

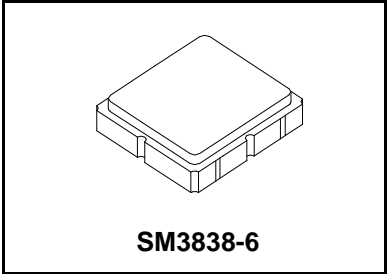


- RF Filter for Pager Applications
- High Rejection Out of Band
- Complies with Directive 2002/95/EC (RoHS)



**SF2008D**

**930.5 MHz  
SAW Filter**



**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Incident Power in Passband	+0	dBm
Max. DC voltage between any 2 Terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for lead-free soldering - Max. Soldering Profile	260°C for 30 s	

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal 1 dB Center Frequency	$f_c$	1		930.5		MHz
Passband Insertion Loss across 928.5 to 932.5 MHz	IL				4.5	dB
Amplitude Variation over $f_c \pm 2$ MHz		1, 2			2.0	dB <sub>P-P</sub>
Rejection	400 to 880 MHz	1, 2, 3	35			dB
	884.8 to 890.2 MHz		40			
	906.8 to 911.2 MHz		30			
	980 to 1300 MHz		35			
Operating Temperature Range	$T_A$	1	-20		+70	°C
Impedance at $f_c$	Input		50 - j57 ohm			
	Output		50 - j57 ohm			

Case Style	SM3838-6 3.8 x 3.8 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	455, YWWS
Standard Reel Quantity	1000 Pieces/Reel
Reel Size 7 Inch	
Reel Size 13 Inch	3000 Pieces/Reel

**Electrical Connections**

Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others

**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."

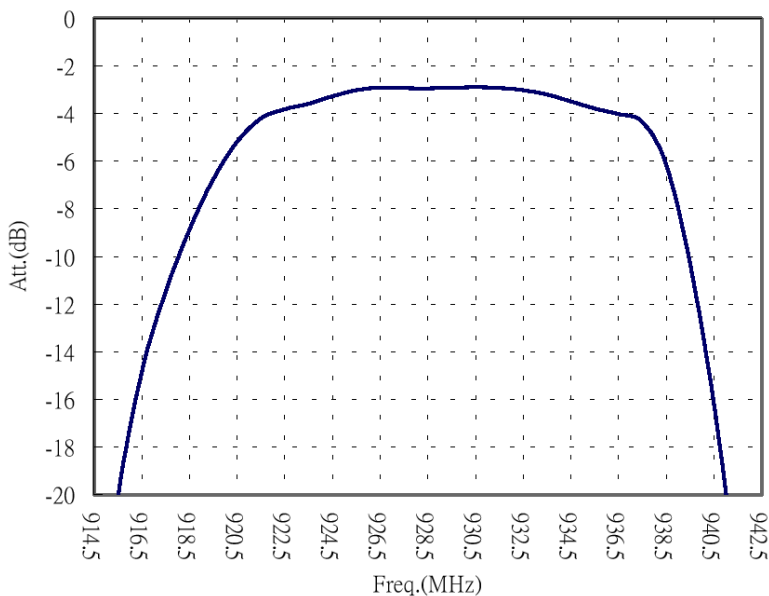
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
9. ©Copyright 1999, RF Monolithics Inc.
10. Electrostatic Sensitive Device. Observe precautions for handling.



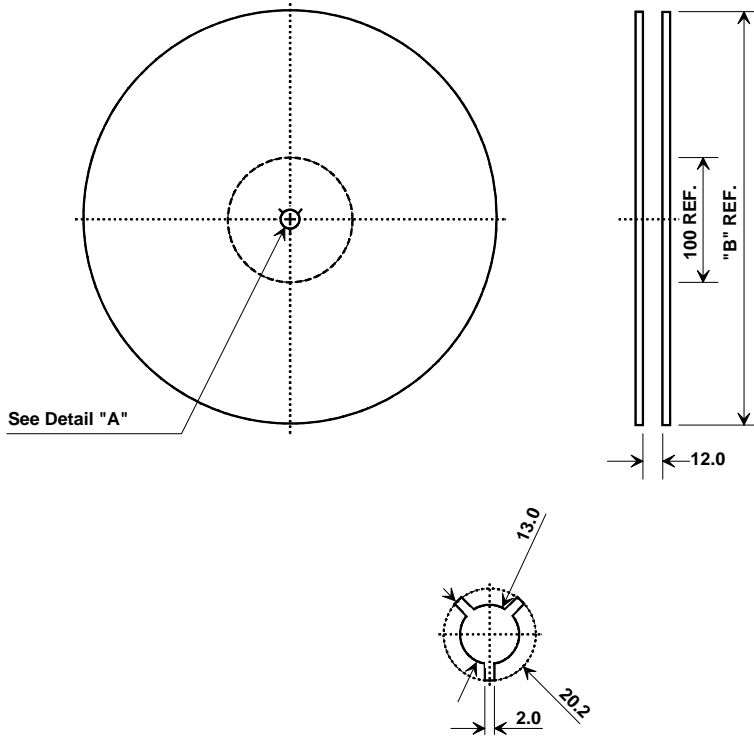
## S21 Wide Span



## S21 Narrow Span



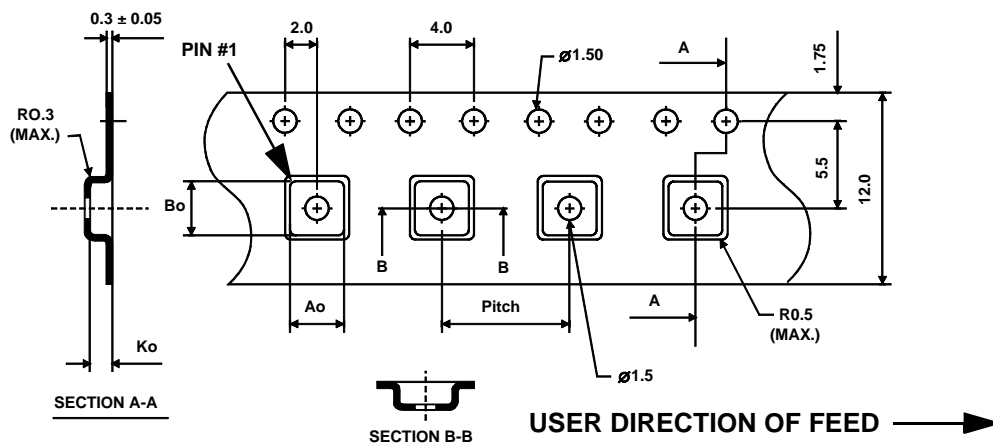
## Tape and Reel Specifications



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

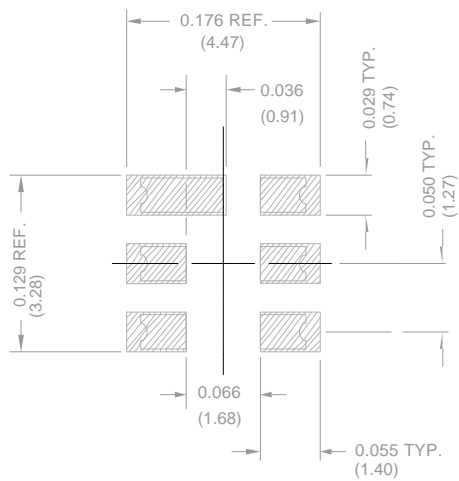
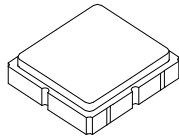
### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 mm
Pitch	8.0 mm
W	12.0 mm



# SM3838-6 Case

## 6-Terminal Ceramic Surface-Mount Case 3.8 X 3.8 mm Nominal Footprint



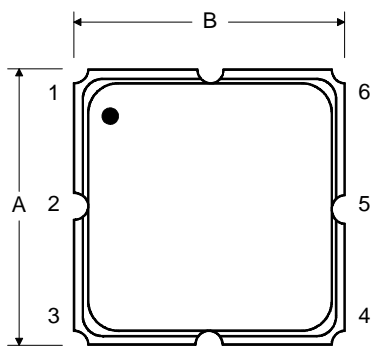
PCB Footprint

Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.60	3.80	4.0	0.14	0.15	0.16
B	3.60	3.80	4.0	0.14	0.15	0.16
C	1.30	1.50	1.70	0.05	0.06	0.067
D	0.95	1.10	1.25	0.037	0.043	0.05
E	2.39	2.54	2.69	0.090	0.10	0.110
G	0.90	1.0	1.10	0.035	0.04	0.043
H	1.90	2.0	2.10	0.75	0.08	0.83
I	0.50	0.6	0.70	0.020	0.024	0.028
J	1.70	1.8	1.90	0.067	0.07	0.075

Electrical Connections		
Connection	Terminals	
Port 1	Single Ended Input	2
Port 2	Single Ended Output	5
	Ground	All others
<b>Single Ended Operation Only</b>		
Dot indicates Pin 1		

Materials	
Solder Pad Termination	Au plating 30 - 60 μinches (76.2-152 μm) over 80-200 μinches (203-508 μm) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μinches Thick
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic
Pb Free	

TOP VIEW



BOTTOM VIEW

