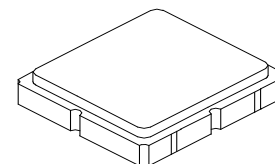


SF2411E

**862 MHz
SAW Filter**



SM3030-6

- **Surface Mount 3.0 x 3.0 mm Package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

Absolute Maximum Ratings (Operating Temperature -30 to +85°C)

Rating	Value	Units
Input Power Level	16	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-30 to +85	°C
Storage Temperature Range (Without tape and reel)	-40 to +125	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			862		MHz
Insertion Loss, 854 to 870 MHz	IL			1.6	2.0	dB
Amplitude Ripple, 854 to 870 MHz				0.6	1.3	
Input/Output VSWR, 854 to 870 MHz				1.7	2.0	
Attenuation, Reference level from 0dB						dB
40 to 200 MHz			35	42		
650 to 800 MHz			20	36		
800 to 830 MHz			15	39		
885 to 902 MHz			20	55		
990 to 1025 MHz			35	40		
1025 to 1600 MHz			35	44		
1600 to 3000 MHz			13	30		
Temperature Coefficient of Frequency				-36		ppm/°C
Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	7T, YWWS					
Standard Reel Quantity	Reel Size 7 Inch					500 Pieces/Reel
	Reel Size 13 Inch					3000 Pieces/Reel

Electrical Connections

Connection	Terminals
Input	2
Output	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.

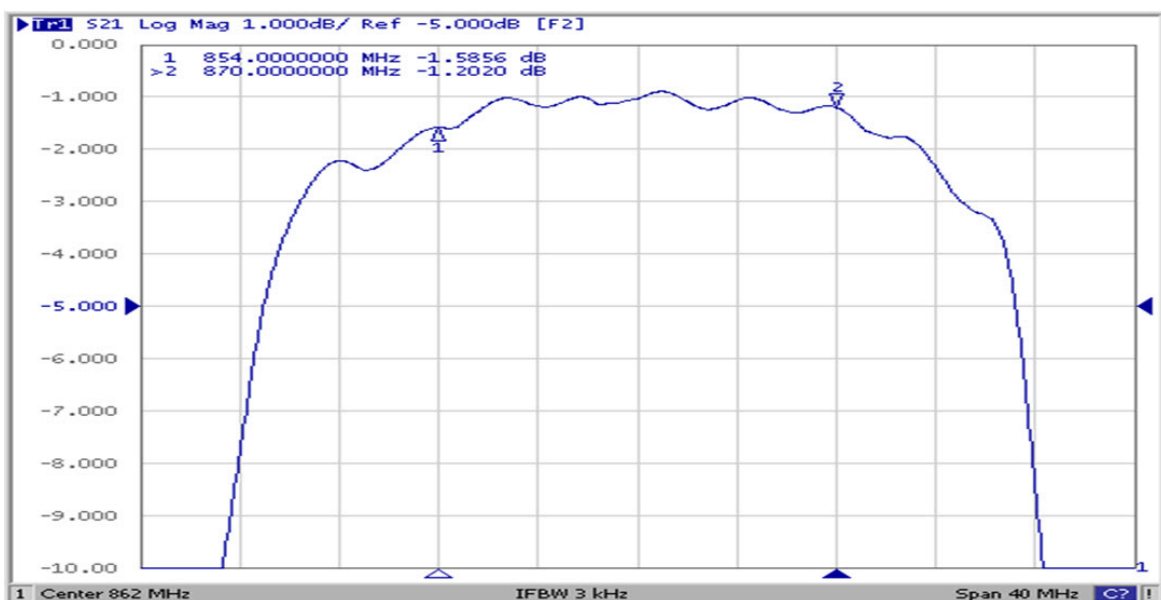
Absolute Maximum Ratings (Operating Temperature -40 to +125°C)

Rating	Value	Units
Input Power Level	16	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +125	°C
Storage Temperature Range in Tape and Reel	-40 to +125	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

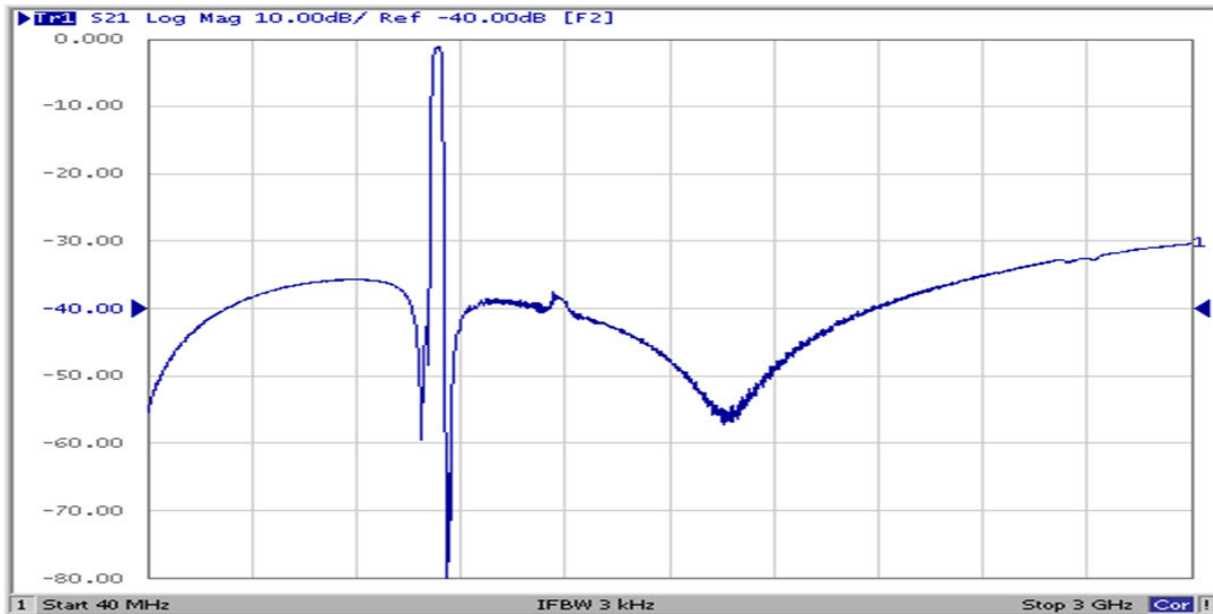
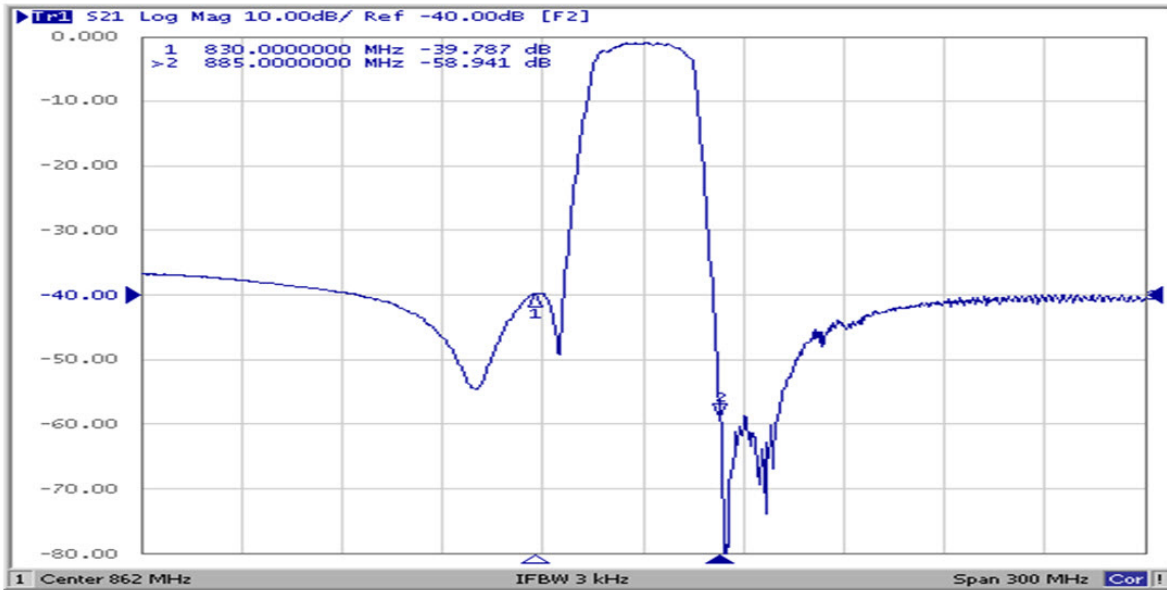
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			862		MHz
Insertion Loss, 854 to 870 MHz	IL			1.6	3.0	dB
Amplitude Ripple, 854 to 870 MHz				0.6	2.0	
Input/Output VSWR, 854 to 870 MHz				1.7	2.5	
Attenuation, Reference level from 0dB						dB
40 to 200 MHz			35	42		
650 to 800 MHz			20	36		
800 to 830 MHz			15	39		
885 to 902 MHz			18	55		
990 to 1025 MHz			35	40		
1025 to 1600 MHz			35	44		
1600 to 3000 MHz			13	30		
Temperature Coefficient of Frequency				-36		ppm/°C

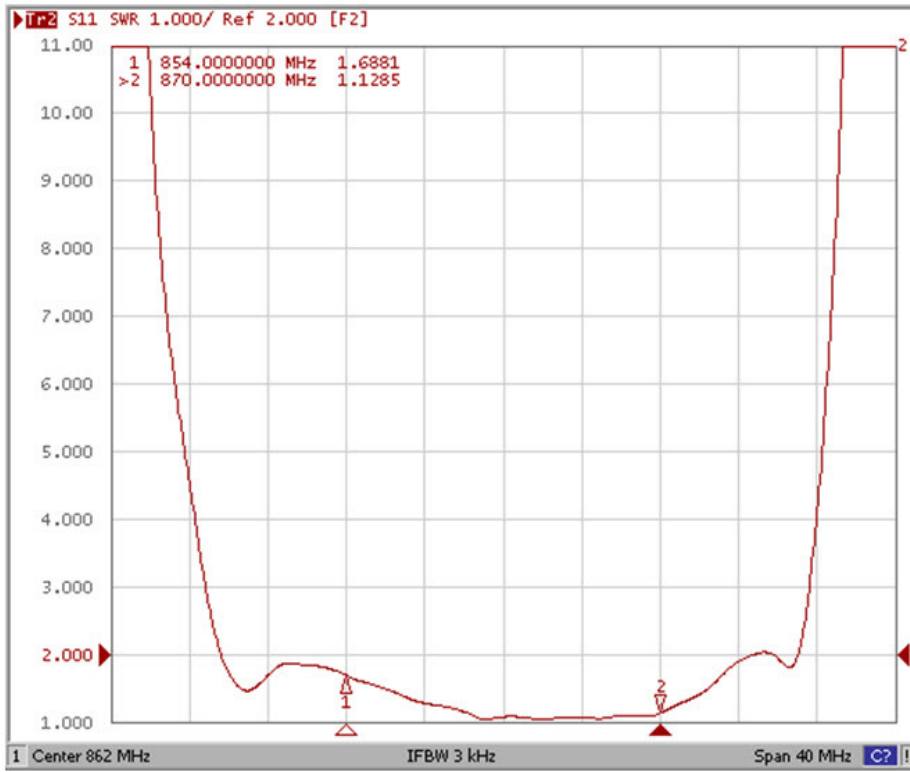
Frequency Characteristics



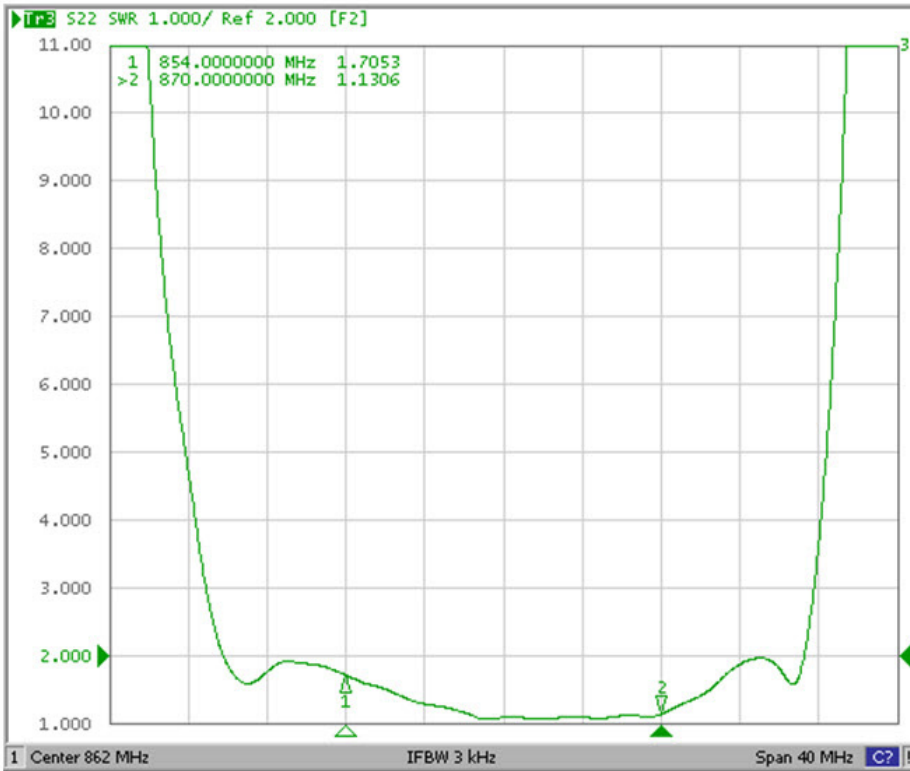
Frequency Characteristics



S11

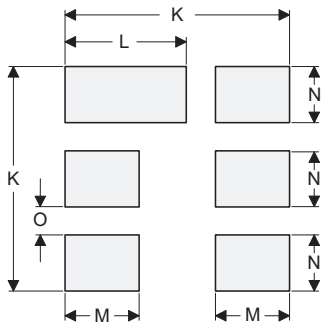
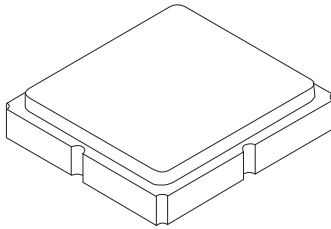


S22



SM3030-6 Case

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



PCB Footprint Top View

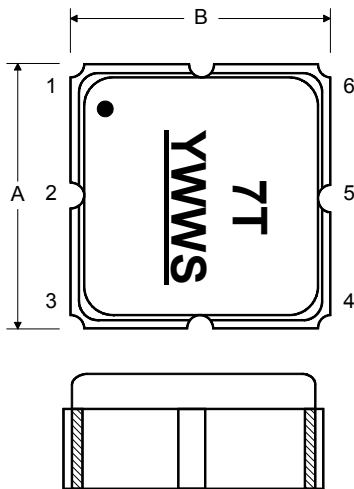
Case and PCB Footprint Dimensions

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	-	-	1.40	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	

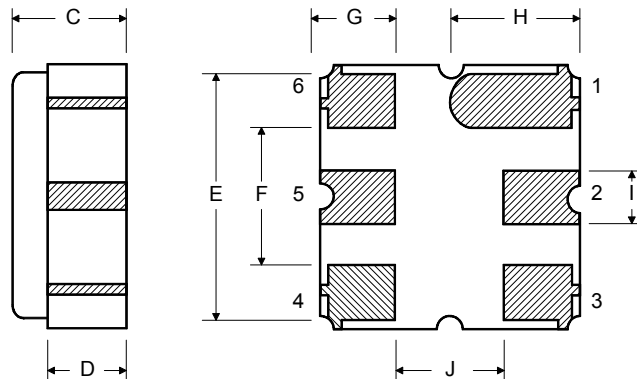
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 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

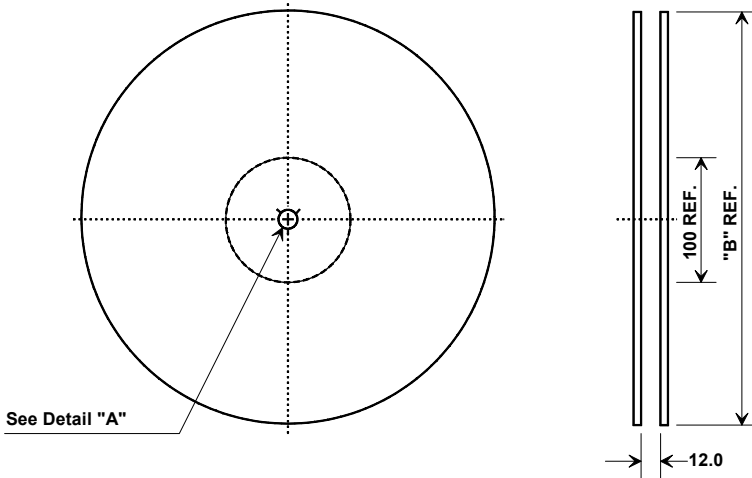


BOTTOM VIEW

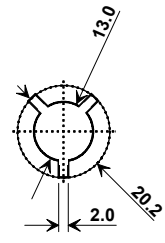


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

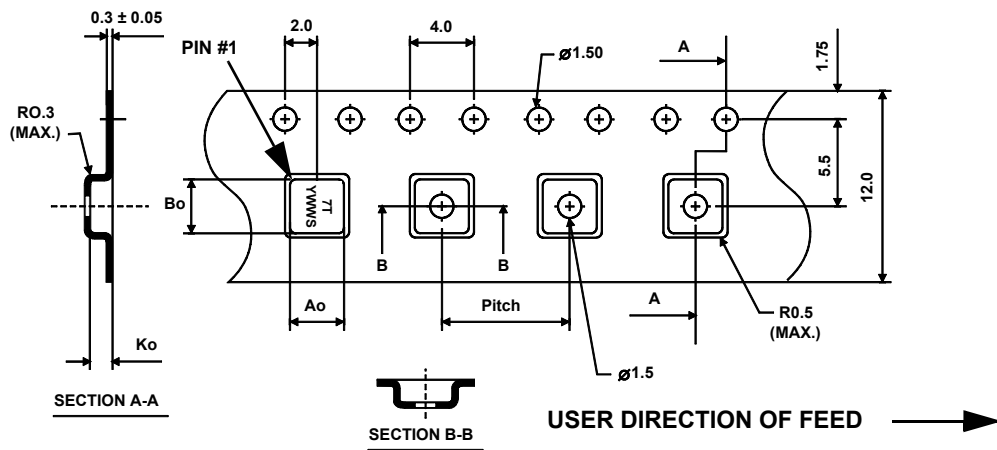


"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



COMPONENT ORIENTATION and DIMENSIONS

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

