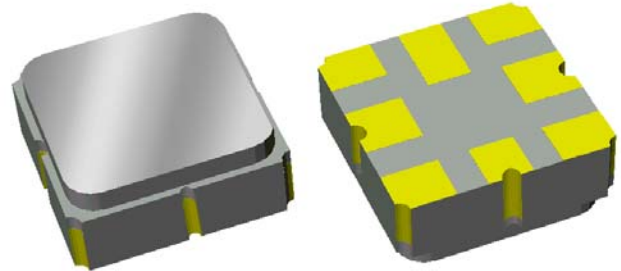


# Preliminary Data Sheet

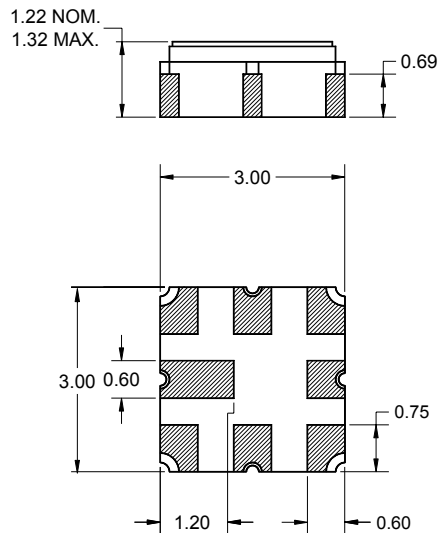
## Features

- For FRS applications
- Usable bandwidth 6 MHz
- Low loss
- High attenuation
- No impedance matching required for operation at 50  $\Omega$
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



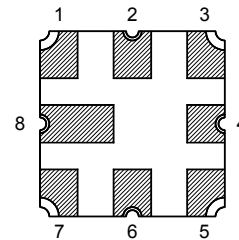
## Package

Surface Mount 3.00 x 3.00 x 1.22 mm



## Pin Configuration

Bottom View



Pin No.	Description
2	Input
6	Output
1,3,4,5,7,8	Case ground

Dimensions shown are nominal in millimeters  
 All tolerances are  $\pm 0.15$ mm except overall  
 length and width  $\pm 0.10$ mm

Body:  $Al_2O_3$  ceramic  
 Lid: Kovar, Ni plated  
 Terminations: Au plating 0.5 - 1.0  $\mu$ m,  
 over a 2 - 6  $\mu$ m Ni plating

# Preliminary Data Sheet

## Electrical Specifications <sup>(1)</sup>

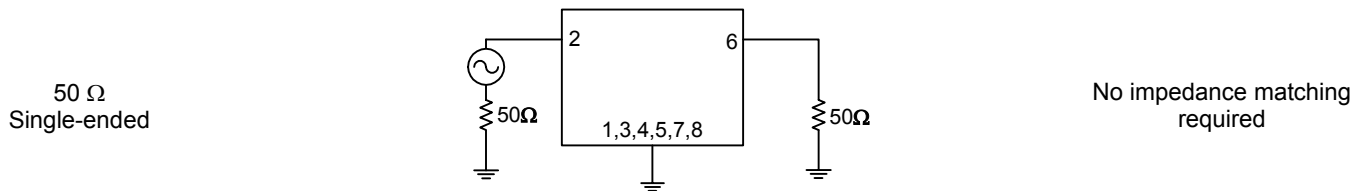
Operating Temperature Range: <sup>(2)</sup> -40 to +85 °C

Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	465	-	MHz
<b>Maximum Insertion Loss</b> 462 - 468 MHz	-	1.43	1.7	dB
<b>Amplitude Variation</b> 462 - 468 MHz	-	0.16	0.5	dB
<b>Attenuation</b> 421.6 MHz	50	70	-	dB
<b>Minimum Rejection</b> 100 - 441 MHz	48	61	-	dB
441 - 445 MHz	40	62	-	dB
485 - 502 MHz	24	29	-	dB
502 - 510 MHz	40	47	-	dB
510 - 1000 MHz	40	53	-	dB
<b>Input/Output VSWR</b> 462 - 468 MHz	-	1.42	1.6	-
<b>Source Impedance <sup>(4)</sup></b>	-	50	-	$\Omega$
<b>Load Impedance <sup>(4)</sup></b>	-	50	-	$\Omega$

### Notes:

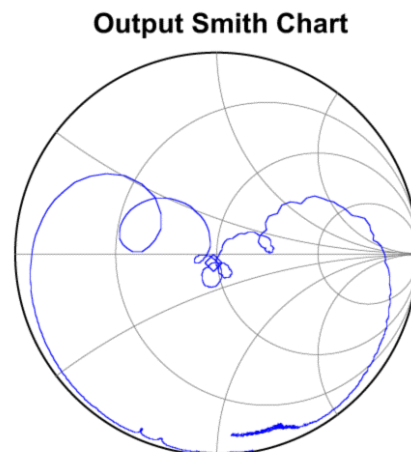
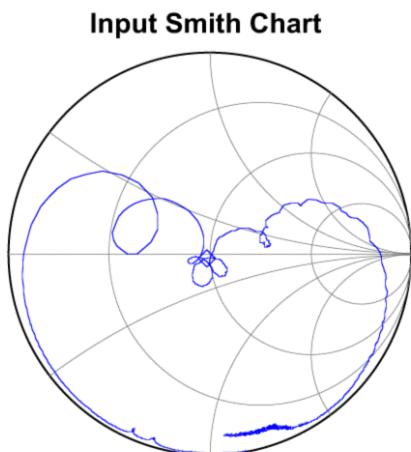
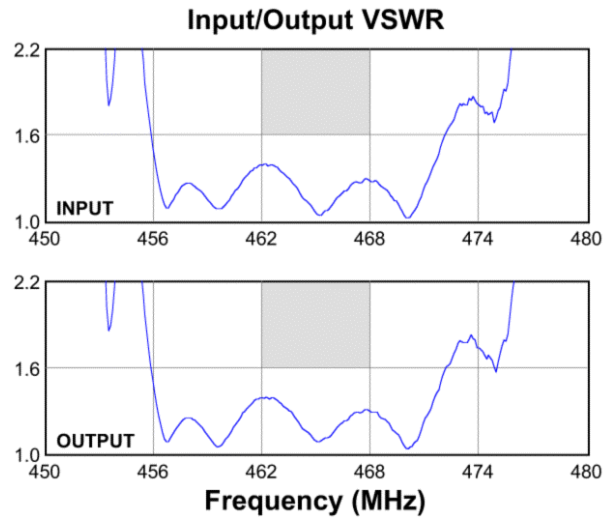
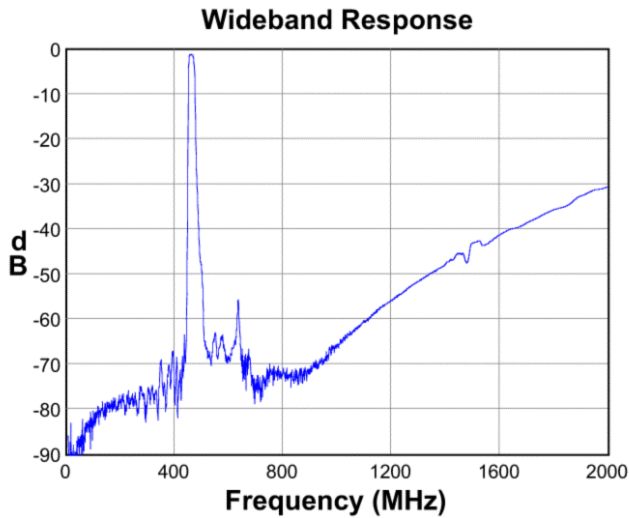
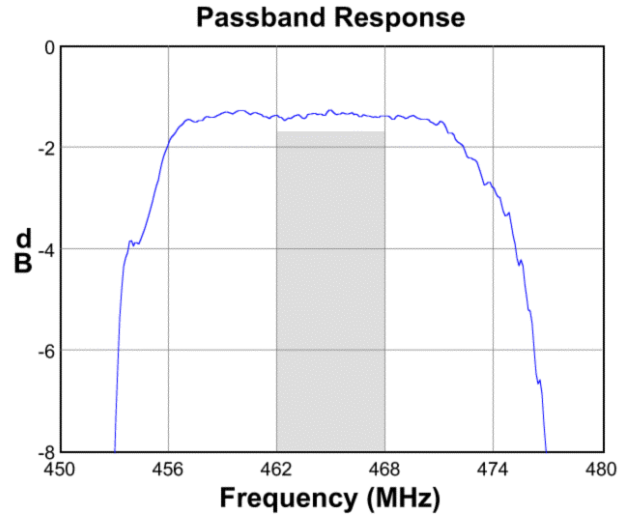
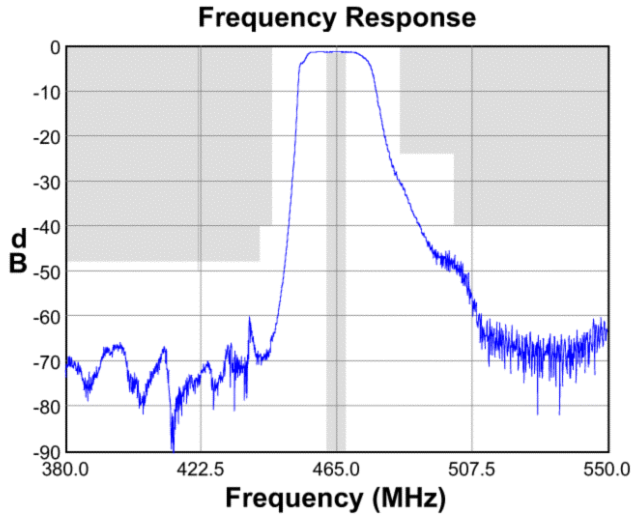
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. This is the optimum impedance in order to achieve the performance shown

### Test Circuit:



**Preliminary Data Sheet**

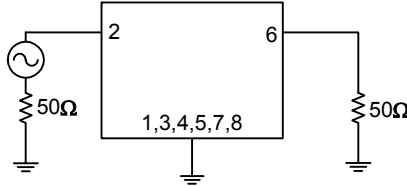
**Typical Performance (at +25°C)**



**Preliminary Data Sheet**

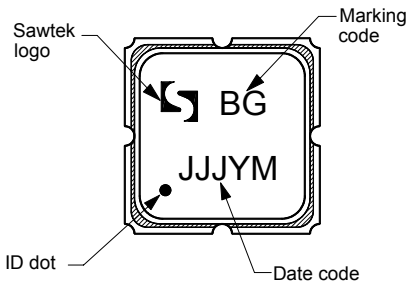
**Matching Schematics**

50 Ω  
Single-ended



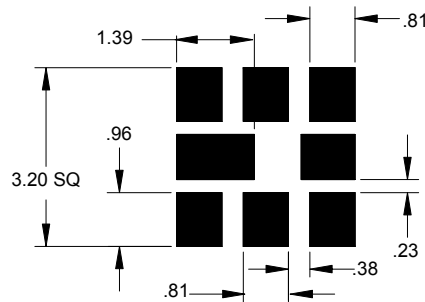
No impedance matching required

**Marking**



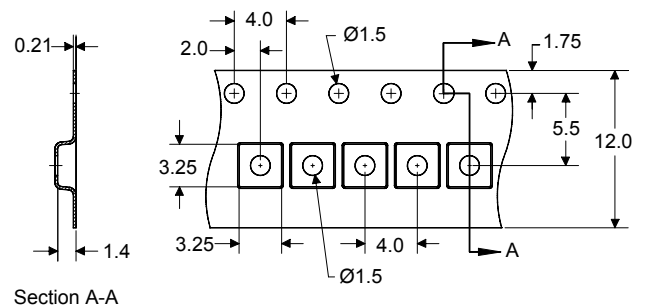
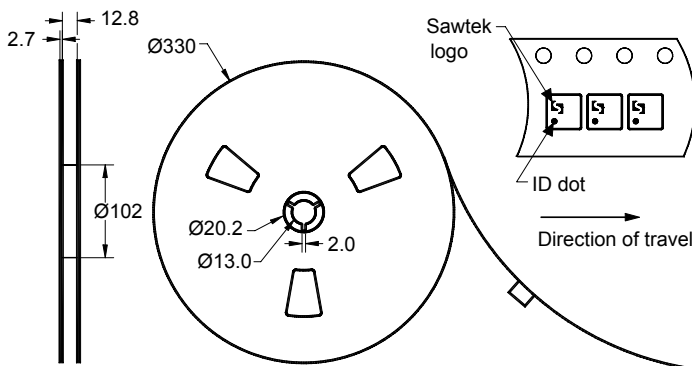
The date code consists of: JJJ = Julian day,  
Y = last digit of year, M = manufacturing site code

**PCB Footprint**



This footprint represents a recommendation only  
Dimensions shown are nominal in millimeters

**Tape and Reel**




Dimensions shown are nominal in millimeters  
Packaging quantity: 5000 units/reel

# Preliminary Data Sheet

## Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-40	+85	°C
Storage Temperature Range	T <sub>stg</sub>	-40	+85	°C

### Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

## Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[Other Technical Information](#)

Sawtek's liability is limited only to the Surface Acoustic Wave (SAW) component(s) described in this data sheet. Sawtek does not accept any liability for applications, processes, circuits or assemblies which are implemented using any Sawtek component described in this data sheet.

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[representatives or distributors](#)