



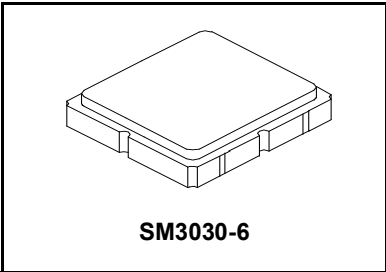
AEC-Q200
This component was always
RoHS compliant from the first
date of manufacture.

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



SF2134E

**897.50 MHz
SAW Filter**



Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	5	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +105	°C
Specification Temperature Range	-20 to +75	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°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			897.5		MHz
Insertion Loss, 880 to 915 MHz	IL			2.1	3.0	dB
Amplitude Ripple, 880 to 915 MHz				1.0	2.0	dB _{P-P}
Attenuation Referenced to 0 dB						dB
DC to 860 MHz			17	19		
925 to 935 MHz			5	12.4		
935 to 960 MHz			20	24		
980 to 2000 MHz			20	22		
VSWR, 880 to 915 MHz				2:1	2.6:1	
Source Impedance	Z_s			50		Ω
Load Impedance	Z_L			50		Ω

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint		
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	674, <u>YWWS</u>		
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel	
	Reel Size 13 Inch	3000 Pieces/Reel	

Electrical Connections

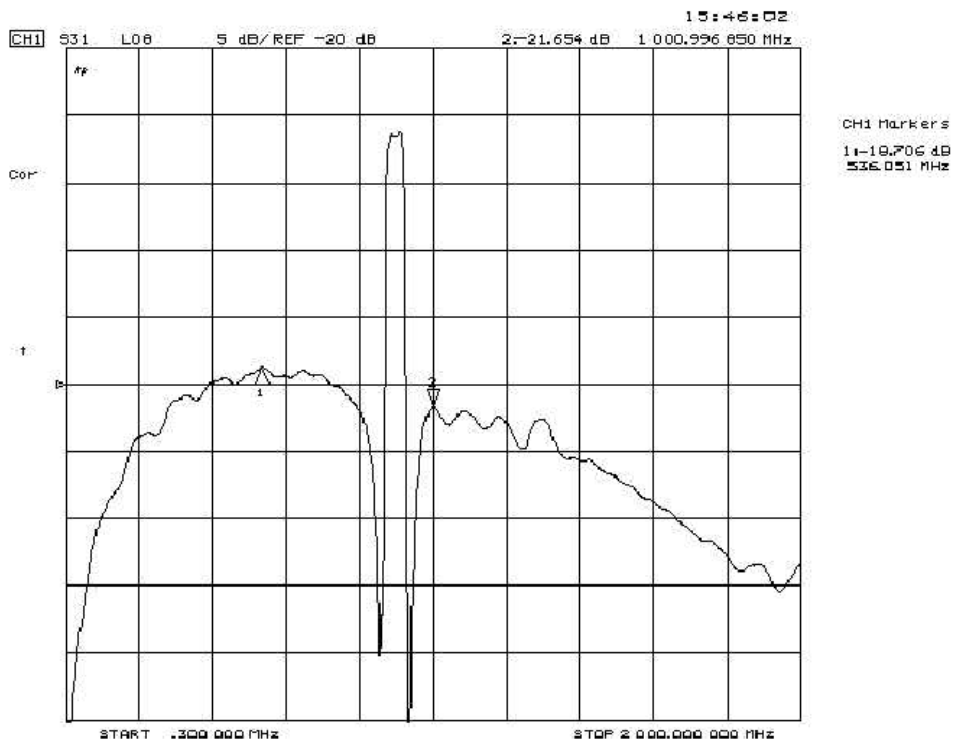
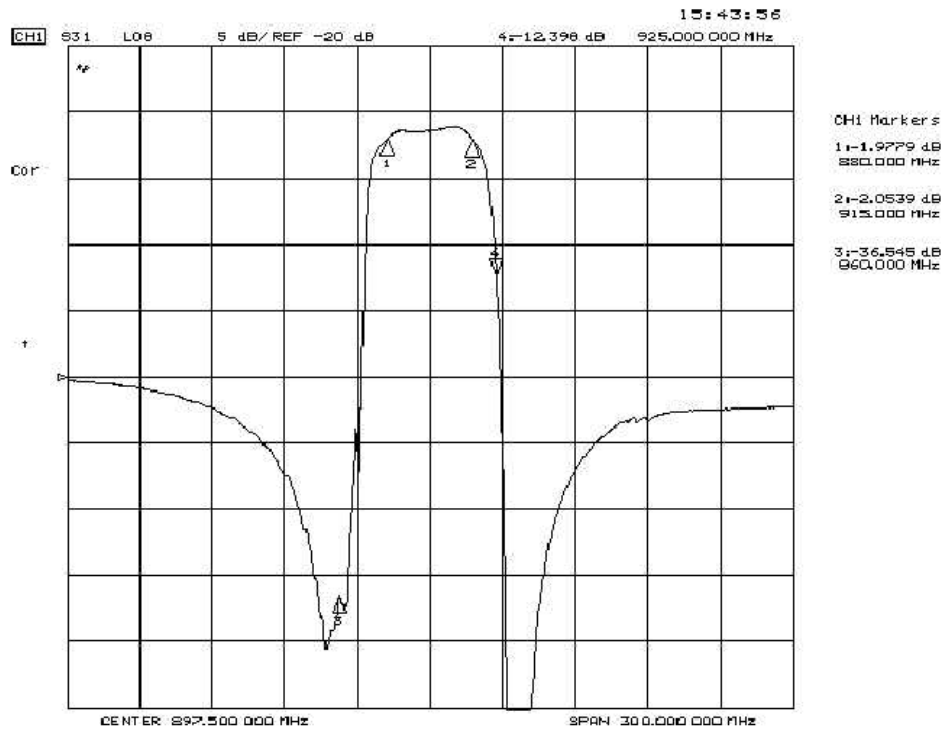
Connection	Terminals
Input	2
Output	5
Case Ground	All others

 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

NOTES:

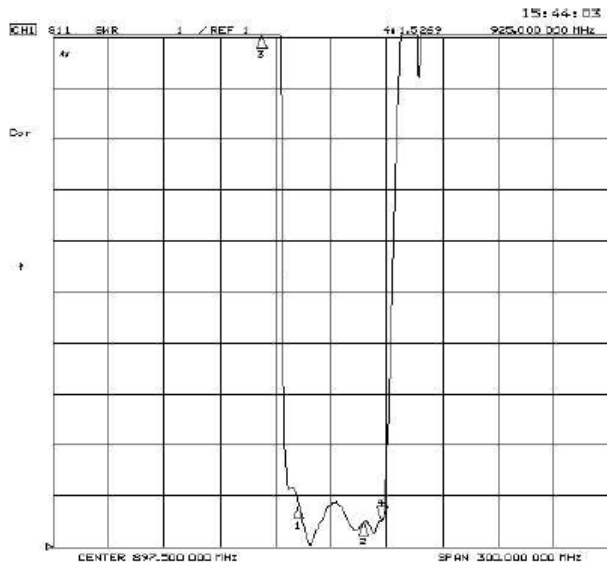
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Filter Amplitude Response

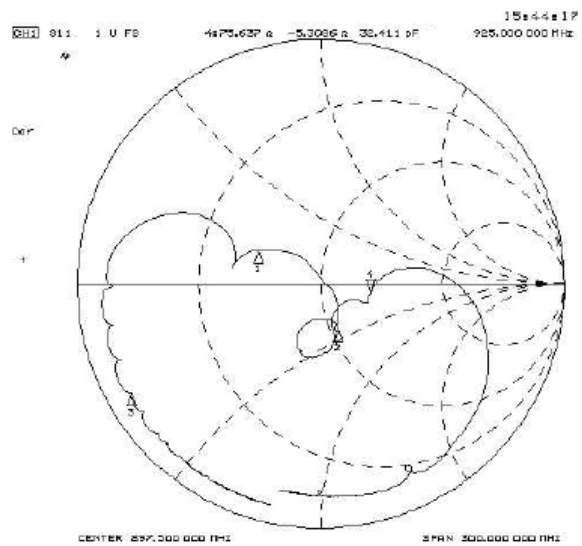


Filter Input and Output Impedance

S11

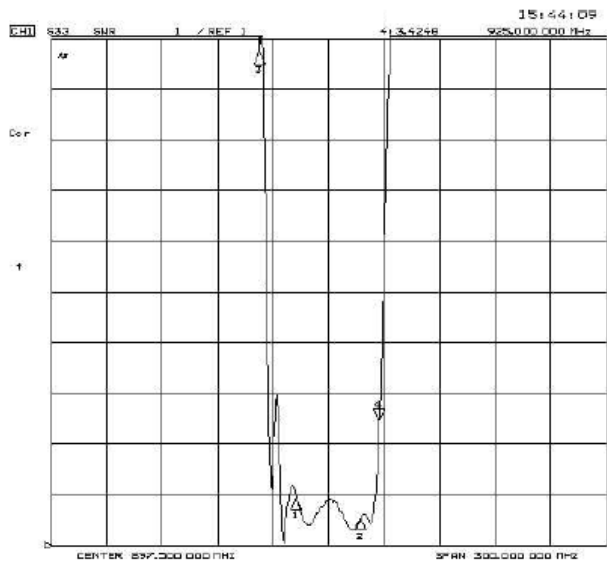


CHI Markers
1: 1.0122
900,000 MHz
2: 1.6956
915,000 MHz
3: 18.521
900,000 MHz

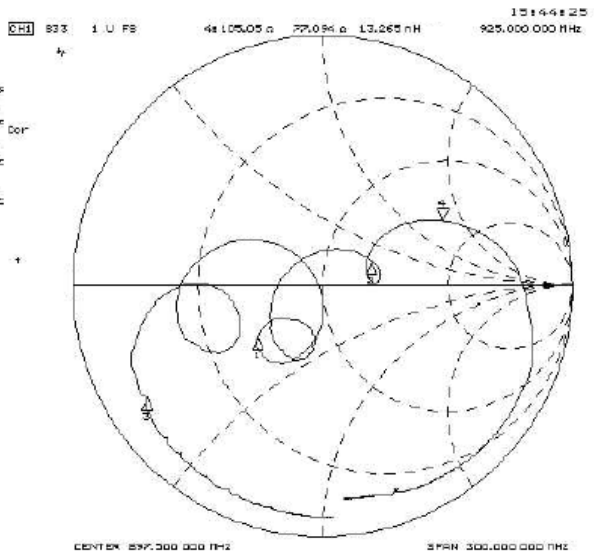


CHI Markers
1: 29.904 0
8.6742 0
900,000 MHz
2: 52.000 0
-20.472 0
915,000 MHz
3: 2.8810 0
-13.334 0
900,000 MHz

S22



CHI Markers
1: 1.9047
880,000 MHz
2: 1.5632
915,000 MHz
3: 10.762
900,000 MHz

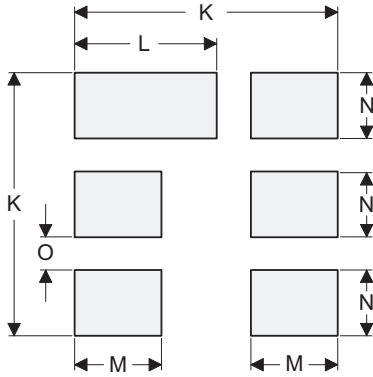
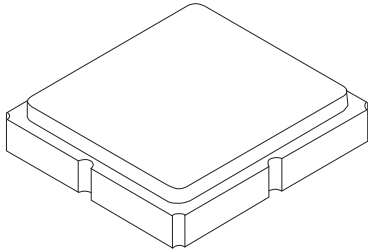


CHI Markers
1: 27.462 0
-12.297 0
900,000 MHz
2: 78.844 0
-16.714 0
915,000 MHz
3: 9.0069 0
-14.318 0
900,000 MHz

SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case

3.0 X 3.0 mm Nominal Footprint



PCB Footprint Top View

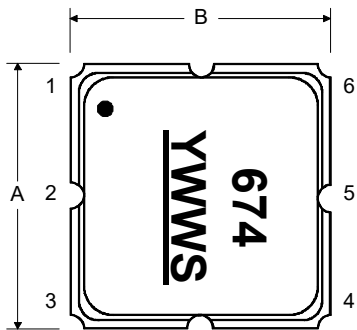
Case and PCB Footprint Dimensions

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	1.12	1.25	1.38	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	

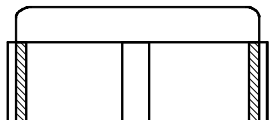
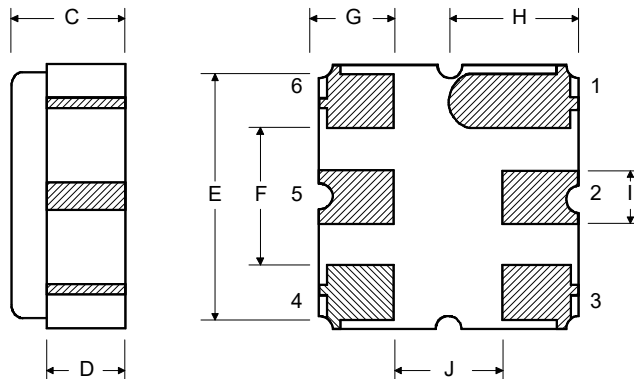
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic
Pb Free	

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.

