

- SAW Filter for W-CDMA
- 5.0 X 5.0 X 1.7 mm Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)

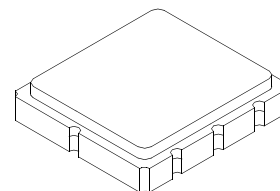


#### Maximum Rating

Rating	Value	Units
Input Power Level	10	dBm
Operating Temperature Range	-10 to +50	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

**SF2320C**

**163.00 MHz  
SAW Filter**



**SM5050-8**

#### Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			163		MHz
Insertion Loss within $f_C \pm 4$ MHz	$IL_{MIN}$			4.5	6.5	dB
Amplitude Ripple $f_C \pm 4$ MHz					2.1	dB
Attenuation Referenced to 0 dB ( $f_C - 100$ MHz) to ( $f_C - 38.8$ MHz)			50			dB
( $f_C + 38.8$ MHz) to ( $f_C - 100$ MHz)			42			
Ultimate Rejection						
Lid Symbolization (Y=year, WW=week, S=shift)			RFM A79 YWWS			

#### Electrical Connections

Connection		Terminals
Port 1	Input	2
Port 2	Output	6
	Ground	All others

Dot indicates Pin 1

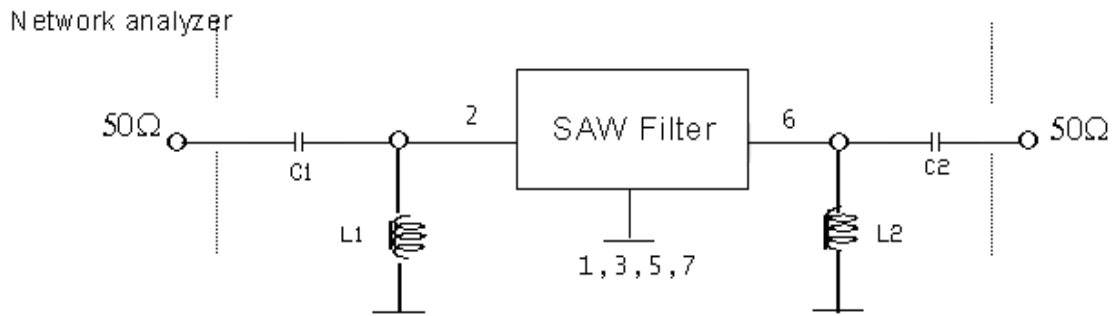


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

#### NOTES:

- 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.
- Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_C$ .
- 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.
- "LRIP" or "L" after the part number indicates "low rate initial production"
- and "ENG" or "E" indicates "engineering prototypes."
- The design, manufacturing process, and specifications of this filter are subject to change.
- 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.
- US and international patents may apply.
- Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

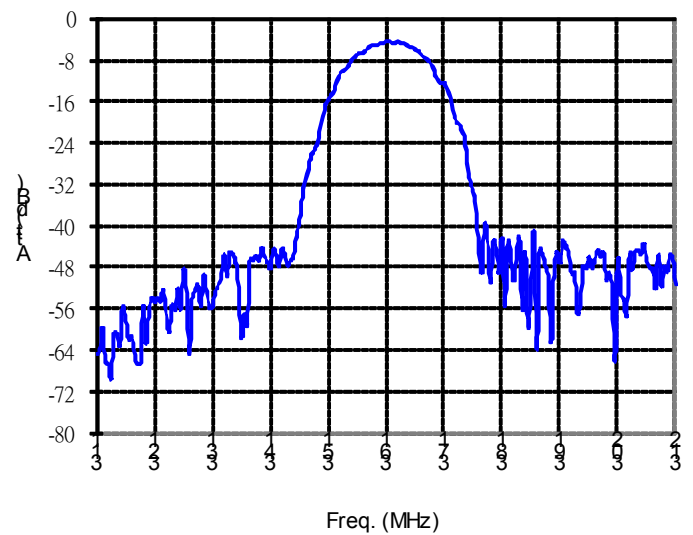
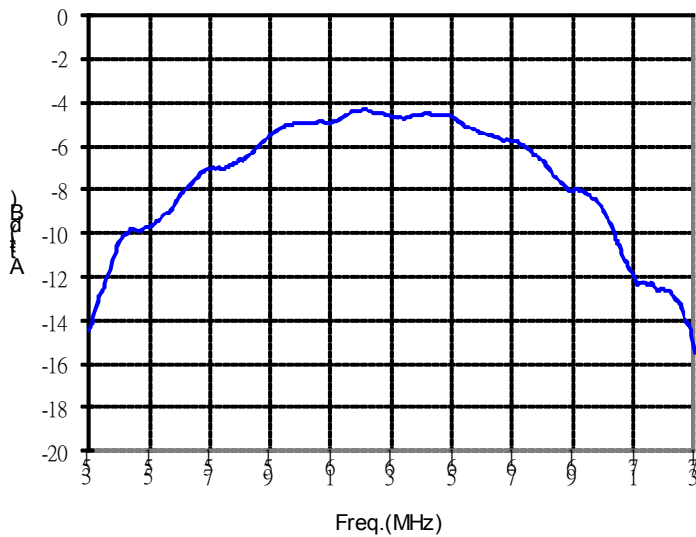
#### D. MEASUREMENT CIRCUIT



C1 = 12 pF L1 = 47 nH

C2 = 8 pF L2 = 47 nH

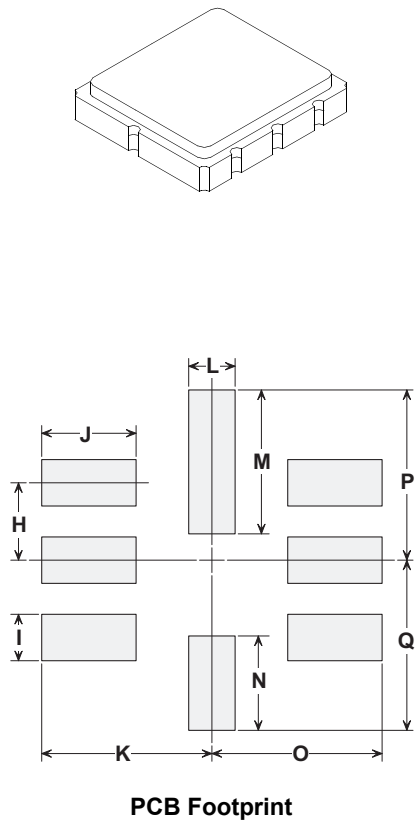
#### E. FREQUENCY CHARACTERISTICS:



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

**Case Dimensions**

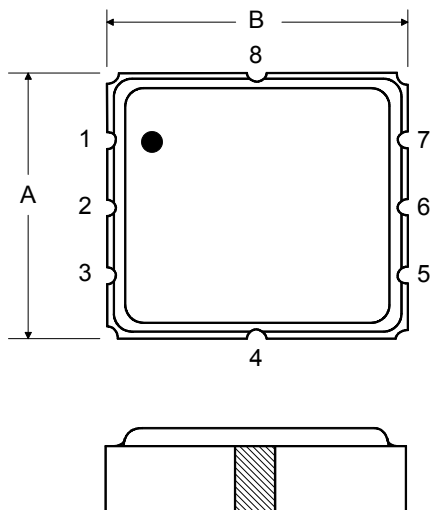
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
<b>A</b>	4.80	5.00	5.20	0.189	0.197	0.205
<b>B</b>	4.80	5.00	5.20	0.189	0.197	0.205
<b>C</b>	1.30	1.50	1.70	0.050	0.060	0.067
<b>D</b>	1.98	2.08	2.18	0.078	0.082	0.086
<b>E</b>	1.07	1.17	1.27	0.042	0.046	0.050
<b>F</b>	0.50	0.64	0.70	0.020	0.025	0.028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



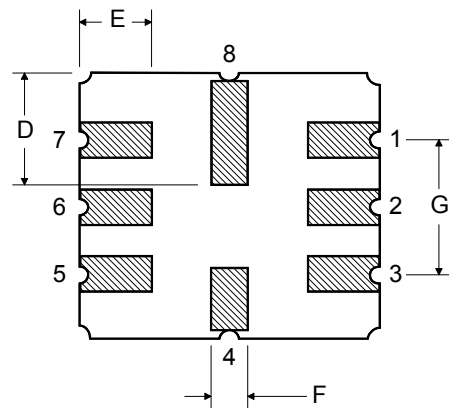
**Case Materials**

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu$ m Gold over 1.27 to 8.89 $\mu$ m Nickel
Lid Plating	2.0 to 3.0 $\mu$ m Nickel
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic
Pb Free	

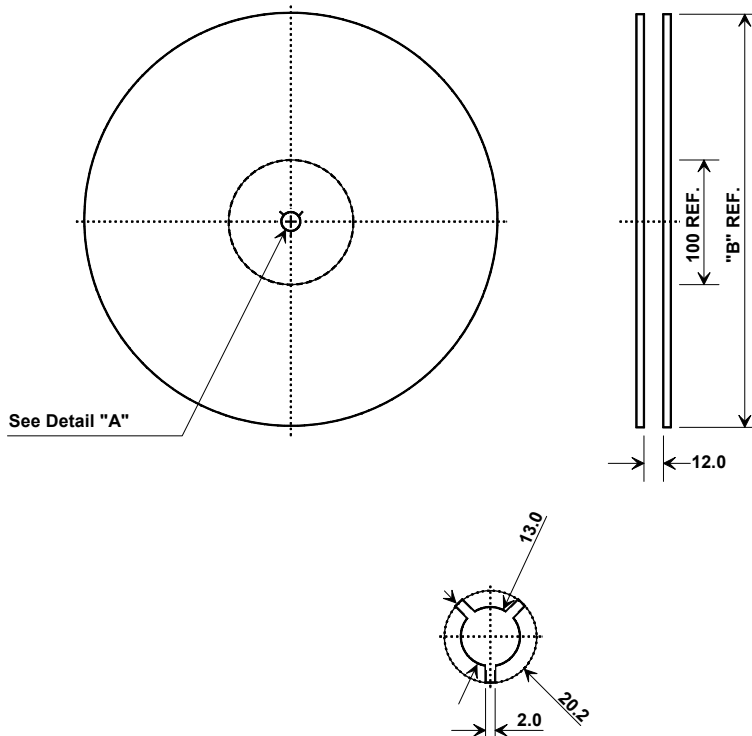
**TOP VIEW**



**BOTTOM VIEW**



## Tape and Reel Specifications



"B" Nominal Size		Quantity Per Reel
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

