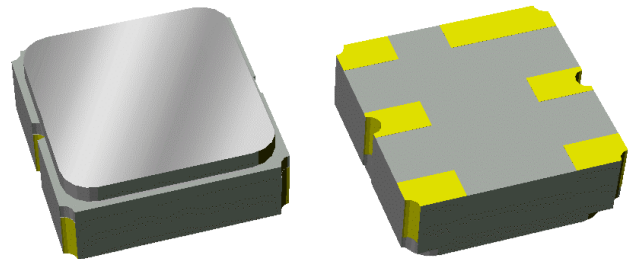


# Data Sheet

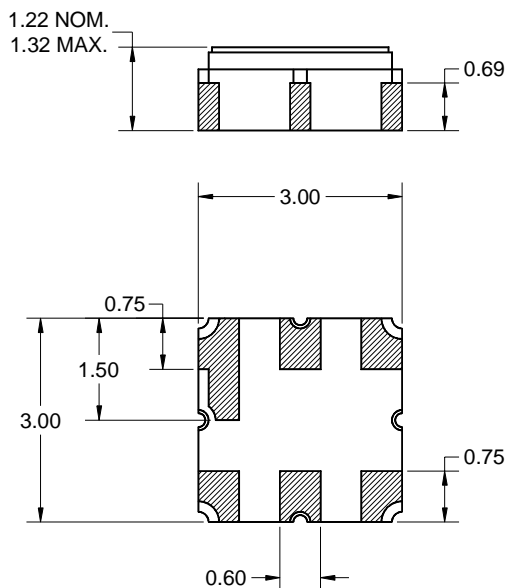
## Features

- For AMPS, CDMA and TDMA applications
- Usable bandwidth 25 MHz
- Low loss
- No impedance matching required for operation at 50 Ω
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size

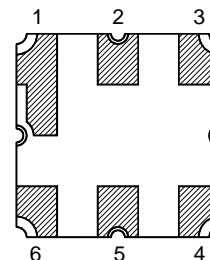


## Package

Surface Mount 3.0 x 3.0 x 1.22 mm



## Pin Configuration



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

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

Body:  $\text{Al}_2\text{O}_3$  ceramic  
 Lid: Kovar, Ni plated  
 Terminations: Au plating 0.5 - 1.0 $\mu\text{m}$ ,  
 over a 2 - 6 $\mu\text{m}$  Ni plating

# Data Sheet

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

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

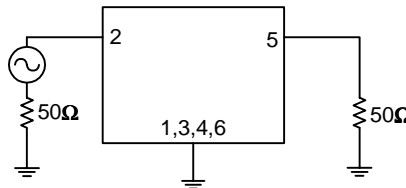
Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	836.5	-	MHz
<b>Maximum Insertion Loss</b> 824 - 849 MHz	-	1.9	3	dB
<b>Amplitude Variation</b> 824 - 849 MHz	-	0.8	1.5	dB p-p
<b>Absolute Attenuation</b> 10 - 800 MHz	25	30	-	dB
869 - 894 MHz	35	40	-	dB
978 - 1006 MHz	25	35	-	dB
1050 - 2600 MHz	20	28	-	dB
<b>Input/Output VSWR</b> 824 - 849 MHz	10	14	-	dB
<b>Terminating Source Impedance:</b> <sup>(4)</sup>	-	50	-	Ω
<b>Terminating Load Impedance:</b> <sup>(4)</sup>	-	50	-	Ω
<b>Operating Temperature Range</b>	-40	25	+85	°C

**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:**

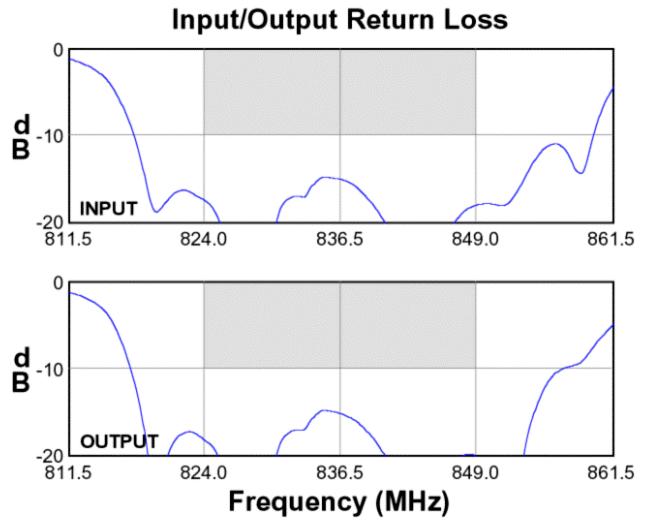
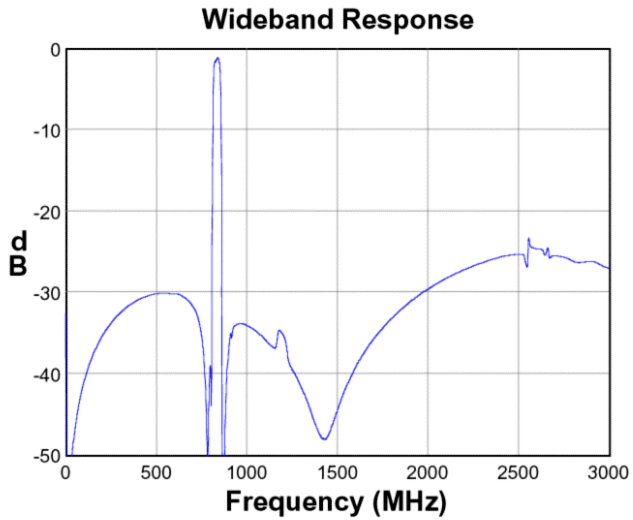
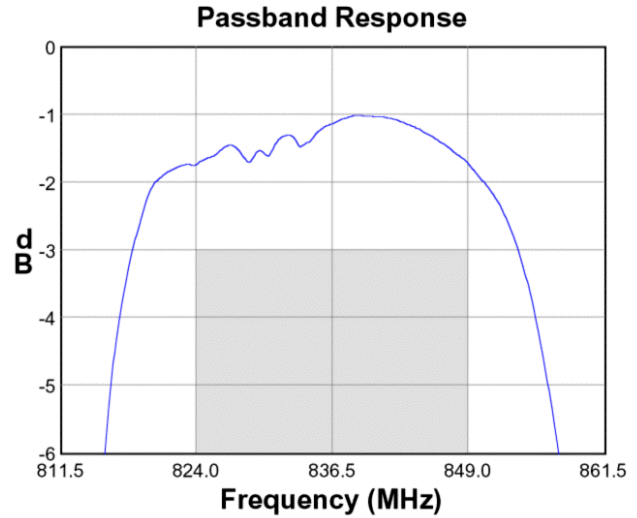
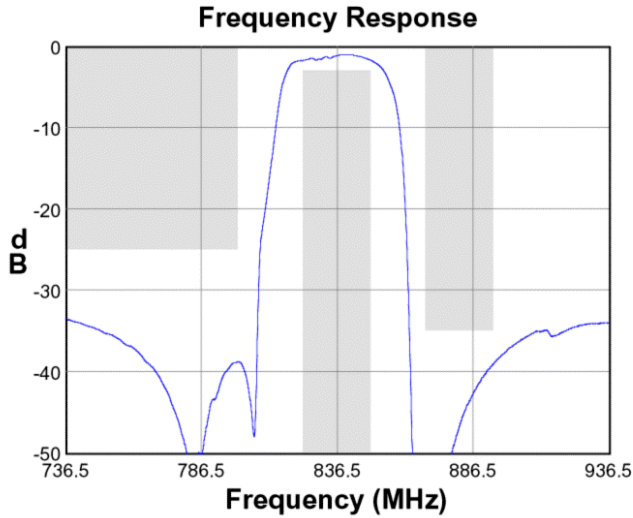
50 Ω  
Single-ended



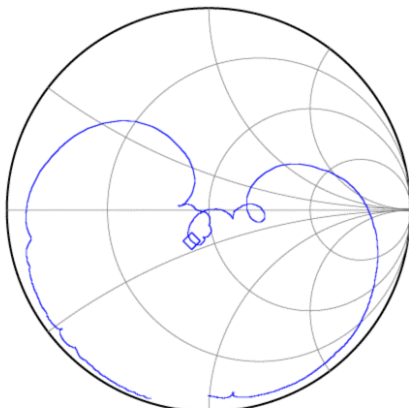
No impedance matching  
required

**Data Sheet**

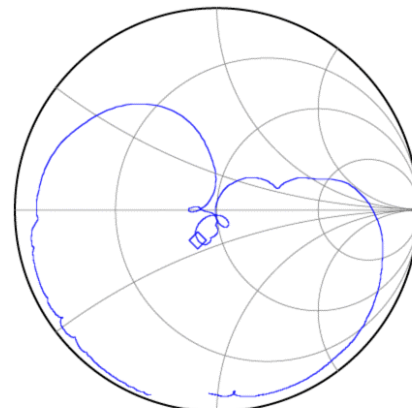
**Typical Performance (at +25°C)**



**Input Smith Chart**



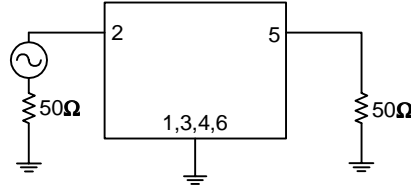
**Output Smith Chart**



**Data Sheet**

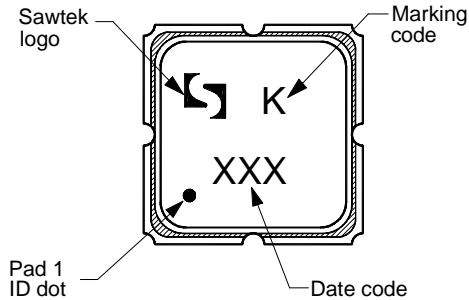
**Matching Schematics**

50 Ω  
Single-ended

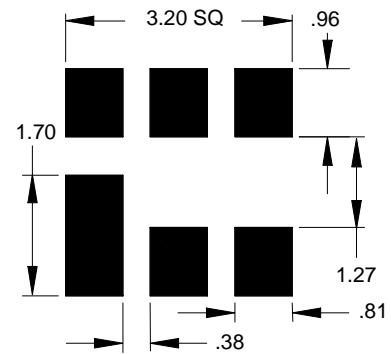


No impedance matching  
required

**Marking**



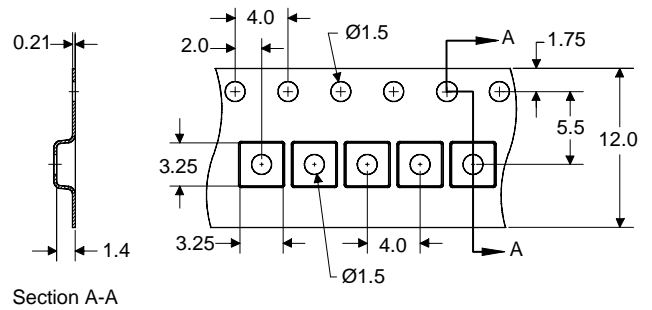
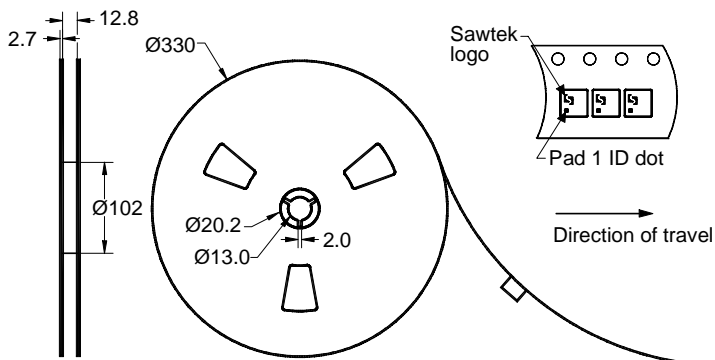
**PCB Footprint**



Date code is the day of the current year in 3-digit Julian format

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

# 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
RF Power	P <sub>in</sub>	-	+23	dBm

### Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

## Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[Reel and Packaging Label](#)

[Other Technical Information](#)

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