
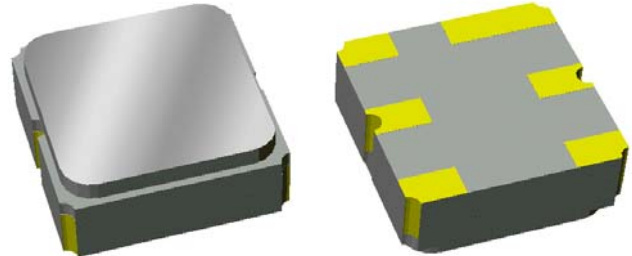


Data Sheet

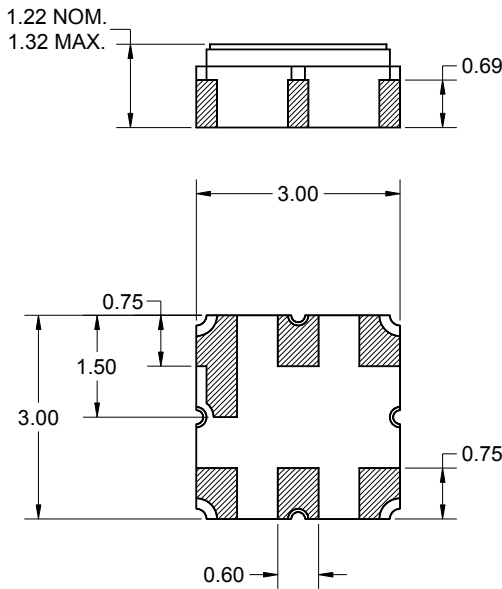
Features

- 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)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



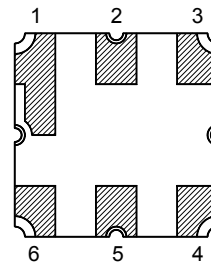
Package

Surface Mount 3.00 x 3.00 x 1.22 mm



Pin Configuration

Bottom View



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

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

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

Data Sheet

Electrical Specifications ⁽¹⁾

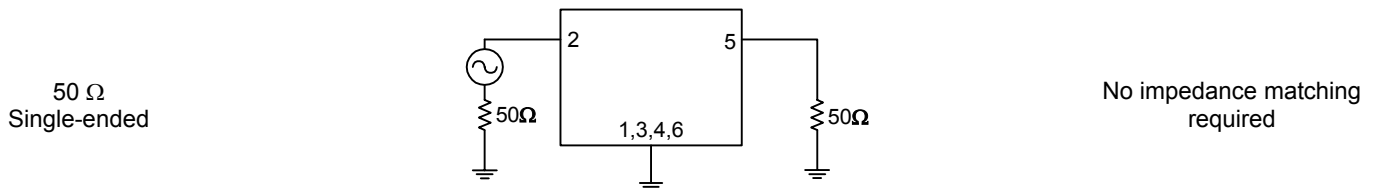
Operating Temperature Range: ⁽²⁾ -40 to +85 °C

| Parameter ⁽³⁾ | Minimum | Typical | Maximum | Unit |
|--|---------|---------|---------|----------|
| Center Frequency | - | 881.5 | - | MHz |
| Maximum Insertion Loss 869 - 894 MHz | - | 1.8 | 3 | dB |
| Amplitude Variation 869 - 894 MHz | - | 0.6 | 1.8 | dB p-p |
| Absolute Attenuation 10 - 800 MHz | 20 | 34 | - | dB |
| 824 - 849 MHz | 35 | 38 | - | dB |
| 978 - 1006 MHz | 25 | 35 | - | dB |
| 1088 - 1119 MHz | 30 | 32 | - | dB |
| 1119 - 2600 MHz | 20 | 30 | - | dB |
| Input/Output Return Loss 869 - 894 MHz | 10 | 12 | - | dB |
| Source Impedance: ⁽⁴⁾ | - | 50 | - | Ω |
| Load Impedance: ⁽⁴⁾ | - | 50 | - | Ω |

Notes:

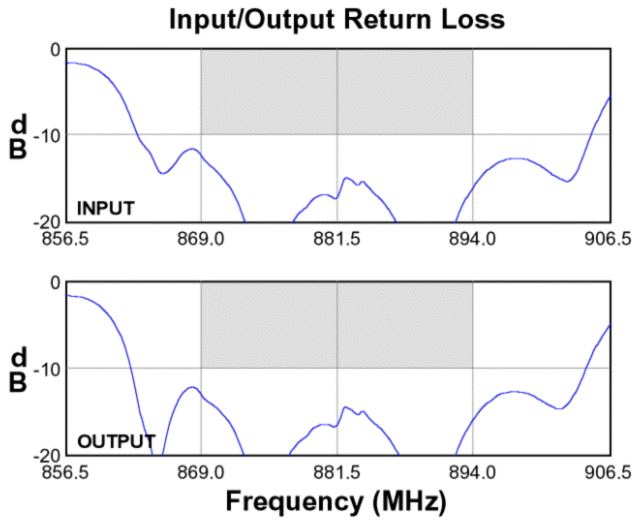
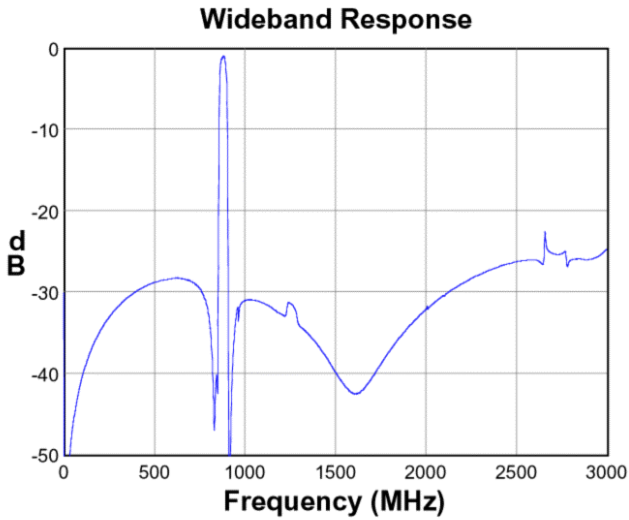
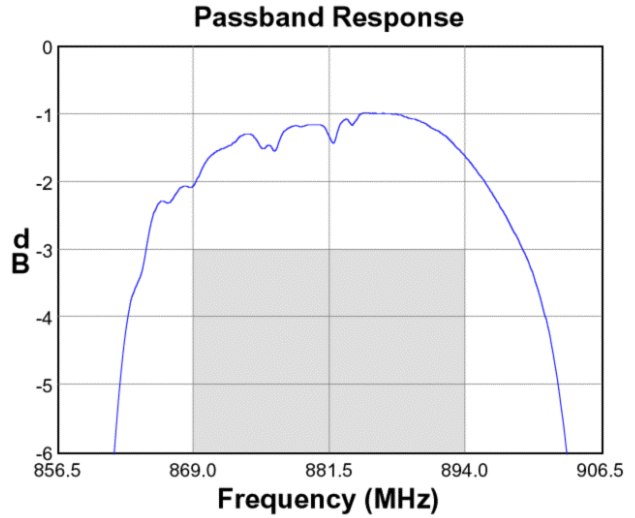
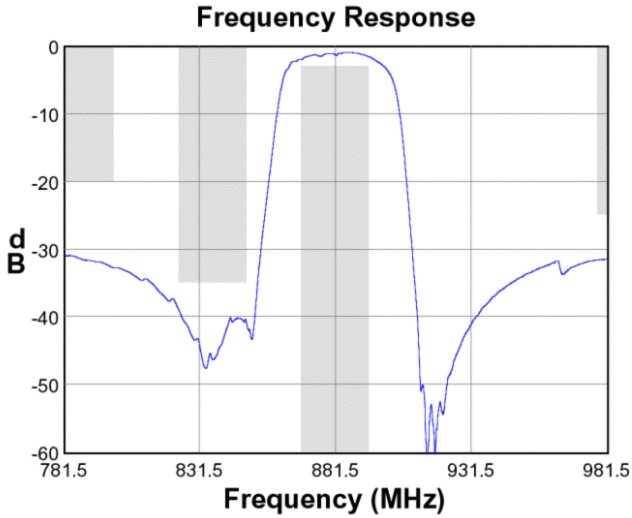
- All specifications are based on the test circuit shown below
- In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
- Electrical margin has been built into the design to account for the variations due to temperature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

Test Circuit:

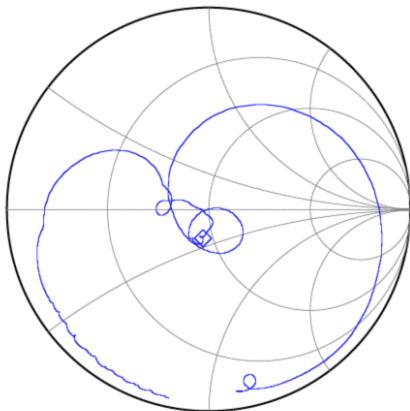


Data Sheet

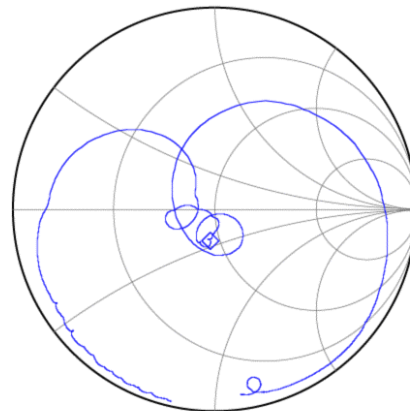
Typical Performance (at +25°C)



Input Smith Chart



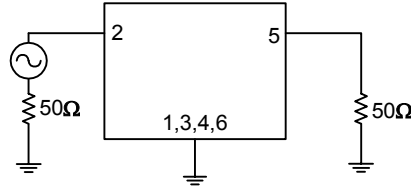
Output Smith Chart



Data Sheet

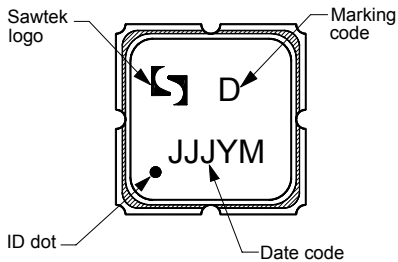
Matching Schematics

50 Ω
Single-ended



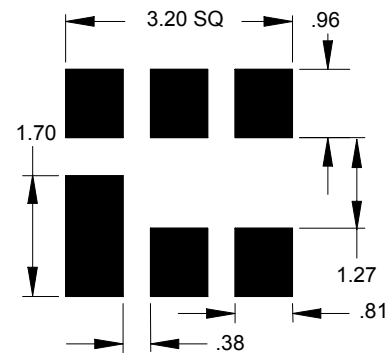
No impedance matching required

Marking



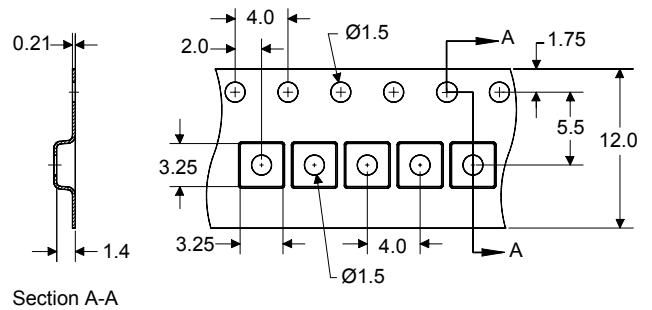
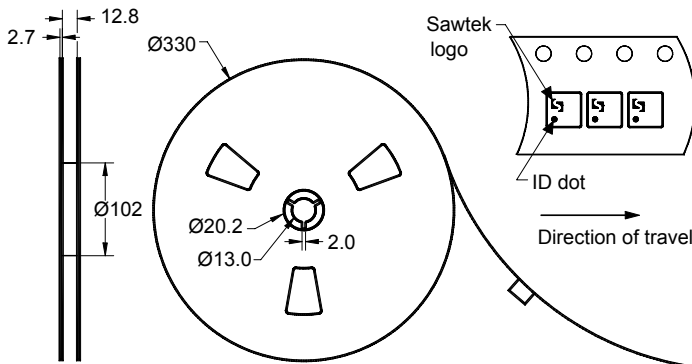
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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


Data Sheet

Maximum Ratings


| Parameter | Symbol | Minimum | Maximum | Unit |
|-----------------------------|------------------|---------|---------|------|
| Operating Temperature Range | T | -40 | +85 | °C |
| Storage Temperature Range | T _{stg} | -40 | +85 | °C |
| RF Power | P _{in} | - | +23 | dBm |

Important Notes

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

RoHS Compliance

- This product complies with EU directive 2002/95/EC (RoHS) 

Solderability

- Compatible with JEDEC J-STD-020C **Pb-free** process, **260°C** peak reflow temperature ([see soldering profile](#))

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[RoHS Information](#)

[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](#)