

# New JRC SAW FILTER

## NSNJ9200A

Application

**GNSS Filter 1559.052MHz to 1605.89MHz, High Attenuation Type**

Electrical Specification: (Table 1)

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

Table 1. Electrical Specifications

Item		Spec.	Typ.
Input and Output Impedance		-	50Ω
Nominal Center Frequency (f0)		-	1582.471MHz
Insertion Loss	1559.052 to 1563.144MHz	3.5dB max. (*1)	2.5dB
		4.0dB max.	
	1574.42 to 1576.42MHz	3.0dB max.	2.0dB
		3.5dB max. (*1)	
1597.55 to 1605.89MHz	3.5dB max. (*1)	2.5dB	
	4.0dB max.		
Ripple Deviation	1559.052 to 1563.144MHz	2.0dB max.	0.5dB
	1574.42 to 1576.42MHz	1.5dB max.	0.3dB
	1597.55 to 1605.89MHz	2.0dB max.	0.5dB
Input and Output VSWR	1559.052 to 1563.144MHz	2.5 max.	1.4
	1574.42 to 1576.42MHz	2.5 max.	1.4
	1597.55 to 1605.89MHz	2.5 max.	1.7
Group Delay Time Deviation	1597.55 to 1605.89MHz	15ns max.	5ns
Out of Band Rejection (Relative to Through Level)	0.3 to 960MHz	34dB min.	43dB
	1427 to 1463MHz	35dB min.	41dB
	1625 to 1660MHz	15dB min.	27dB
	1710 to 1785MHz	40dB min.	47dB
	1850 to 1910MHz	40dB min.	43dB
	1920 to 1980MHz	35dB min.	42dB
	2400 to 2496MHz	30dB min.	33dB
	2496 to 2690MHz	25dB min.	30dB

(\*1) (Operating Temperature Range: -40 to +85°C)  
(Operating Temperature Range: -40 to +105°C)

Maximum Rating: (Table 2)

Table 2. Maximum Ratings

Item	Rating
Maximum Input Power	+10dBm
Maximum DC Voltage	7.5V
Operating Temperature Range	-40 to +105°C
Storage Temperature	-40 to +110°C

Mechanical Specifications: (Fig.2)

Package is designed as small as 2.0x1.6x0.65[mm<sup>3</sup>] for SMD (Surface Mount Device) type.

**Notice:**

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

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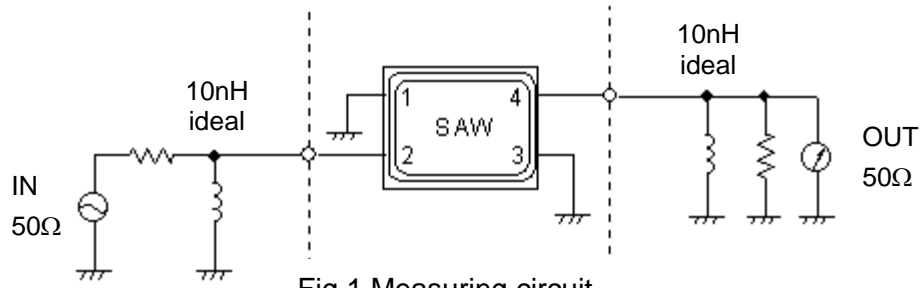


Fig.1 Measuring circuit

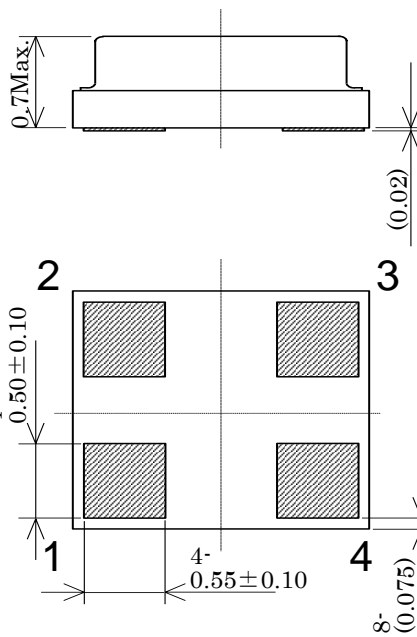
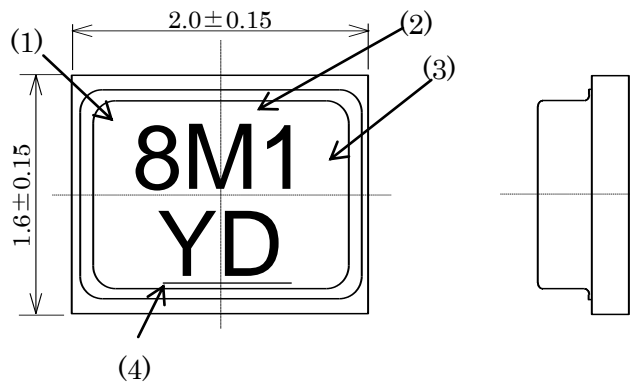


Fig.2 Package dimensions (in mm)

Marking

- (1) Year
- (2) Month  
 Jan. to Aug. ---A to H  
 Sep.--- J  
 Oct.--- K  
 Nov.--- L  
 Dec.--- M
- (3) Lot
- (4) Part Number Mark

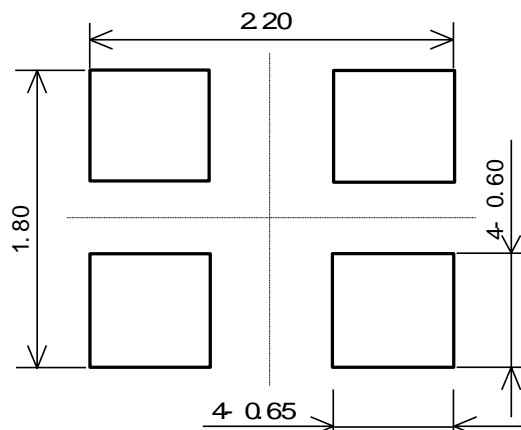


Fig.3 Desirable land area (in mm)

Pin no.	Connection
1	GND
2	IN
3	GND
4	OUT

**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  $-40^{\circ}\text{C}$  or more than  $+105^{\circ}\text{C}$ , 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:  $350^{\circ}\text{C}$  maximum, the time of soldering: 5 seconds maximum, the power of soldering iron: 30 W maximum.
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 DC voltage between each terminal, apply DC voltage 7.5 V maximum 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.
2. The information contained herein may be changed without prior notice. It is therefore advisable to contact New Japan Radio Company before proceeding with the design of equipment incorporating this product.
3. The products are designed to be used with ordinary electronic equipment (data and communications equipment, office equipment, audio-video equipment, measuring instruments, etc). New Japan Radio Company does not assume any liability for the case using the products with the application required high reliability or safety extremely (such as space equipment, sea-bottom equipment, medical equipment etc). When intending to use any our product please contact our sales representatives in advance.

