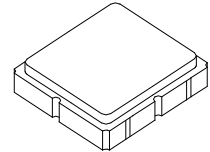


# SF1182B

## 836.5 MHz SAW Filter



SM3030-6

- **RF Filter for Mobile Communication Applications**
- **Low Insertion Loss**
- **3.0 x 3.0 x 1.3 mm Surface-Mount Case**
- **No Matching Circuit Required**

### Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage Between any 2 Terminals	0	VDC
Storage Temperature Range	-40 to +85	°C
Maximum Soldering Profile	265 °C for 10 s	

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency	$f_C$	1		836.5		MHz
Insertion Loss, 824-849 MHz	IL			2.1	3.0	dB
Amplitude Ripple, p-p, 824-849 MHz				1.2	2.0	
Attenuation Referenced to IL:						dB
DC to 800 MHz		1, 2, 3	23	26		
869 to 894 MHz			29	32		
978 to 1006 MHz			25	28		
1050 to 2500 MHz			15	18		
VSWR, 824-849 MHz				1.8:1	2.3:1	
Source impedance	$Z_S$			50		$\Omega$
Load impedance	$Z_L$			50		$\Omega$
Operating Temperature	$T_A$	1	-30		+85	°C
Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms					
Case Style	SM3030-6 3 x 3 mm Nominal Footprint					
Lid Symbolization (YY=year, WW=week, D=day)	448 YWWS					

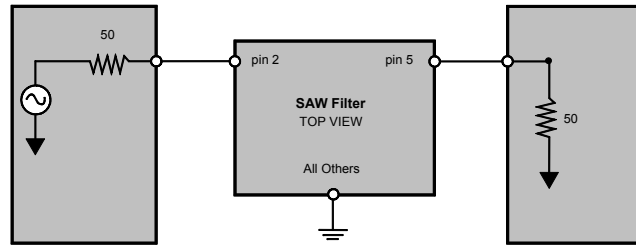
### NOTES:

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. 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.
7. US and international patents may apply.
8. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.
9. Electrostatic Sensitive Device. Observe precautions for handling.

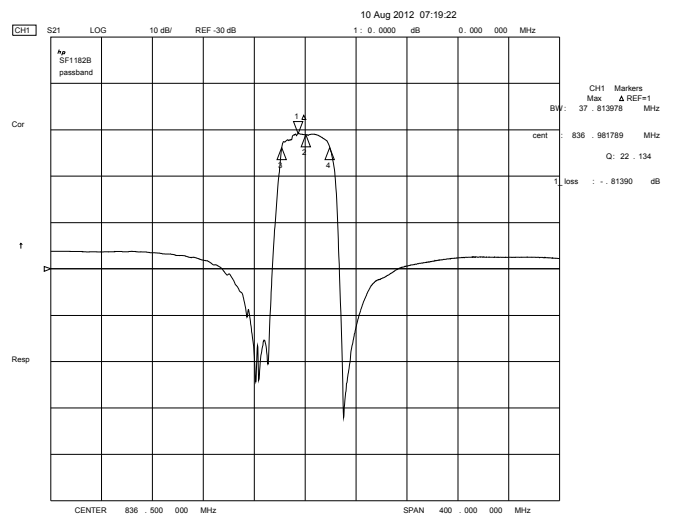
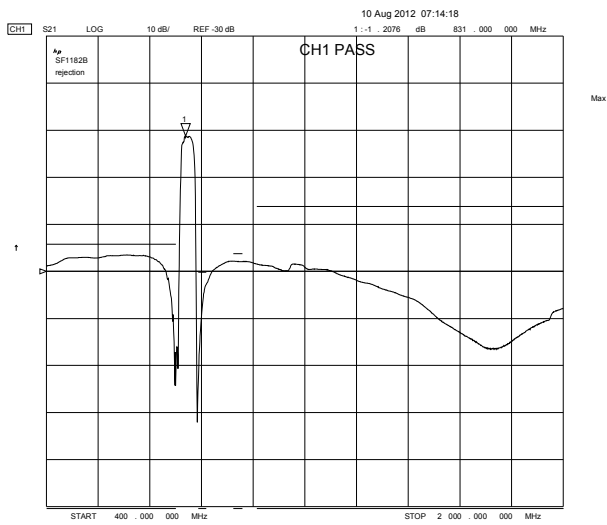


## Electrical Connections

Connection	Terminals
Input	2
Output	5
Ground	All others

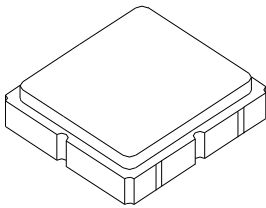


## Filter Response Plots



# SM3030-6 Case

## 6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

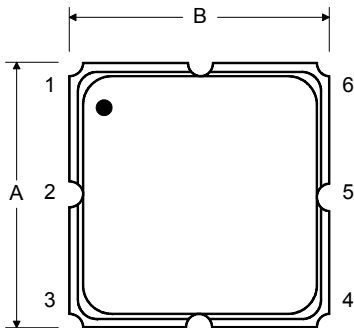


### Case Dimensions

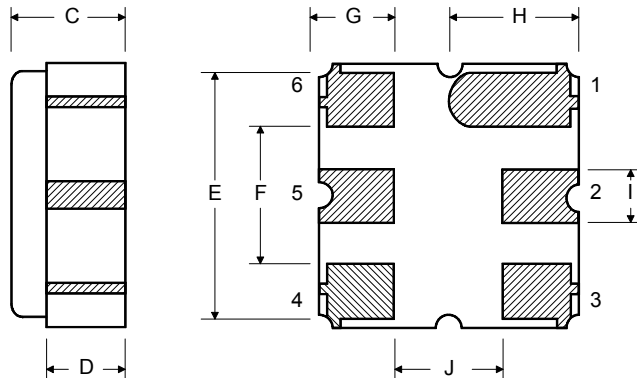
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		3.0			0.118	
B		3.0			0.118	
C		1.3			0.051	
D		0.9			0.035	
E		2.54			0.100	
F		1.6			0.063	
G		0.85			0.033	
H		1.5			0.059	
I		0.6			0.024	
J		1.3			0.051	

Connection		Terminals
Port 1	Single Ended Input	2
Port 2	Single Ended Output	5
	Ground	All others
Single-ended Operation Only		
Dot indicates Pin 1		

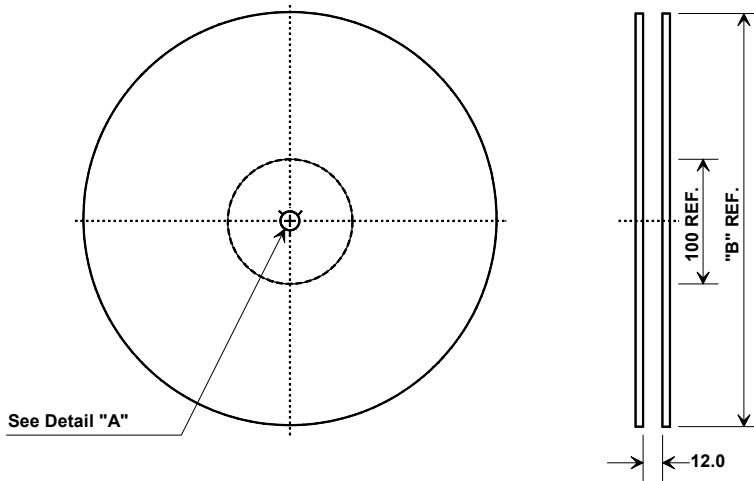
TOP VIEW



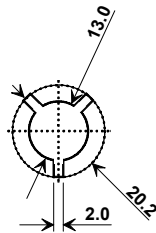
BOTTOM VIEW



## Tape and Reel Specifications



"B"		Quantity Per Reel
Nominal Size		
Inches	millimeters	
7	178	1000
13	330	3000



### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
<b>Ao</b>	3.35 mm
<b>Bo</b>	3.35 mm
<b>Ko</b>	1.4 mm
<b>Pitch</b>	8.0 mm
<b>W</b>	12.0 mm

