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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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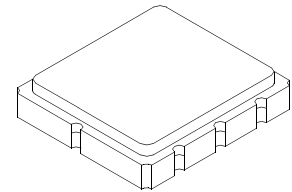
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# SF2289C

## 155 MHz SAW Filter



SM5050-8

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

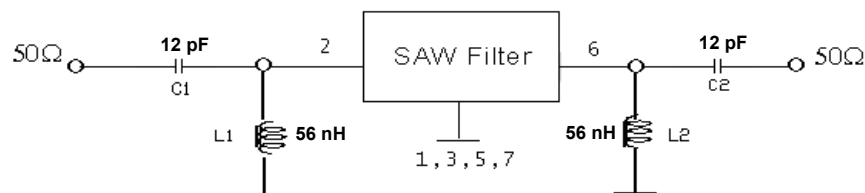
### Absolute Maximum Ratings

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 $IL_{MIN}$ :		1, 3				dB
$f_C - 38.8$ to $f_C - 100$ MHz			50			
$f_C + 38.8$ to $f_C + 100$ MHz			42			
Operating Temperature Range	$T_A$	1	-10		+50	°C
Input Impedance at $f_C$			263 $\Omega$    8.7 pF			
Output Impedance at $f_C$			685 $\Omega$    9.1 pF			
Case Style		6	SM5050-8 5 x 5 mm Nominal Footprint			
Lid Symbolization			A36			

### 50 ohm Matching Network

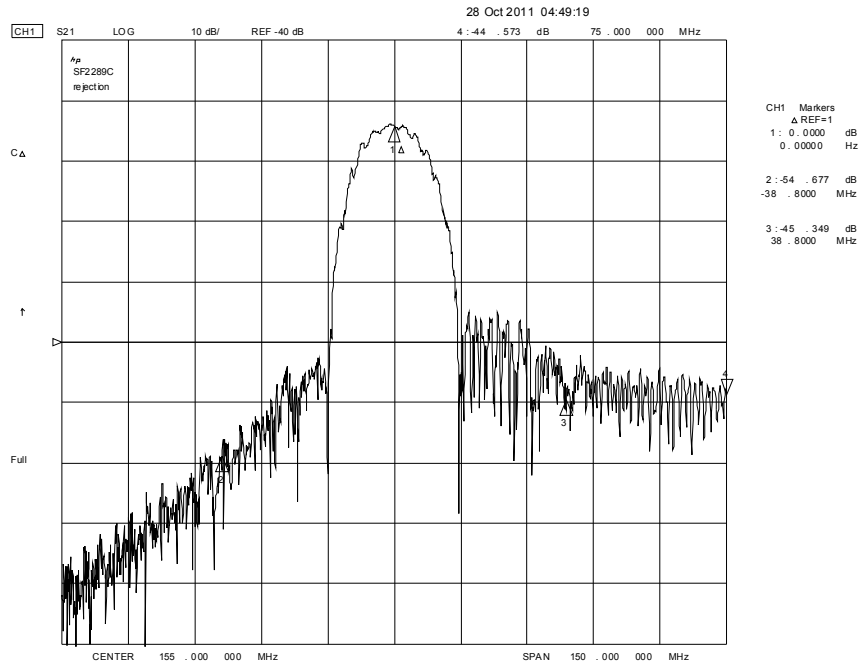


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

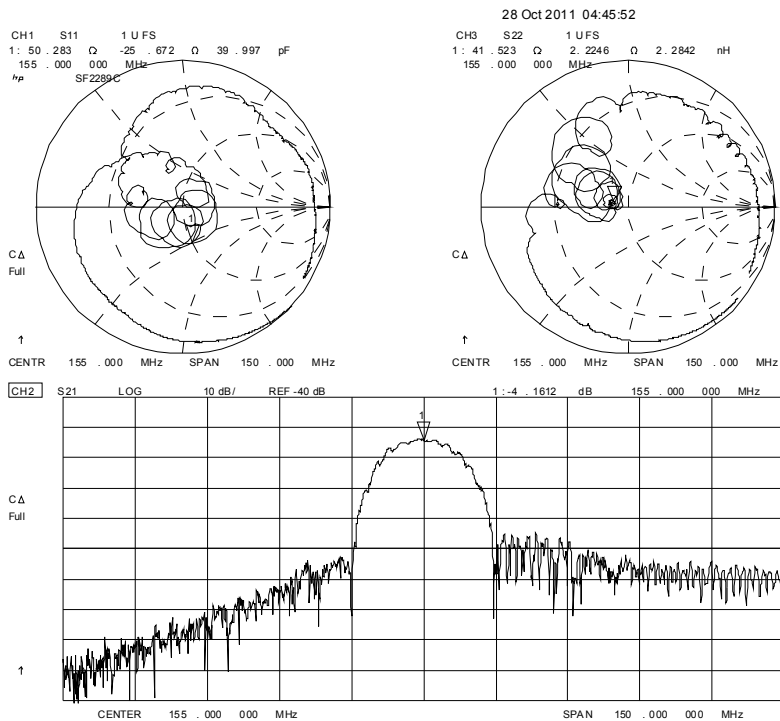
### NOTES:

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. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

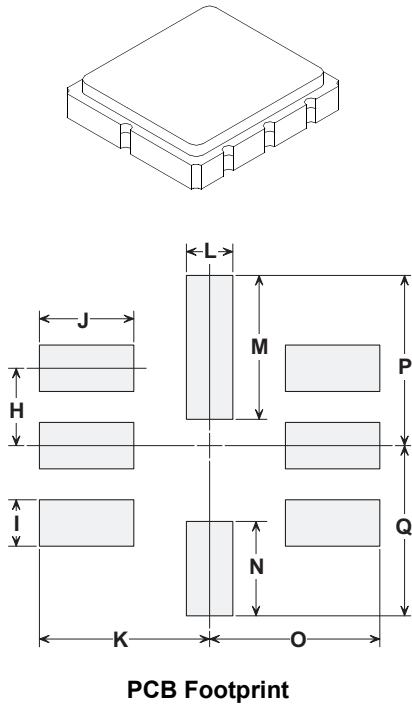
# Filter Broadband Plot



# Filter Impedance and Passband Plot



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



### Case Dimensions

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	

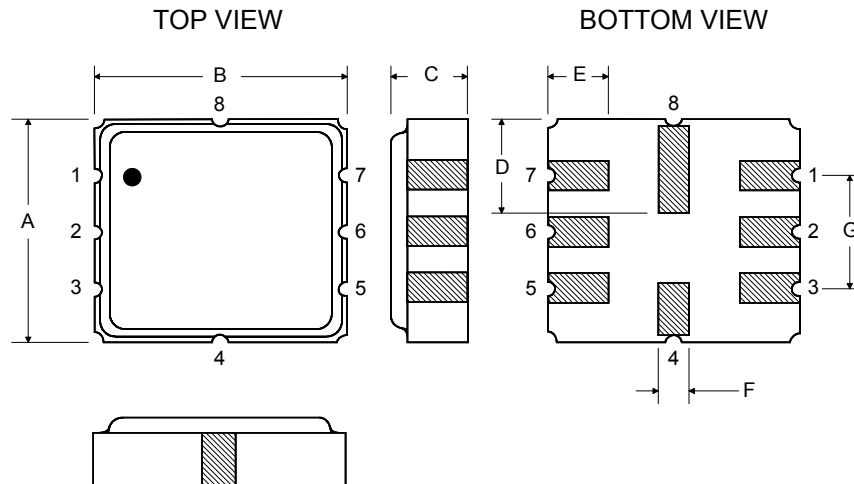
### Case Materials

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

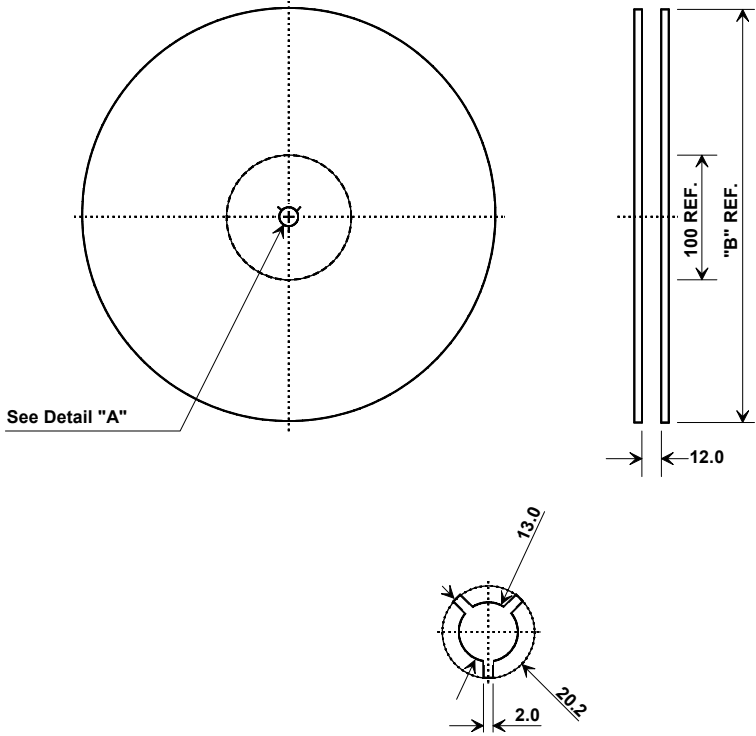
### Electrical Connections

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

