

- · Low Insertion Loss
- 5.0 x 7.0 mm Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)

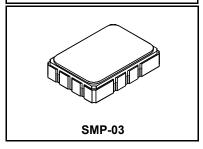


Absolute Maximum Ratings

Rating	Value	Units	
Maximum Incident Power in Passband	+10	dBm	
Maximum DC Voltage Between any 2 Terminals	30	VDC	
Storage Temperature Range	-40 to +85	°C	
Maximum Soldering Temperature	265°C	265°C for 10 s	

SF2059B-1

137.50 MHz **SAW Filter**



Electrical Characteristics

Characteristic	Sym	Notes	Min	Тур	Max	Units
Nominal Center Frequency	f _C	1		137.50		MHz
Minimum Insertion Loss	IL	·		8.3	9.1	dB
1 dB Bandwidth	BW ₁	1, 2	0.80	0.86		MHz
3 dB Bandwidth	BW ₃	1		1.0		1 1711 12
Amplitude Ripple, 137.1 to 137.9 MHz		1, 2		0.85	1.3	dB _{P-P}
40 dB Bandwidth		1, 2			7.0	MHz
Operating Temperature Range	T _A	1	-40		+85	°C
Input and Output Impedance			L-C Match to 50 ohms			
Case Style		5	SMP-03 7 x 5 mm Nominal Footprint		orint	
Lid Symbolization (YY=year, WW=week, S=shift) See note 4			RFM SF2059B-1 YYWWS##			

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 50Ω and measured with 50Ω network analyzer.

 Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.

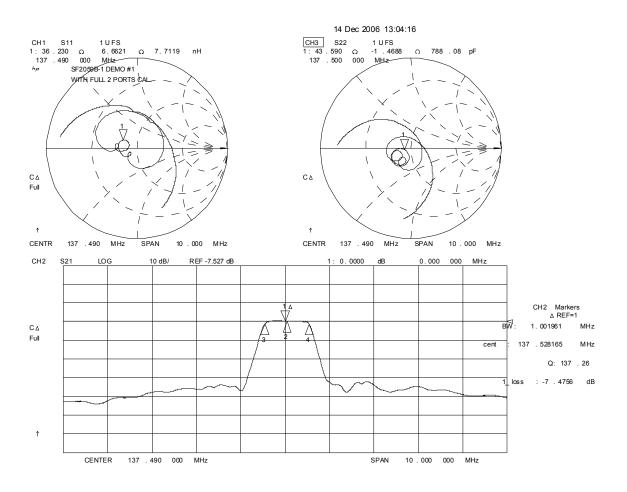
 The design, manufacturing process, and specifications of this filter are subject to change.

 Tape and Reel Standard Per ANSI / EIA 481.

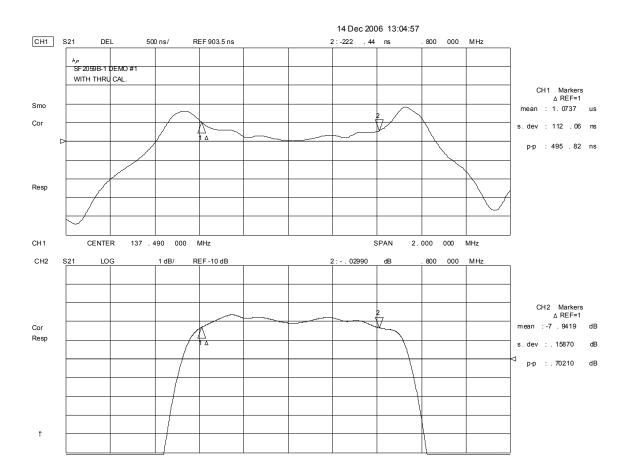
- Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
- US and international patents may apply.

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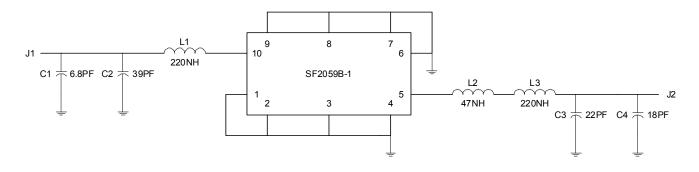
SF2059B-1 Amplitude Response and Input/Output Impedance Plots



SF2059B-1 Passband Amplitude and Group Delay Plots



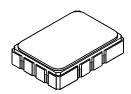
SF2059B-1 Test Circuit



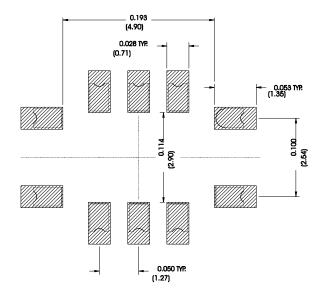
INDUCTOR, 1008CS CAP, 0805

SMP-03 Case

10-Terminal Ceramic Surface-Mount Case 7 x 5 mm Nominal Footprint



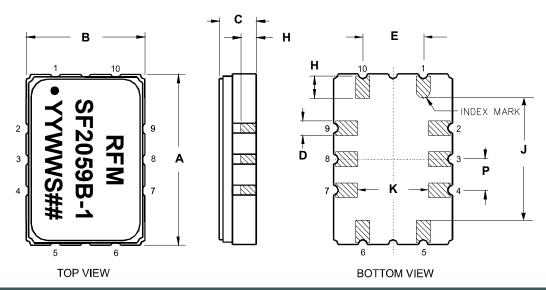
Recommended PCB Footprint



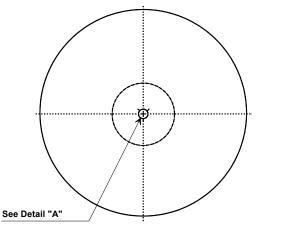
Case Dimens	Case Dimensions					
Dimension	mm		Inches			
	Min	Nom	Max	Min	Nom	Max
Α	6.80	7.00	7.20	0.268	0.276	0.283
В	4.80	5.00	5.20	0.189	0.197	0.205
С	1.50	1.65	2.00	0.059	0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
Н	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

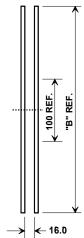
Materials				
Solder Pad	Au plating 30 - 60 μinches (76.2-152 μm) over 80-			
Termination	200 μinches (203-508 μm) Ni.			
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 µinches Thick			
Body	Al ₂ O ₃ Ceramic			
Pb Free				

Electrical Connections				
	Connection	Terminals		
Port 1	Input or Return	10		
	Return or Input	1		
Port 2	Output or Return	5		
	Return or Output	6		
	Ground	All others		
Single Ended Operation		Return is ground		
Differential Operation		Return is hot		

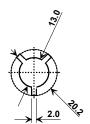


Tape and Reel Specifications





"B "		Quantity Per Reel	
Inches	millimeters	quantity : or recor	
7	178	500	
13	330	2000	



COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions				
Ao	5.5 mm			
Во	7.5 mm			
Ko	2.0 mm			
Pitch	8.0 mm			
W	16.0 mm			

