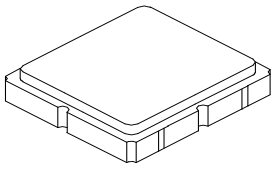
SF2208E

1227 MHz SAW Filter

- ***No Matching Network Required for 50 ΩOperation***
- ***Surface-mount 3.0 x 3.0 mm Package***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level: 1***

RoHS Compliant



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	20	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-20 to +70	°C
Storage Temperature Range in Tape and Reel	-30 to +85	°C
Solder Reflow Temperature, 10 seconds, 5 cycles maximum	260	°C

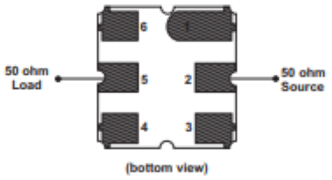
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			1227		MHz
Insertion Loss, 1227 MHz	IL			0.95	1.30	dB
Amplitude Ripple, 1217 to 1237 MHz				0.1	0.8	
Input/Output VSWR, 1217 to 1237 MHz				1.3:1	2.0:1	
Attenuation, 0 dB Reference:						dB
DC to 600 MHz			10	26.4		
600 to 1177 MHz			10	21.6		
1277 to 1290 MHz			20	36.0		
1290 to 3000 MHz			10	25.2		
Source Impedance	Z_S			50		Ω
Load Impedance	Z_L			50		

Case Style		SM3030-6 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator		943, YWWS
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others



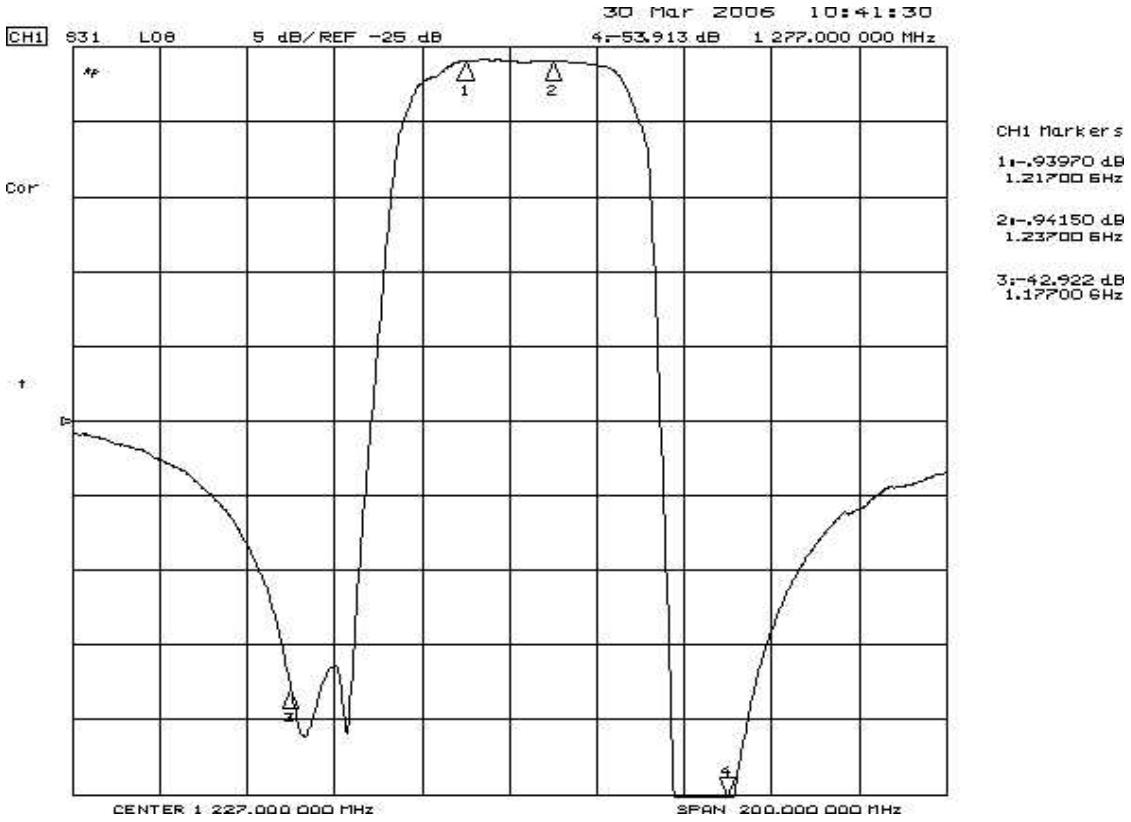
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

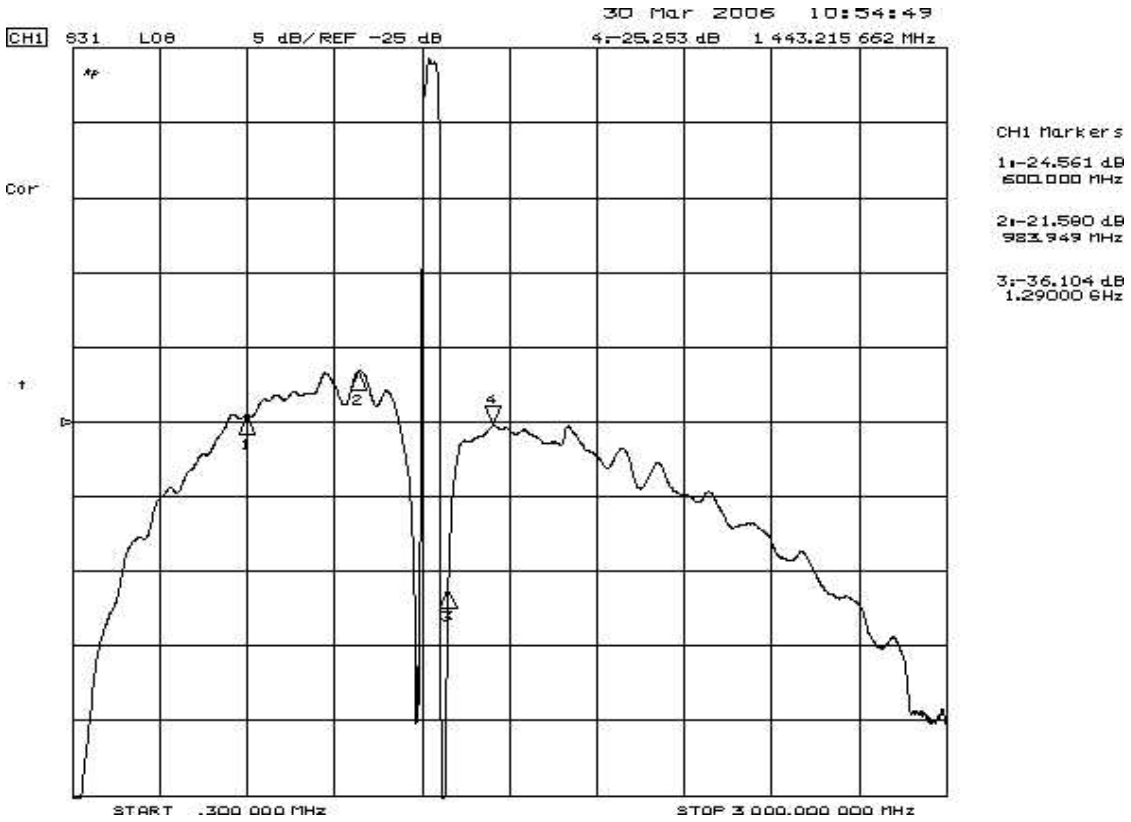
NOTES:

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.

Copyright © 2015 by RFM Integrated Device, Inc.

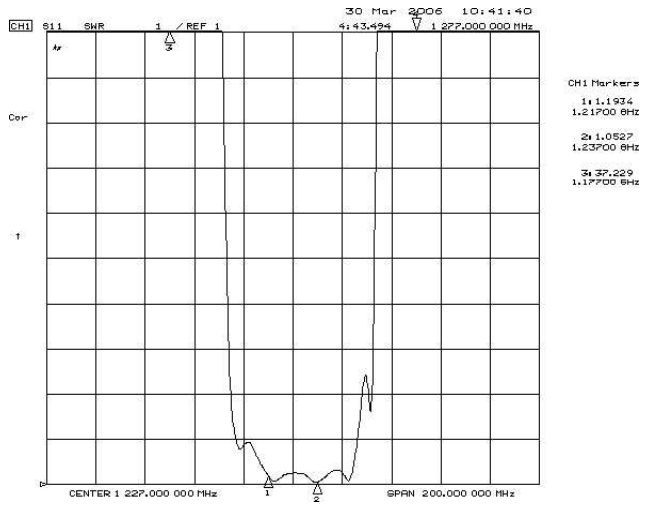
Filter Frequency Response

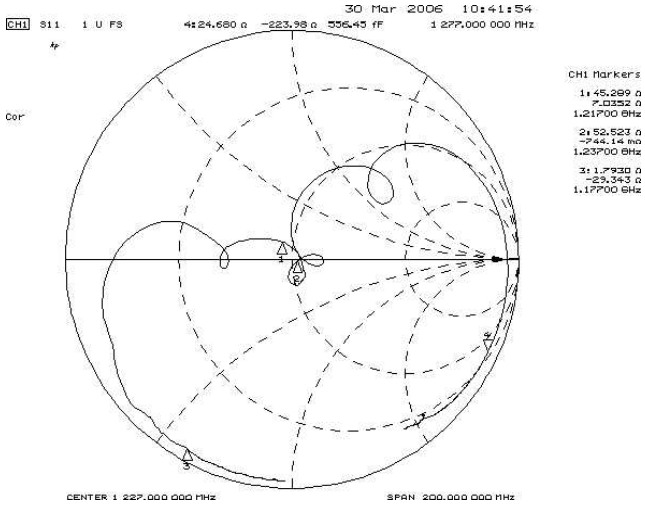




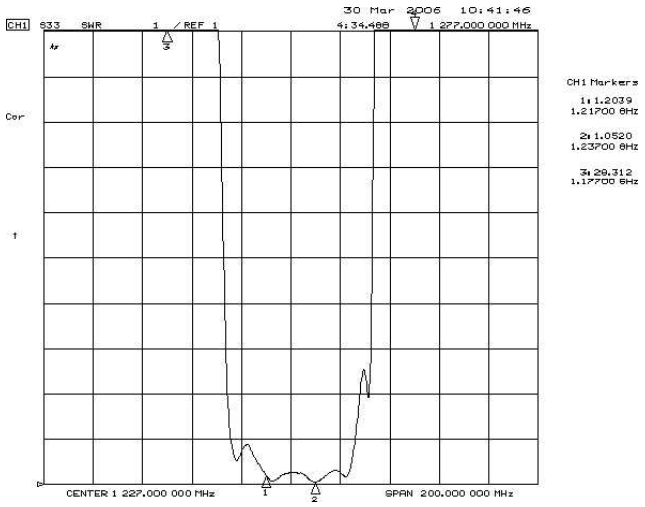
Copyright © 2015 by RFM Integrated Device, Inc.

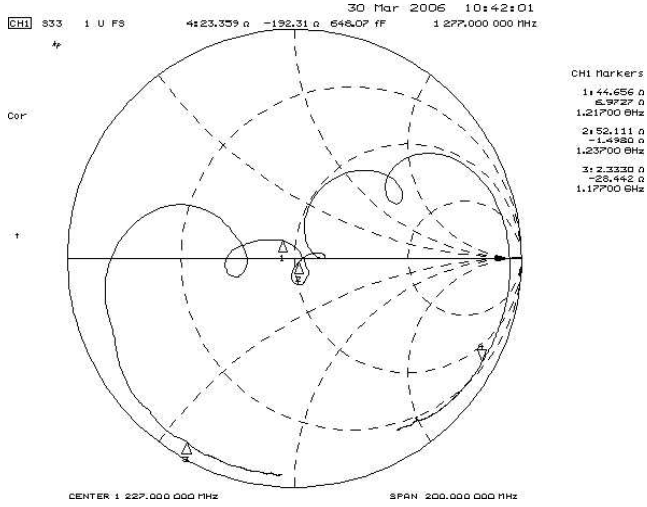
Filter Input Impedance





Filter Output Impedance

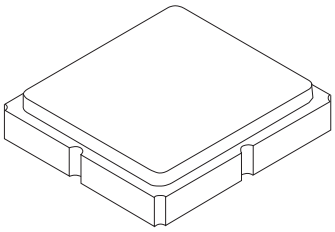


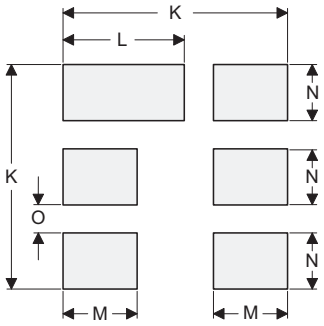


Copyright © 2015 by RFM Integrated Device, Inc.

SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint





PCB Footprint Top View

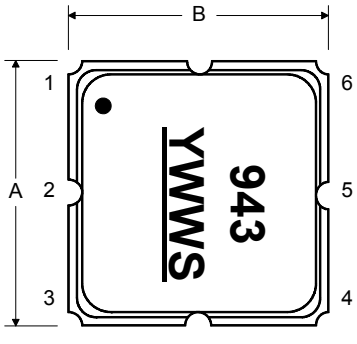
Case and PCB Footprint Dimensions

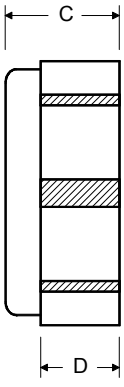
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	

Case Materials

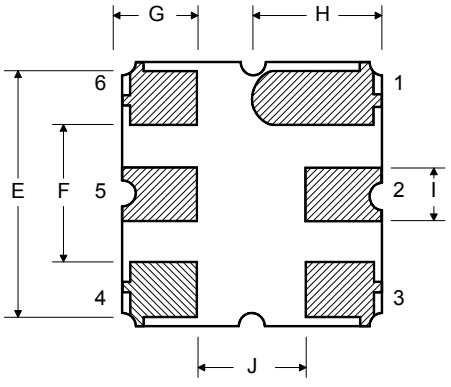
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic

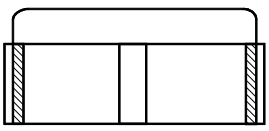
TOP VIEW





BOTTOM VIEW

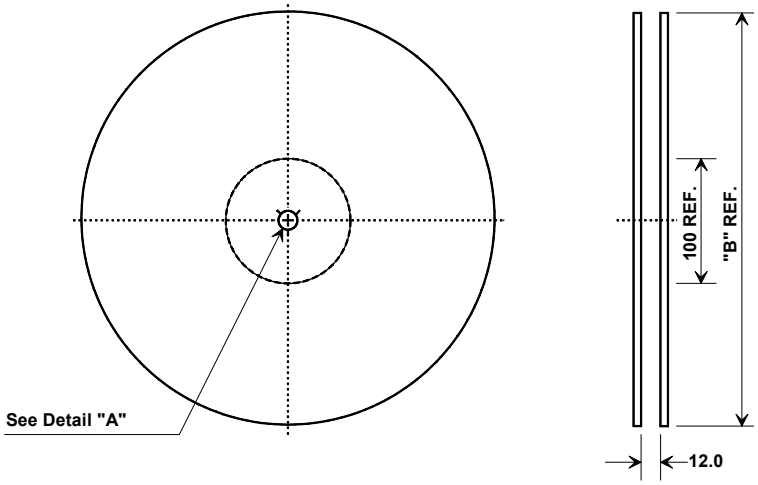


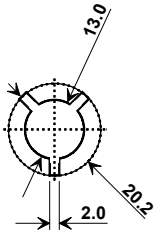


Copyright © 2015 by RFM Integrated Device, Inc.

Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

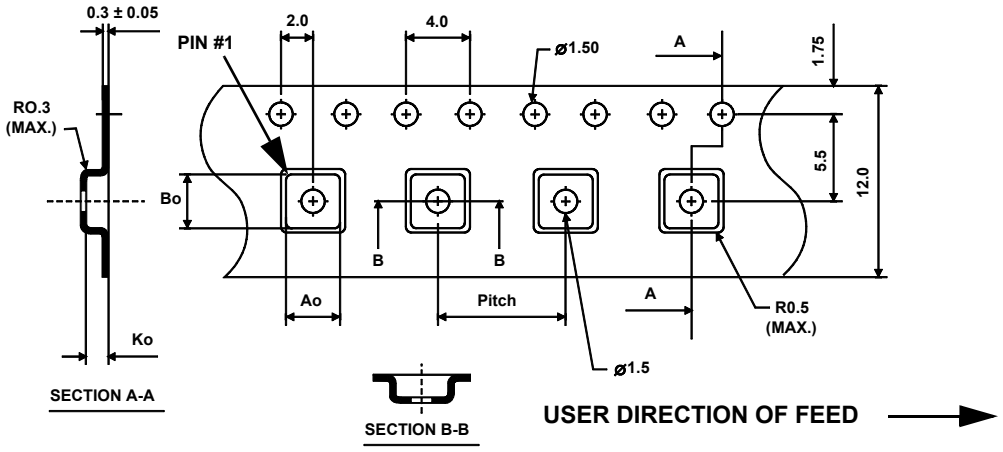




"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

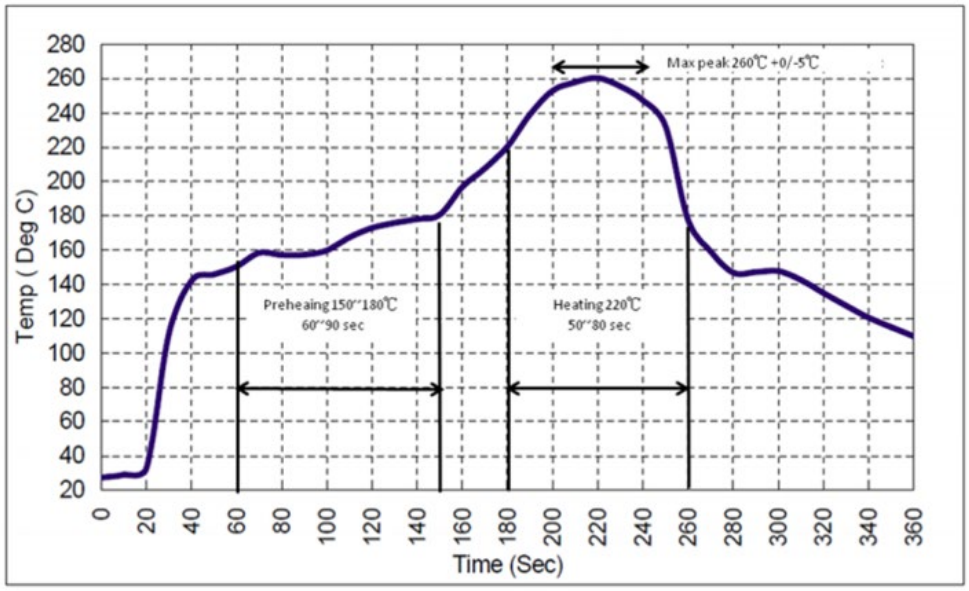
COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.40 mm
Pitch	8.0 mm
W	12.0 mm



Recommended Reflow Profile

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



Copyright © 2015 by RFM Integrated Device, Inc.