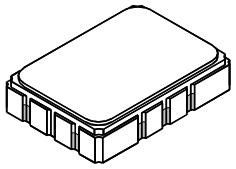
RFM
A BRAND OF AKOUSTIS

RoHS compliant

SF1143B-1

315 MHz SAW Notch 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)***
- ***Moisture Sensitivity Level: 1***
- ***AEC-Q200 Qualified***



SMP-03

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage on any Ungrounded Terminal	30	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_C			315.0		MHz
Passband Insertion Loss at fc	IL			15.1	17.0	dB
Passband 1 low frequency	BW_3				309.400	MHz
Passband 1 high frequency			313.435			MHz
Passband 2 low frequency					317.965	MHz
Passband 2 high frequency			321.685			MHz
Notch 3 dB rejection band relative to Passband 1 and Passband 2:						MHz
3 dB low frequency rejection					315.030	
3 dB high frequency rejection			315.865			
Maximum Notch Depth at fc			-10			dB
Amplitude Ripple over Passband 1 + Passband					1.0	dB_{P-P}
Group Delay Variation over Passband 1 + Passband 2	GDV			23	200	ns_{P-P}
Rejection 100 MHz to fc-10.3 and fc+10.3 to fc+100 MHz			40			dB
Operating Temperature Range	T_A		-40		+85	°C
Differential Input and Output Impedance	250 ohms					
Case Style			SMP-03 7 x 5 mm Nominal Footprint			
Lid Symbolization (YY=year, WW=week, S=shift, ## = Sequence Code)			RFM, SF1143B-1, 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

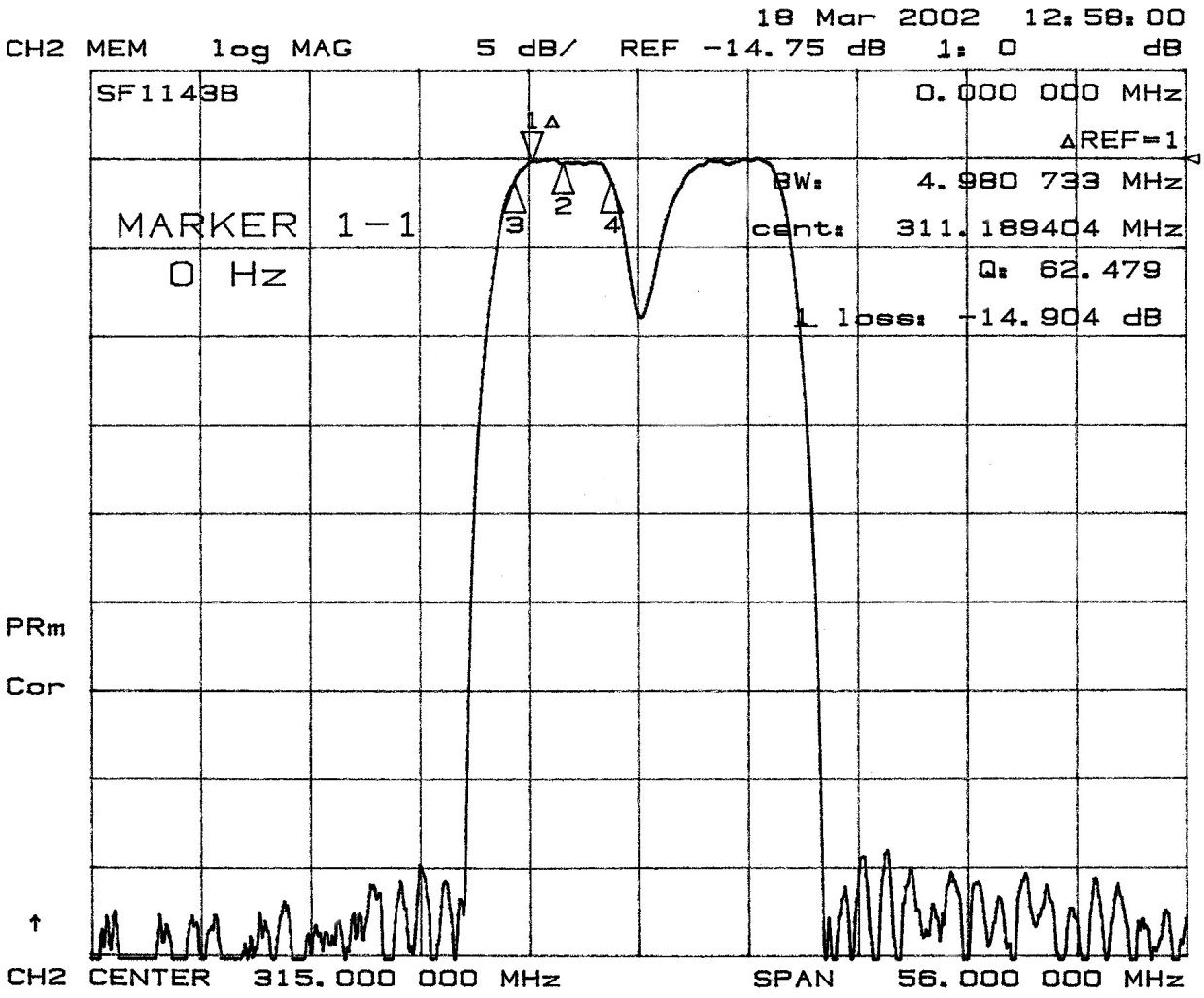
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

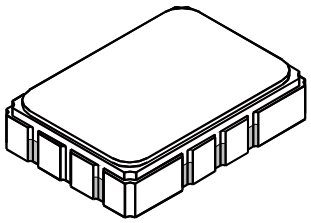
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SF1143B-1 Response Plot



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

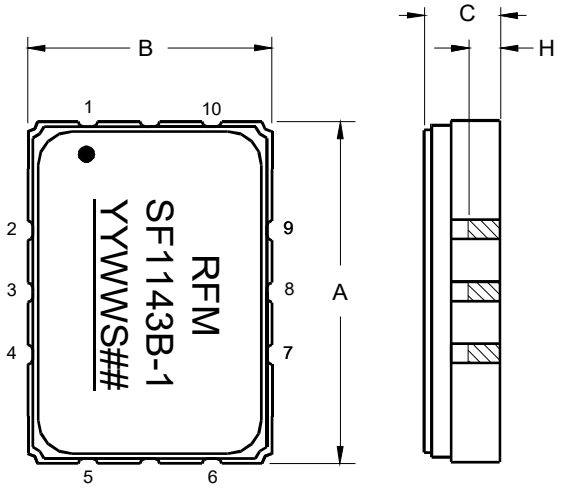


Case Dimensions

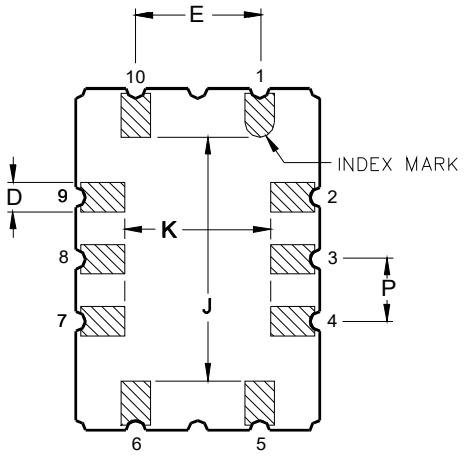
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D		0.60			0.024	
E		2.54			0.100	
H		1.0			0.039	
J		5.00			0.197	
K		3.00			0.118	
P		1.27			0.050	

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

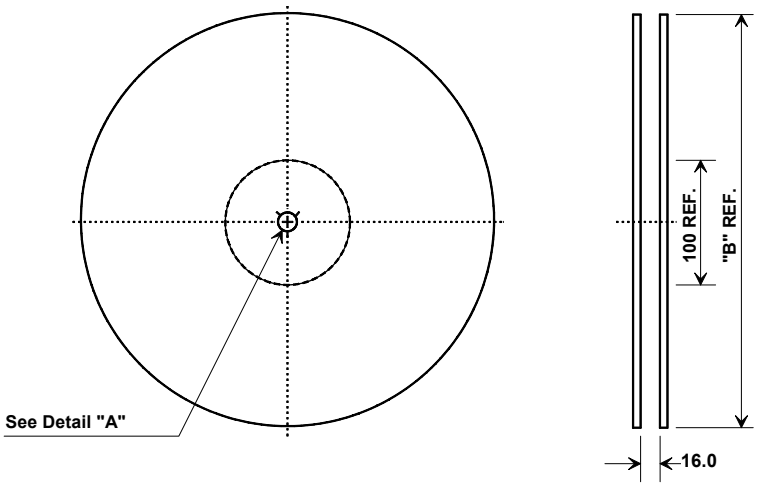


BOTTOM VIEW

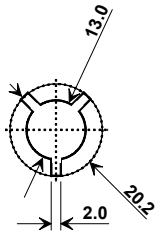
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Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

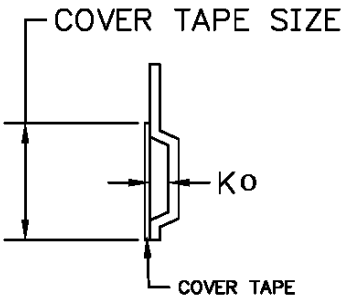


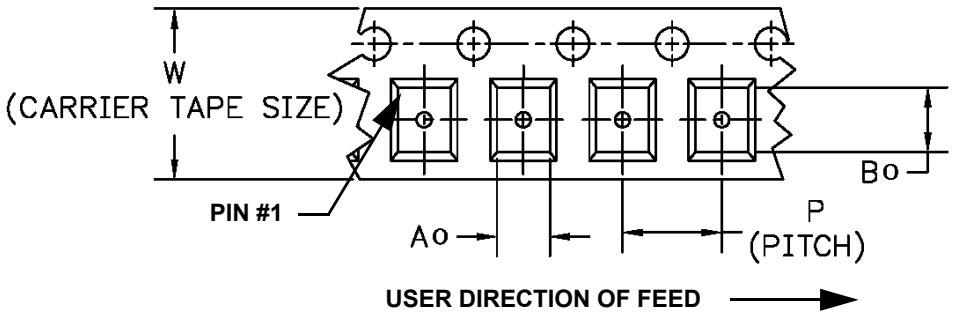
"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000



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

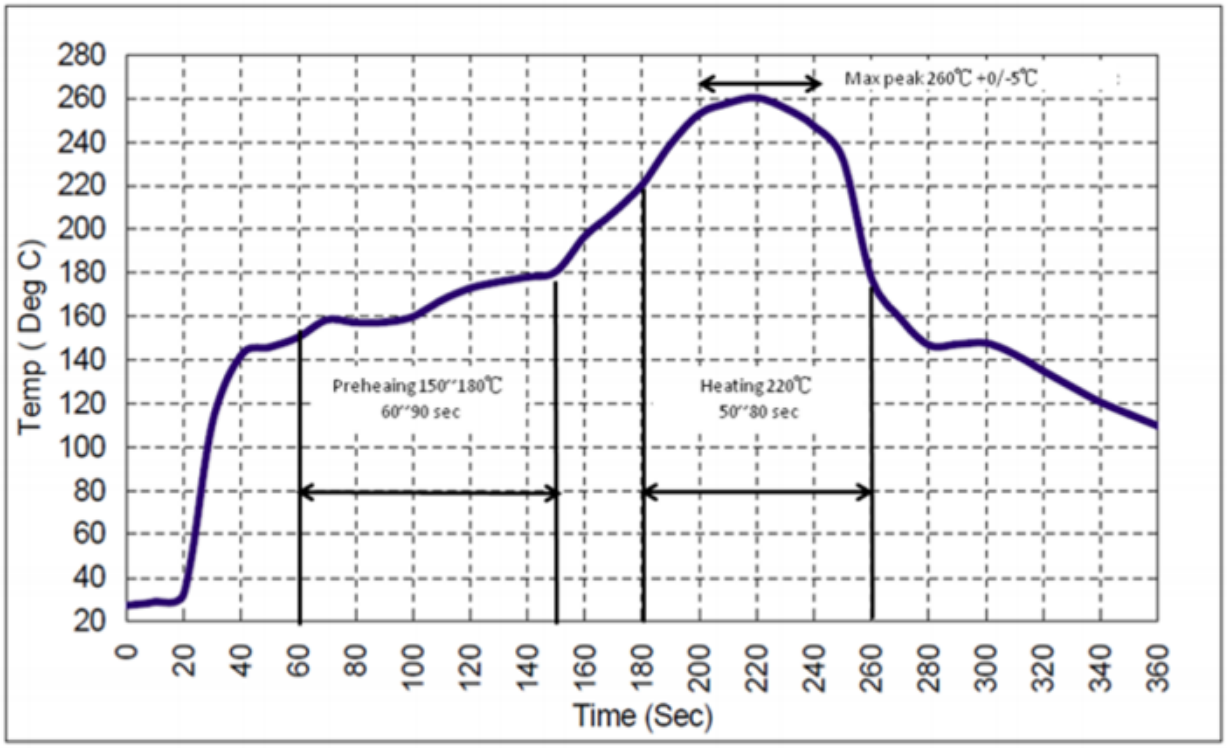




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Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (10 seconds).
4. Time: 5 times maximum.



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