



APPROVAL SHEET

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

BEIJING ZHONGXUN SIFANG SCIENCE & TECHNOLOGY CO.,LTD.

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



Part No.	:	SDL5109
Pages	:	4
Date	:	2013/5/30
Revision	:	1.0

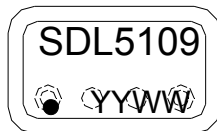
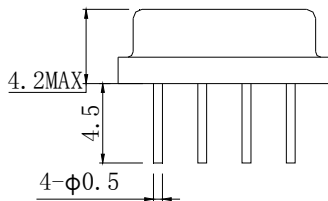
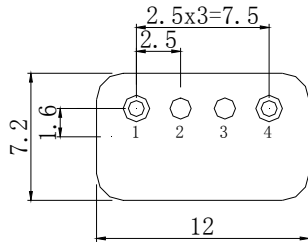
Prepared by:	郑宝琴
Checked by:	
Approved by:	

Features

- RoHS compatible
- Package size 12.0x7.20x4.20mm³
- Package Code SC04-01
- Electrostatic Sensitive Device(ESD)



Package Dimensions (Unit: mm)



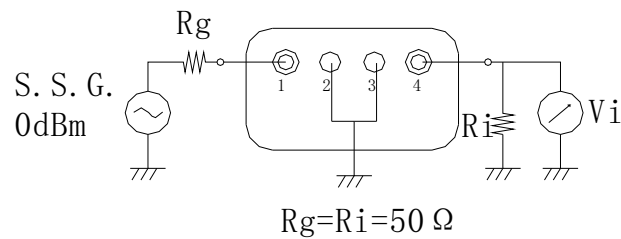
Pin Configuration

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

Marking Description

S	Trademark
DL	SAW Delay Line
5109	Part Number
●	Pin 1
YYWW	Year Code & Week Code

Test Circuit



Performance

Maximum Rating

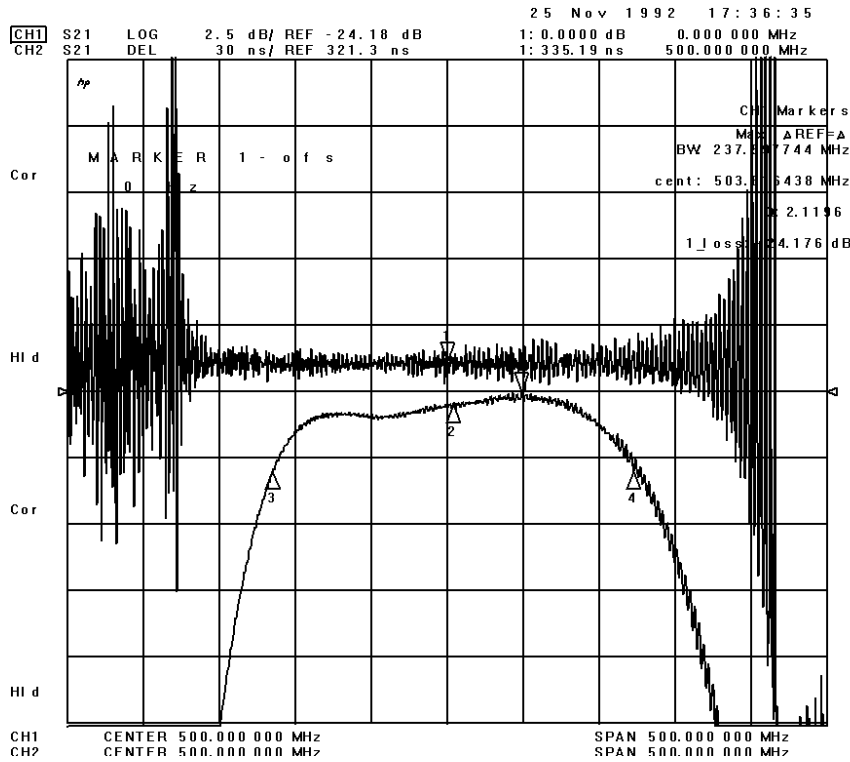
Item		Value	Unit
DC Voltage	V_{DC}	3	V
Operation Temperature	T	-20 ~ +60	°C
Storage Temperature	T_{stg}	-55 ~ +125	°C
RF Power Dissipation	P	10	dBm

Electronic Characteristics

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

Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		500.0		MHz
Insertion Loss(min)	IL		24.2	30.0	dB
Amplitude Ripple	$\Delta\alpha$		2.5	2.5	dB
3 dB Bandwidth	BW _{3dB}	200.0	236.0		MHz
Absolute Delay	500.00MHz	320.0	330.0	340.0	ns

Frequency Characteristics

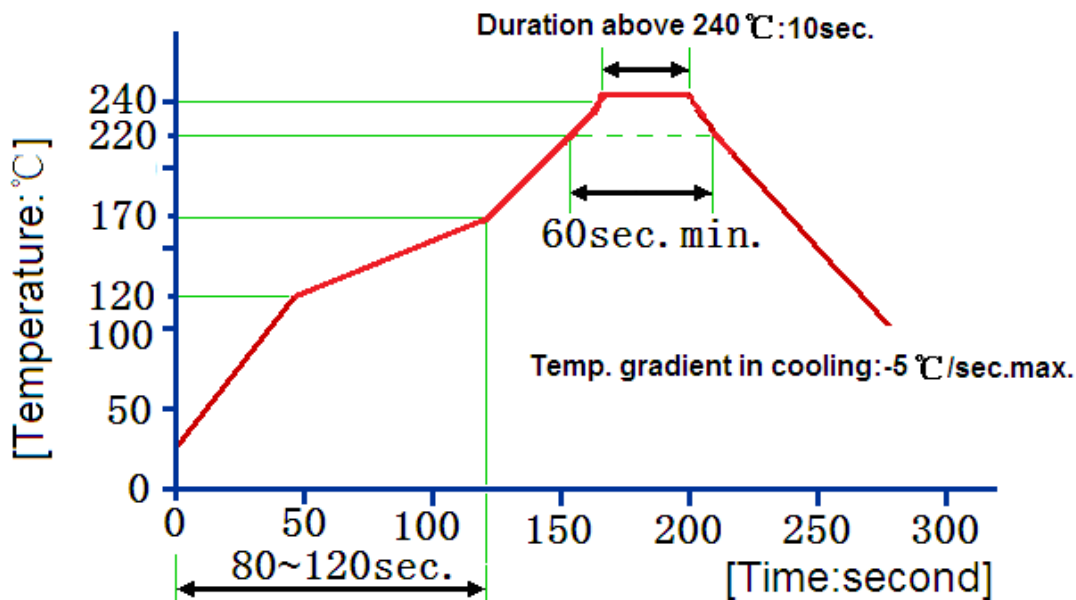


Reliability (The SAW components shall remain electrical performance after tests)

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 Directions: X,Y and Z	Amplitude:1.5mm Duration: 2h
5	Drop Test	Cycle time: 10 times	Height: 1.0m
6	Solder Ability Test	Temperature: 245°C±5°C Depth: DIP--2/3 , SMD--1/5	Duration: 3.0s--5.0s
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	

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.