

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 Specification	Customer's Approval Certificate		
то:	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.

Fax: +86-010-58937263

- E-mail: zxsf_sales@163.com
- QQ: 2109300457
- Website: <u>http://www.bjzxsf.net</u>
- Add: No 201, Block A. Building 3. Yongjie Beilu Yongfeng high-tech industrial base Haidian District Beijing city

Part No.	:	R315M	
Pages	:	6	
Date	:	2013/4/22	
Revision	:	1.0	

Prepared by:	
Checked by:	
Approved by:	



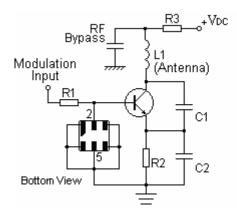
SAW Resonator

Features

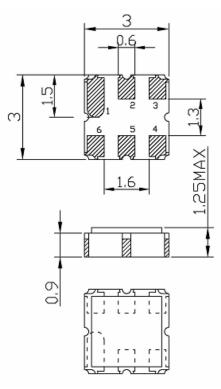
- 1-port Resonator
- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.00x3.00x1.25mm³
- Package Code DCC6C
- Electrostatic Sensitive Device(ESD)

Application

Typical Low-Power Transmitter Application

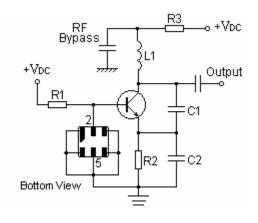


Package Dimensions (DCC6C)





Typical Local Oscillator Application



Pin Configuration

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

www.bjzxsf.net

SAW Resonator

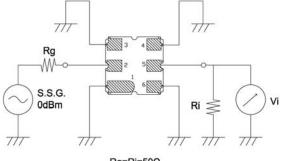
R315M

Marking



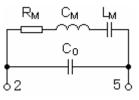
R	SAW Resonator	
315M	Part number	

Test Circuit

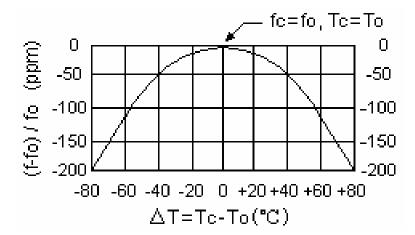


Rg=Ri=50Ω

Equivalent LC Model



Temperature Characteristics



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

- 3 -

Performance

Maximum Rating

Item		Value	Unit
DC Voltage	V _{DC}	10	V
Operation Temperature	т	-40 ~ +85	°C
Storage Temperature	T _{stg}	-55 ~ +125	°C
RF Power Dissipation	Р	10	dBm

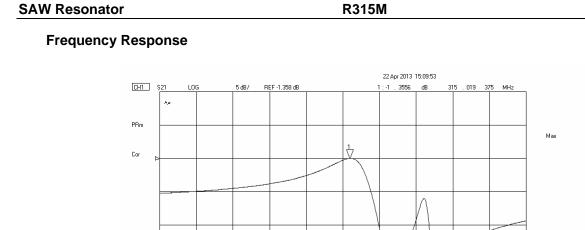
Electronic Characteristics

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

Terminating source impedance: 50Ω

Terminating load impedance: 50Ω

	Item		Minimum	Typical	Maximum	Unit
Center	Absolute Frequency	f _c		315.000		MHz
Frequency	Tolerance from 315.000MHz	$ riangle f_{c}$		±75		KHz
Insertion Loss(r	nin)	IL		1.4	1.9	dB
Quality Faster	Unloaded Q	QU		15000		
Quality Factor	50Ω Loaded Q	QL		2221		
	Turnover Temperature	T ₀	25	40	55	°C
Temperature Stability	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
	Motional Resistance	R _M		16.6	23.5	Ω
RF Equivalent	Motional Inductance	L _M		129.00		μΗ
RLC Model	Motional Capacitance	См		1.95		fF
	Static Capacitance	C ₀	2.80	3.00	3.20	pF



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

SPAN

1.000 000 MHz

CENTER 315.000 000 MHz

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°C±2°C , 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: 10~55HzAmplitude:1.5mmDirections: X,Y and ZDuration: 2h		
5	Drop Test	Cycle time: 10 times Height: 1.0m		
6	Solder Ability Test	Temperature: 245°C±5°C Duration: 3.0s5.0s Depth: DIP2/3 , SMD1/5 Duration: 3.0s5.0s		
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 		

1

SAW Resonator	R315M	315.000MHz
Recommended Reflow Sol	dering Diagram	
240 220 0 170 120 100 50	Duration above 240 °C:10se	
	50 100 150 200 250 -120sec. [Time:) 300 second]
	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.

- 6 -

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 CSTNE16M0V510000R0 CSTLS18M4X53-B0 CSTLS33M0X51-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