

## APPROVAL SHEET

Approval Specification	Customer's Approval Certificate
TO:	Please return this copy as a certification of your approval
Part No.:	Checked & Approved by:
Customer's Part No.:	Date:

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

Tel: +86-010-58937383
Fax: +86-010-58937263
E-mail: bjzxsf@bjzxsf.net
Website: http://www.bjzxsf.net

Add: No 201, Block A. Building 3. Yongjie Beilu

Yongfeng high-tech industrial base Haidian District Beijing city

Part No.	:	SF0233
Pages	:	6
Date	:	2013/4/9
Revision	:	1.0



Prepared by:	郑宝琴
Checked by:	gla g
Approved by:	马龙上

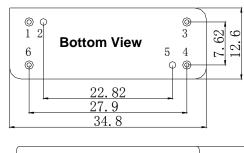
#### **Application**

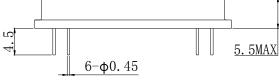
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 1 MHz

#### **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**

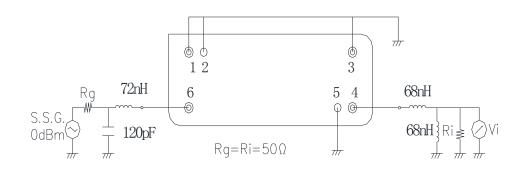
Pin No.	Description	
6	Input	
4	Output	
1,2,3,5	Ground	

#### **Marking Description**

S	Trademark	
F	SAW Filter	
0233	Part Number	
•	Pin 1	
YYWW	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(Bottom View)**



Please read notes at the end of this document.

#### **Performance**

#### **Maximum Rating**

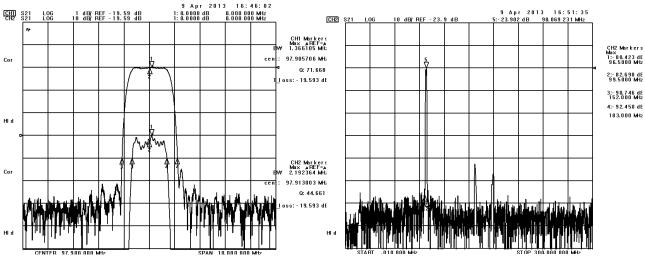
Item		Value	Unit
DC Voltage	V <sub>DC</sub>	3	V
Operation Temperature	Т	-40 ~ +85	$^{\circ}$
Storage Temperature	T <sub>stg</sub>	-55 ~ +125	$^{\circ}$
RF Power Dissipation	Р	10	dBm

#### **Electronic Characteristics**

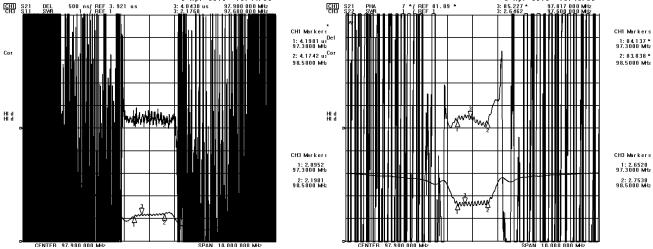
Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$ 

Terminating source impedance:  $50\Omega$ Terminating load impedance:  $50\Omega$ 

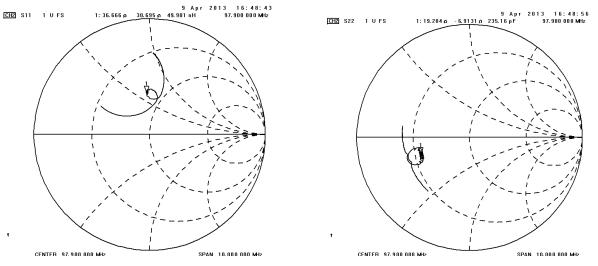
Item	Minimum	Typical	Maximum	Unit	
Center Frequency	fc	97.8	97.9	98.0	MHz
Insertion Loss(min)	IL		19.6	25.0	dB
Amplitude Ripple (p-p) 97.40-98.40MHz	Δa		0.4	1.0	dB
1 dB Bandwidth	BW <sub>1dB</sub>	1.30	1.36		MHz
30 dB Bandwidth	BW <sub>30dB</sub>		2.19	2.30	MHz
Absolute Attenuation	а				
5.00 -96.50 MHz		45.0	55.0		dB
99.50-150.00MHz		45.0	57.0		dB









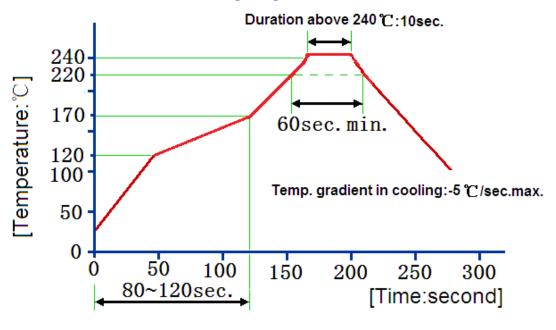


Please read notes at the end of this document. - 4 - www.bjzxsf.net 2013/4/9

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

No.	Test item	Test condition
1	Temperature	(1) Temperature: 85℃±2℃ , Duration: 250h , Recovery time: 2h±0.5h
<u>'</u>	Storage	(2) Temperature: −55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60℃±2℃, 90~95% RH Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch
3	THEITIAI SHOCK	time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	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
		Temperature: 245 ℃ ±5 ℃ Duration: 3.0s5.0s
6	Solder Ability Test	Depth: DIP2/3 , SMD1/5
		(1)Thickness of PCB:1mm , Solder condition: 260 ℃±5 ℃ , Duration: 10±1s
7	Resistance to Soldering Heat	(2)Temperature of Soldering Iron: 350℃±10℃ , Duration: 3~4s ,
		Recovery time: 2 ± 0.5h

#### **Recommended Reflow Soldering Diagram**



Reflow cycles:3 cycles max.

97.90 MHz SAW Filter SF0233 1 MHz Bandwidth

#### **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.