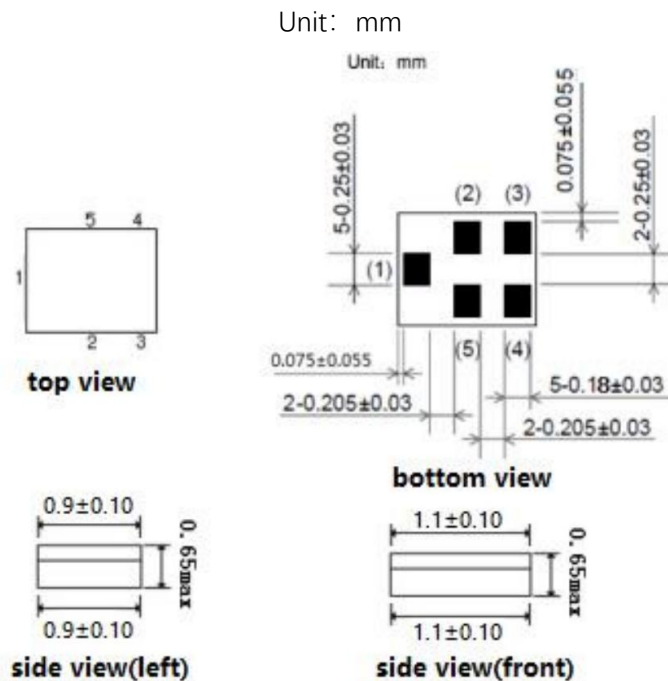
ITEM		Min.	Typ.	Max.	Unit
Center Frequency			742.5		MHz
Insertion Loss	729~746 MHz		2.0	2.8	dB
Insertion Loss	731.5~743.5 MHz		1.9	2.5	dB
Insertion Loss	746~756 MHz		2.8	3.0	dB
Insertion Loss	748.5~753.5 MHz		2.5	3.0	dB
Insertion Loss	734~746 MHz		2.0	2.5	dB
Insertion Loss	736.5~743.5 MHz		1.7	2.0	dB
Passband Ripple	729~746 MHz		0.8	1.8	dB
Passband Ripple	746~756 MHz		1.7	2.0	dB
VSWR	729~746 MHz		2.3	2.5	
VSWR	746~756 MHz		2.3	2.5	
Attenuation	10~699 MHz	40	63		dB
Attenuation	30~31 MHz	50	80		dB
Attenuation	699~716 MHz	46	61		dB
Attenuation	701.5~713.5 MHz	48	58		dB
Attenuation	704~716 MHz	46	61		dB
Attenuation	716~722 MHz	15	25		dB
Attenuation	722~727 MHz	1.0	2.2		dB
Attenuation	771~772 MHz	30	45		dB
Attenuation	777~787 MHz	43	50		dB
Attenuation	776~793 MHz	35	48		dB
Attenuation	793~805 MHz	35	49		dB
Attenuation	1710~1755 MHz	40	48		dB
Attenuation	1850~1910 MHz	40	46		dB
Attenuation	2187~2268 MHz	36	42		dB
Attenuation	2400~2500 MHz	35	41		dB
Attenuation	4900~5950 MHz	25	32		dB
Attenuation	6561~6804 MHz	20	33		dB
Attenuation	7290~7560 MHz	10	36		dB

Attenuation	8019~8316 MHz	10	30		dB
Input / Output Impedance (Nominal)			50		$\Omega$

### Maximum Ratings

Rating	Symbol	Value	Unit
DC Voltage (between any Terminals)	$V_{DC}$	3	V
RF Power (in BW)	P	+ 15 dBm 2000h +50 deg.C	
Operating Temperature Range	$T_A$	-20 ~ +85	$^{\circ}C$
Storage Temperature Range	Tstg	-40 ~ +85	$^{\circ}C$
ESD Voltage (HB)	$V_{ESD}$	>150	V
Moisture Sensitivity Levels	MSL	3	

### Outline Drawing

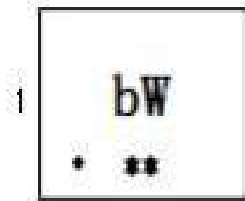


### Pin Configuration

PIN#	Description
1	Input
4	Output
2,3,5	Ground



Marking



Top View, Laser Marking

“bW”: Part Number

“.” Dot marking, indicates input

“1”: Terminal 1

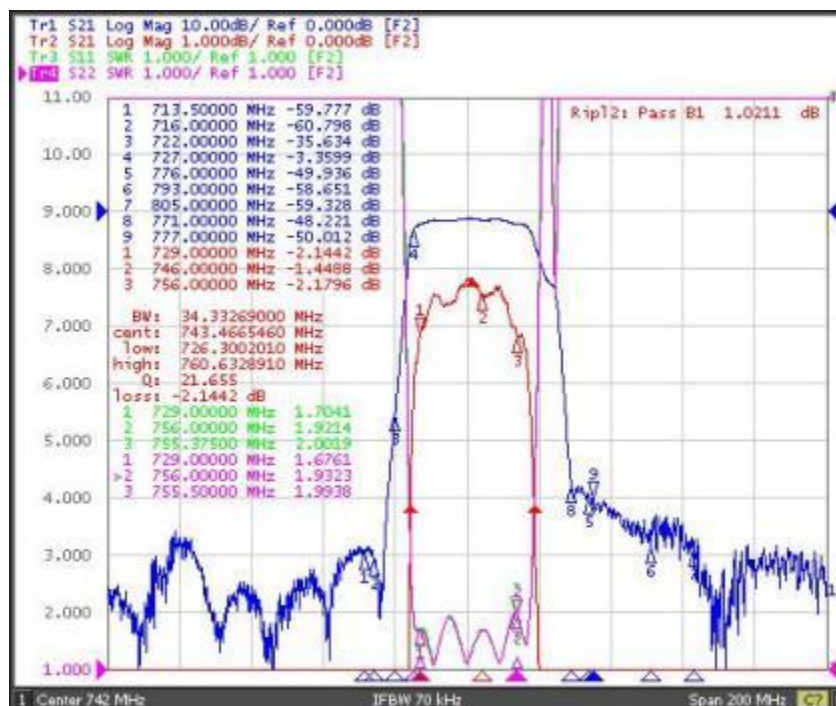
The first “\*”: Month Code (The code shown below varies in a 4-year-cycle)

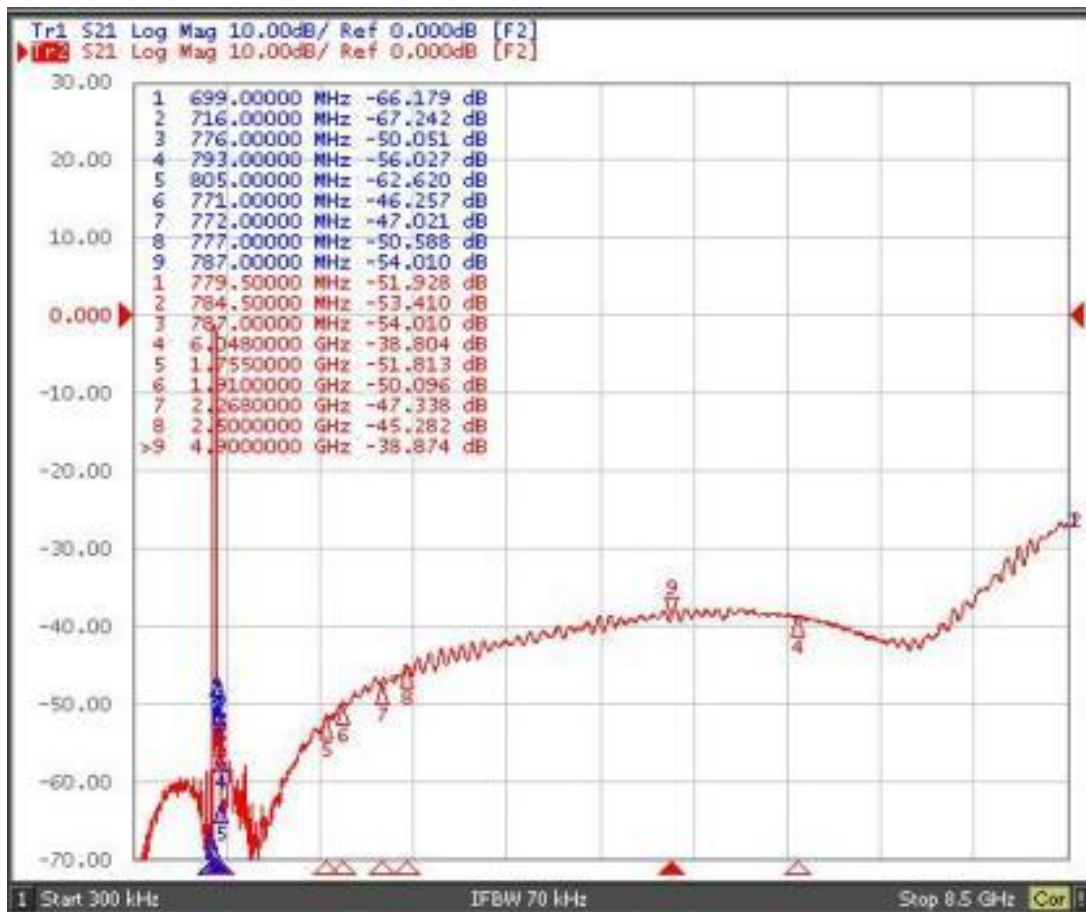
Month	1	2	3	4	5	6	7	8	9	10	11	12
2016/2020	n	p	q	r	s	t	u	v	w	x	y	z
2017/2021	A	B	C	D	E	F	G	H	J	K	L	M
2018/2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019/2023	a	b	c	d	e	f	g	h	i	j	k	m

The second “\*”: Date Code

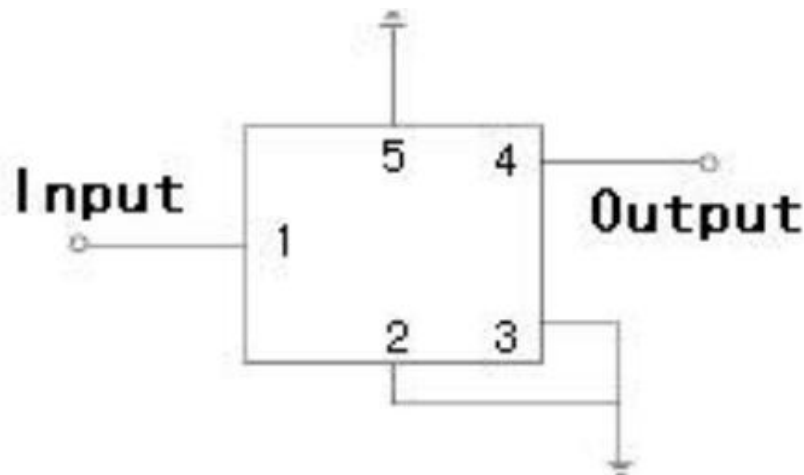
Date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
Code	A	B	C	D	E	F	G	H	J	K	
Date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
Code	L	M	N	P	Q	R	S	T	U	V	
Date	21st	22nd	23rd	24th	25th	26th	27th	28th	19th	30th	31st
Code	W	X	Y	Z	a	b	d	e	f	g	h

Typical Frequency Response





Test Circuit



50Ω

### Stability Characteristics

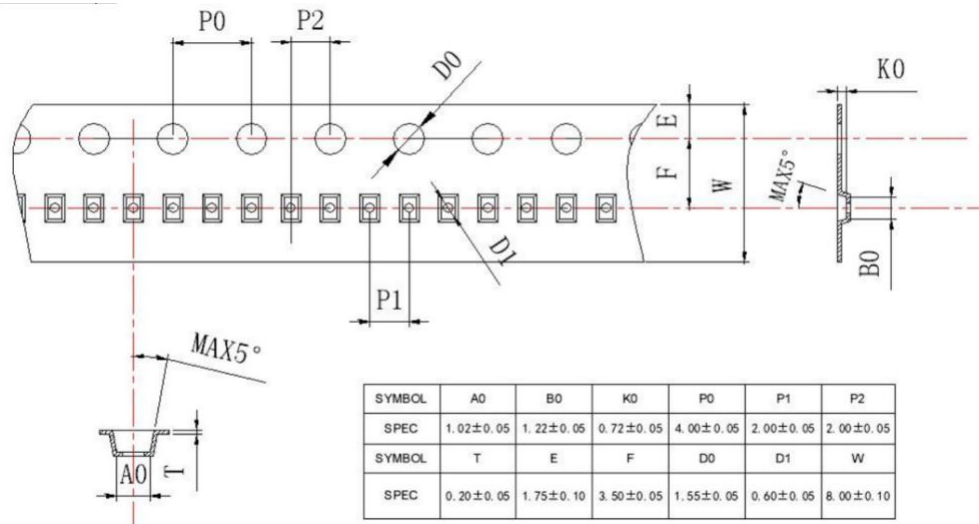
ITEM	Test Item	STD Reference	Test Conditions	per lot
	Preconditioning	JESD22-A113	1) Temperature Cycling, 5 cycles -40°C to 85°C; 2) Bake, 24 hrs @85±5°C; 3)Moisture Soak, Soak time and conditions per IPC/JEDEC J-STD-020 based on device MSL level; 4) Reflow, 3 reflow cycles; 5) Drying, Room ambient temperature.	All behind
1	Temperature Cycling	JESD22-A104	-40°C / +85°C ,5°C/min, 15min dwell, < 1 min transfer time,500cycles	3*25 pcs
2	High Temperature Storage	JESD22-A103	Temperature = 85°C, 1000 hours.	3*25 pcs
3	Temperature Humidity no bias	JEDEC Std A101-B	85°C 85%RH 240 hours	3*25 pcs
4	Human Body Mode ESD	JESD22-A114	Ta=25°C, ≥100V	3 pcs
5	Charge Device Mode ESD	JESD22-C101	Ta=25°C, ≥100V	3 pcs
6	Solderability	JESD22-B102	Wetting: 245°C, 5s.	22 pcs
7	Drop Test	JESD22-B111	1500 Gs, 0.5 millisecond duration, half-sine pulse.	20 pcs
8	Mechanical Shock	JESD-47	Shock pulse of 1500g with pulse duration of 0.5+/-0. 1msec (X ,Y & Z); 5 shocks per axis.	3*25 pcs

### Remarks

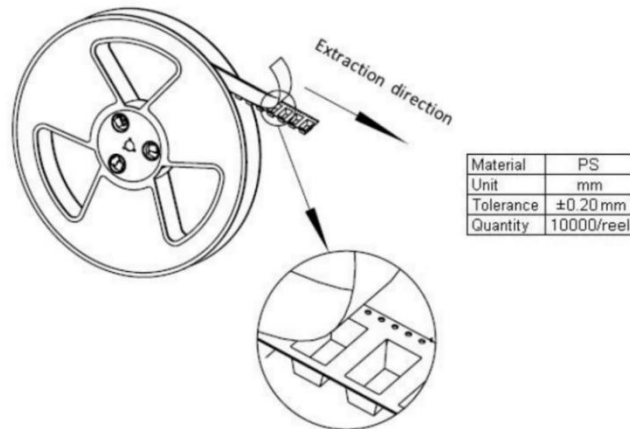
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided, deterioration of the characteristics can occur.
- Be careful of soldering temperature and duration of components when soldering.
- Do not place soldering iron on the body of components.
- Be careful not to subject the terminals or leads of components to excessive force.
- SAW devices are electrostatic sensitive. Please avoid static voltage during operation and storage.
- Ultrasonic cleaning shall be avoided. Ultrasonic vibration may cause destruction of components.

**Packing Information**

Carrier Tape



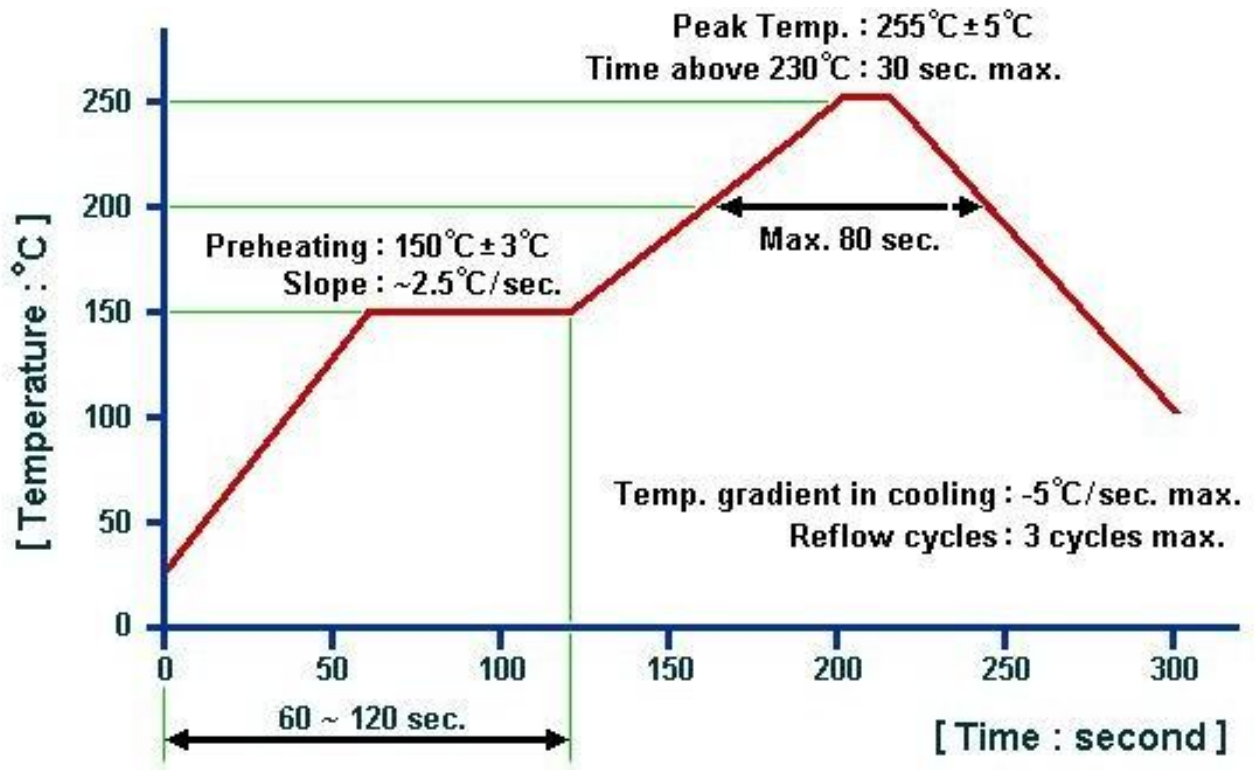
Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	100000	240×210×285mm	anti-static plastic bag & carton box 1 reel / bag 10 bags / box (100000pcs)	2.15kg
Carton Box II	300000	470×310×285mm	30 bags / box (300000pcs)	6.22kg

**Recommended Soldering Profile**



Remarks:

1. The specifications of this device are subject to change or obsolescence without notice.
2. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
3. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
4. For questions on technology, prices and delivery, please contact our sales offices or e-mail [sales@sainty-tech.com](mailto:sales@sainty-tech.com).