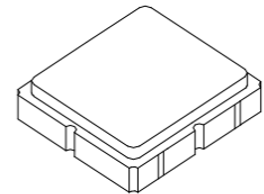


SF2137D

**869.00 MHz
SAW Filter**



SM3838-6

- *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*
- *Moisture Sensitivity Level: 1*

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	785, <u>YWWS</u>					

Electrical Connections

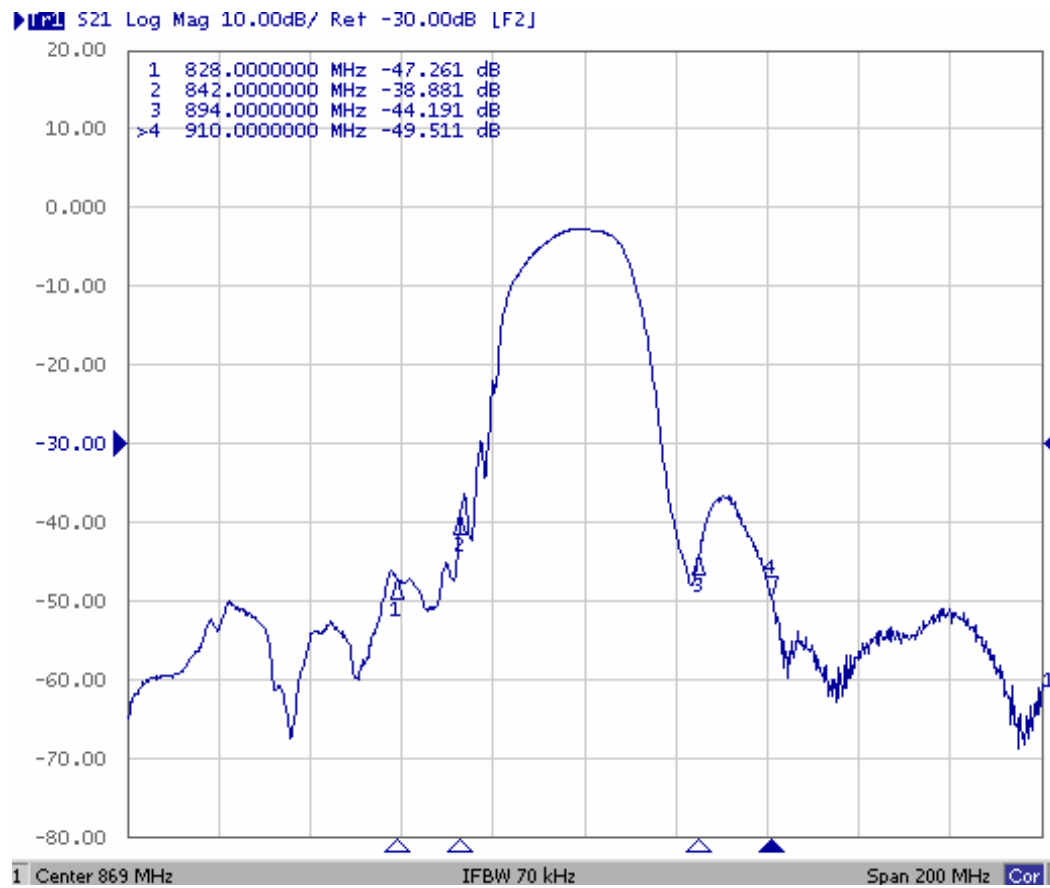
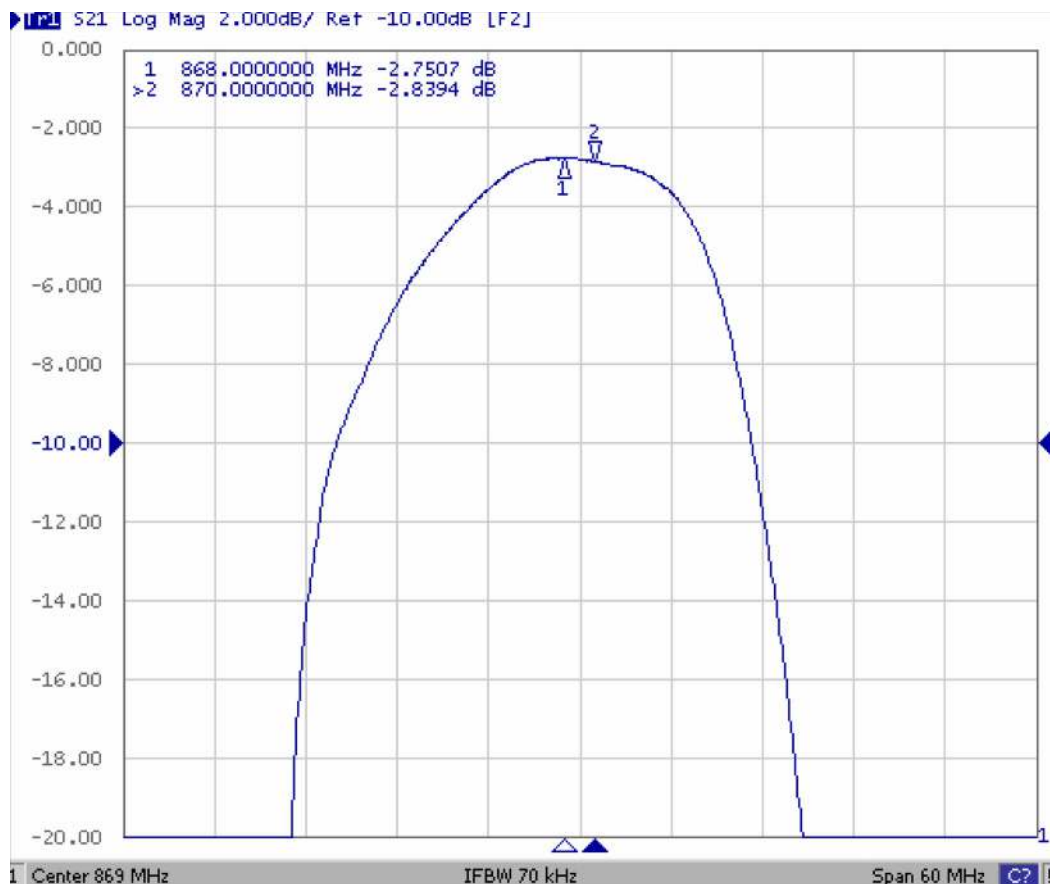
Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others



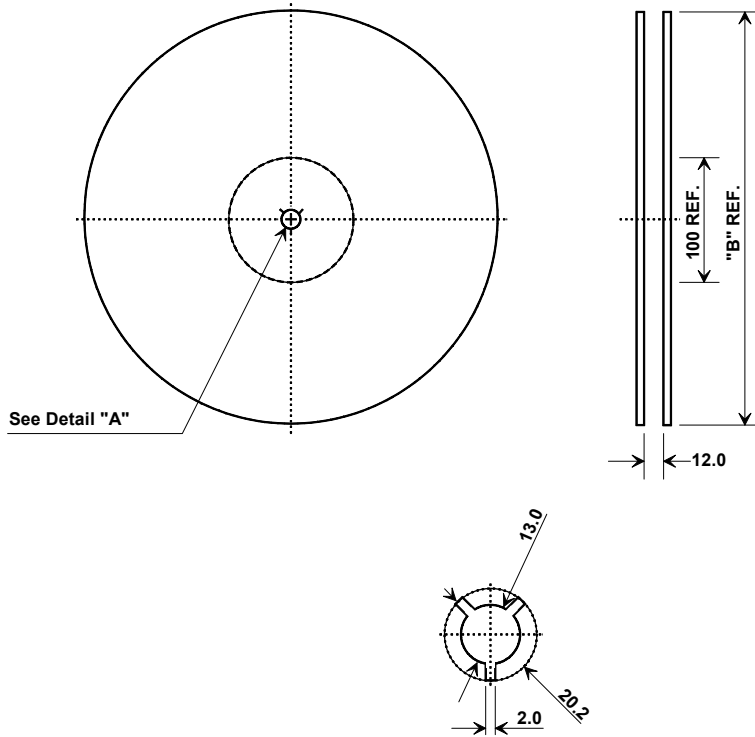
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.



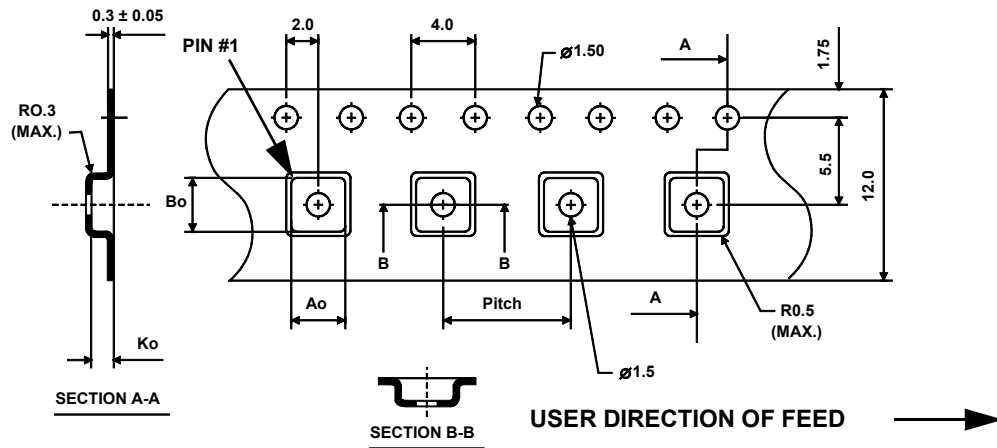
Tape and Reel Specifications



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

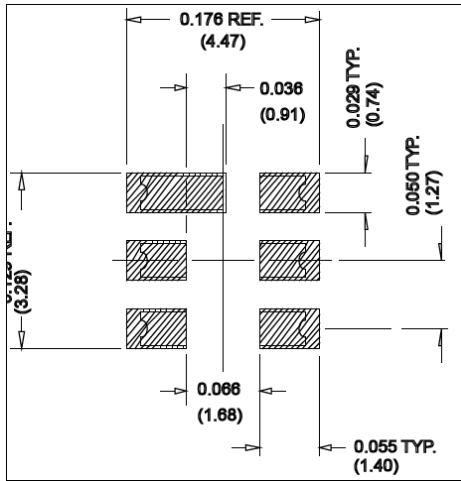
COMPONENT ORIENTATION and DIMENSIONS

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

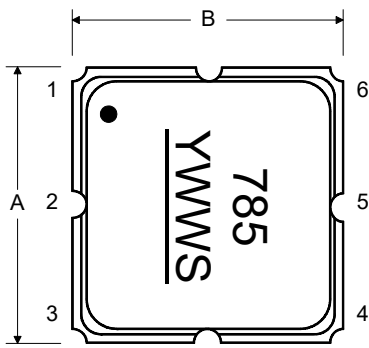
Electrical Connections

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		

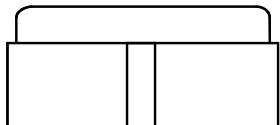
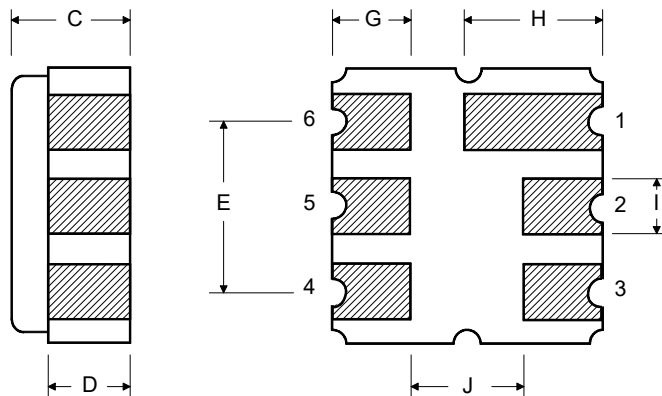
Materials

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_2O_3 Ceramic

TOP VIEW



BOTTOM VIEW



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.

