APPROVAL SHEET

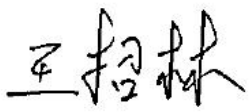
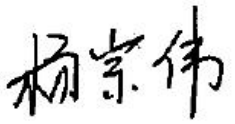
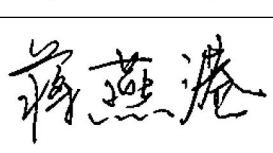
Approval Specification		Customer's Approval Certificate
TO: **Part No.:** **Customer's Part No.:**		Please return this copy as a certification of your approval **Checked & Approved by:** **Date:**

BEIJING ZHONGXUN SIFANG SCIENCE & TECHNOLOGY CO.,LTD.

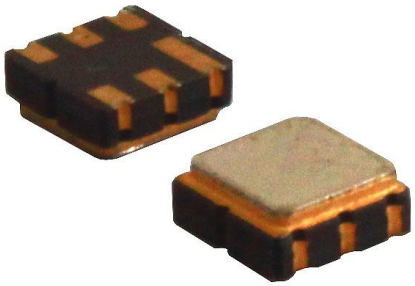
Tel: +86-010-58937383
Fax: +86-010-58937263
E-mail: zxsf_sales@163.com
QQ: 2109300457
Website: http://www.bjzxsf.net
Add: No 201, Block A. Building 3. Yongjie Beilu
Yongfeng high-tech industrial base
Haidian District Beijing city

RoHS compliance Pb free

Part No.	:	SF9638
Pages	:	7
Date	:	2014/02/17
Revision	:	1.0

Prepared by:	
Checked by:	
Approved by:	

Application

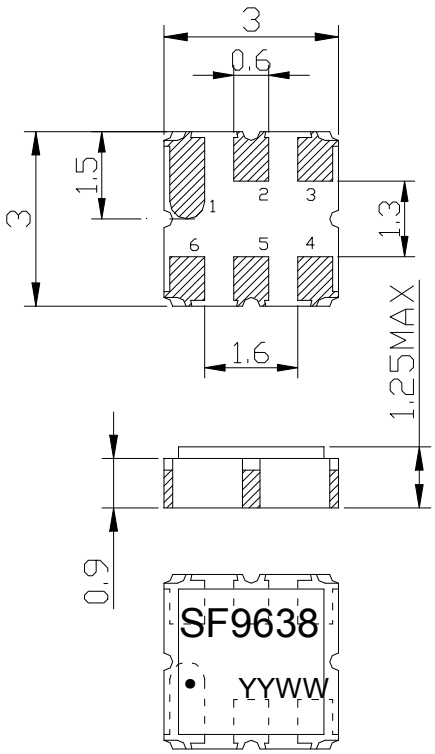


- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 10.0 MHz

Features

- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)
- **RoHS** compatible
- Package size 3.00x3.00x1.25mm^3
- Package Code DCC6C
- **E**lectrostatic **S**ensitive **D**evice(**ESD)**

Package Dimensions (Unit: mm)



Pin Configuration

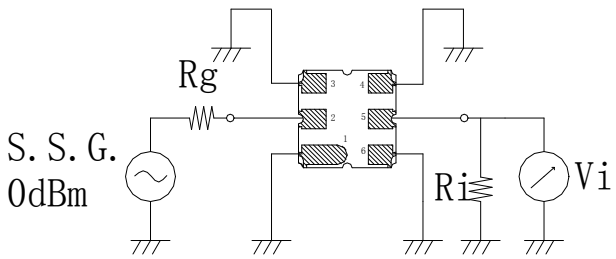
Pin No.	Description
2	Input
5	Output
1,3,4,6	Case Ground

Marking Description

SF	**SF**	Trademark
	F	SAW Filter
9638	Part Number	
●	Pin 1	
YYWW	Year Code & Week Code	

*Fig：If the products produced in 06th week of 2015, The year code & week code is 1506.

Test Circuit（Bottom View）



Rg=Ri=50 Ω

Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V_{DC}	6	V
Operation Temperature	T	-40 ~ +125	℃
Storage Temperature	T_{stg}	-40 ~ +125	℃
RF Power Dissipation	P	10	dBm

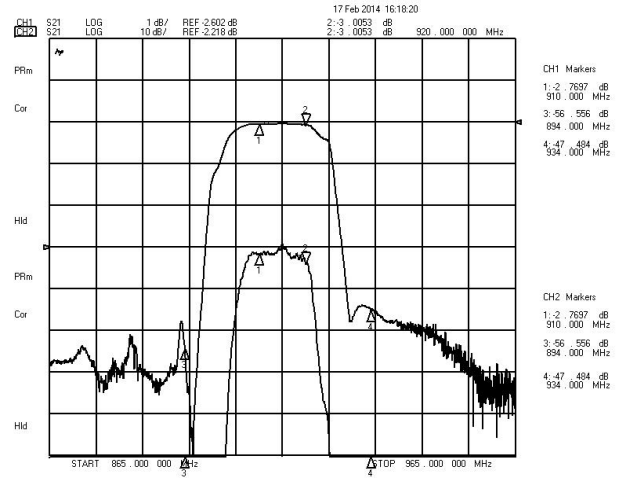
Electronic Characteristics

Test Temperature: 25℃±2℃
Terminating source impedance: 50Ω
Terminating load impedance: 50Ω

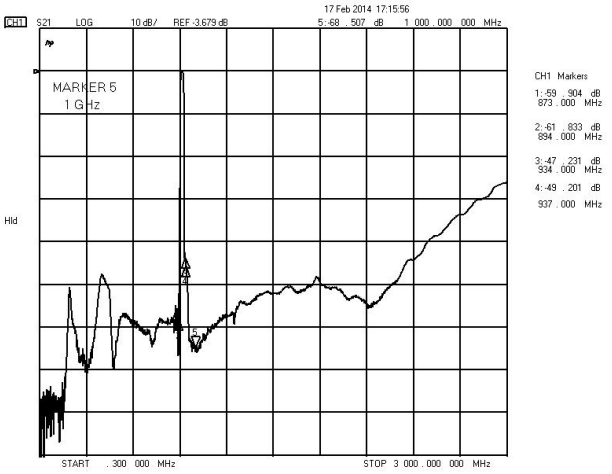
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		915.00		MHz
Insertion Loss 910.00 - 920.00 MHz	IL		2.6	3.5	dB
Amplitude Ripple (p-p) 910.00 - 920.00 MHz	△α		0.8	1.7	dB
Absolute Attenuation	α				
10.00 – 873.00 MHz		42.0	47.0		dB
873.00 - 894.00 MHz		37.0	44.0		dB
934.00 - 937.00 MHz		34.0	56.0		dB
937.00 - 1000.00 MHz		50.0	56.0		dB
1000.00 - 1500.00 MHz		47.0	50.0		dB
1500.00 - 2600.00 MHz		32.0	35.0		dB
Input VSWR 910.00 - 920.00 MHz			1.4:1	1.9:1	/
output VSWR 910.00 - 920.00 MHz			1.4:1	1.9:1	/

Frequency Characteristics

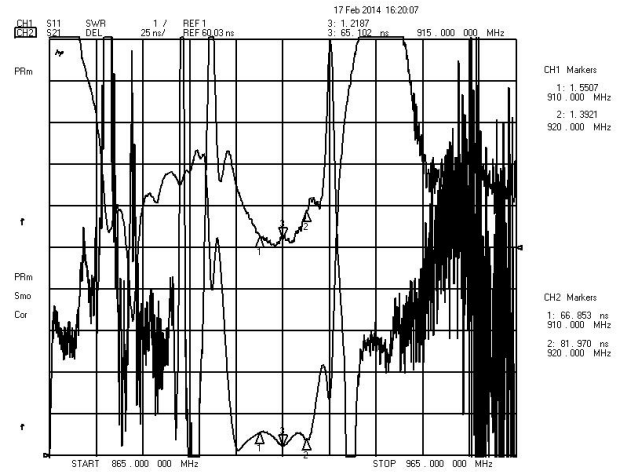
Frequency Response



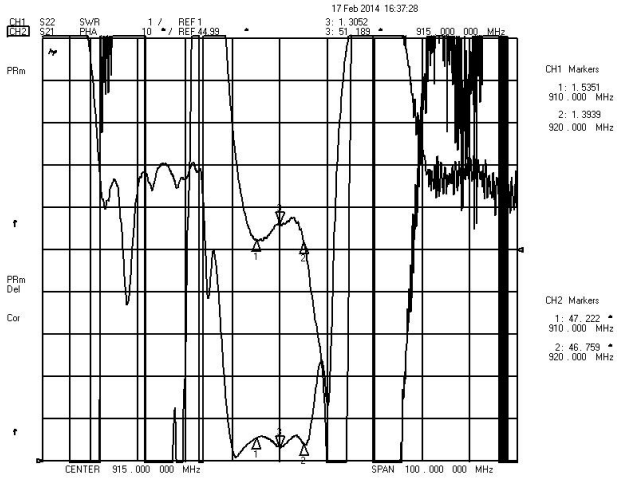
Frequency Response（wideband）



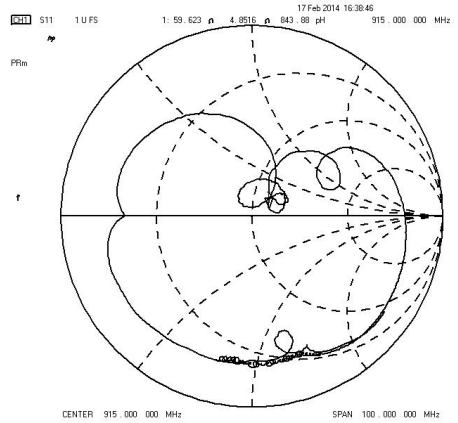
Delay Ripple & S11 VSWR



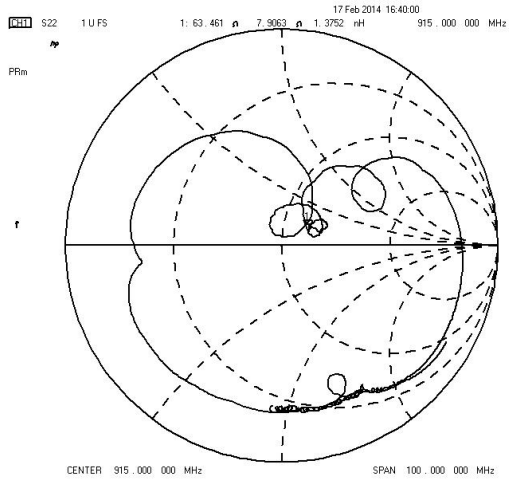
Phase Linearity & S22 VSWR



S11 Smith Chart



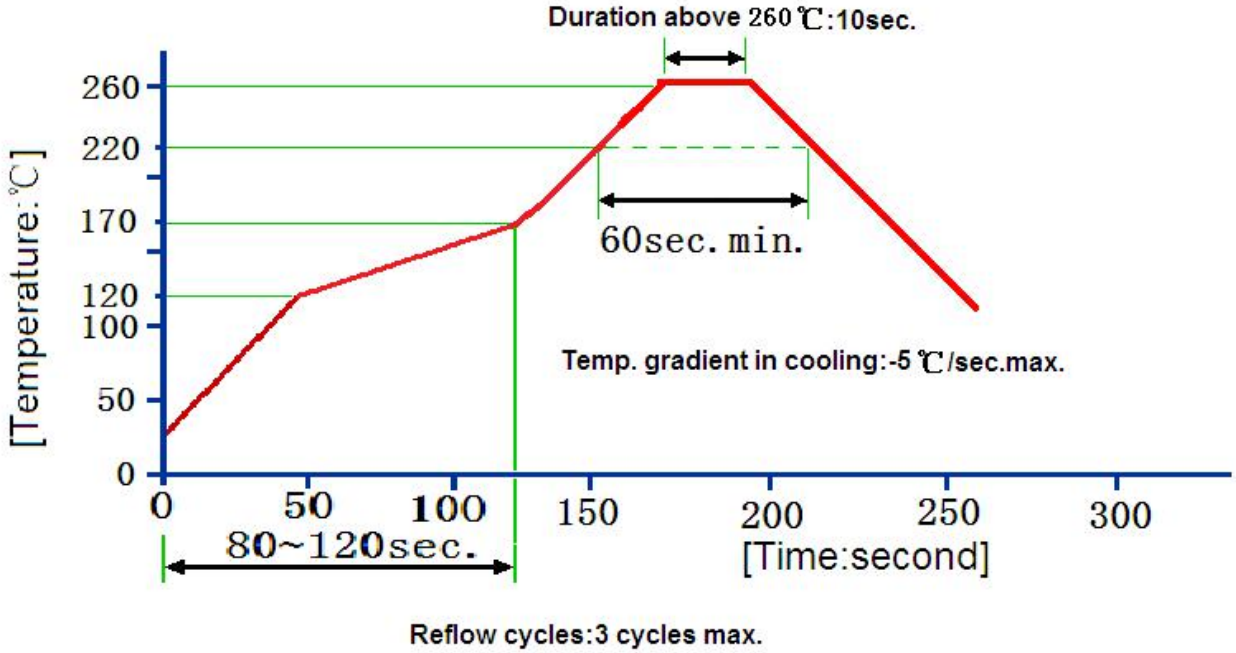
S22 Smith Chart



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

No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: 85℃±2℃ , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: –55℃±3℃ , 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 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℃±5℃ 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℃±5℃ , Duration: 10±1s (2)Temperature of Soldering Iron: 350℃±10℃ , Duration: 3~4s , Recovery time : 2 ± 0.5h

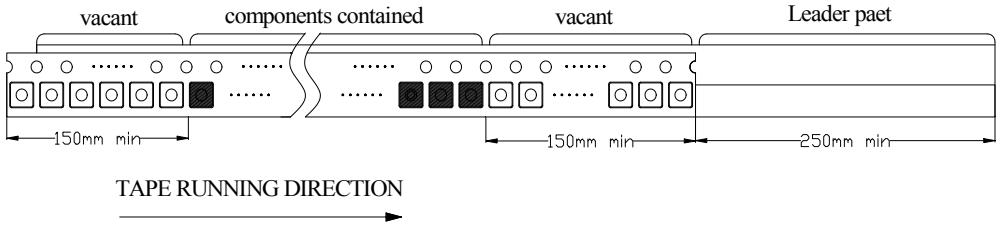
Recommended Reflow Soldering Diagram



Reflow cycles:3 cycles max.

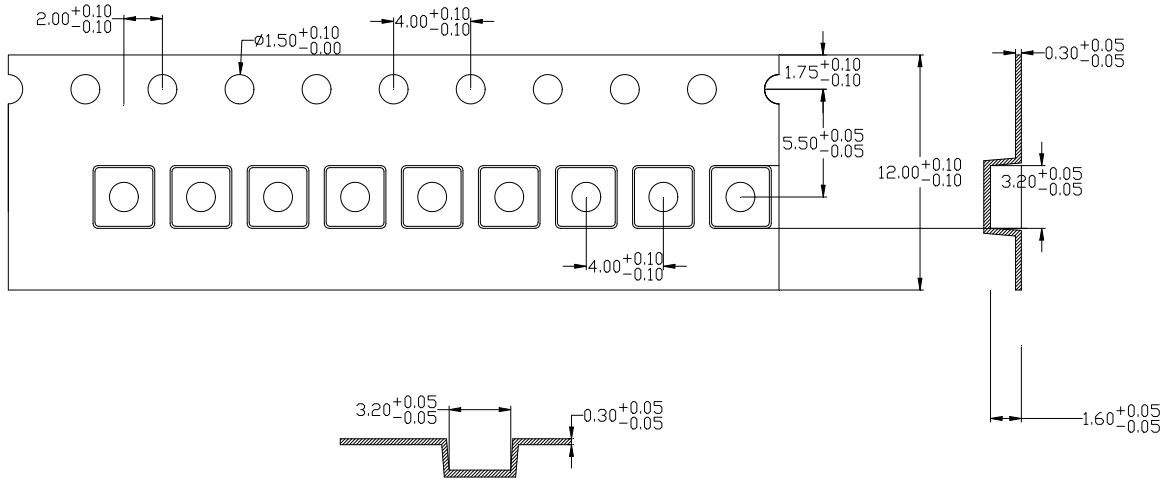
Packing Information

Carrier Tape



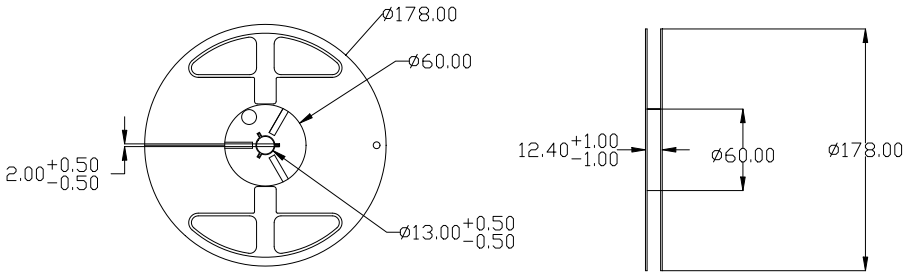
Reel Dimensions

Unit: mm



Outer Packing

Unit: mm



3000 pcs/reel

Type	Quantity	Dimension	Description	Weight
Internal box	6000	190×188×42	carton box 2 reel / internal box 5 boxes / external box	0.50
External box	30000	235×205×210		2.77

Unit: mm Unit: kg

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.