ZXSF®

SHENZHEN HUAYUAN MICRO ELECTRONIC TECHNOLOGY CO., LTD.

Shenzhen Office:

TEL: 0755-29881155
FAX:0755-29881157
EMAIL:zxsf_sales@163.com
QQ:2109300457
www.szhywd.com

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:**

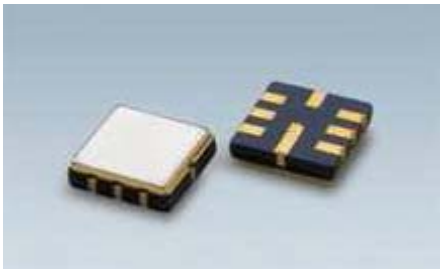
BEIJING ZHONGXUN SIFANG SCIENCE & TECHNOLOGY CO.,LTD.

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

Part No.	:	SFR315A
Pages	:	6
Date	:	2013/3/21
Revision	:	1.0

Prepared by:	
Checked by:	
Approved by:	

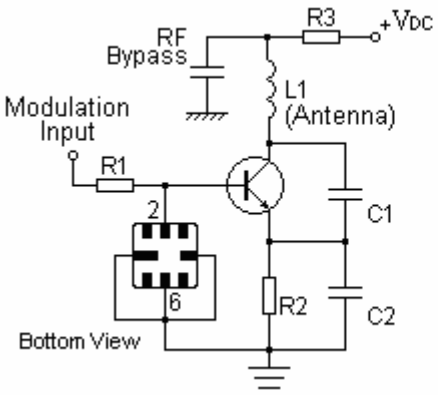
Features



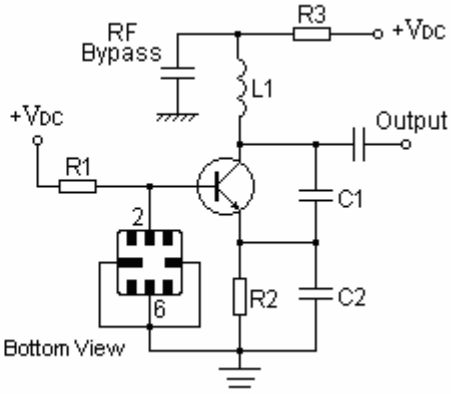
- 1-port Resonator
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)
- **RoHS** compatible
- Package size 5.00x5.00x1.50mm^3
- Package Code QCC8C
- **E**lectrostatic **S**ensitive **D**evice(**ESD)**

Application

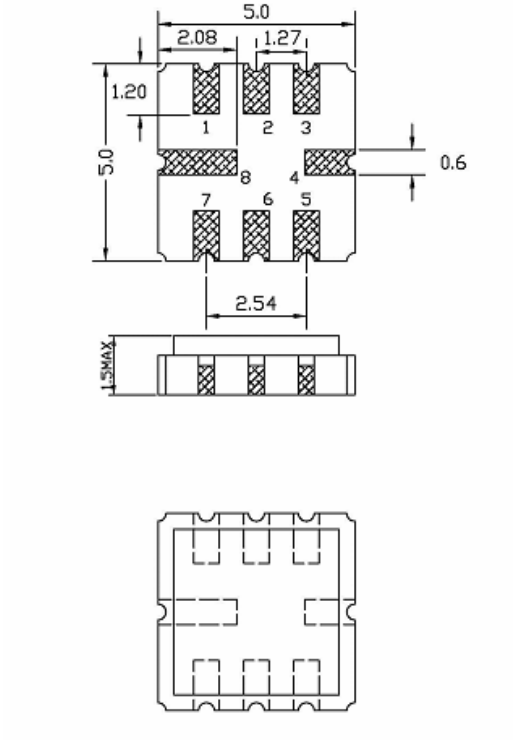
Typical Low-Power Transmitter Application



Typical Local Oscillator Application



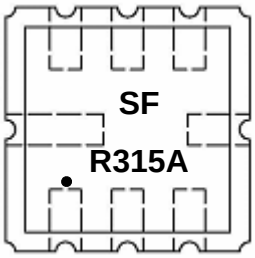
Package Dimensions (QCC8C)



Pin Configuration

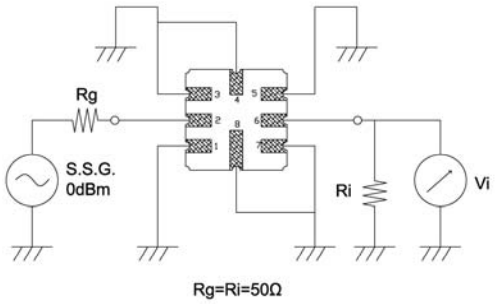
2	Input
6	Output
1,3,4,5,7,8	Ground

Marking

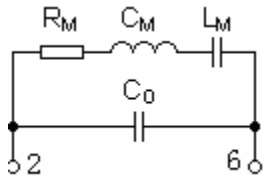


SF	Trademark
R	SAW Resonator
315A	Part number

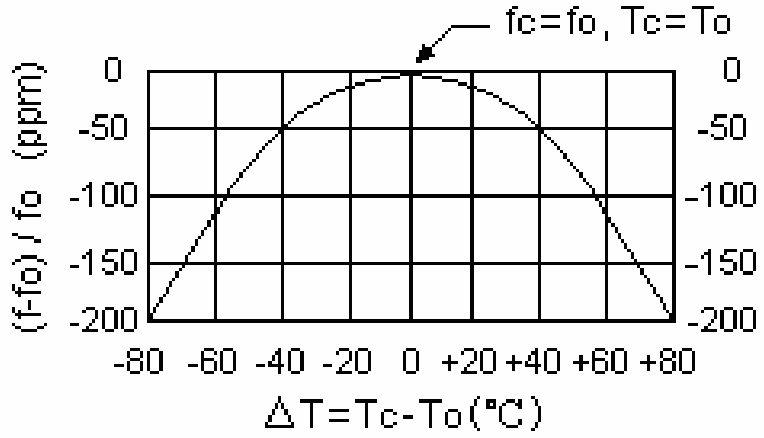
Test Circuit



Equivalent LC Model



Temperature Characteristics



The curve shown above accounts for resonator contribution only and does not include LC component temperature contributions.

Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V_{DC}	± 30	V
Operation Temperature	T	-40 ~ +85	℃
Storage Temperature	T_{stg}	-55 ~ +125	℃
RF Power Dissipation	P	10	dBm

Electronic Characteristics

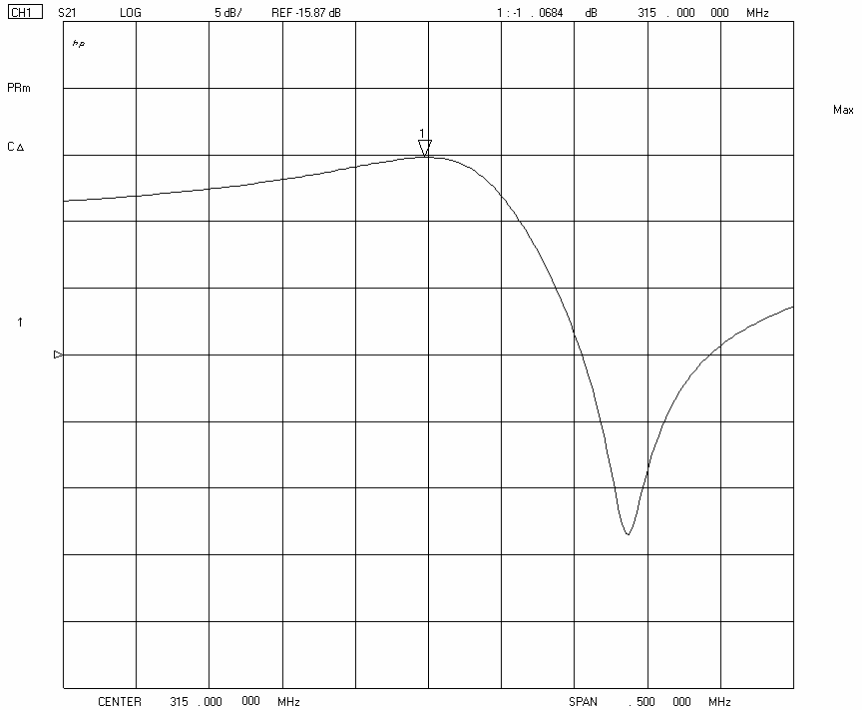
Test Temperature: 25℃±2℃

Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

Item			Minimum	Typical	Maximum	Unit
Center Frequency	Absolute Frequency	f_c		315.00		MHz
	Tolerance from 315.00MHz	$\triangle f_c$		± 75		KHz
Insertion Loss(min)		IL		1.1	1.6	dB
Quality Factor	Unloaded Q	Q_U		17824		
	50Ω Loaded Q	Q_L		1925		
Temperature Stability	Turnover Temperature	T_0	25	40	55	℃
	Turnover Frequency	f_0		f_c		
	Frequency Temperature Coefficient	FTC		0.032		ppm/℃
Frequency Aging	Absolute Value during the First Year	$\|f_A\|$		⩽ 10		ppm/yr
DC Insulation Resistance between Any Two Pins			1.0			MΩ
RF Equivalent RLC Model	Motional Resistance	R_M		13.0	20.0	Ω
	Motional Inductance	L_M		109.1		μH
	Motional Capacitance	C_M		2.34		fF
	Static Capacitance	C_0	2.9	3.2	3.5	pF

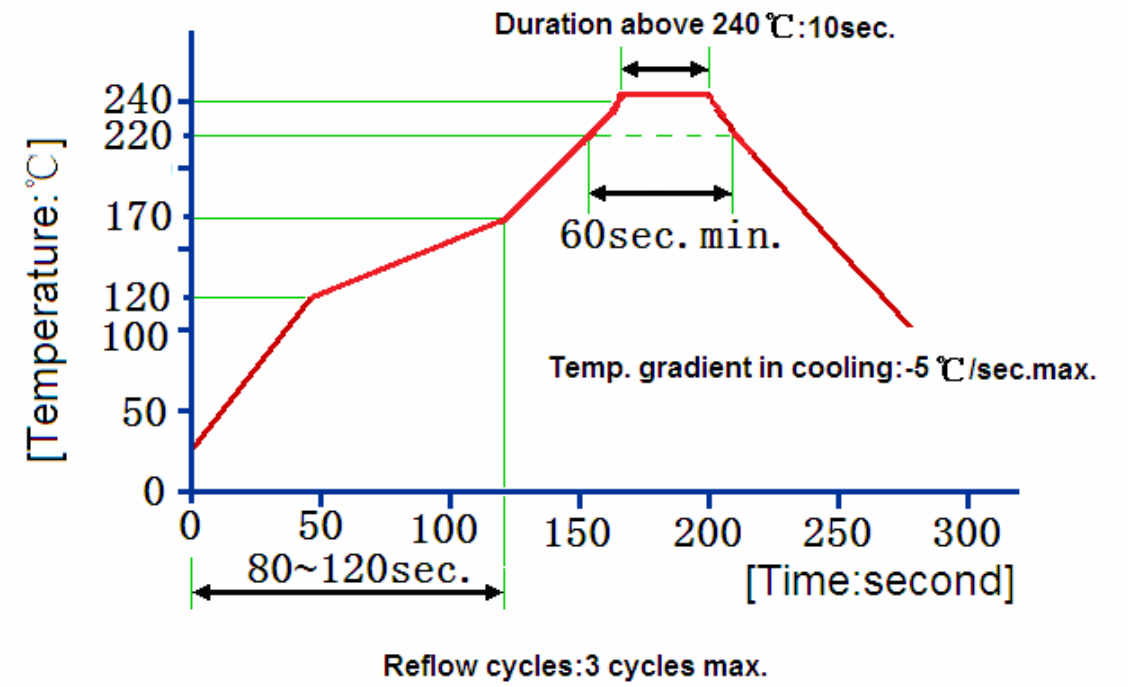
Frequency Response



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=-40℃±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.

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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Resonators ***category:***

Click to view products by Sf ***manufacturer:***

Other Similar products are found below :

B39431R820H210 CSAC2.00MGCM-TC ECS-HFR-40.00-B-TR CSTLS4M00G53Z-A0 ZTB455E ECS-CR2-16.00-A-TR ECS-HFR-20.00-B-TR ECS-CR2-20.00-A-TR RO3164E-3 ASR418S2-T CSTNE10M0G520000R0 CSTLS8M00G53093-A0 CSTNE12M0G52A000R0 CSTLS18M4X54-A0 CSTLS16M9X53Z-B0 CSTLS24M0X51-A0 CSTLS25M0X51-B0 CSTLS18M0X51-B0 CSTLS4M00G53093-A0 CSTLS18M4X53-A0 CSTNE16M0V510000R0 CSTLS30M0X53-B0 CSTLS33M8X53-B0 CSTLS16M9X53-A0 CSTLS6M40G56-B0 CSTLS6M25G56-A0 CSTNE14M7V510000R0 CSTLS18M4X53-B0 CSTLS33M0X51-B0 CSTLS5M50G56-B0 7B008000I01 7D038400I01 TAXM24M2ILDBET2T TAXM26M2IHDBET2T 146-32.768-12.5-20-20/A 3225-24.00-12-10-10/A 7B009843M01 CF4016M00009T8188042 S32400001B0730D1JB X252016MLB4SI Q24FA20H00389 CSTLS16M0X54-B0 CSTLS4M19G56-B0 9AC04194152080D2JB CST3.58MGW CSTCR4M91G55B-R0 CSTLS3M68G56-B0 S2100327072090 FC-12M32.768KHZ9PF20PPM ASR315S2