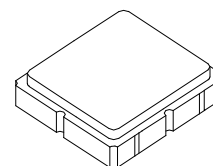




- **Steep Roll-off Filter for 869.00 MHz Unlicensed band**
- **Complies with Directive 2002/95/EC (RoHS)** 
- **No Matching Required for Operation in 50W Environment**

SF2137E

869.00 MHz SAW Filter



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	17	dBm
DC Voltage	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range	-40 to +85	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	F_C			869.00		MHz
Bandwidth, 1dB				11		MHz
Bandwidth, 3dB				17		MHz
Insertion Loss within 868 ~ 870 MHz	IL			2.8	4.0	dB
Amplitude Ripple (p-p) 868 ~ 870 MHz				0.2	1.5	
Absolute Attenuation	825~828 MHz		40	47		
	835~842 MHz		30	39		
	891~894 MHz		30	42		
	910~913 MHz		40	47		
Source Impedance	Z_S			50		Ω
Load Impedance	Z_L			50		Ω

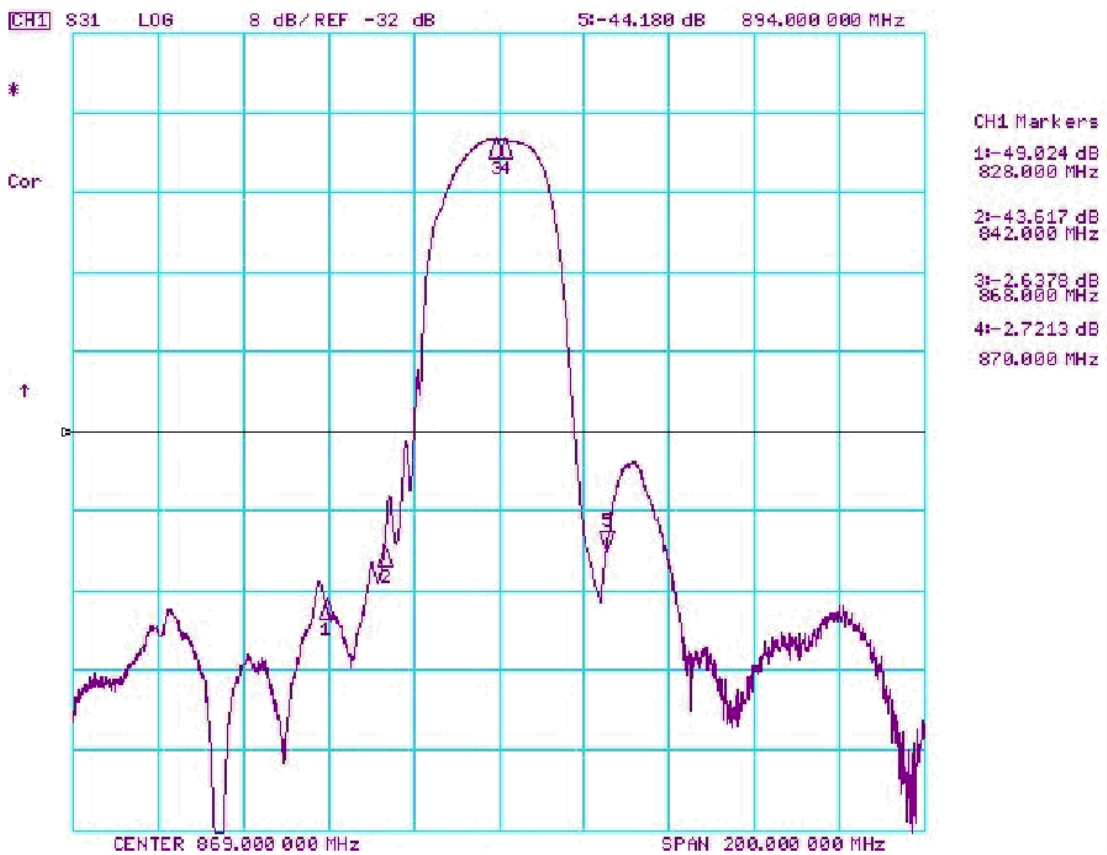
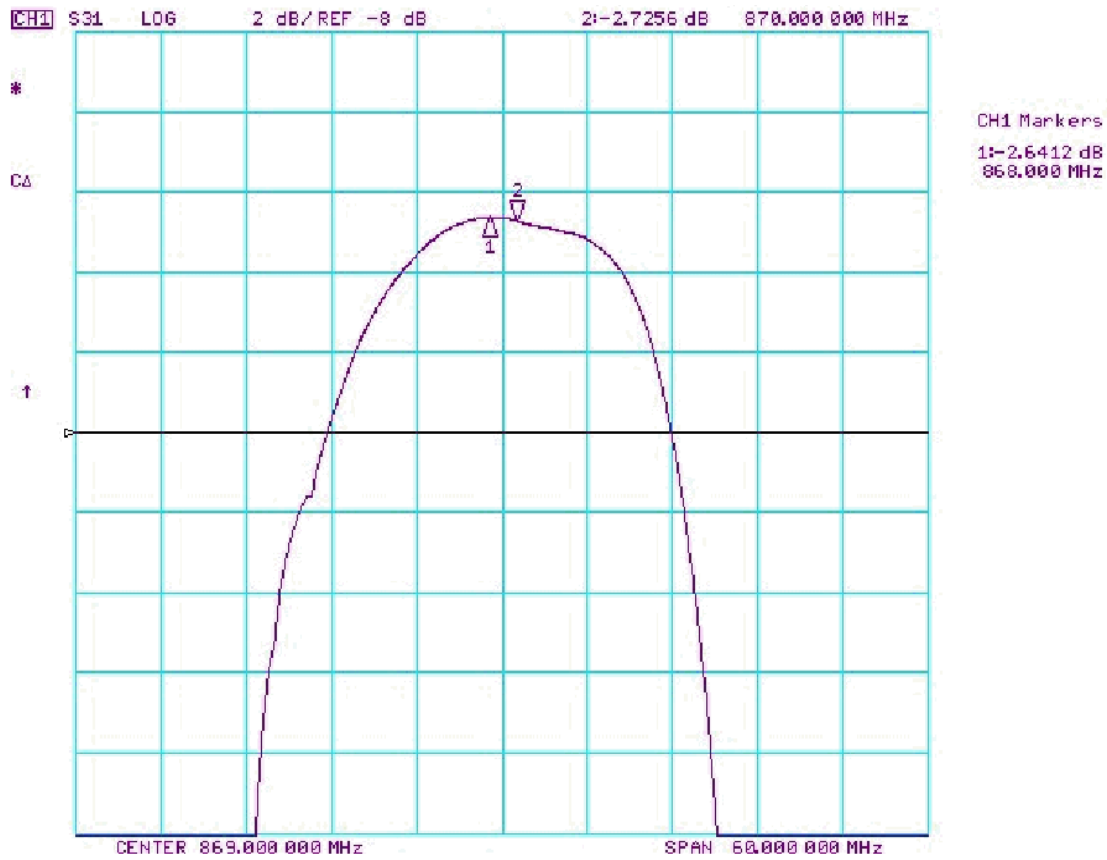
Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	711, YWWS	
Standard Reel Quantity	Reel Size 7 Inch	1000 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

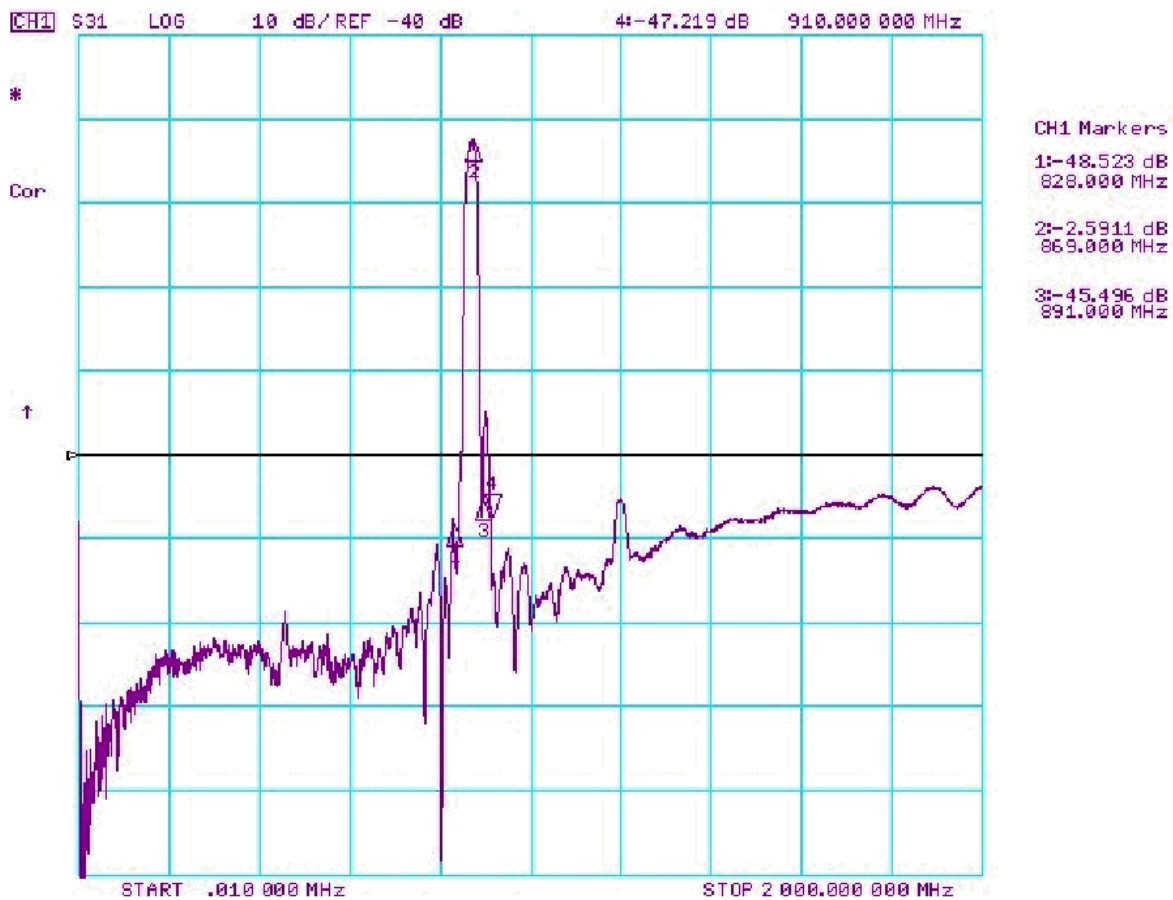
Electrical Connections

Connection	Terminals
Port 1	2
Port 2	5
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, f_c .
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. The design, manufacturing process, and specifications of this filter are subject to change.
5. US and international patents may apply.
6. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
7. ©Copyright 1999, RF Monolithics Inc.
8. Electrostatic Sensitive Device. Observe precautions for handling 





See Detail "A"

100 REF.

"B" REF.

12.0

13.0

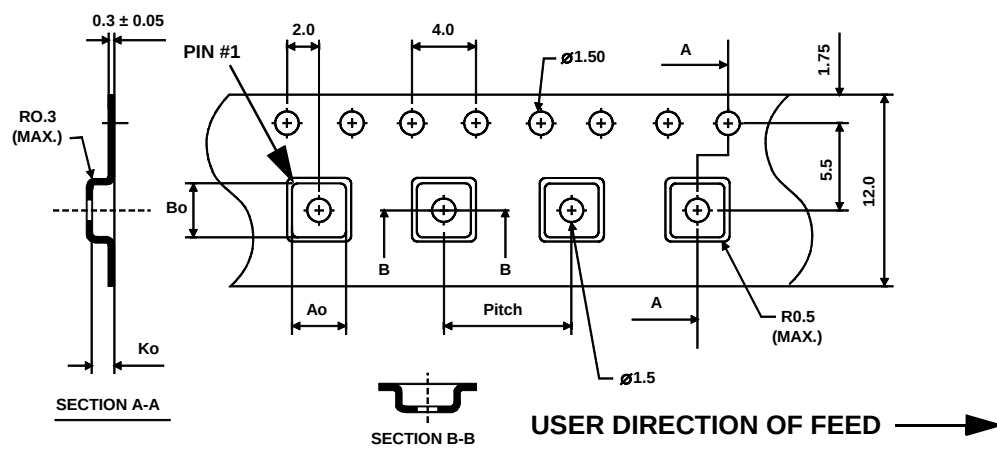
20.2

2.0

This technical drawing shows a circular component with a central hole. The main view is a top-down view with a dashed circle indicating the hole's location. A leader line points from the text "See Detail 'A'" to the center of the hole. To the right, a side view shows the component's profile with a central hole. Dimensions are provided: 100 REF. for the hole's diameter, "B" REF. for the component's height, and 12.0 for the hole's offset from the center. A cross-section view at the bottom shows the internal structure with dimensions 13.0, 20.2, and 2.0.

“B “ Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	1000
13	330	3000

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



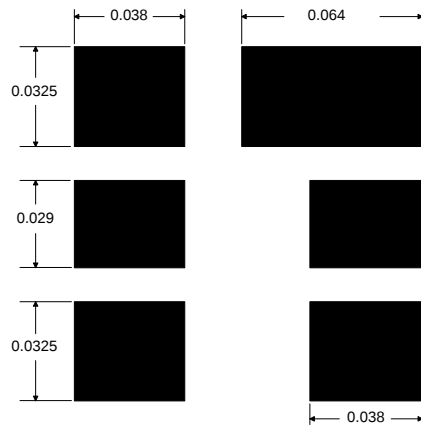
SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case

3.0 X 3.0 mm Nominal Footprint

Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.0	3.13	0.113	0.118	0.123
B	2.87	3.0	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.9	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.6	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.5	1.63	0.054	0.059	0.064
I	0.47	0.6	0.73	0.019	0.024	0.029
J	1.17	1.3	1.43	0.046	0.051	0.056

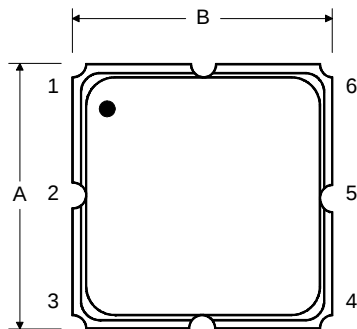


Foot Print Dimensions in Nominal Inches

Electrical Connections

Connection		Terminals
Port 1	Single Ended Input	2
Port 2	Single Ended Output	5
	Ground	All others
Single Ended Operation Only		
Dot indicates Pin 1		

TOP VIEW



BOTTOM VIEW

