



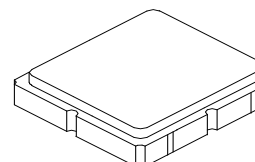
AEC-Q200
This component was always
RoHS compliant from the first
date of manufacture.

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



SF2137D

**869.00 MHz
SAW Filter**



SM3838-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	17	dBm
DC Voltage Between any Two Pins	3	V
Operating Temperature Range	-20 to +70	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	F_C			869.00		MHz
Insertion Loss, 868 to 870 MHz	IL			2.9	4.0	dB
Amplitude Ripple, p-p, 868 to 870 MHz				0.2	1.5	
Attenuation Relative to 0 dB:						
825 to 828 MHz			40	47		
835 to 842 MHz			30	38		
891 to 894 MHz			30	43		
910 to 913 MHz			40	48		
Source Impedance	Z_S			50		Ω
Load Impedance	Z_L			50		Ω

Case Style	SM3838-6					
Lid Symbolization, Y=year, WW=week, S=shift, dot=pin 1 indicator	A33, YWWS					
Standard Reel Quantity	Reel Size 7 Inch	1000 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

Electrical Connections

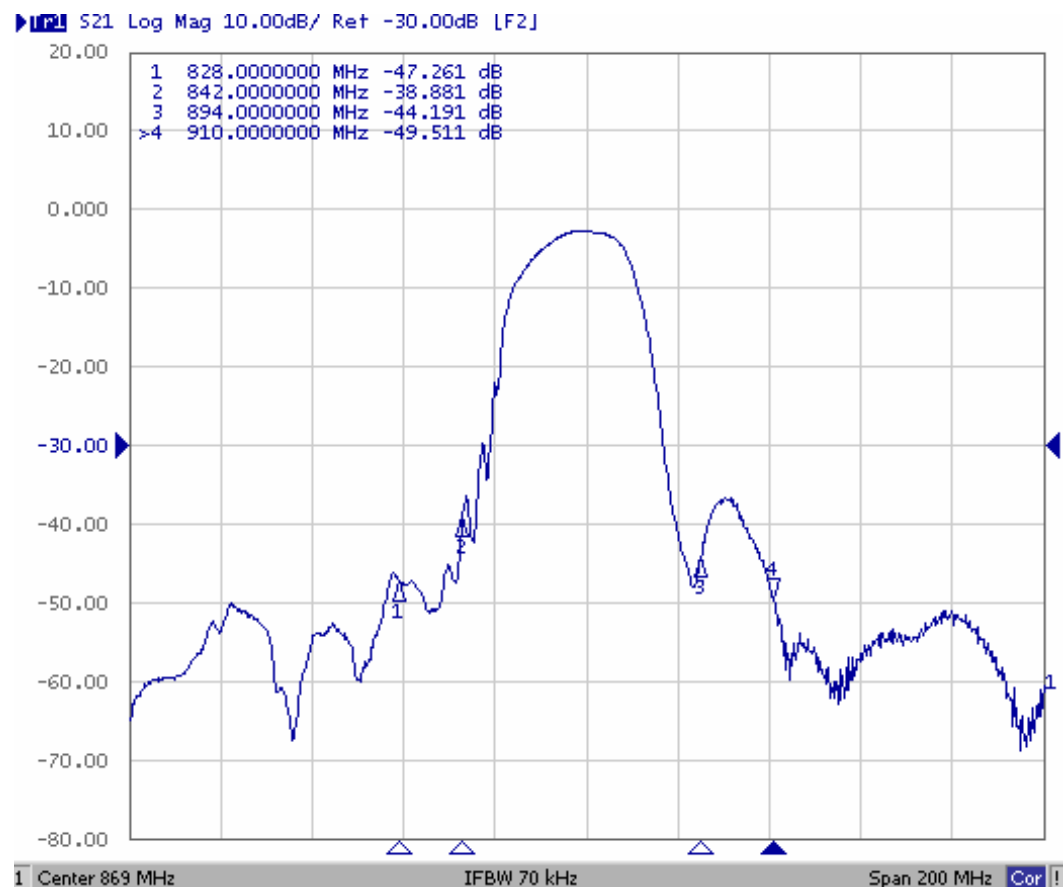
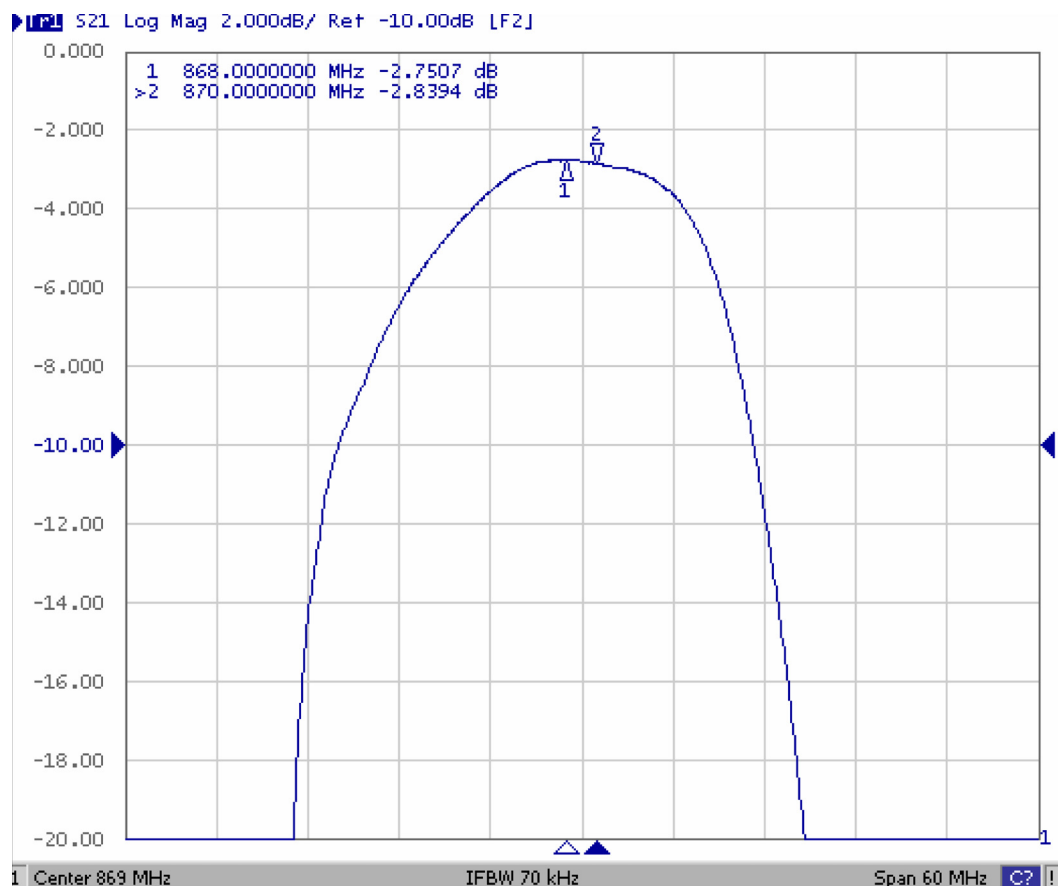
Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others



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.



Technical drawing of a circular component, likely a flange or end plate, showing three views: a top view, a side view, and a detail view of the central hole.

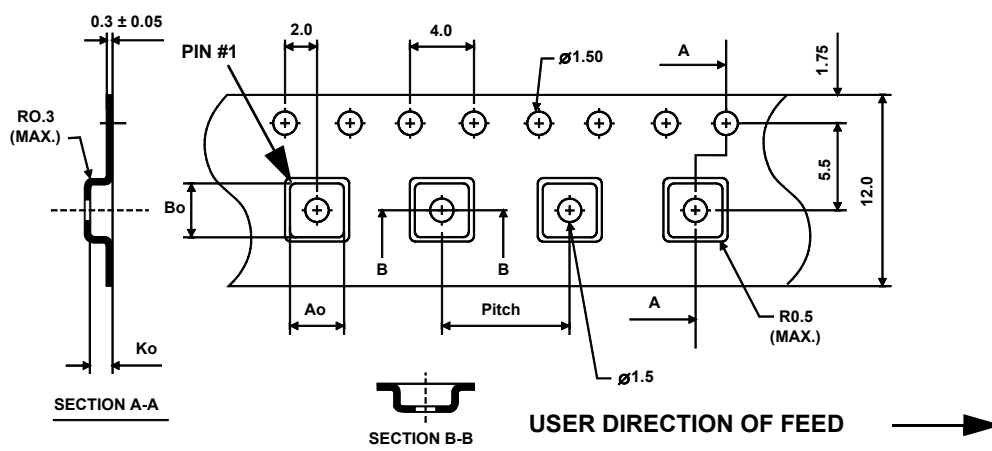
Top View: A large circle with a smaller concentric circle in the center. Dashed lines indicate the center and the hole's diameter. A leader line points from the text "See Detail 'A'" to the central hole.

Side View: A vertical cross-section showing the component's thickness. The total thickness is dimensioned as 12.0. The central hole is dimensioned with a diameter of 100 REF. and a depth of "B" REF.

Detail View (Detail A): A cross-section of the central hole. It shows a circular hole with a diameter of 13.0. The hole is surrounded by a flange with a thickness of 2.0. The distance from the center of the hole to the outer edge of the flange is dimensioned as 20.2.

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

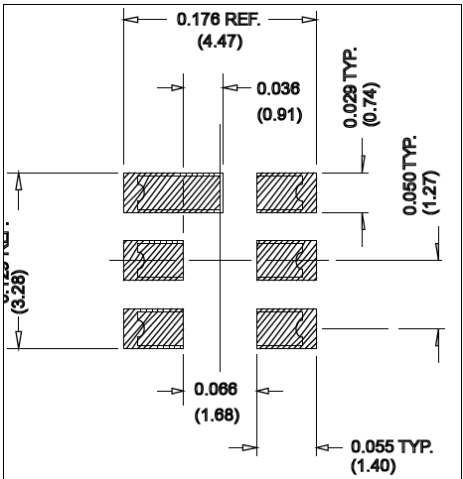
Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 mm
Pitch	8.0 mm
W	12.0 mm



SM3838-6 Case

6-Terminal Ceramic Surface-Mount Case

3.8 X 3.8 mm Nominal Footprint



PCB Footprint

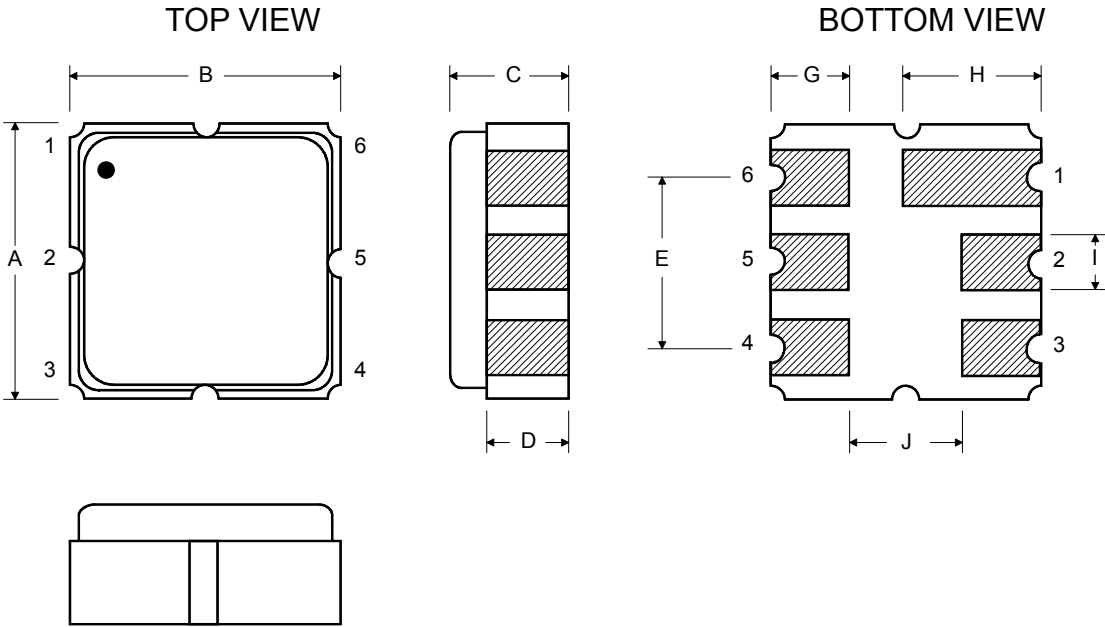
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.60	3.80	4.0	0.14	0.15	0.16
B	3.60	3.80	4.0	0.14	0.15	0.16
C	1.07	1.25	1.43	0.05	0.06	0.067
D	0.95	1.10	1.25	0.037	0.043	0.05
E	2.39	2.54	2.69	0.090	0.10	0.110
G	0.90	1.0	1.10	0.035	0.04	0.043
H	1.90	2.0	2.10	0.75	0.08	0.83
I	0.50	0.6	0.70	0.020	0.024	0.028
J	1.70	1.8	1.90	0.067	0.07	0.075

Electrical Connections

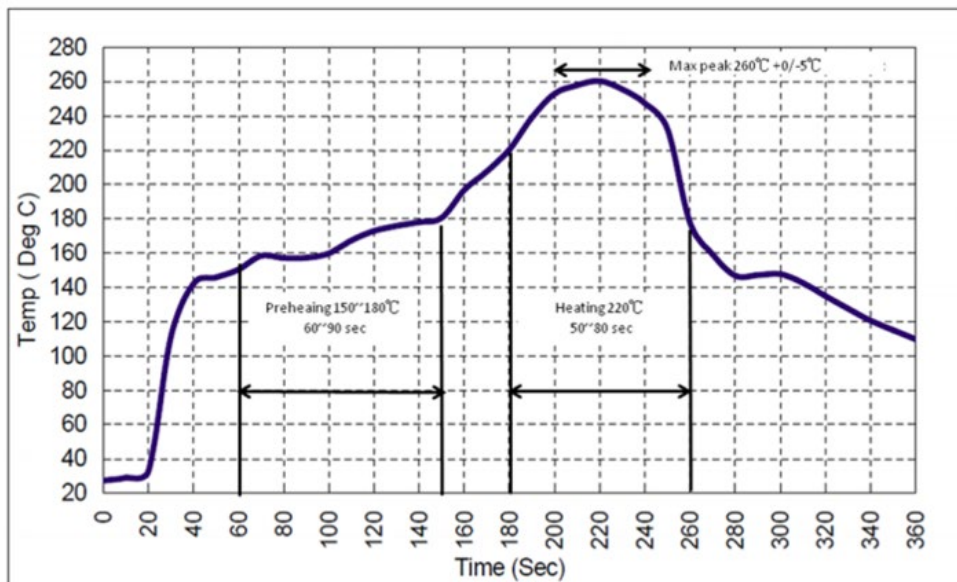
Connection		Terminals
Port 1	Single-ended Input	2
Port 2	Single-ended Output	5
	Ground	All others
Single-ended Operation Only		
Dot indicates Pin 1		

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 ₂ O ₃ Ceramic
Pb Free	



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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