



- 868.6 MHz Low-loss SAW Filter
- Surface Mount 3.0 x 3.0 mm Package
- Complies with Directive 2002/95/EC (RoHS)



Absolute Maximum Ratings

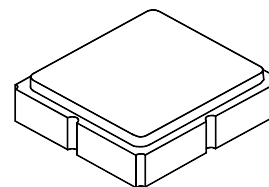
Rating	Value	Units
Input Power Level	15	dBm
DC Voltage on any Non-ground Terminal	5	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Solder Reflow Temperature, 10 seconds, 5 cycles maximum	260	°C

AEC-Q200

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

SF2425E

868.6 MHz SAW Filter



SM3030-8

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units	
Center Frequency	f _C			868.6		MHz	
Minimum Insertion Loss, incl. loss of matching elements	IL _{MIN}			2.65	3.50	dB	
3dB BW			1.3	1.5		MHz	
Attenuation (Relative to IL _{min})						dB	
10.00 to 820.00 MHz			40	45			
820.00 to 859.00 MHz			28	33			
859.00 to 866.60 MHz			18	23			
866.60 to 867.20 MHz			10	14			
870.40 to 871.40 MHz			10	20			
871.40 to 875.00 MHz			15	19			
875.00 to 890.00 MHz			14	17			
890.00 to 950.00 MHz			32	36			
950.00 to 1500.00 MHz			50	55			
1500.00 to 2420.00 MHz			48	65			
2420.00 to 2500.00 MHz			-35	-40			
Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint						
Lid Symbolization, Y=year, WW=week, S=shift, dot=pin 1 indicator	8J, YWWS						
INPUT Z _{in} = R _{in} C _{in}				386 1.6		Ω pF	
OUTPUT Z _{out} = R _{out} C _{out}				371 1.8			

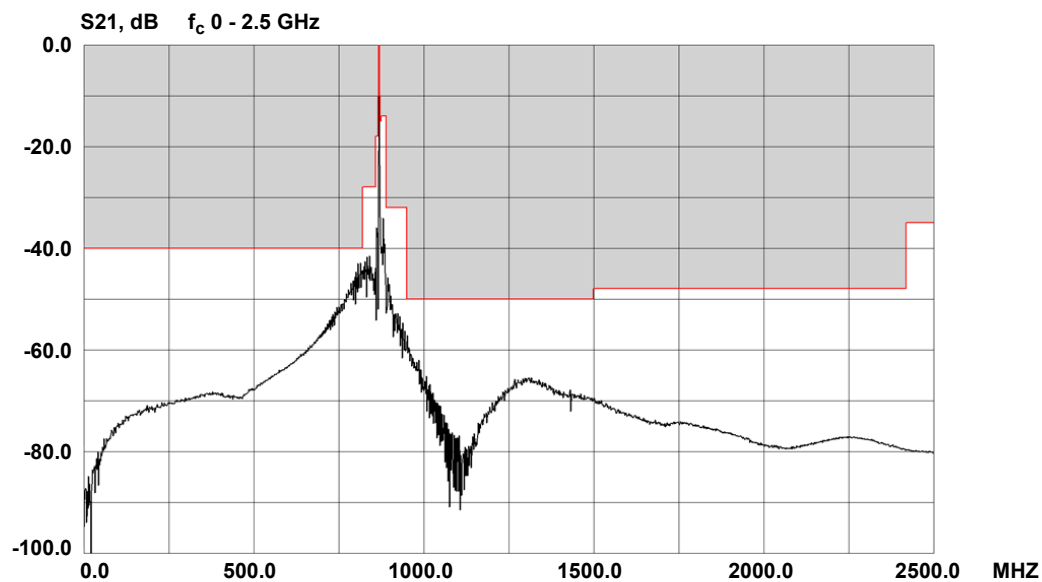
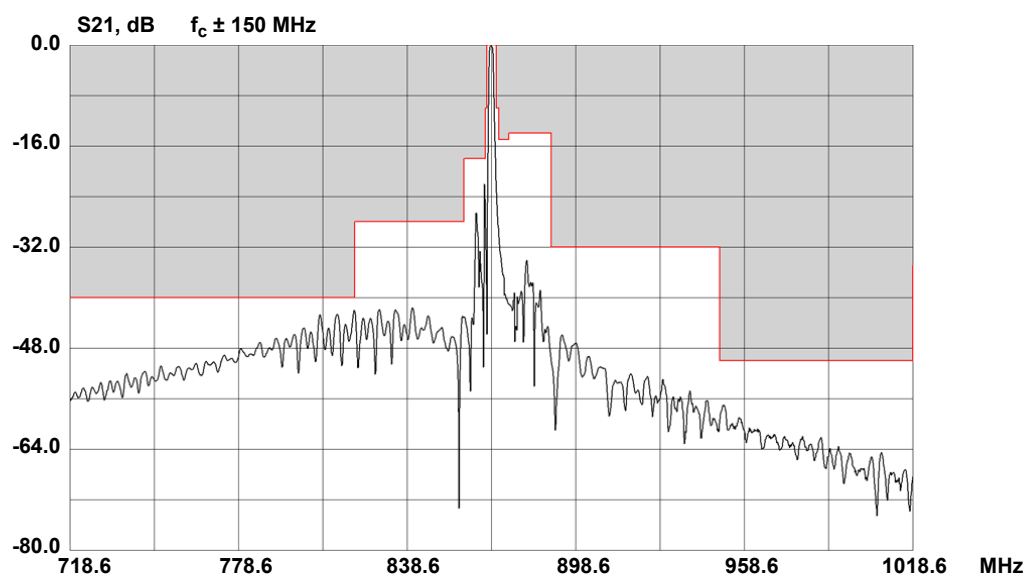
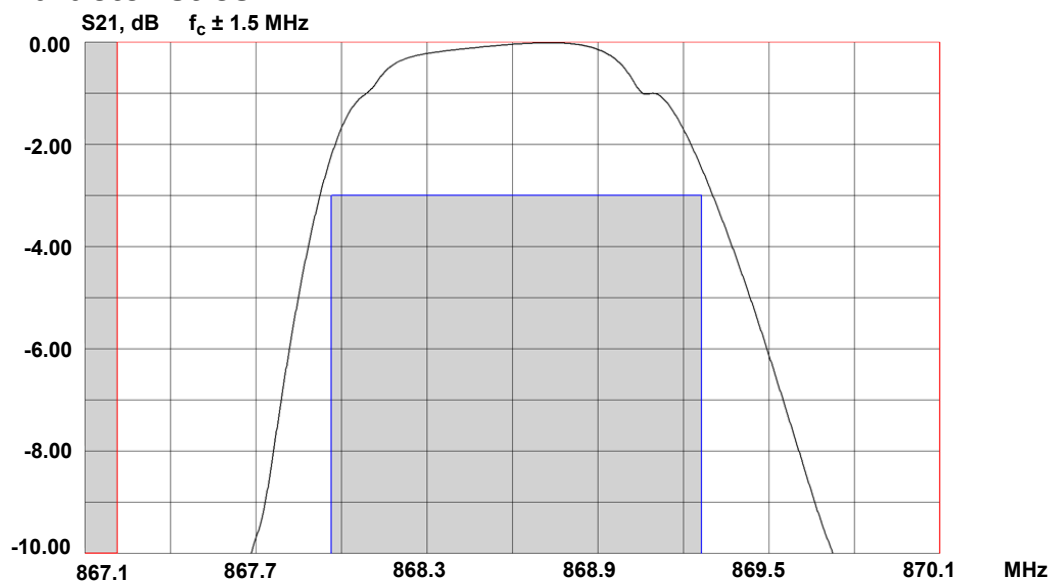


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

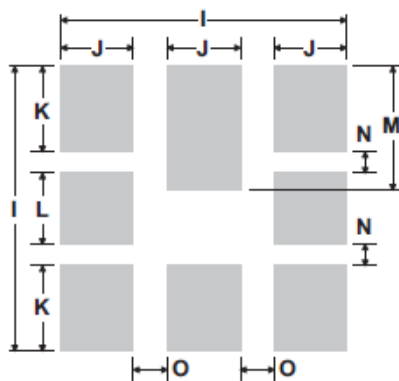
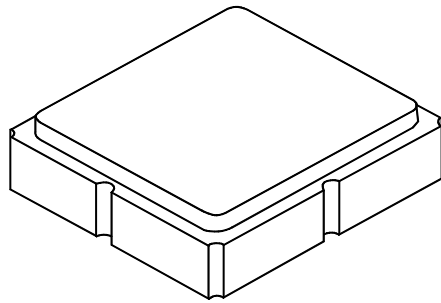
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

Frequency Characteristics



SM3030-8 Case

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



PCB Land Pattern
Top View

Electrical Connections

Connection	Terminals
Input Ground or Input	1
Input or Input Ground	2
Output Ground or Output	5
Output or Output Ground	6
Ground	3, 4, 7, 8

TOP VIEW

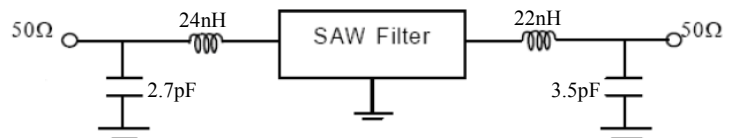
Case and PCB Footprint Dimensions

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	-	-	1.10	-	-	0.043
D	0.79	0.92	1.05	0.031	0.036	0.041
E	0.62	0.75	0.88	0.024	0.029	0.034
F	0.47	0.60	0.73	0.018	0.024	0.029
G	0.47	0.60	0.73	0.018	0.024	0.029
H	1.07	1.20	1.33	0.042	0.047	0.052
I		3.19			0.126	
J		0.81			0.032	
K		0.96			0.038	
L		0.81			0.032	
M		1.39			0.055	
N		0.23			0.009	
O		0.38			0.015	

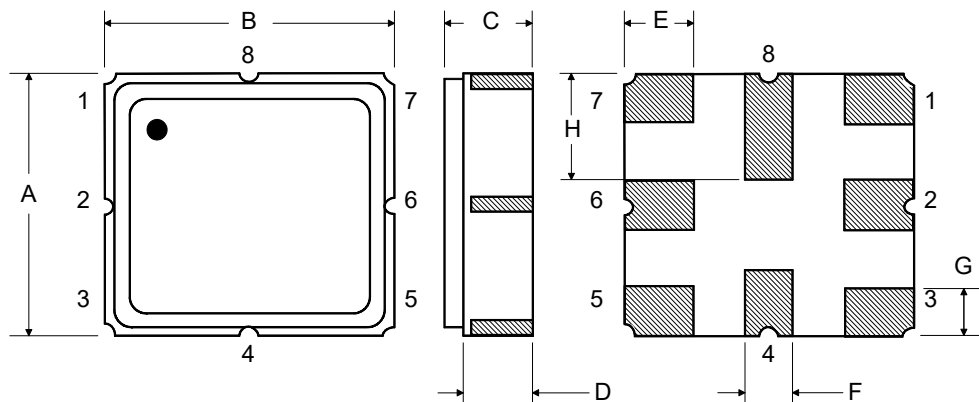
Case Materials

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
Pb Free	

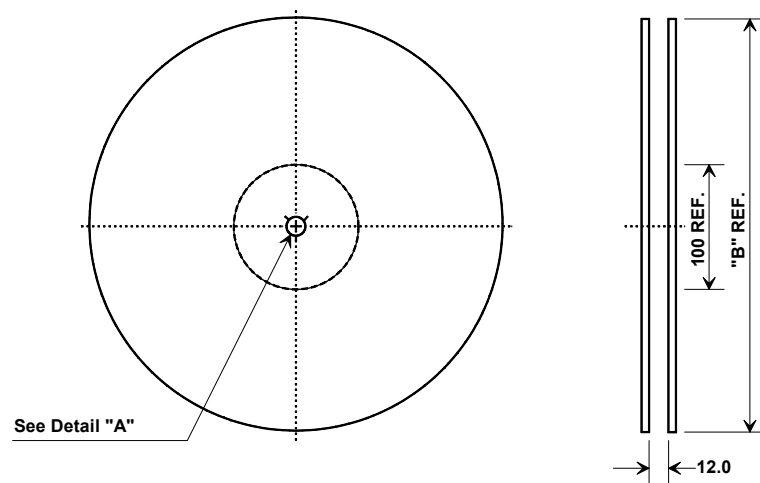
Test Circuit



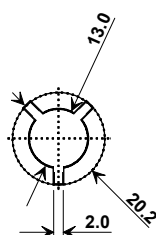
BOTTOM VIEW



Tape and Reel Standard per ANSI/EIA-481

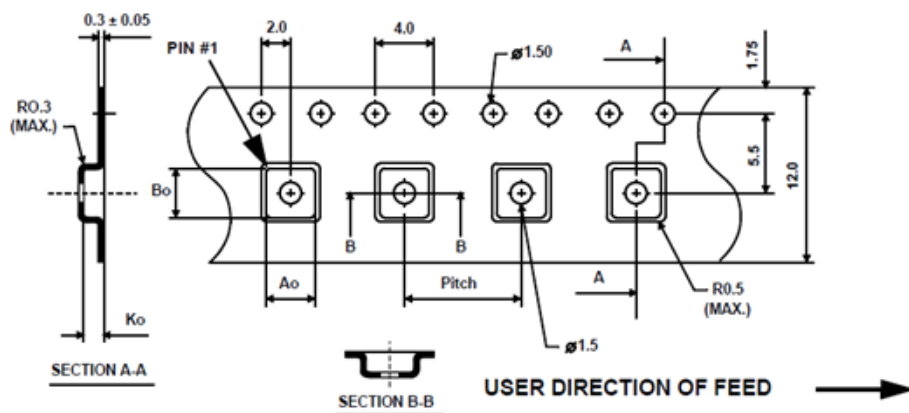


“B”		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



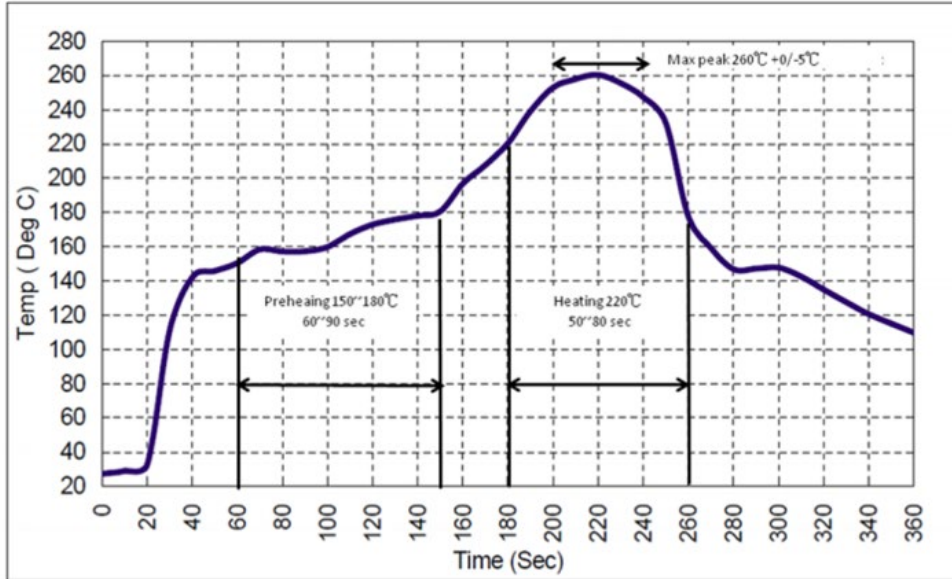
COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.3 ± 1 mm
Bo	3.3 ± 1 mm
Ko	1.4 ± 1 mm
Pitch	4.0 mm
W	12.0 ± 3 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.



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