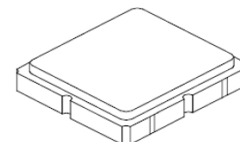


- **Steep Roll-off Filter for 869.00 MHz Unlicensed Band**
- **Complies with Directive 2002/95/EC (RoHS)**
- **No Matching Required for Operation in 50Ω Environment**
- **Moisture Sensitivity Level: 1**

SF2137E

**869.00 MHz
SAW Filter**



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	17	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 Cycles/10 seconds Maximum	265	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			869.00		MHz
Bandwidth, 1 dB				11		
Bandwidth, 3 dB				17		
Insertion Loss, 868 to 870 MHz	IL			2.8	4.0	dB
Amplitude Ripple, 868 to 870 MHz				0.2	1.5	dB _{P-P}
Attenuation Referenced to 0 dB:						dB
825 to 828 MHz			40	47		
835 to 842 MHz			30	39		
891 to 894 MHz			30	42		
910 to 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, <u>YWWS</u>					

Electrical Connections

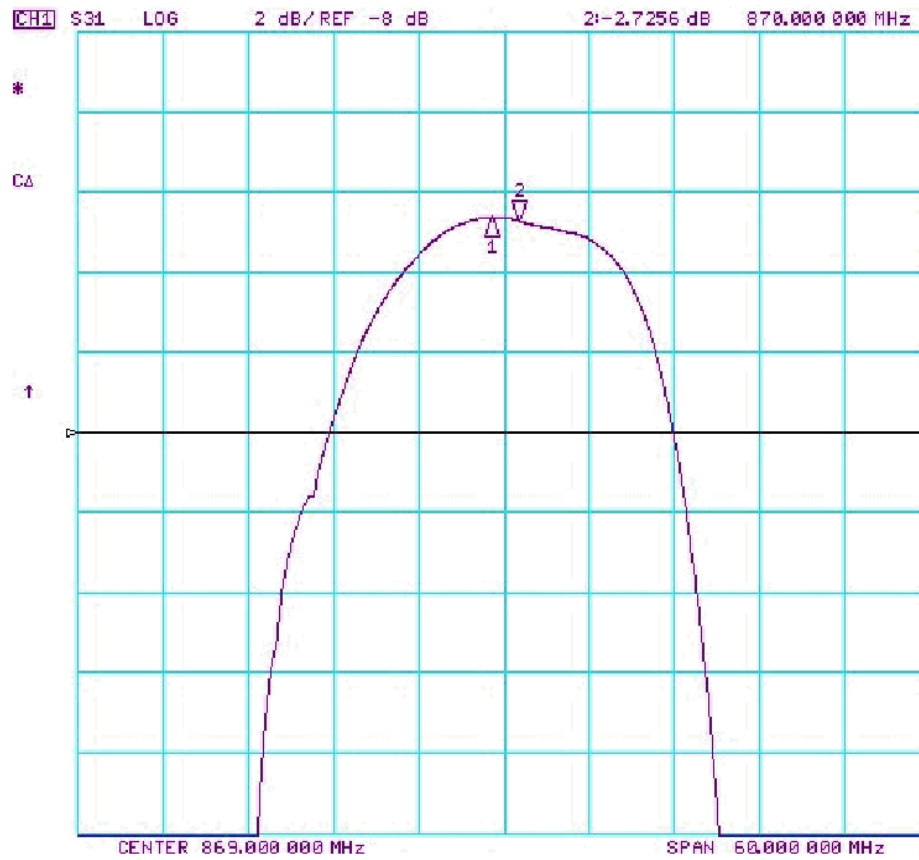
Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others



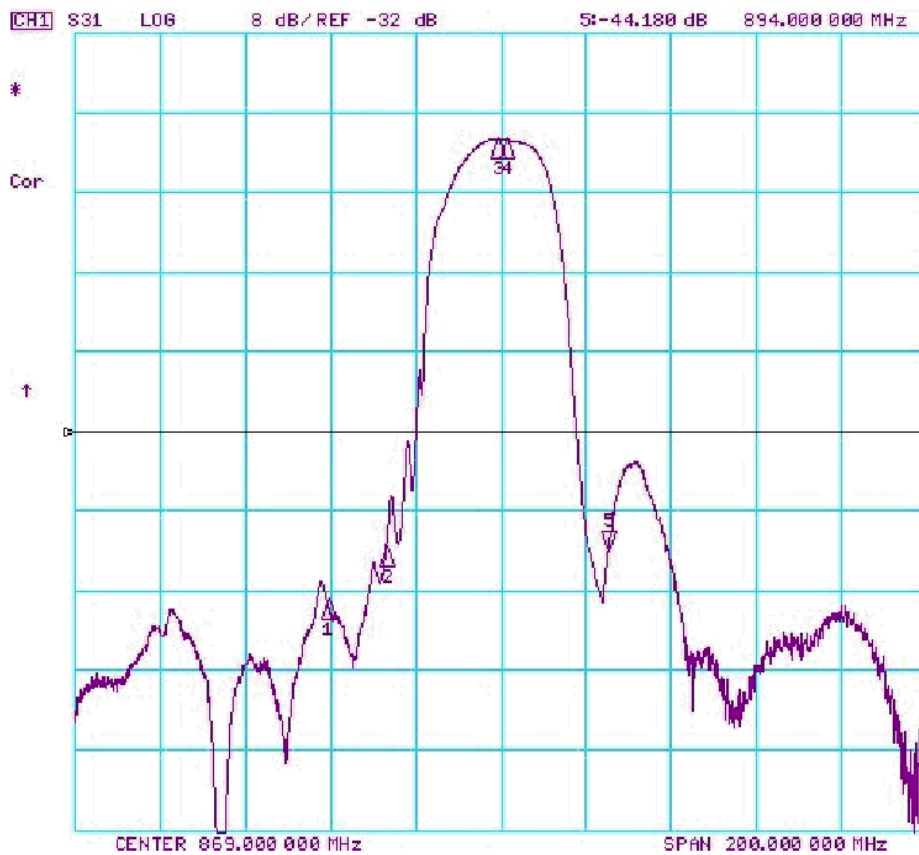
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

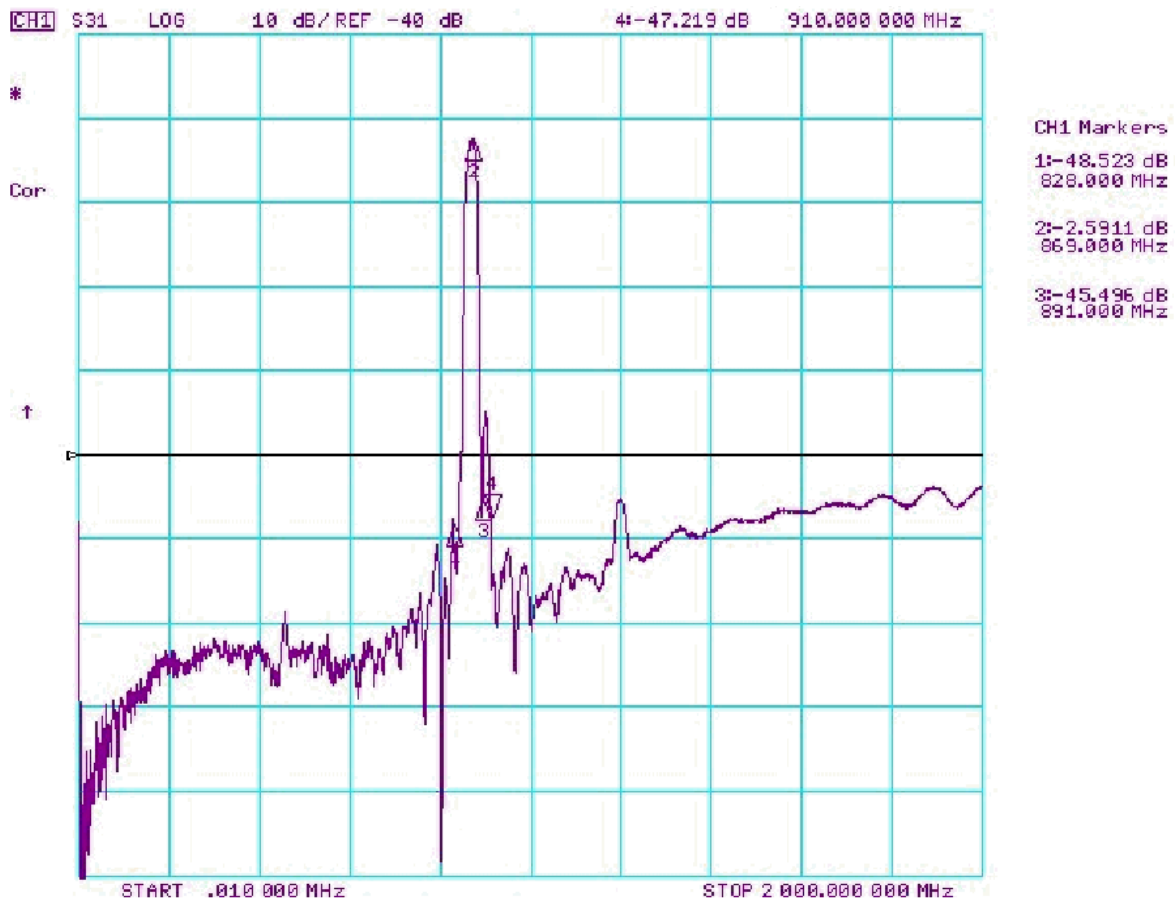
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.



CH1 Markers
1:-2.6412 dB
868.000 MHz

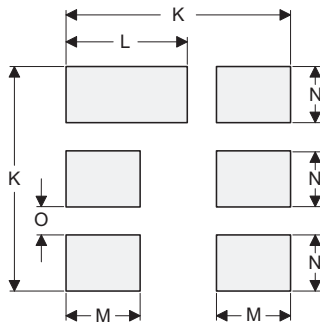
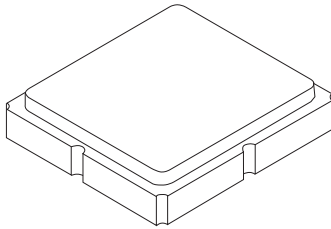


CH1 Markers
1:-43.024 dB
828.000 MHz
2:-43.517 dB
842.000 MHz
3:-2.6378 dB
868.000 MHz
4:-2.7213 dB
870.000 MHz



SM3030-6 Case

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



PCB Footprint Top View

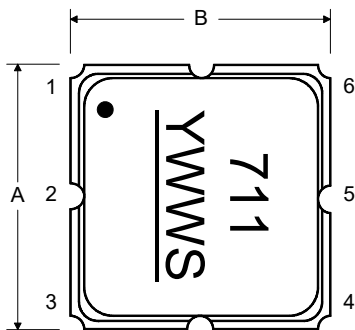
Case and PCB Footprint Dimensions

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	

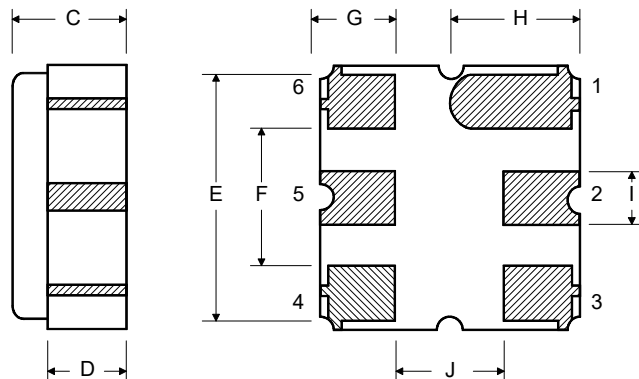
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic

Top View



Bottom View

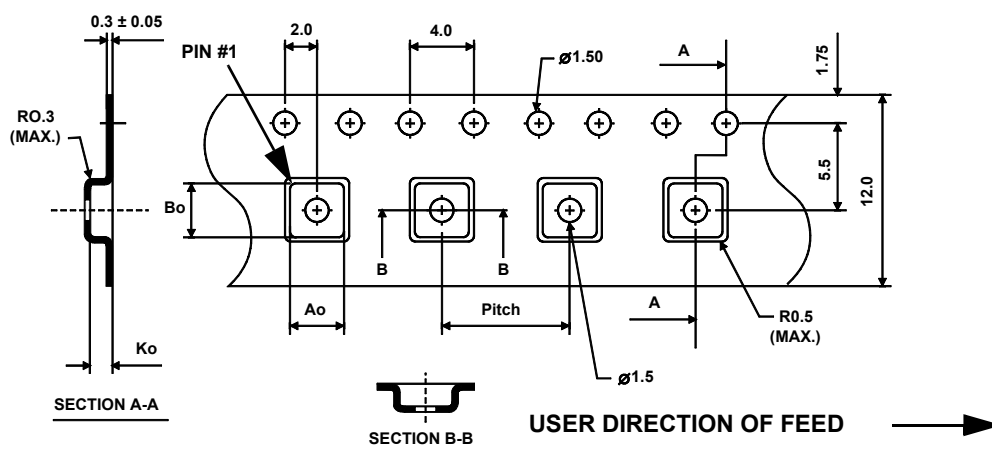


Tape and Reel Standard per ANSI/EIA-481

See Detail "A"

"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
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



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.

