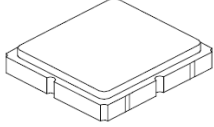


SF2497E

868.3 MHz SAW Filter



SM3030-6

- **Surface Mount 3.0 x 3.0 mm Package**
- **Complies with Directive per ANSI/EIA-481**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any Non-ground Terminal	0	V
Specification Temperature Range	-40 to +125	°C
Operable Temperature Range	-40 to +125	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

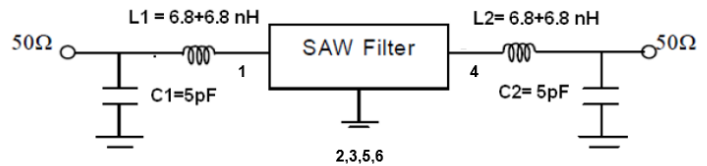
Electrical Characteristics

Characteristic	Unit	Min	Typ	Max
Center Frequency, F_c	MHz	-	868.3	-
Insertion Loss	dB	-	3.0	3.8
3 dB Bandwidth (from F_c)	MHz	± 0.3	1.6	-
Stop Band Attenuation: (from minimum loss point)				
10~600 MHz	dB	50	64	-
600~850 MHz	dB	33	38	-
850~860 MHz	dB	10	36	-
860~865.5 MHz	dB	20	25	-
871~878 MHz	dB	10	23	-
878~1000 MHz	dB	21	26	-
1000~1300 MHz	dB	40	49	-
1300~2500 MHz	dB	30	65	-
Impedance at F_c : $Z_{IN} = R_{IN} // C_{IN}$	Ω	162.2 Ω / 3.3 pF		
Impedance at F_c : $Z_{OUT} = R_{OUT} // C_{OUT}$	Ω	162.2 Ω / 3.3 pF		
Case Style	SM3030-6, 3.0 x 3.0 mm, Nominal Footprint			
Lid Symbolization, Y=year, WW=week, S=Shift, Dot= pin 1 indicator				F1, <u>Y</u> WWS

Electrical Connections - Recommended	
Connection	Terminals
Input	1
Output	4
Case Ground	All others

Measurement Circuit: The matching circuit is real by actual passive components.

HP Analyzer





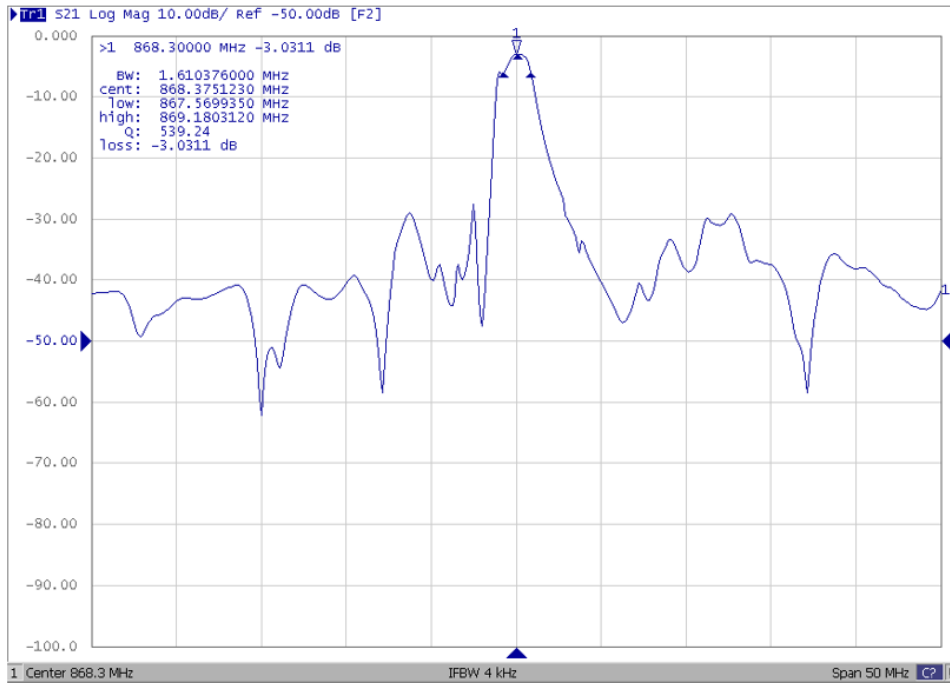
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

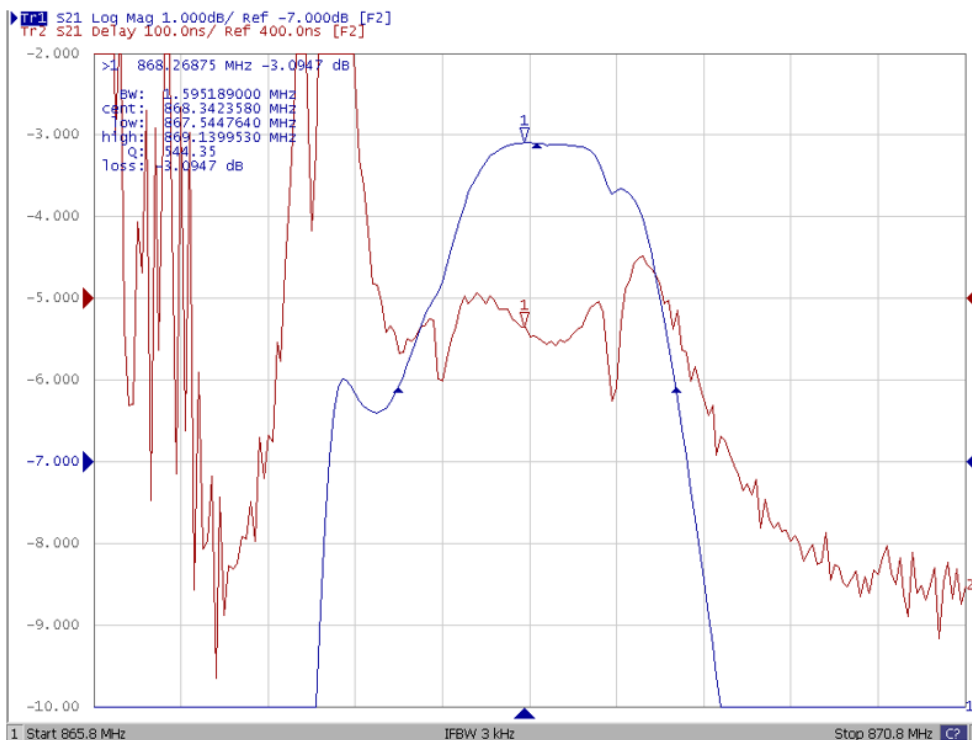
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Frequency Characteristics:

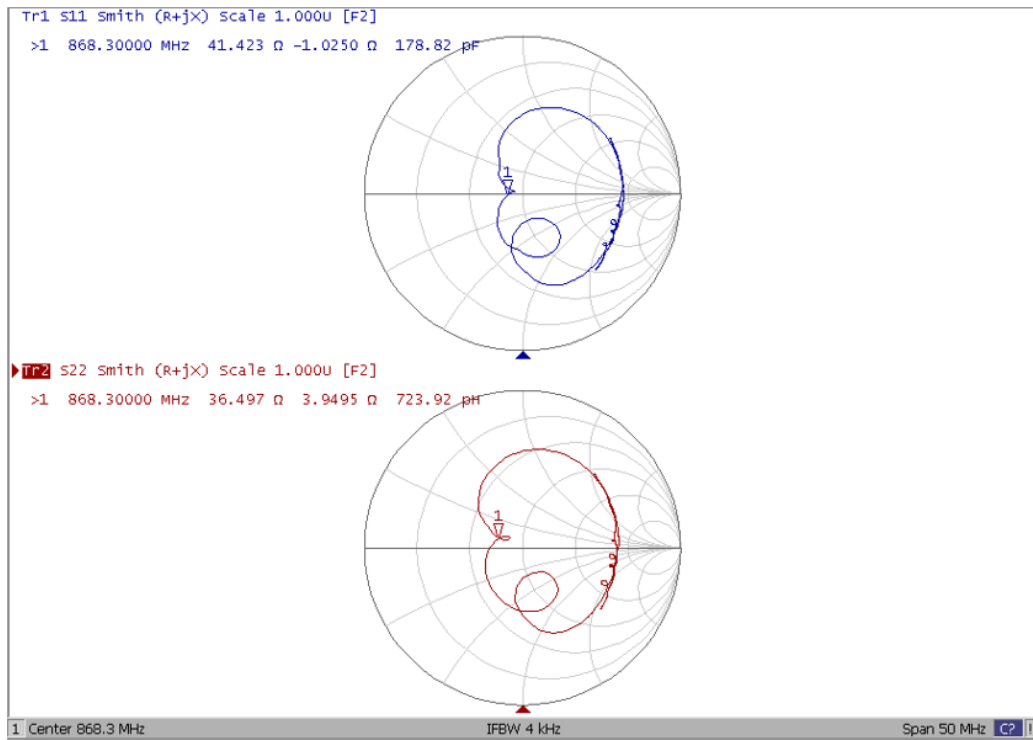
(1) Wide band response: (span 50 MHz)



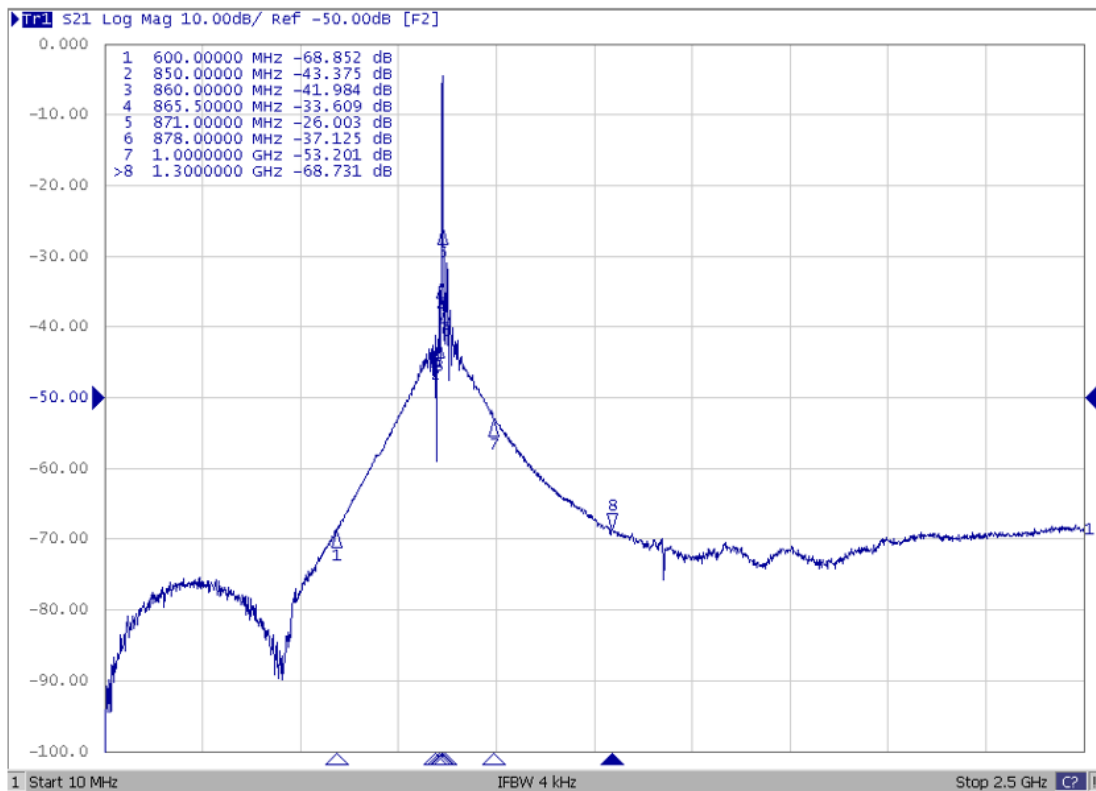
(2) Pass band response and group time delay response:



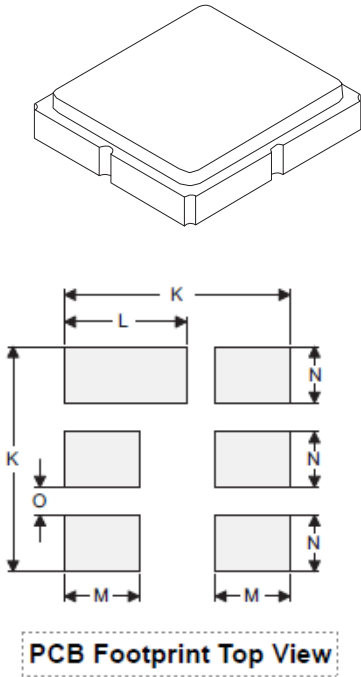
(3) Smith chart:



(4) Wide band:



SM3030-6 Ceramic 6-Terminal Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

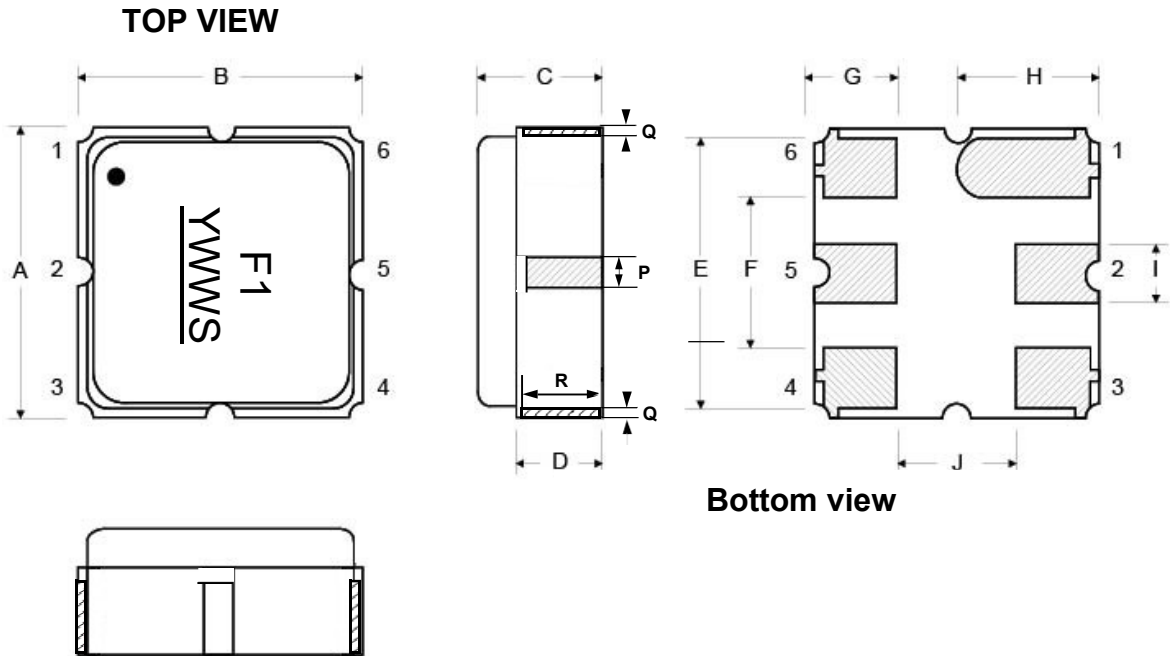


Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	-	3.00		0.113	0.118	0.123
B	-	3.00		0.113	0.118	0.123
C	-	-	1.38	0.044	0.049	0.054
D	-	-	1.03	0.030	0.035	0.040
E	-	2.80	2.93	0.105	0.110	0.115
F	-	1.60	1.73	0.058	0.063	0.068
G	-	0.85	0.98	0.028	0.033	0.038
H	-	1.50	1.63	0.054	0.059	0.064
I	-	0.60	0.73	0.019	0.024	0.029
J	-	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	

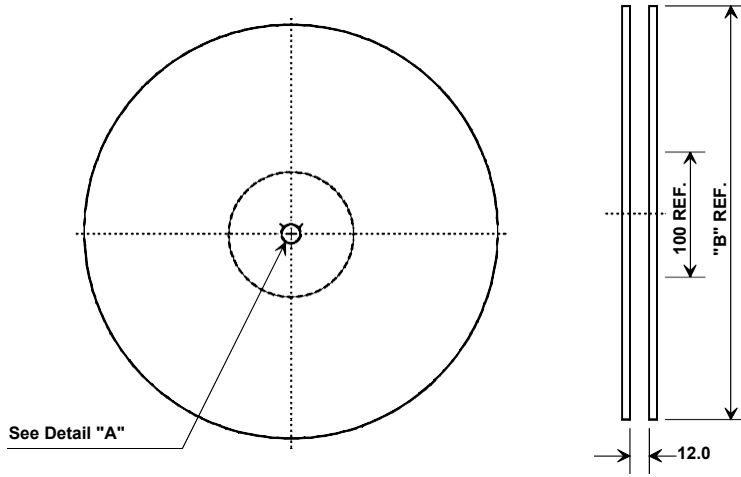
Case Materials

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

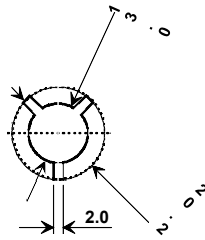


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

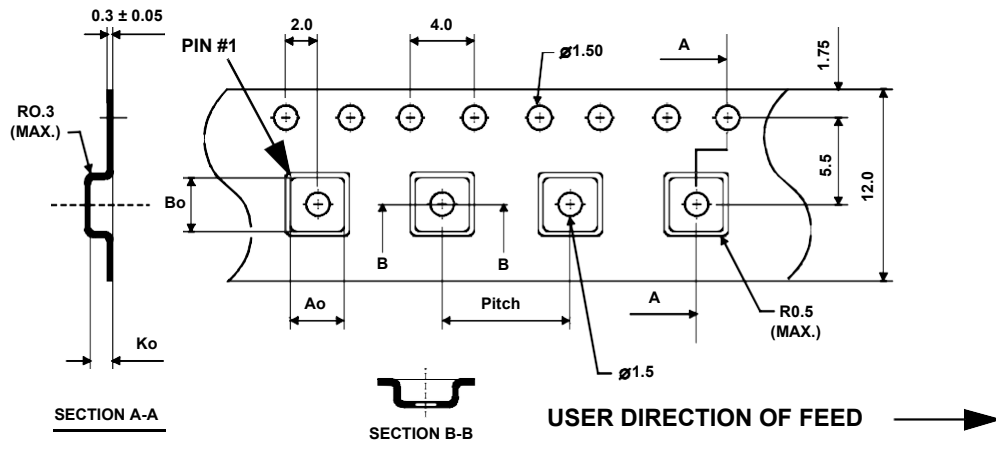


"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.40 mm
Pitch	4.0 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.

