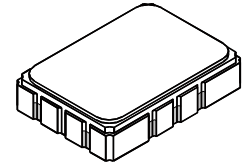


- *Designed for SDARS IF Receiver*
- *Low Insertion Loss*
- *5.0 X 7.0 mm Surface-Mount Case*
- *Differential Input and Output*
- *Complies with Directive 2002/95/EC (RoHS)*



SF1141B-4

**75.00 MHz
SAW Filter**



SMP-03-S

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 +85	°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 f_C	IL	1, 2		12.5	16.0	dB
	1dB Passband BW_1		± 6.35	± 7.43		MHz
Fast Amplitude Ripple over $f_C \pm 6.35$ MHz		1, 2			1.5	dB _{P-P}
Group Delay Variation over $f_C \pm 6.35$ MHz	GDV			75	200	ns _{P-P}
Rejection		1, 2, 3	fc-100 to fc-18.8 MHz	40	45	dB
			fc-18.8 to fc-10.95 MHz	37	45	
			fc+10.95 to fc+18.8 MHz	30	36	
			fc+18.8 to fc+100 MHz	40	45	
Operating Temperature Range	T_A	1	-40		+85	°C
Differential Input and Output Impedance	250 ohms					
Case Style	SMP-03-S 7 x 5 mm Nominal Footprint					
Lid Symbolization (YY=year, WW=week, S=shift) See note 4	RFM SF1141B-4 YYWWS					

Electrical Connections

Connection	Port 1 Hot	Port 1 Ground Return or Hot	Port 2 Hot	Port 2 Ground Return or Hot	Case Ground
Terminals	10	1	5	6	All Others

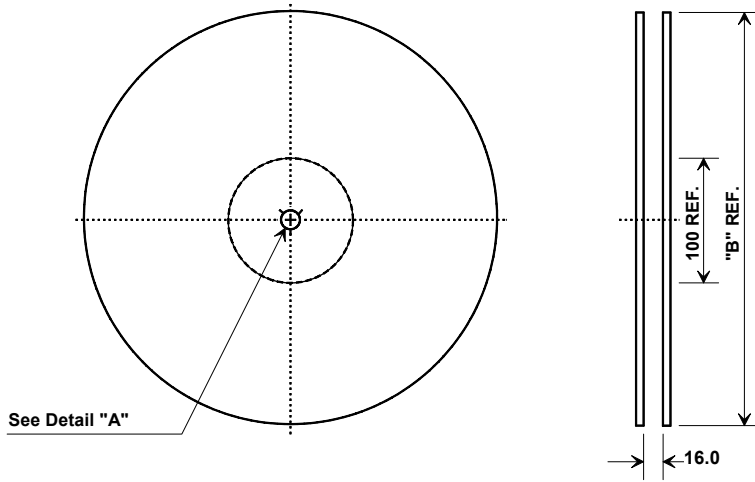


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

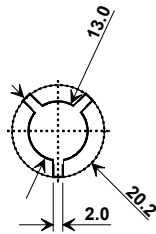
NOTES:

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, f_C .
3. The design, manufacturing process, and specifications of this filter are subject to change.
4. 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.
5. US and international patents may apply.

Tape and Reel Specifications

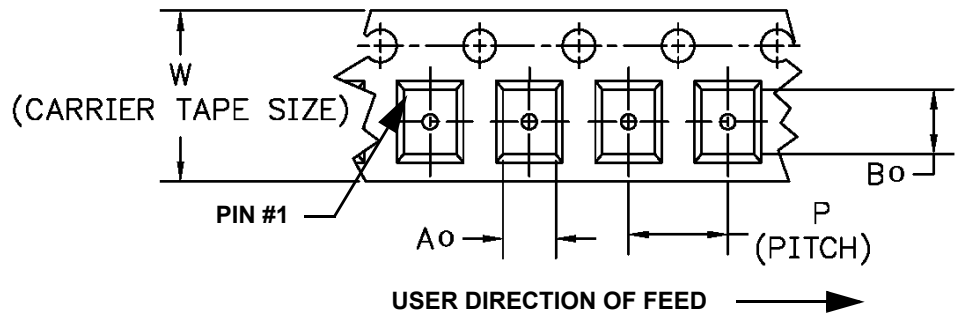
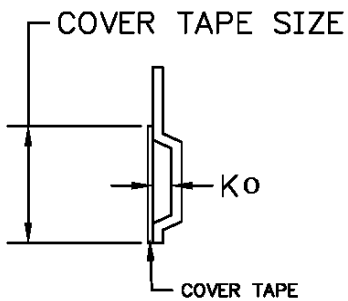


"B "		Quantity Per Reel
Nominal Size		
Inches	millimeters	
7	178	500
13	330	2000



COMPONENT ORIENTATION and DIMENSIONS

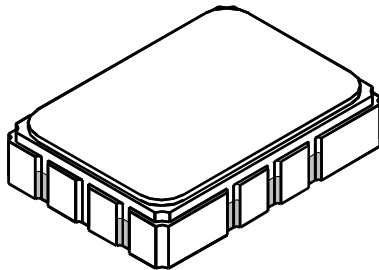
Carrier Tape Dimensions		Tolerance
Ao	5.5 mm	± 0.1mm
Bo	7.5 mm	± 0.1mm
Ko	2.0 mm	± 0.1mm
Pitch	8.0 mm	± 0.1mm
W	16.0 mm	± 0.2mm



SMP-03-S Case

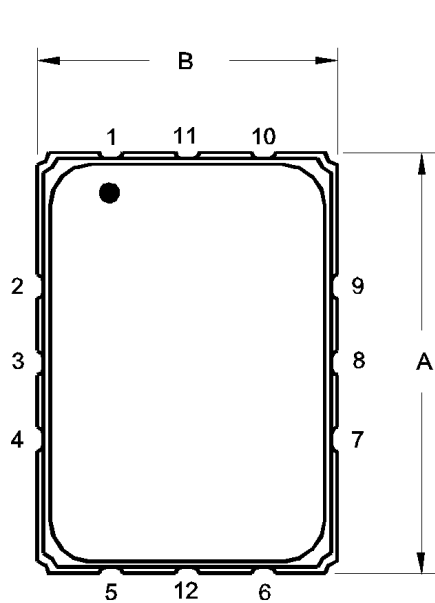
12-Terminal Ceramic Surface-Mount Case

5 x 7 mm Nominal Footprint

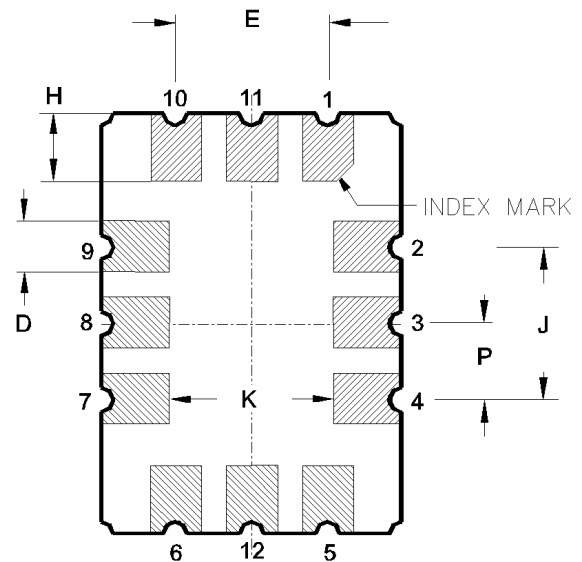
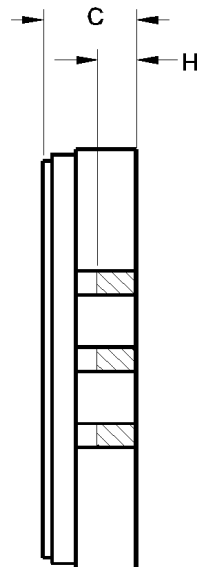


Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D		0.80				
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.1	1.13	0.034	0.039	0.044
J		2.54				
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

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



TOP VIEW



BOTTOM VIEW

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