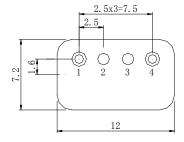
#### **Application**

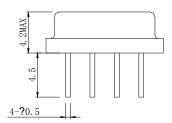
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 300.0 KHZ

#### **Features**

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

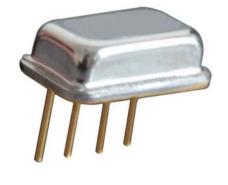
## Package Dimensions (SC04-01)







## **Test Circuit (Bottom View)**



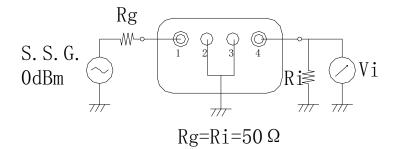
## **Pin Configuration**

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

### **Marking Description**

RF	R	Trademark& Manufacturer	
	F	SAW Filter	
1004	Part Number		
•	Pin 1		
YYWW	Year Code & Week Code		

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



# **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	${\mathbb C}$
RF Power Dissipation	Р	10	dBm

## **Electronic Characteristics**

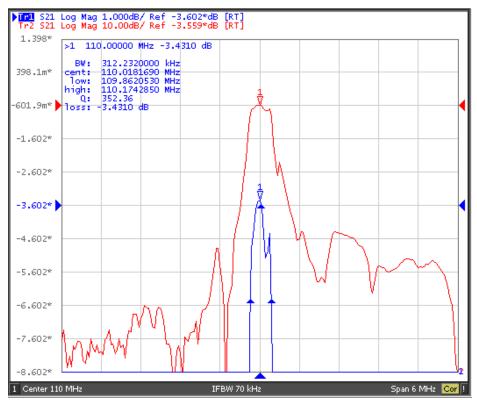
Test Temperature: 25  $^{\circ}$ C  $\pm 2$   $^{\circ}$ C

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

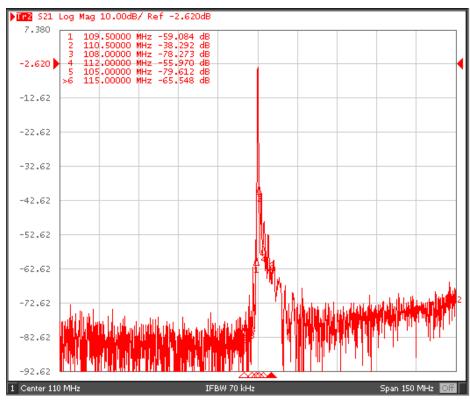
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc	109.97	110.00	110.06	MHz
Insertion Loss	IL		3.5	4.5	dB
Amplitude Ripple (p-p)	∆a		2.0	2.5	dB
3dB Bandwidth	ВWзdВ	250	310		kHz
Absolute Delay	GDR		3.0	3.5	us
Absolute Attenuation	а				
F0+/-0.5MHz—F0+/-2MHz		30.0	35.0		dB
F0+/-2MHz—F0+/-75MHz		50.0	55.0		dB

# **Frequency Characteristics**

## Frequency Response



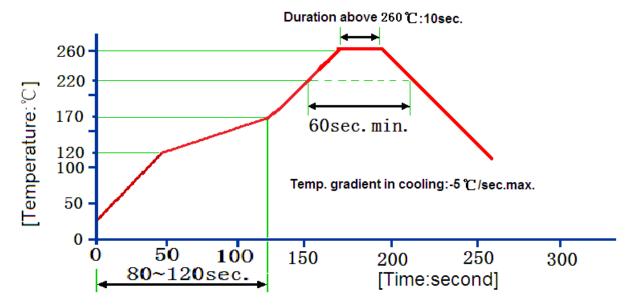
### Frequency Response (wideband)



# 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°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h		
2	Humidity Test	Conditions: 60℃±2℃, 90~95% RH Duration: 250h	
3	2 Thermal Objects	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch	
3 Thermal Shock	Thermal Shock	time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.	
4	Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm	
4 VIDIALIOIT FAL	Vibration Latigue	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: 3.0s5.0s	
	Depth: DIP2/3 , SMD1/5		
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**



REYCONNS SAW Filter RF1004

#### **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.