
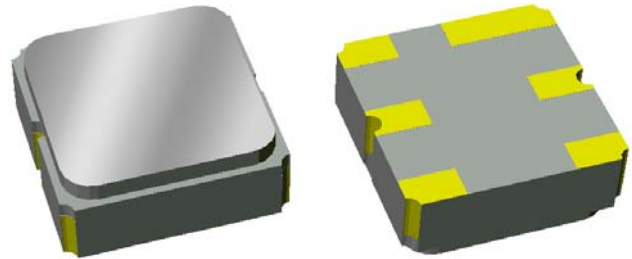


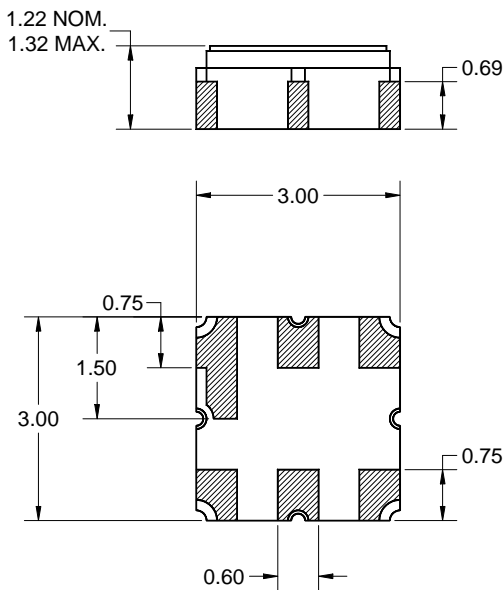
Features

- Usable bandwidth 35 MHz
- High attenuation
- 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

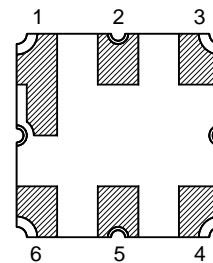


Dimensions shown are nominal in millimeters
All tolerances are ± 0.15 mm except overall
length and width ± 0.10 mm

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

Pin Configuration

Bottom View



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

Electrical Specifications ⁽¹⁾

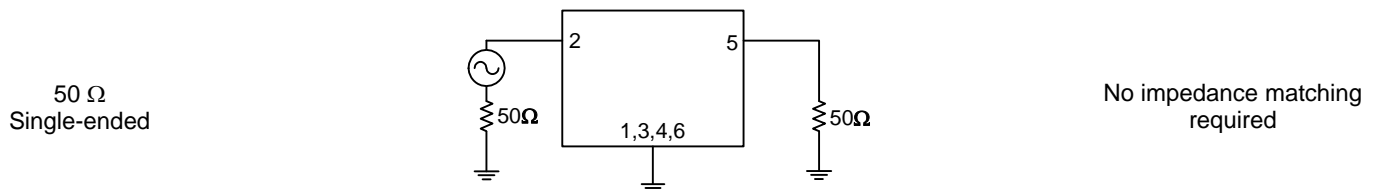
Operating Temperature Range: ⁽²⁾ -10 to +80 °C

| Parameter ⁽³⁾ | Minimum | Typical | Maximum | Unit |
|--|---------|---------|---------|--------|
| Center Frequency | - | 897.5 | - | MHz |
| Maximum Insertion Loss 880 - 915 MHz | - | 1.8 | 2.5 | dB |
| Amplitude Ripple 880 - 915 MHz | - | 1.0 | 1.6 | dB p-p |
| Absolute Attenuation | | | | |
| 10 - 860 MHz | 19 | 22 | - | dB |
| 860 - 865 MHz | 20 | 26 | - | dB |
| 930 - 935 MHz | 14 | 55 | - | dB |
| 935 - 960 MHz | 25 | 28 | - | dB |
| 960 - 1780 MHz | 21 | 24 | - | dB |
| 1780 - 1850 MHz | 21 | 30 | - | dB |
| 1850 - 2250 MHz | 15 | 20 | - | dB |
| 2250 - 3000 MHz | 6 | 13 | - | dB |
| Input/Output VSWR 880 - 915 MHz | - | 1.8 | 2.2 | - |
| Source Impedance ⁽⁴⁾ | - | 50 | - | Ω |
| Load Impedance ⁽⁴⁾ | - | 50 | - | Ω |

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:



Electrical Specifications ⁽¹⁾

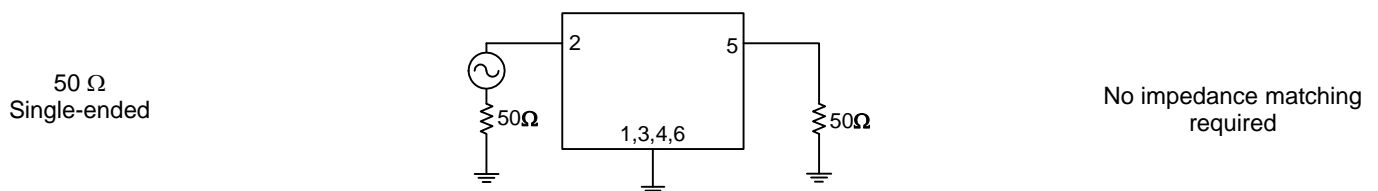
Operating Temperature Range: ⁽²⁾ -30 to +85 °C

| Parameter ⁽³⁾ | Minimum | Typical | Maximum | Unit |
|--|---------|---------|---------|----------|
| Center Frequency | - | 897.5 | - | MHz |
| Maximum Insertion Loss 880 - 915 MHz | - | 1.8 | 2.8 | dB |
| Amplitude Ripple 880 - 915 MHz | - | 1.0 | 1.8 | dB p-p |
| Absolute Attenuation | | | | |
| 10 - 860 MHz | 19 | 22 | - | dB |
| 860 - 865 MHz | 20 | 26 | - | dB |
| 930 - 935 MHz | 14 | 55 | - | dB |
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| 960 - 1780 MHz | 21 | 24 | - | dB |
| 1780 - 1850 MHz | 21 | 30 | - | dB |
| 1850 - 2250 MHz | 15 | 20 | - | dB |
| 2250 - 3000 MHz | 6 | 13 | - | dB |
| Input/Output VSWR 880 - 915 MHz | - | 1.8 | 2.2 | - |
| Source Impedance ⁽⁴⁾ | - | 50 | - | Ω |
| Load Impedance ⁽⁴⁾ | - | 50 | - | Ω |

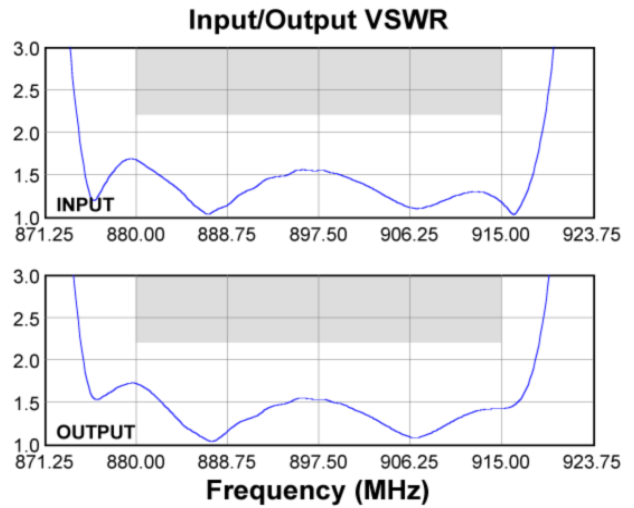
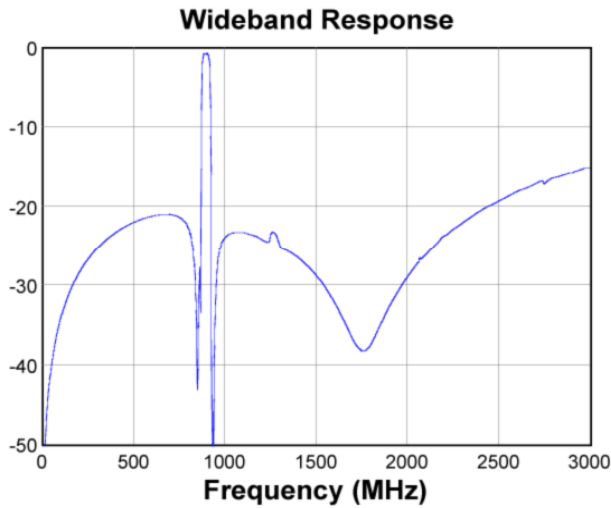
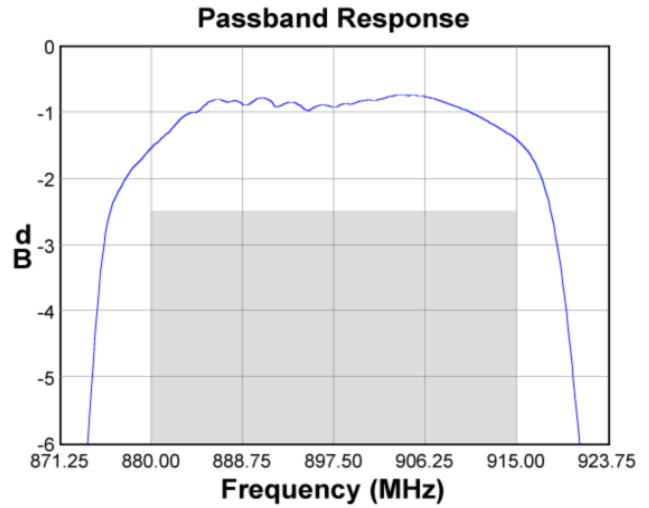
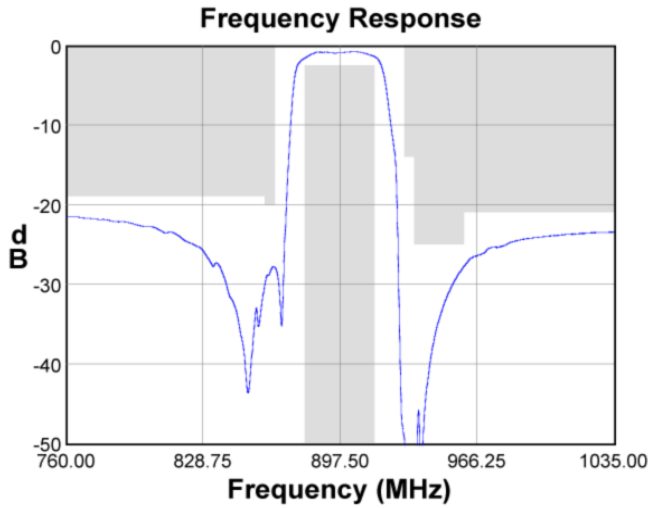
Notes:

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

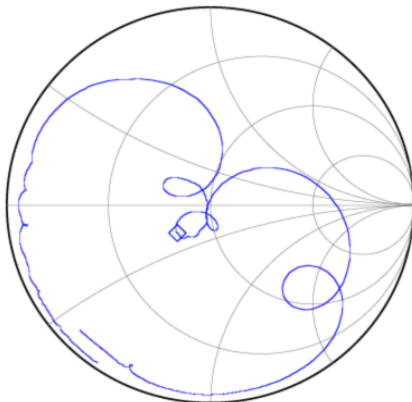
Test Circuit:



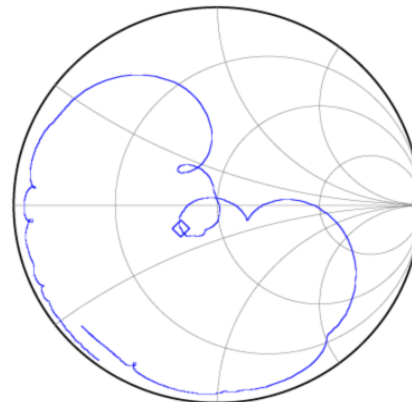
Typical Performance (at +25°C)



Input Smith Chart

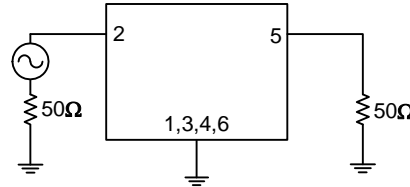


Output Smith Chart



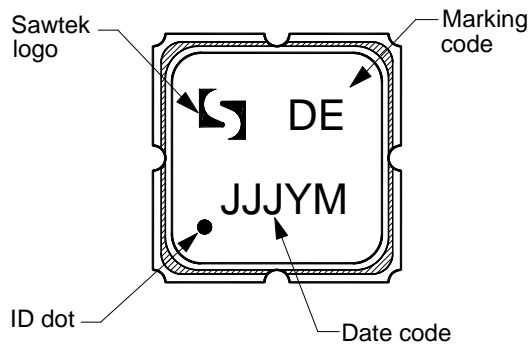
Matching Schematics

50 Ω
Single-ended



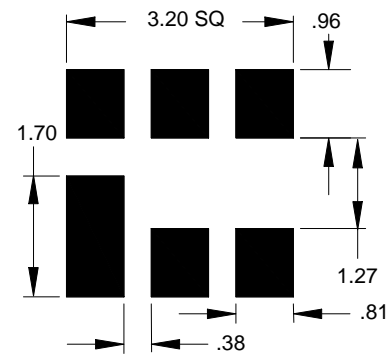
No impedance matching
required

Marking



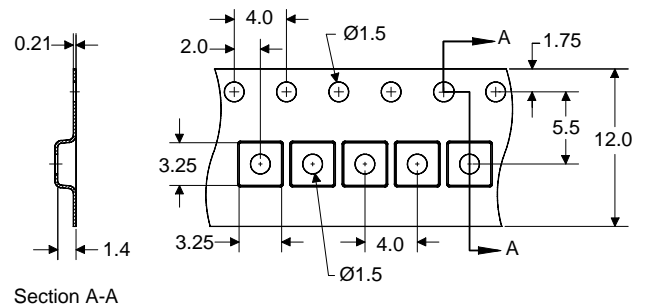
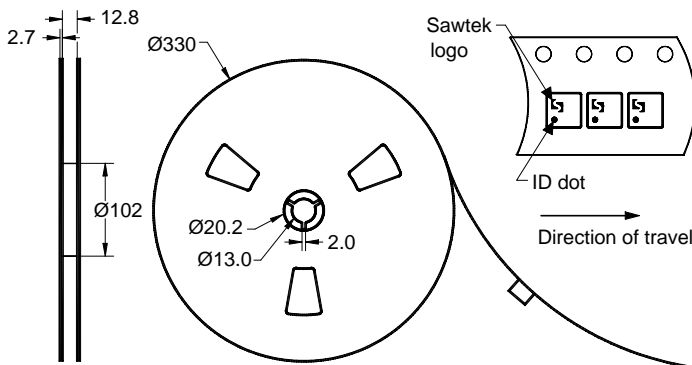
The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code

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

Maximum Ratings


| Parameter | Symbol | Minimum | Maximum | Unit |
|-----------------------------|------------------|---------|---------|------|
| Operating Temperature Range | T | -30 | +85 | °C |
| Storage Temperature Range | T _{stg} | -40 | +85 | °C |
| Input Power | P _{in} | - | +17 | 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](#)

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