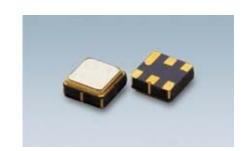


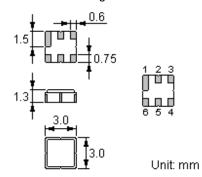
#### **Features**

- Low-loss RF filter
- High Rejection
- Single Ended Operation at 50Ω without matching
- Ceramic Package for Surface Mounted Technology (SMT)
- Lead-free Production and RoHS Compliance



## **Package Dimensions**

Ceramic Package: DCC6C



## **Pin Configuration**

| 2          | Input          |
|------------|----------------|
| 5          | Output         |
| 1, 3, 4, 6 | Case Ground    |
| 1, 3, 4, 6 | To Be Grounded |

## Marking



Top View, Laser Marking

"ND": Manufacturer's mark "F": SAW filter

"9376": Part number "•": Terminal 1

"\*": Lot number (The code shown below varies in a 4-year cycle)

| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|
| 2013 | Α | В | С | D | Е | F | G | Н | J | K  | L  | М  |
| 2014 | N | Р | Q | R | S | Т | U | V | W | Х  | Υ  | Z  |
| 2015 | а | b | С | d | е | f | g | h | i | j  | k  | m  |
| 2016 | n | р | q | r | S | t | u | ٧ | W | Х  | у  | Z  |

### **Maximum Ratings**

| Rating                             | Value        | Unit      |     |
|------------------------------------|--------------|-----------|-----|
| Operating Temperature Range        | $T_{A}$      | -40 ~ +85 | °C  |
| Storage Temperature Range          | $T_{ m stg}$ | -40 ~ +85 | °C  |
| DC Voltage (between any Terminals) | $V_{ m DC}$  | 12        | V   |
| RF Power (in BW)                   | Р            | 10max.    | dBm |



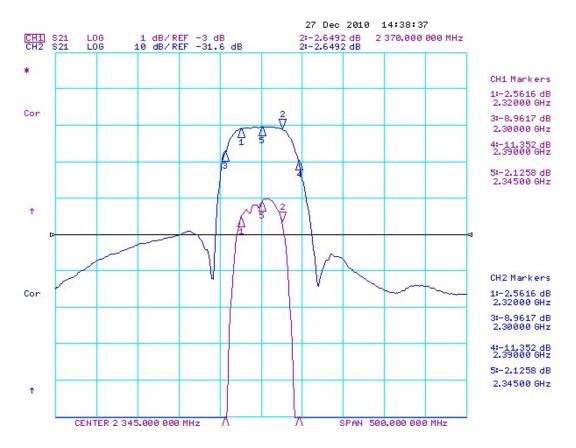
### **Electrical Characteristics**

| Item                                       |            | Minimum | Typical | Maximum | Unit |
|--|------------|---------|---------|---------|------|
| Center Frequency                           | <b>f</b> C | -       | 2345    | -       | MHz  |
| Maximum Insertion Loss in 2320 MHz-2370MHz | IL         | -       | 2.6     | 3.2     | dB   |
| Amplitude Variation in 2320 MHz–2370MHz    |            |         | 0.7     | 1.2     | dB   |
| Absolute Attenuation                       | α          |         |         |         |      |
| 0.30 2170.0MHz                             |            | 30      | 33      | -       | dB   |
| 2170.0 2190.0 MHz                          |            | 30      | 34      | -       | dB   |
| 2190.0 2300.0 MHz                          |            | 4       | 8.5     |         |      |
| 2400.0 2460.0 MHz                          |            | 12      | 15      | -       | dB   |
| 2460.0 2585.0 MHz                          |            | 30      | 40      | -       | dB   |
| 2585.0 3000.0 MHz                          |            | 25      | 35      |         | dB   |
| Input VSWR in 2320 MHz–2370MHz             |            | -       | 1.8:1   | 2.0:1   |      |
| Output VSWR in 2320 MHz-2370MHz            |            | -       | 1.8:1   | 2.0:1   |      |
| Group delay ripple 2320 MHz–2370MHz        |            |         | 15      | 30      | ns   |
| Source / Load Impedance (single ended)     |            | 50      |         | Ω       |      |

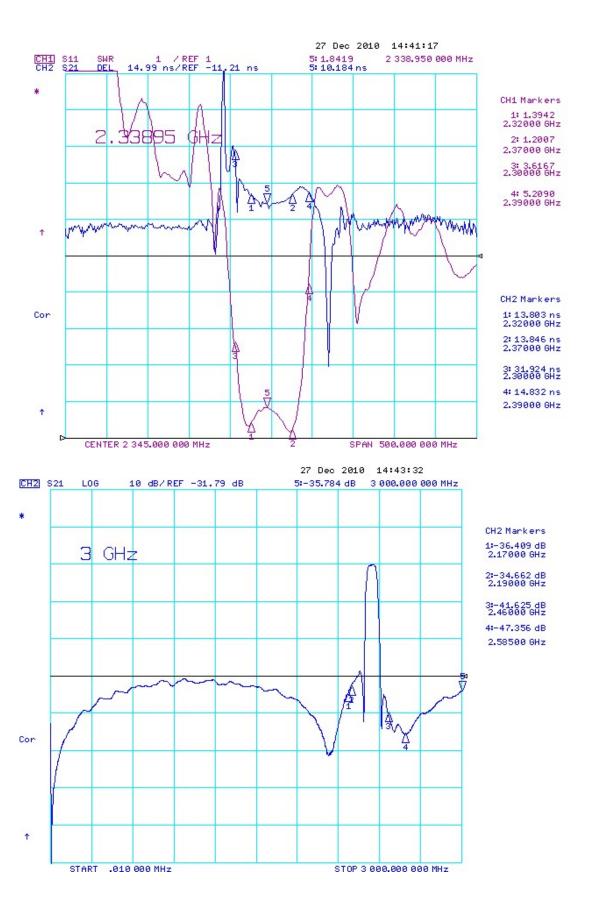
NoHS Compliant

# Electrostatic Sensitive Device

## **Typical Frequency Response**









### **Stability Characteristics**

|   | Test item                 | Condition of test   |  |  |  |  |
|---|---------------------------|---|--|--|--|--|
| 1 | Mechanical shock          | (a) Drops: 3 times on concrete floor<br>(b) Height: 1.0 m                         |  |  |  |  |
| 2 | Vibration resistance      | (a) Frequency of vibration: 10~55Hz (c) Directions: X,Y and Z                     | (b) Amplitude: 1.5 mm<br>(d) Duration: 2 hours         |  |  |  |
| 3 | Moisture resistance       | (a) Condition: 40°C, 90~95% R.H.<br>(c) Wait 4 hours before measurement           | (b) Duration: 96 hours                                 |  |  |  |
| 4 | Climatic sequence         | , ,   | for 24 hours, 90~95% R.H.<br>for 24 hours, 90~95% R.H. |  |  |  |
| 5 | High temperature exposure | (a) Temperature: 70°C<br>(c) Wait 4 hours before measurement                      | (b) Duration: 250 hours                                |  |  |  |
| 6 | Thermal impact            | (a) +70°C for 30 minutes ⇒ -25°C for 30 mi<br>(b) Wait 4 hours before measurement | nutes repeated 3 times                                 |  |  |  |

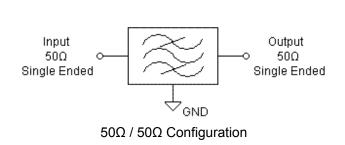
Requirements: The SAW filer shall remain within the electrical specifications after tests.

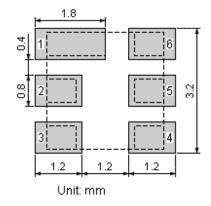
#### **Remarks**

- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided, deterioration of the characteristics can occur.
- Be careful of soldering temperature and duration of components when soldering.
- Do not place soldering iron on the body of components.
- Be careful not to subject the terminals or leads of components to excessive force.
- SAW devices are electrostatic sensitive. Please avoid static voltage during operation and storage.
- Ultrasonic cleaning shall be avoided. Ultrasonic vibration may cause destruction of components.

### **Test Circuit**

#### **Recommended Land Pattern**

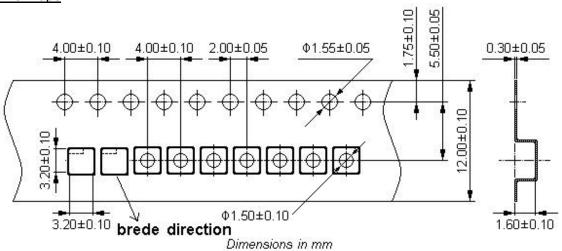




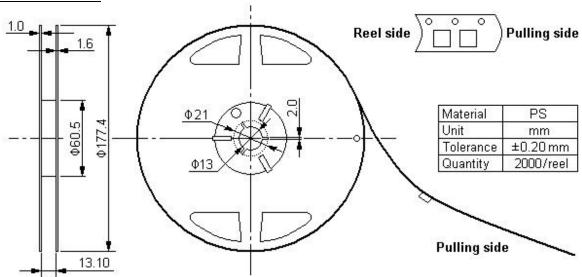


# **Packing Information**





## **Reel Dimensions**



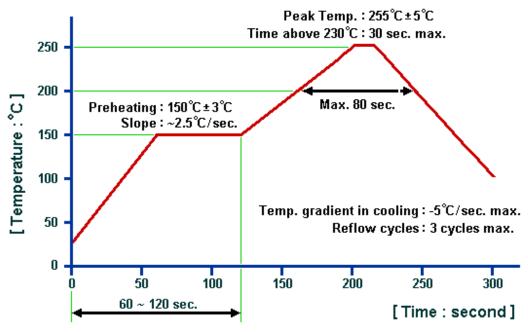
## **Outer Packing**

| Туре          | Quantity | Dimension   | Description   | Weight |
|---------------|----------|-------------|---|--------|
| Carton Box I  | 10000    | 190×190×95  | anti-static plastic bag & carton box<br>1 reel / bag  | 0.85   |
| Carton Box II | 20000    | 190×190×190 | 5 bags / box (10000 pcs)<br>10 bags / box (20000 pcs) | 1.70   |
| Unit: mm      |          |             |   |        |

WINNSKY INTERNATIONAL (H.K.) LIMITED



### **Recommended Soldering Profile**



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- 1. The specifications of this device are subject to change or obsolescence without notice.
- 2. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
- 3. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
- 4. For questions on technology, prices and delivery, please contact our sales offices or e-mail winnsky@winnsky.com

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