

# JRC SAW FILTER

## NSVA321

Application

**814.5MHz CORDLESS**

Electrical Specification: (Table 1)

The device characteristics are measured in the circuit shown in Fig.1.

Table 1. Electrical Specifications

Item		Spec.
Input and Output Impedance		50Ω
Nominal Center Frequency (f0)		814.5MHz
Insertion Loss	814~815MHz	3.5dB max.
Response Variation	814~815MHz	1.5dB max.
Input and Output VSWR	814~815MHz	2.5 max.
Out of Band Rejection (Relative to Through Level)	DC~734.5MHz	55dB min.
	734.5~772.9MHz	45db min.
	859.5~874.5MHz	30dB min.
	874.5~1500MHz	55dB min.

(Operating Temperature Range: -10~+60°C)

Maximum Rating: (Table 2)

Table 2. Maximum Ratings

Item	Rating
Maximum Input Power	+20dBm
Maximum DC Voltage	7.5V
Operating Temperature Range	-10~+60°C
Storage Temperature	-20~+70°C

Mechanical Specifications: (Fig.2)

Package is designed as small as 3.5x3.5x1.0[mm<sup>3</sup>] for SMD (Surface Mount Device) type.

**Notice:**

This part is electrostatic discharge sensitive and may be damaged by improper handling.

Communications Equipment Division  
Communications Equipment Marketing Department

***Japan Radio Co., Ltd.***

17-22 Akasaka 2-chome minato-ku,

Tokyo. 107-0052 Japan

Tel. +81 3-3584-8811

Fax. +81 3-3584-8876

[http://www.jrc.co.jp/product/comm/deveice/saw/saw\\_top.html](http://www.jrc.co.jp/product/comm/deveice/saw/saw_top.html) (Japanese)

[http://www.jrc.co.jp/product/comm/device/saw/saw\\_top\\_e.html](http://www.jrc.co.jp/product/comm/device/saw/saw_top_e.html) (English)

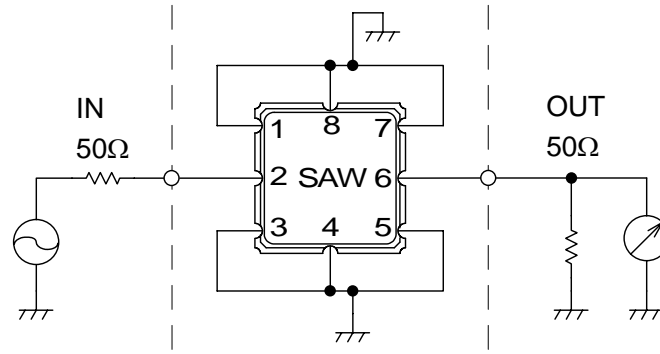
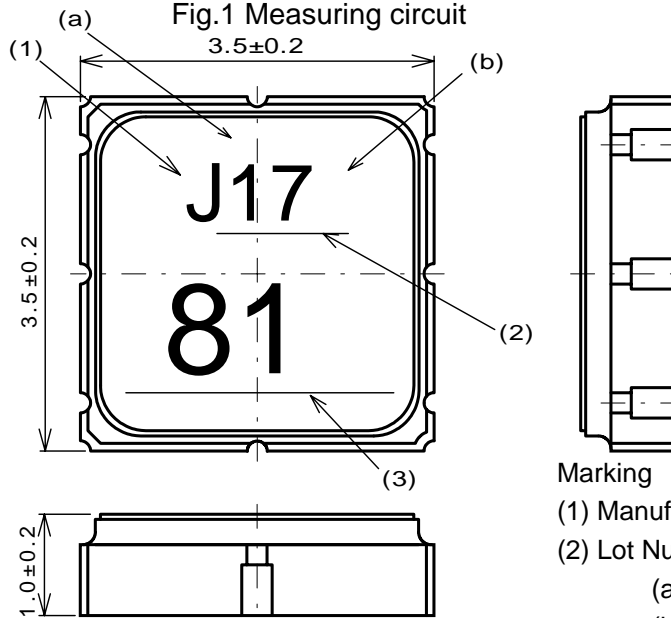


Fig.1 Measuring circuit



Marking

(1) Manufacturer's Mark

(2) Lot Number

(a) Year

(b) Month

\*Oct.--- X

Nov.--- Y

Dec.--- Z

(3) Part number Mark

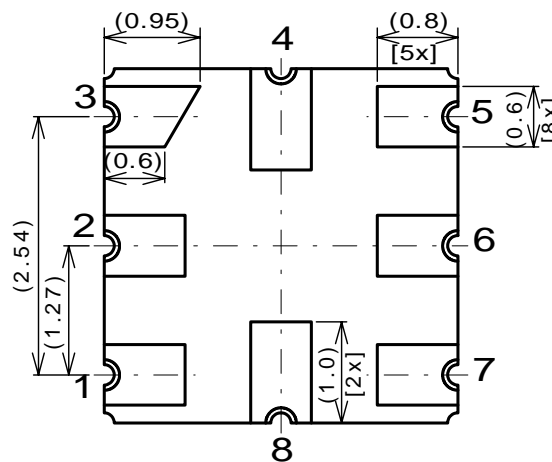


Fig.2 Package dimensions (in mm)

Pin no.	Connection
1	GND
2	IN/OUT
3	GND
4	GND
5	GND
6	OUT/IN
7	GND
8	GND

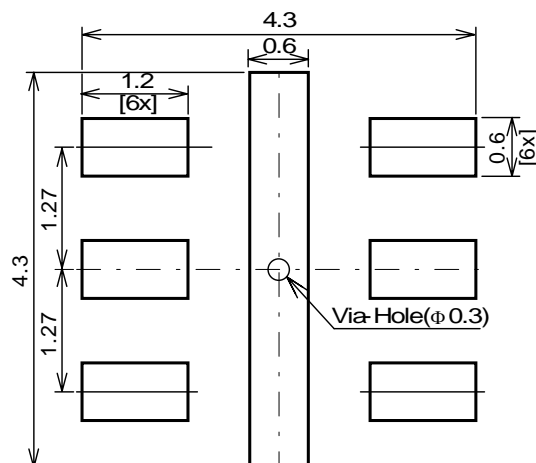


Fig.3 Desirable land area (in mm)

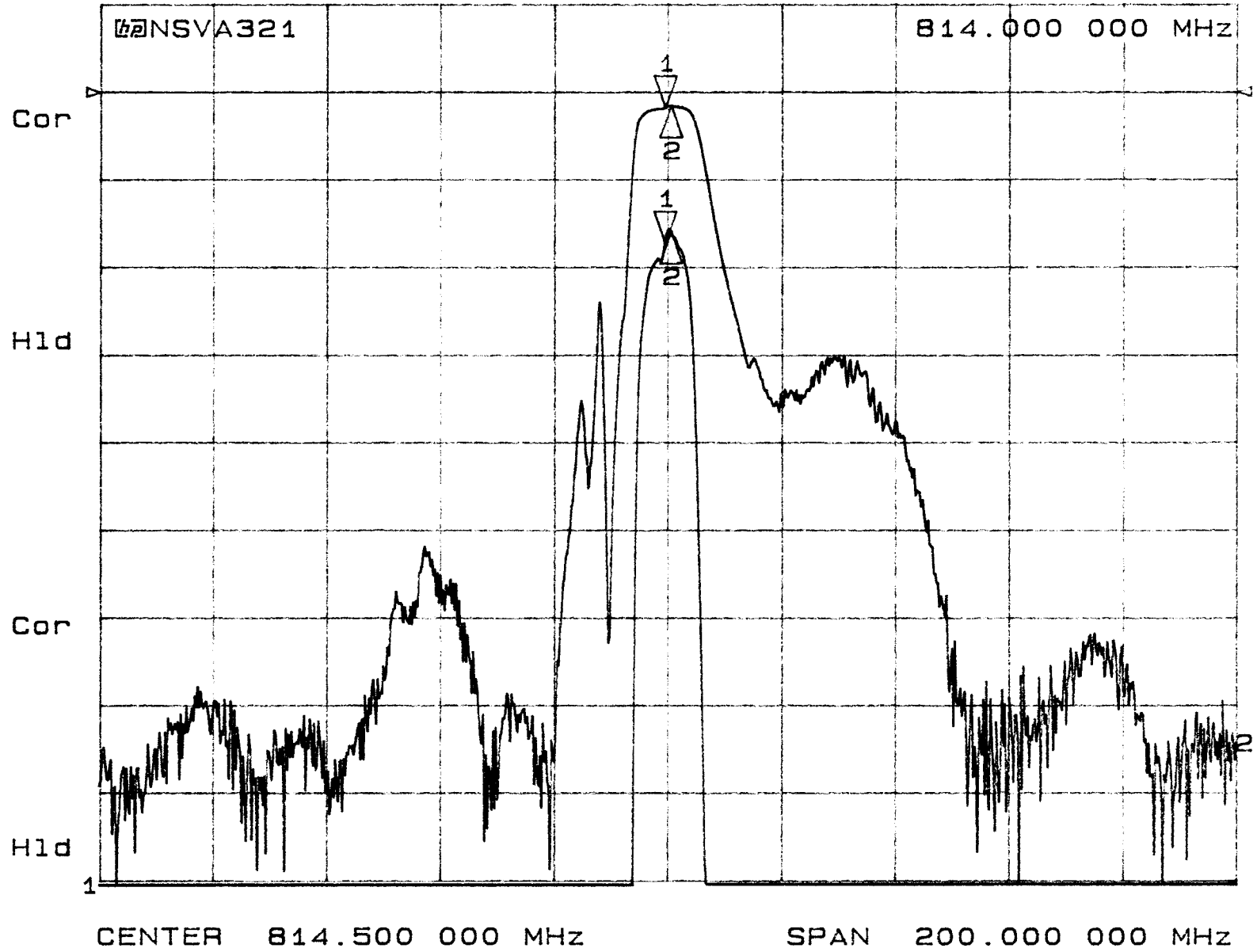
**Notice**

1. Use this component within operating temperature range. It might not be satisfied with electrical specification without operating temperature range. When it is used less than  $-10^{\circ}\text{C}$  or more than  $+60^{\circ}\text{C}$ , it might be a cause of degradation or destruction of the component. Even if it endures during a short time, it causes degradation of qualification.
2. When soldering iron is used, solder with the temperature at the tip of soldering iron:  $350^{\circ}\text{C}$  max., the time of soldering: 10 seconds max., the power of soldering iron: 30W max..
3. Notice that the allowed time of soldering with soldering iron is accumulated time, when soldering is repeated.
4. As rapid temperature change for cleaning after reflow soldering might be a cause of destruction clean this component after confirming that temperature of this component goes down to room temperature.
5. Confirm that there are not any influence for qualification to this component in mounting on PCB when this component is cleaned.
6. As it might be a cause of degradation or destruction to apply static electricity to this component, do not apply static electricity or excessive voltage while assembling and measuring. And do not transport this component with bare hand.
7. As it might be a cause of degradation or destruction to apply D.C. voltage between each terminal, apply D.C. voltage 7.5V max. in actual circuit.

**Note**

1. This specification specifies the quality of this component as a single unit. Make sure that this component is evaluated and confirmed against this specification when it is mounted to your products.

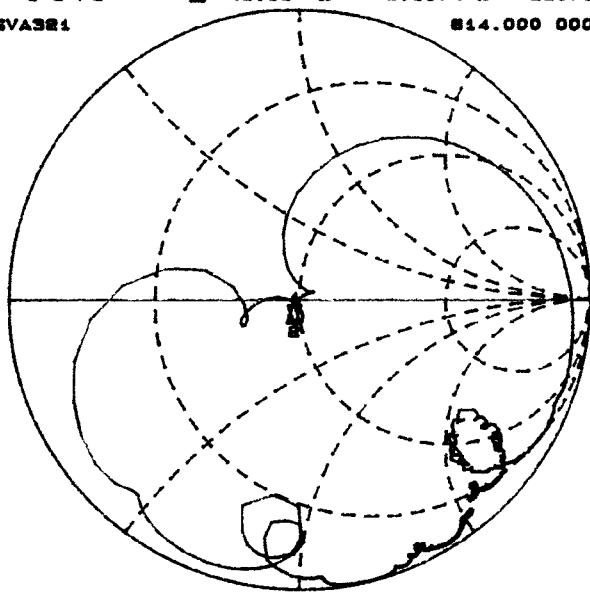
CH1 S<sub>21</sub> log MAG 1 dB/ REF 0 dB 1: -1.7201 dB  
CH2 S<sub>21</sub> log MAG 10 dB/ REF 0 dB 1: -1.7201 dB



CH1 S<sub>11</sub> 1 U FS Δ: 48.18 ° -8.8074 ° 22.718 pF  
BENVAS21 814.000 000 MHz

Cor

H1d

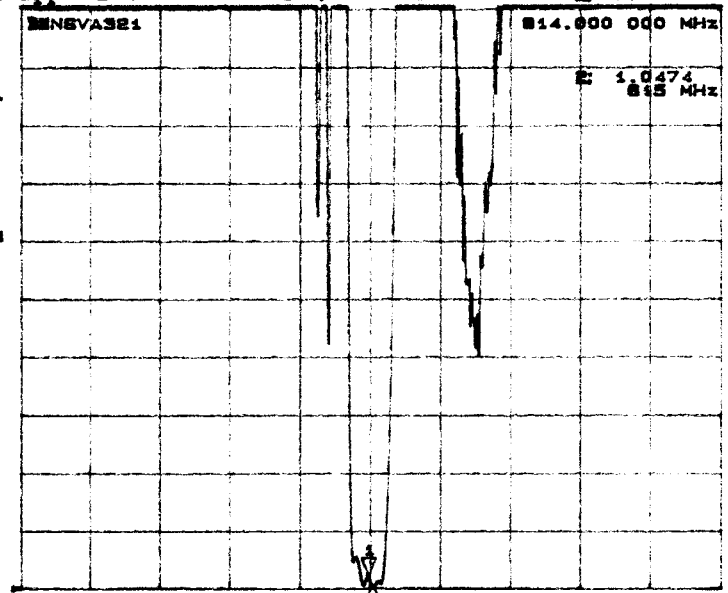


CENTER 814.500 000 MHz SPAN 200.000 000 MHz

CH1 S<sub>11</sub> SWR 1 / REF 1 Δ: 1.1861  
BENVAS21 814.000 000 MHz

Cor

H1d

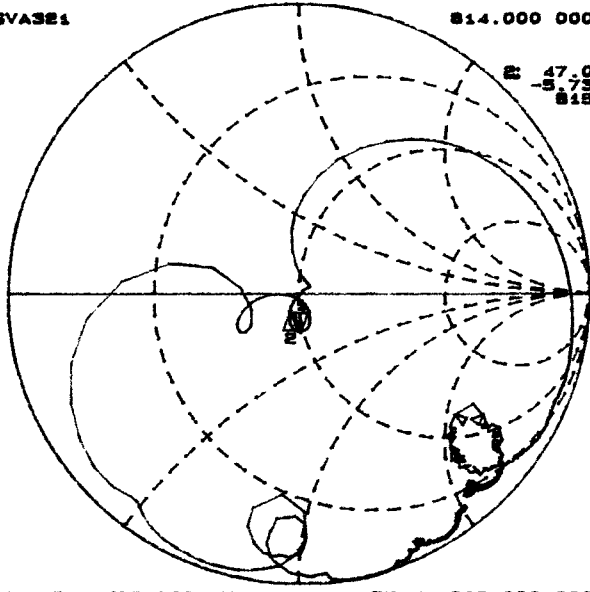


CENTER 814.500 000 MHz SPAN 200.000 000 MHz

CH1 S<sub>22</sub> 1 U FS Δ: 49.328 ° -13.529 ° 14.452 pF  
BENVAS21 814.000 000 MHz

Cor

H1d

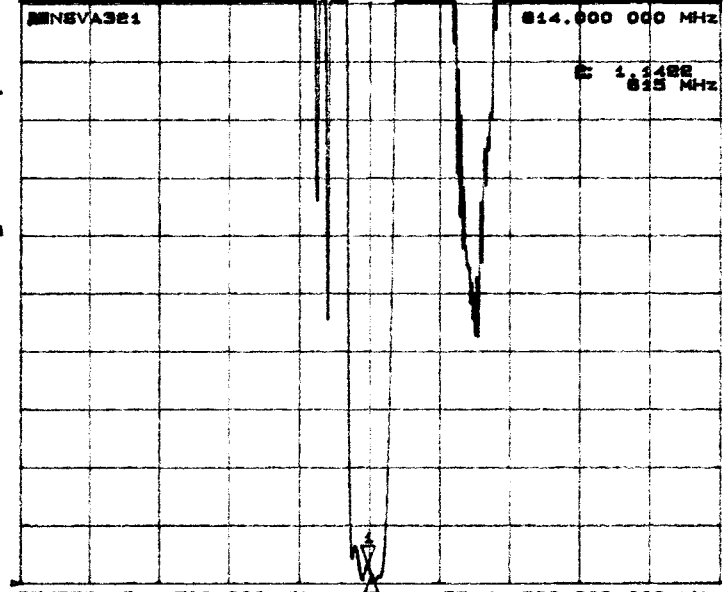


CENTER 814.500 000 MHz SPAN 200.000 000 MHz

CH1 S<sub>22</sub> SWR 1 / REF 1 Δ: 1.3125  
BENVAS21 814.000 000 MHz

Cor

H1d



CENTER 814.500 000 MHz SPAN 200.000 000 MHz

CH1 S<sub>21</sub> log MAG 10 dB/ REF 0 dB

