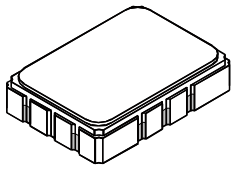
SF1140B-2

75.00 MHz
SAW Filter

- ***Designed for SDARS IF Receiver***
- ***Low Insertion Loss***
- ***5.0 X 7.0 mm Surface-Mount Case***
- ***Differential Input and Output***
- ***Complies with Directive 2002/95/EC (RoHS)***



SMP-03

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +105	°C
Max Soldering Profile	265°C for 10 s	

Electrical Characteristics

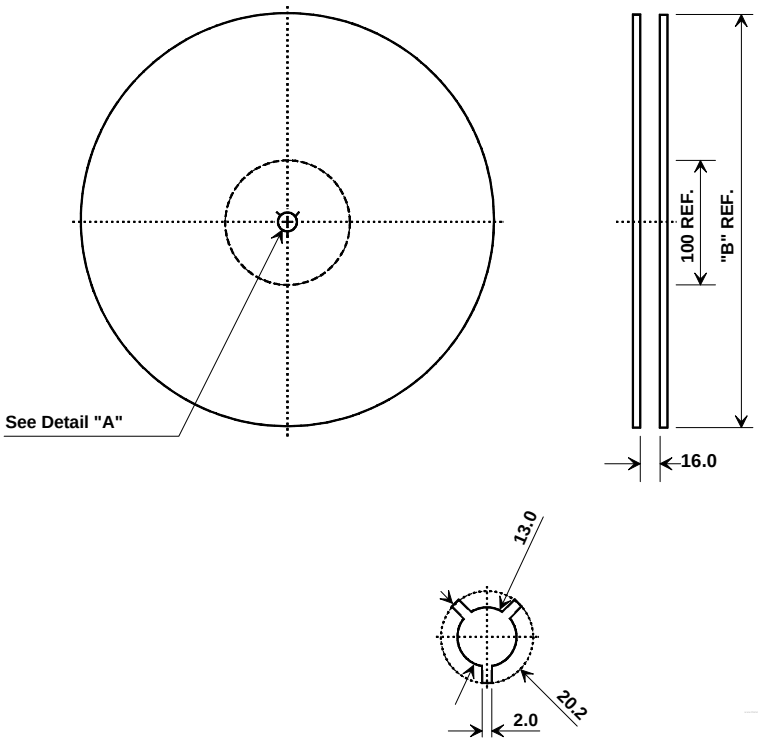
Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_C	1		75.000		MHz
Passband Insertion Loss at fc	IL			11.0	13.0	dB
1dB Passband	BW_1	1, 2	±2.1	±2.7		MHz
Fast Amplitude Ripple over fc ±2.1 MHz					1.0	dB_{P-P}
Group Delay Variation over fc ±2.1 MHz	GDV			40	200	ns_{P-P}
Rejection fc-15 to fc-7.15 and FC+15 to FC+65 MHz		1, 2, 3	40	43		dB
fc+7.15 to fc+15 MHz			36			
Operating Temperature Range	T_A	1	-40		+105	°C
Differential Input and Output Impedance				250 ohms		
Case Style		6		SMP-03 7 x 5 mm Nominal Footprint		
Lid Symbolization (YY=year, WW=week, S=shift) See note 4				RFM SF1140B-2 YYWWS		

Electrical Connections

Connection	Terminals
Port 1 Hot	10
Port 1 Ground Return	1
Port 2 Hot	5
Port 2 Ground Return	6
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 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
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. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
10. ©Copyright 1999, RF Monolithics Inc.
11. Electrostatic Sensitive Device. Observe precautions for handling.

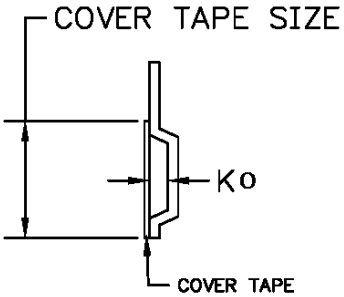
Tape and Reel Specifications

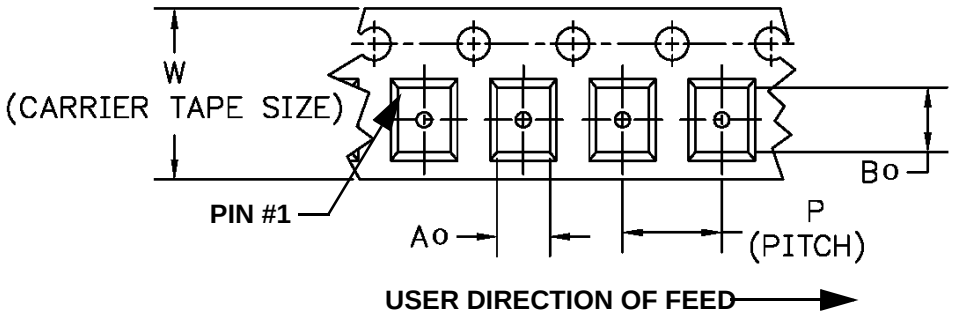


"B " Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000

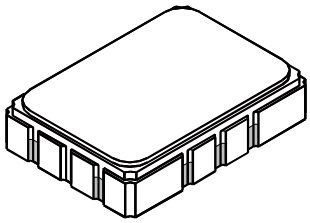
COMPONENT ORIENTATION and DIMENSIONS

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





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

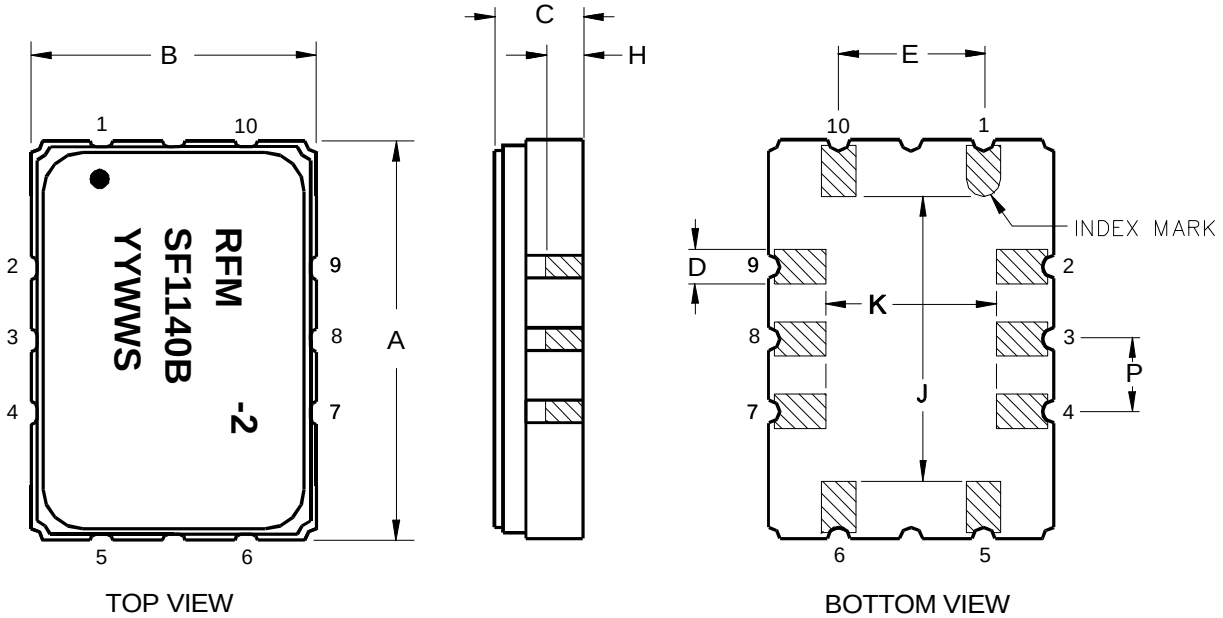


Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D		0.60			0.024	
E		2.54			0.100	
H		1.0			0.039	
J		5.00			0.197	
K		3.00			0.118	
P		1.27			0.050	

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**



TOP VIEW BOTTOM VIEW