



# APPROVAL SHEET

Approval Specification	Customer's Approval Certificate
<p><b>TO:</b></p> <p><b>Part No.:</b></p> <p><b>Customer's Part No.:</b></p>	<p>Please return this copy as a certification of your approval</p> <p><b>Checked &amp; Approved by:</b></p> <p><b>Date:</b></p>

## BEIJING ZHONGXUN SIFANG SCIENCE & TECHNOLOGY CO.,LTD.

Tel: +86-010-62968745  
 Fax: +86-010-62973654  
 E-mail: [bjzxsf@bjzxsf.net](mailto:bjzxsf@bjzxsf.net)  
 Website: <http://www.bjzxsf.net>  
 Add: NO.7 NieGeZhuang Rd,SuJiaTuo Town,  
 HaiDian District,Beijing,P.R.China



Part No.	:	SF0338
Pages	:	6
Date	:	2013/6/5
Revision	:	1.0

<b>Prepared by:</b>	郑宝琴
<b>Checked by:</b>	
<b>Approved by:</b>	

**Application**

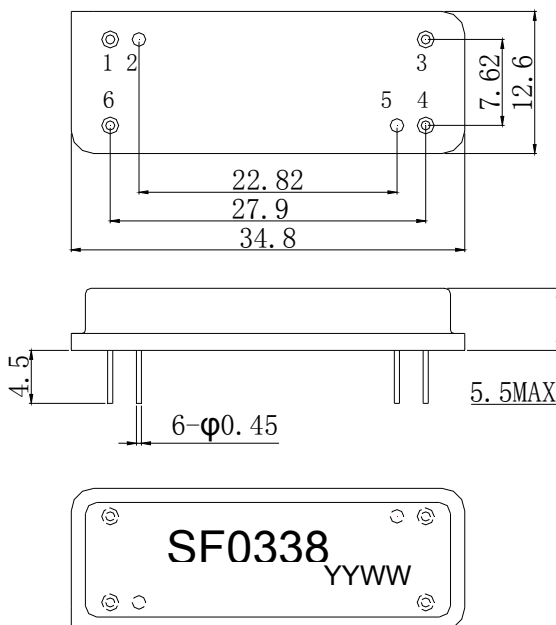
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 5 MHz
- Low Shape Factor

**Features**

- RoHS compatible
- Package size 34.8x12.6x5.50mm<sup>3</sup>
- Package Code DIP3512J
- Electrostatic Sensitive Device(ESD)



**Package Dimensions (Unit: mm)**



**Pin Configuration**

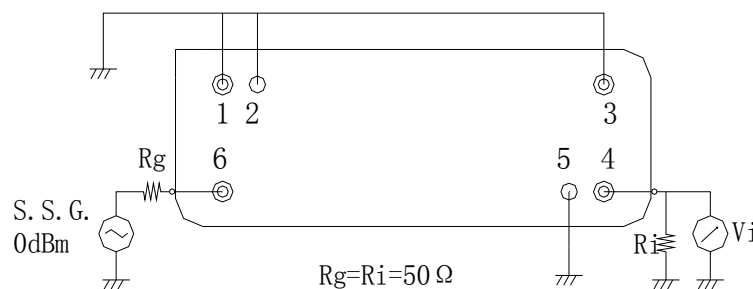
Pin No.	Description
6	Input
4	Output
1,2,3,5	Ground

**Marking Description**

<b>S</b>	Trademark
<b>F</b>	SAW Filter
<b>0338</b>	Part Number
<b>YYWW</b>	Year Code & Week Code

\*Fig: If the products produced in 06<sup>th</sup> week of 2012, The year code & week code is 1206.

**Test Circuit**



**Performance****Maximum Rating**

Item		Value	Unit
DC Voltage	V <sub>DC</sub>	3	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	°C
RF Power Dissipation	P	10	dBm

**Electronic Characteristics**

Test Temperature: 25°C ± 2°C

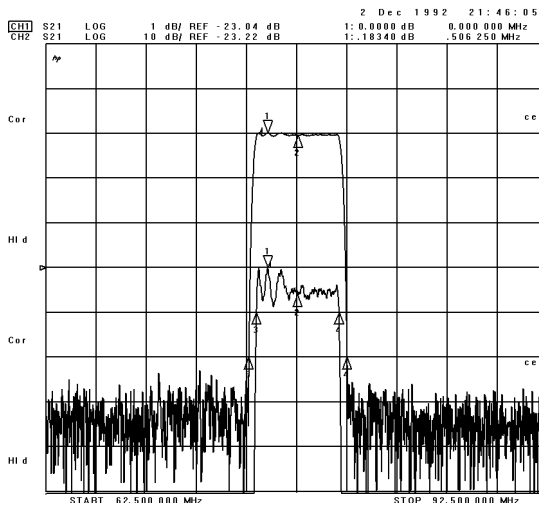
Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

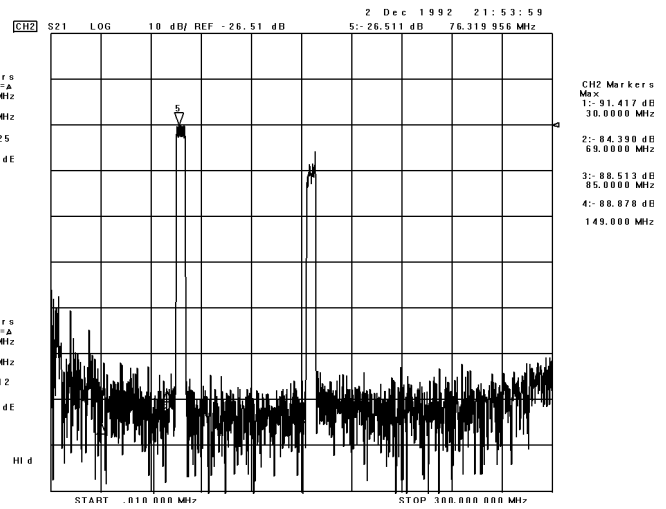
Item		Minimum	Typical	Maximum	Unit
Center Frequency	f <sub>c</sub>	77.45	77.5	77.55	MHz
Insertion Loss(min)	IL		24.0	28.0	dB
Amplitude Ripple (p-p) 75.20-79.80MHz	Δα		0.7	1.0	dB
1.5 dB Bandwidth	BW <sub>1.5dB</sub>		5.0		MHz
3 dB Bandwidth	BW <sub>3dB</sub>	5.08	5.10		MHz
35 dB Bandwidth	BW <sub>35dB</sub>		5.76	5.80	MHz
45 dB Bandwidth	BW <sub>45dB</sub>		5.84		MHz
50 dB Bandwidth	BW <sub>50dB</sub>		5.88		MHz
Absolute Attenuation	α				
	30.00-69.95 MHz	50.0	60.0		dB
	69.95 MHz	50.0	60.0		dB
	73.95MHz	50.0	55.0		dB
	74.35MHz	45.0	55.0		dB
	74.55 MHz	35.0	42.0		dB
	80.45 MHz	35.0	42.0		dB
	80.65 MHz	45.0	55.0		dB
	81.05 MHz	50.0	55.0		dB
	85.05 MHz	50.0	60.0		dB
	85.05-140.00 MHz	50.0	60.0		dB

Frequency Characteristics

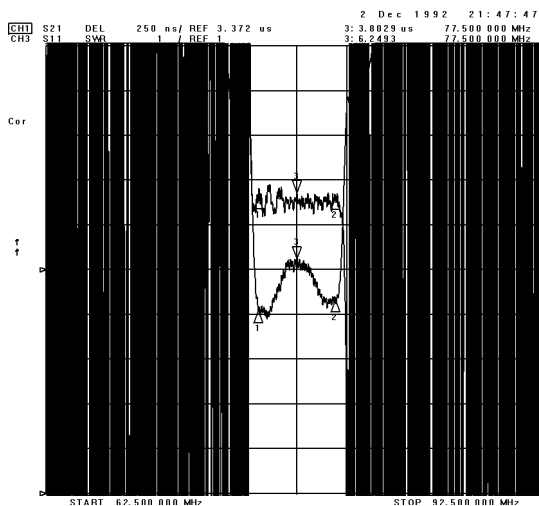
Frequency Response



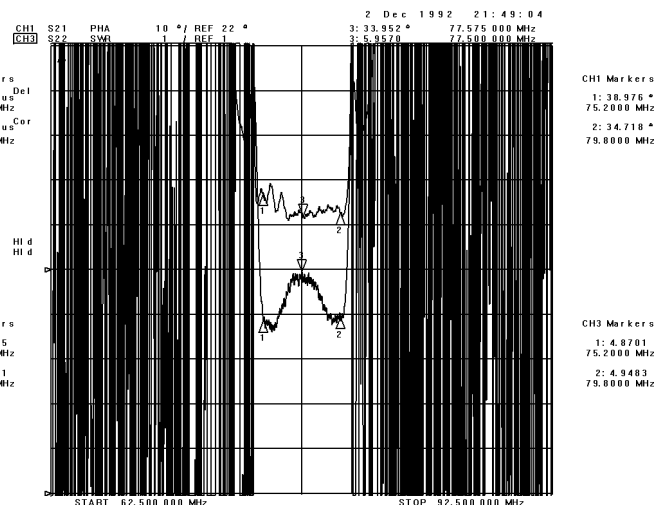
Frequency Response (wideband)



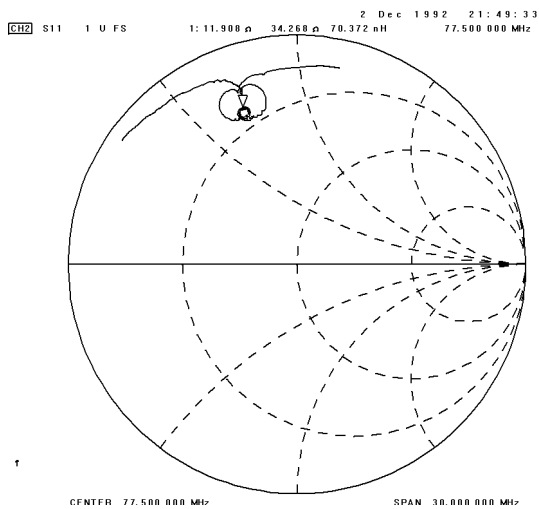
Delay Ripple & S11 VSWR



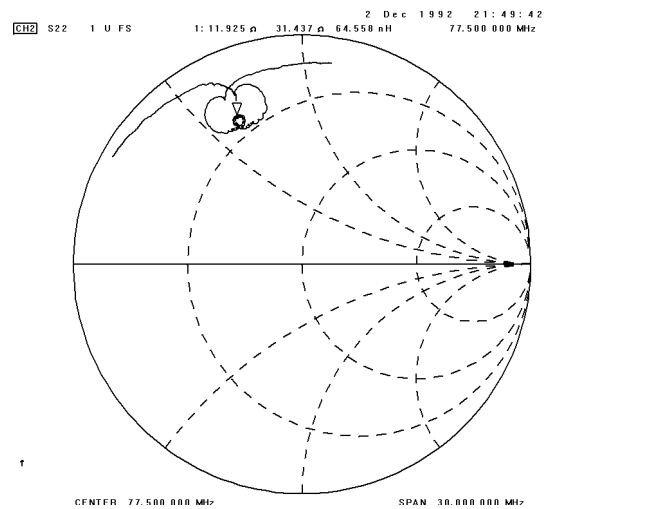
Phase Linearity & S22 VSWR



S11 Smith Chart



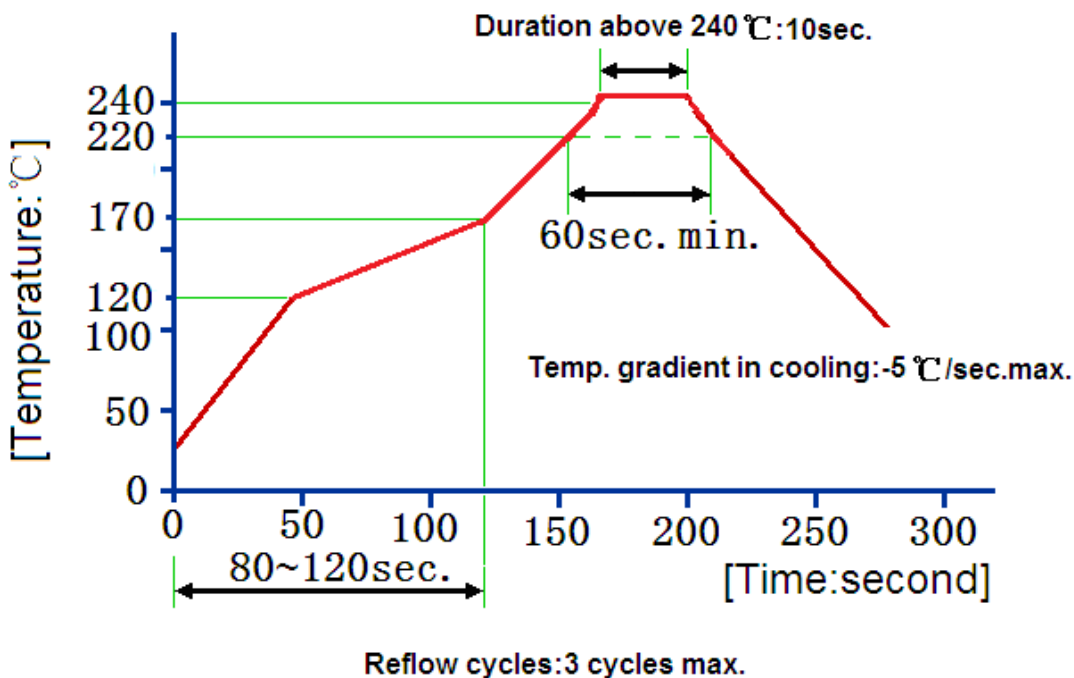
S22 Smith Chart



Reliability (The SAW components shall remain electrical performance after tests)

No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: -55°C±3°C , Duration: 250h , Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60°C±2°C , 90~95% RH                      Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55Hz                      Amplitude:1.5mm Directions: X,Y and Z                                      Duration: 2h
5	Drop Test	Cycle time: 10 times                                      Height: 1.0m
6	Solder Ability Test	Temperature: 245°C±5°C                              Duration: 3.0s--5.0s Depth: DIP--2/3 , SMD--1/5
7	Resistance to Soldering Heat	(1) Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration: 10±1s (2) Temperature of Soldering Iron: 350°C±10°C , Duration: 3~4s , Recovery time : 2 ± 0.5h

Recommended Reflow Soldering Diagram



**Notes**

1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in the test.
2. **Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
3. **Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
4. Only leads of component may **be soldered**. Please avoid soldering another part of component.
5. There is a close relationship between the device's performance and **matching network**. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guide only.