



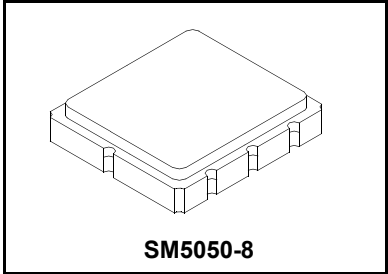
**SF2289C**

**155 MHz  
SAW Filter**

- Low Loss SAW Filter
- 5.0 x 5.0 mm Surface-mount Case
- Complies with Directive 2002/95/EC (RoHS)

**Absolute Maximum Ratings**

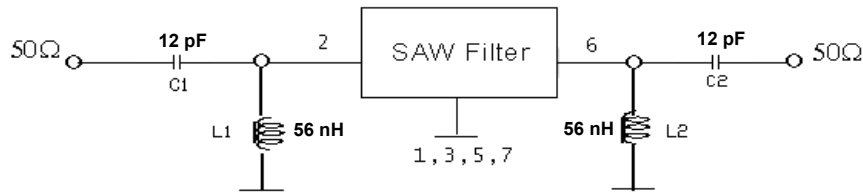
| Rating  | Value           | Units |
|---|-----------------|-------|
| Maximum Incident Power in Passband            | 0               | dBm   |
| Maximum DC Voltage on any Non-ground Terminal | 10              | V     |
| Storage Temperature Range in Tape and Reel    | -40 to +85      | °C    |
| Maximum Soldering Profile                     | 265 °C for 10 s |       |



**Electrical Characteristics**

| Characteristic   | Sym   | Notes | Min                                   | Typ | Max | Units |
|--|-------|-------|---------------------------------------|-----|-----|-------|
| Center Frequency   | $f_C$ | 1     | 155                                   |     |     | MHz   |
| Insertion Loss, $f_C \pm 4$ MHz  | IL    | 1     |                                       |     | 6.5 | dB    |
| Rejection Referenced to $IL_{MIN}$ :<br>$f_C - 38.8$ to $f_C - 100$ MHz<br>$f_C + 38.8$ to $f_C + 100$ MHz |       | 1, 3  | 50                                    |     |     | dB    |
|  |       |       | 42                                    |     |     |       |
| Operating Temperature Range  | $T_A$ | 1     | -10                                   |     | +50 | °C    |
| Input Impedance at $f_C$   |       |       | $263 \Omega \parallel 8.7 \text{ pF}$ |     |     |       |
| Output Impedance at $f_C$  |       |       | $685 \Omega \parallel 9.1 \text{ pF}$ |     |     |       |
| Case Style   |       | 6     | SM5050-8 5 x 5 mm Nominal Footprint   |     |     |       |
| Lid Symbolization  |       |       | A36                                   |     |     |       |

**50 ohm Matching Network**

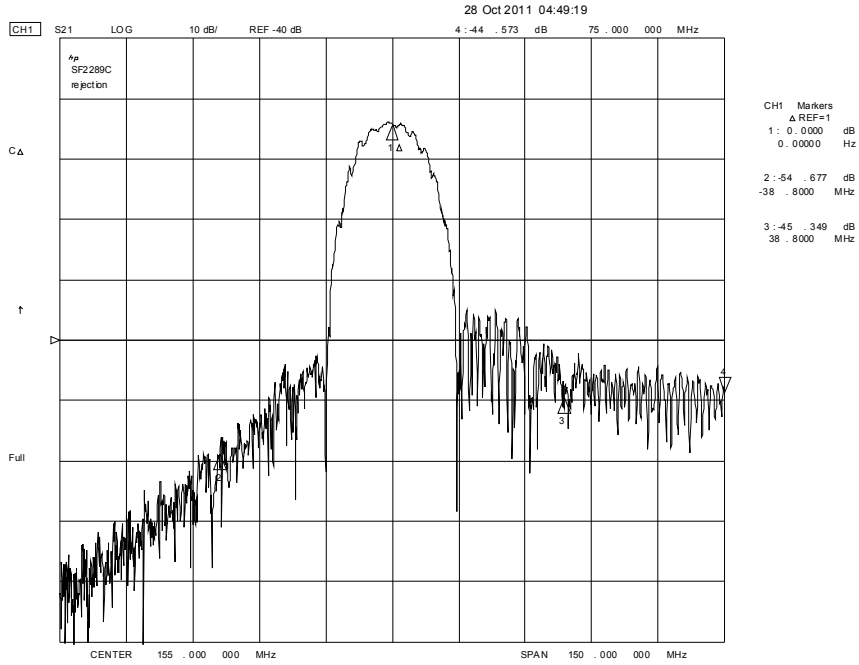


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

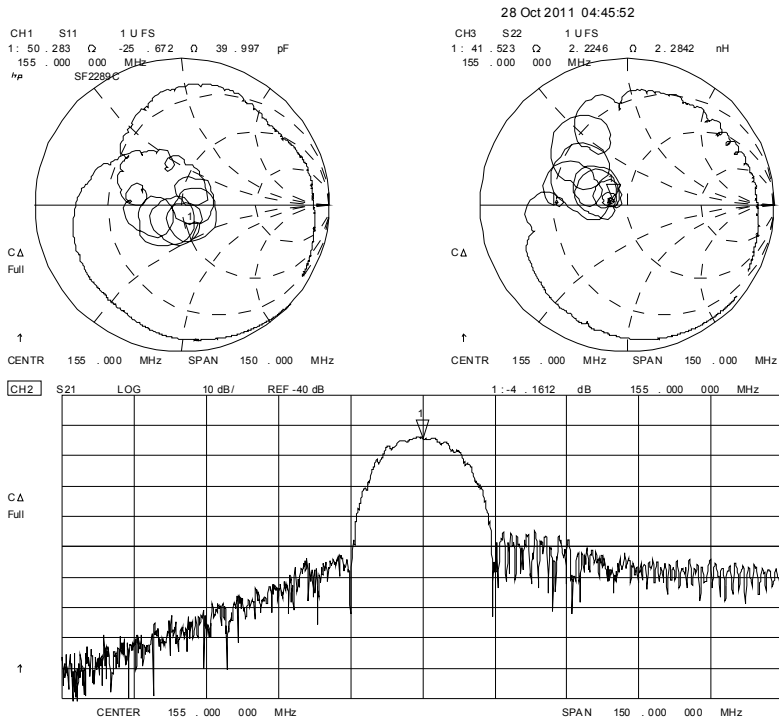
**Notes:**

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50  $\Omega$  and measured with 50  $\Omega$  network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_C$ .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Tape and Reel Standard ANSI / EIA 481.
7. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
8. US and international patents may apply.
9. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

# Filter Broadband Plot

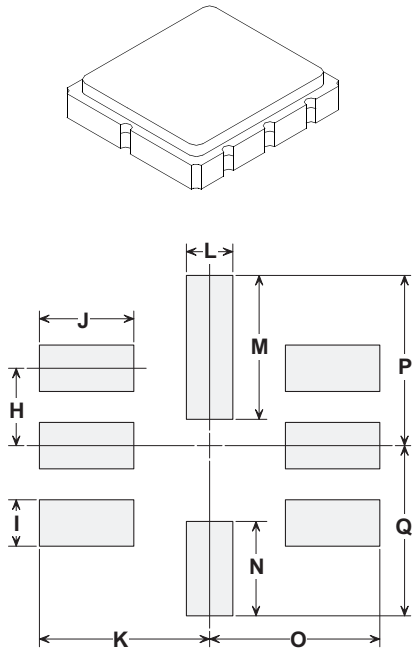


# Filter Impedance and Passband Plot



# SM5050-8 Surface-Mount 8-Terminal Ceramic Case 5.0 X 5.0 mm Nominal Footprint

## Case Dimensions



**PCB Footprint**

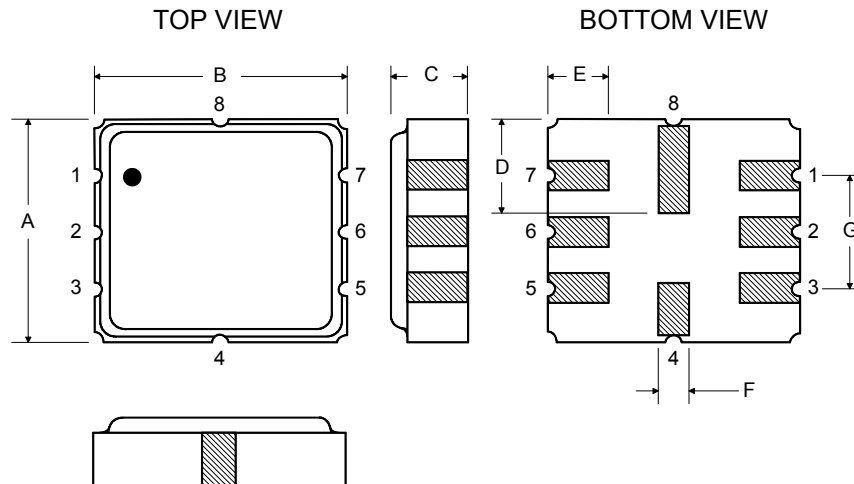
| Dimension | mm   |      |      | Inches |       |       |
|-----------|------|------|------|--------|-------|-------|
|           | Min  | Nom  | Max  | Min    | Nom   | Max   |
| A         | 4.80 | 5.00 | 5.20 | 0.189  | 0.197 | 0.205 |
| B         | 4.80 | 5.00 | 5.20 | 0.189  | 0.197 | 0.205 |
| C         | 1.30 | 1.50 | 1.70 | 0.050  | 0.060 | 0.067 |
| D         | 1.98 | 2.08 | 2.18 | 0.078  | 0.082 | 0.086 |
| E         | 1.07 | 1.17 | 1.27 | 0.042  | 0.046 | 0.050 |
| F         | 0.50 | 0.64 | 0.70 | 0.020  | 0.025 | 0.028 |
| G         | 2.39 | 2.54 | 2.69 | 0.094  | 0.100 | 0.106 |
| H         |      | 1.27 |      |        | 0.050 |       |
| I         |      | 0.76 |      |        | 0.030 |       |
| J         |      | 1.55 |      |        | 0.061 |       |
| K         |      | 2.79 |      |        | 0.110 |       |
| L         |      | 0.76 |      |        | 0.030 |       |
| M         |      | 2.36 |      |        | 0.093 |       |
| N         |      | 1.55 |      |        | 0.061 |       |
| O         |      | 2.79 |      |        | 0.110 |       |
| P         |      | 2.79 |      |        | 0.110 |       |
| Q         |      | 2.79 |      |        | 0.110 |       |

## Case Materials

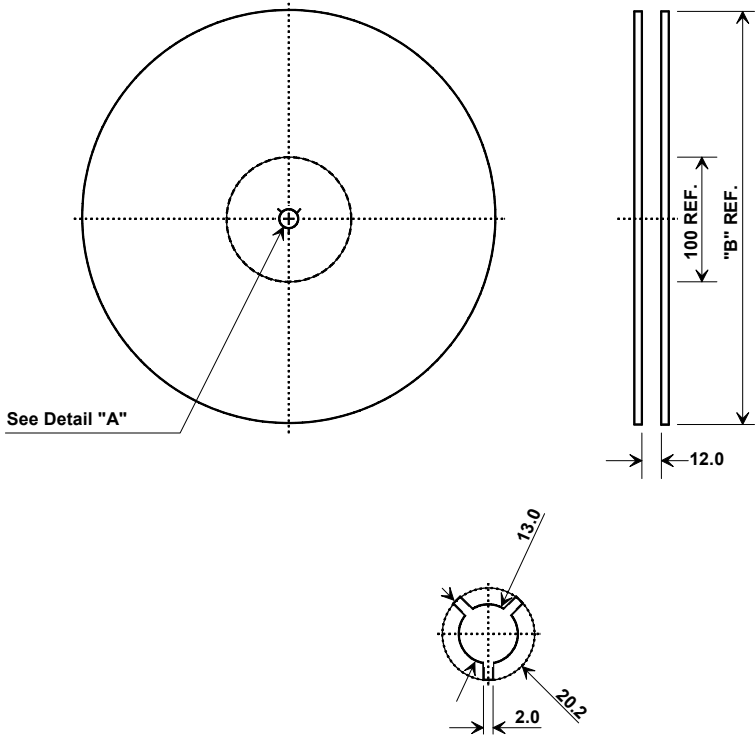
| Materials          |  |
|--------------------|--|
| Solder Pad Plating | 0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel |
| Lid Plating        | 2.0 to 3.0 $\mu\text{m}$ Nickel                                      |
| Body               | $\text{Al}_2\text{O}_3$ Ceramic                                      |
|                    | Pb Free  |

## Electrical Connections

| Connection          |        | Terminals  |
|---------------------|--------|------------|
| Port 1              | Input  | 2          |
| Port 2              | Output | 6          |
|                     | Ground | All others |
| Dot indicates Pin 1 |        |            |



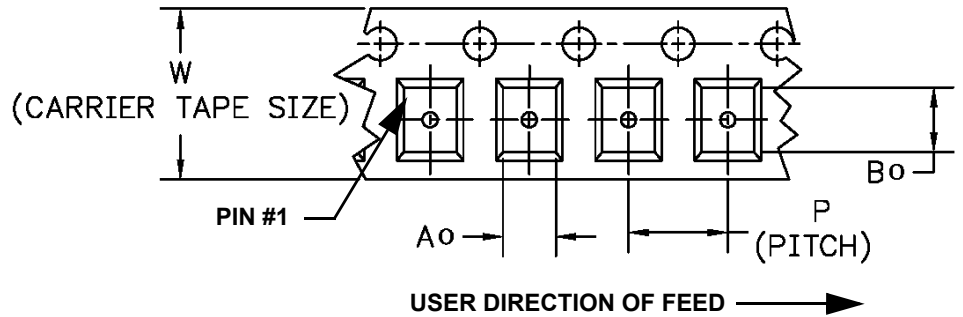
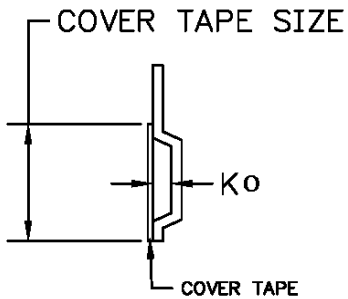
# Tape and Reel Specifications



| "B"          |             | Quantity Per Reel |
|--------------|-------------|-------------------|
| Nominal Size |             |                   |
| Inches       | millimeters |                   |
| 7            | 178         | 500               |
| 13           | 330         | 3000              |

## COMPONENT ORIENTATION and DIMENSIONS

| Carrier Tape Dimensions |         |
|-------------------------|---------|
| Ao                      | 5.3 mm  |
| Bo                      | 5.3 mm  |
| Ko                      | 2.0 mm  |
| Pitch                   | 8.0 mm  |
| W                       | 12.0 mm |



## Данный компонент на территории Российской Федерации

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