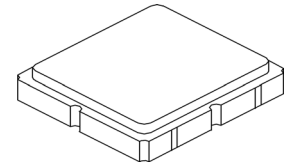


SF2391E

**897.5 MHz
SAW Filter**



SM3030-6

- **Low-loss 897.5 MHz SAW Filter**
- **Designed for 50 ohm Source/Load**

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	+20	dBm
Input Power Level (Duration 24h, 55°C)	+22	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-30 to +105	°C
Specification Temperature Range	-30 to +105	°C
Storage Temperature Range in Tape and Reel	-30 to +85	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			897.5		MHz
Insertion Loss, 880 to 915 MHz	IL			2.5	3.5	dB
Amplitude Ripple (p-p), 880 to 915 MHz				1.3	2.0	dBp-p
Attenuation (Reference level from 0dB)						dB
10 to 738 MHz			35	43		
738 to 773 MHz			35	46		
773 to 860 MHz			20	32		
925 to 927 MHz		+25°C to +105°C	25	30		
		-30°C to +105°C	16	30		
927 to 930 MHz			25	30		
930 to 960 MHz			25	27		
960 to 1000 MHz			25	33		
1000 to 2035 MHz			25	33		
2035 to 2500 MHz			25	34		
2500 to 3000 MHz			25	33		
3000 to 3500 MHz			20	33		
Temperature Coefficient of Frequency				-36		ppm/k
Case Style	SMD 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	6Y, YWWS					

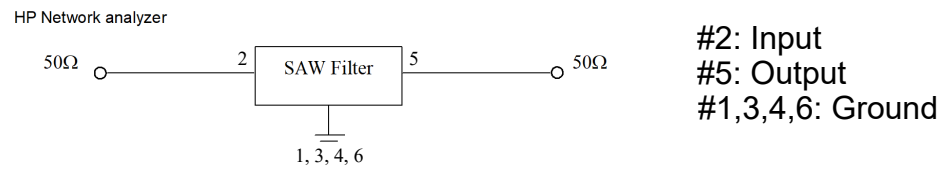


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

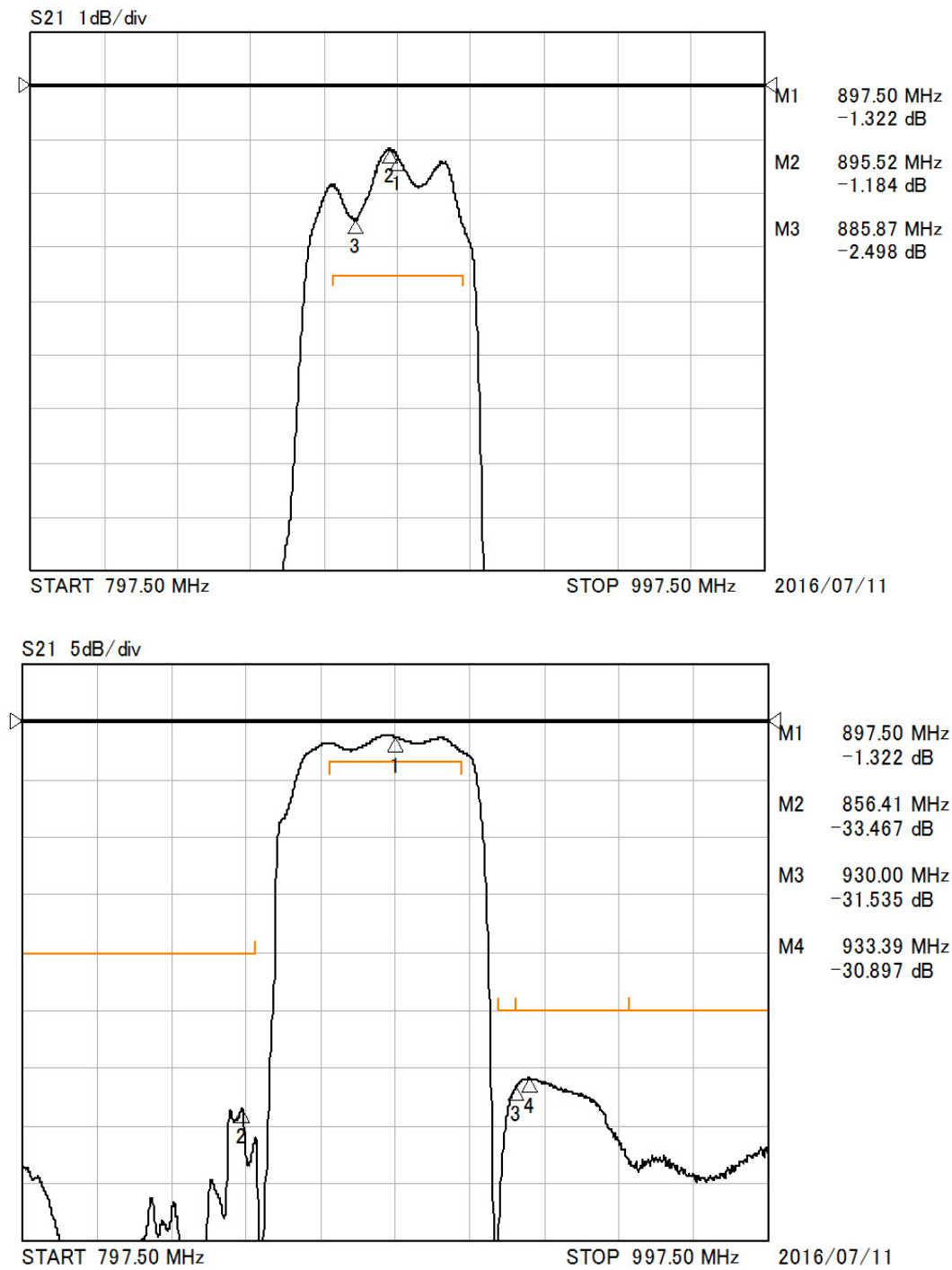
NOTES:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_c .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

Measurement Circuit:

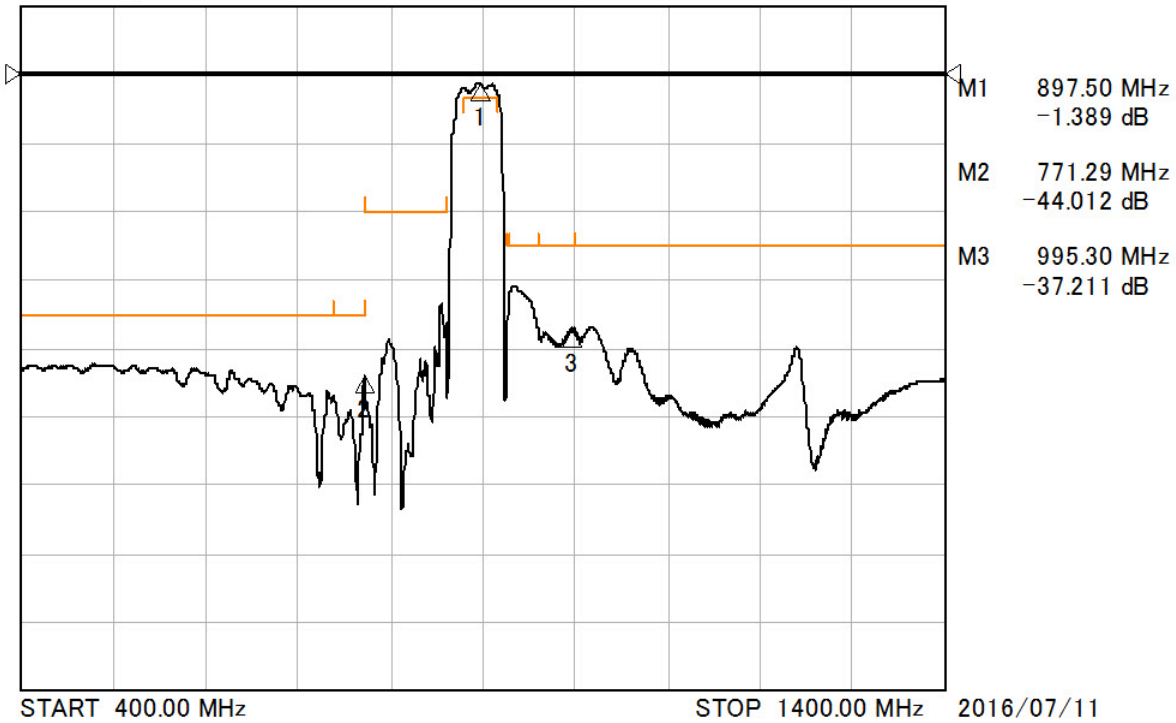


Frequency Characteristics:

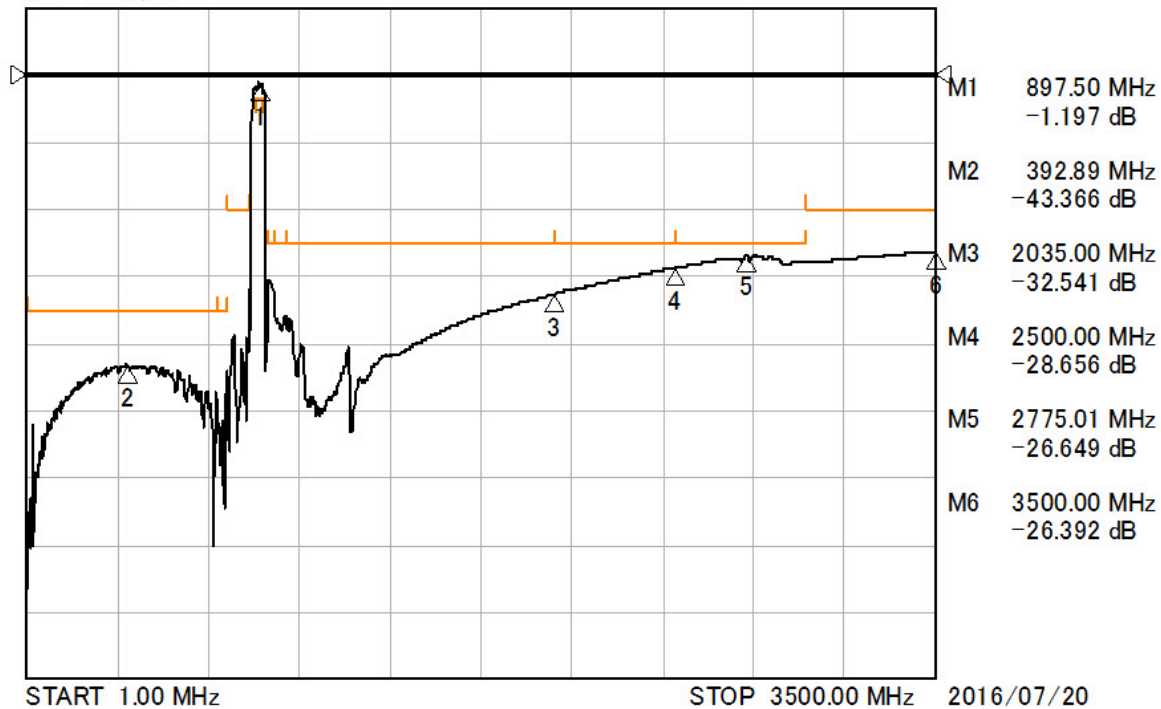


Frequency Characteristics:

S21 10dB/div



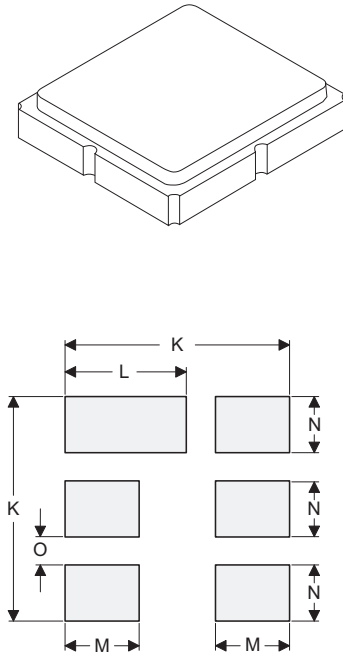
S21 10dB/div



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	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	



PCB Footprint Top View

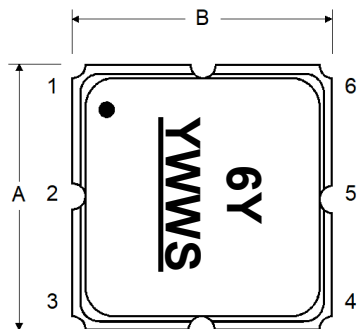
Case Materials

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 ₂ O ₃ Ceramic
Pb Free	

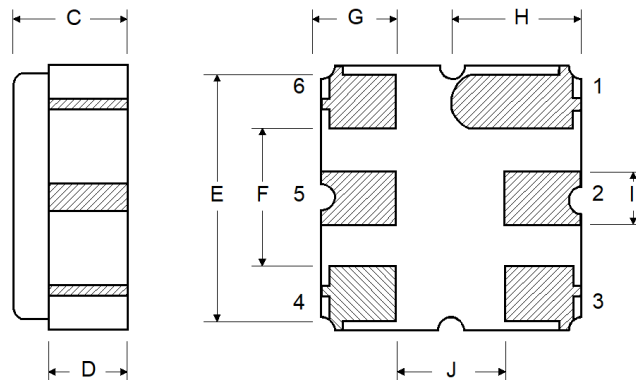
Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others

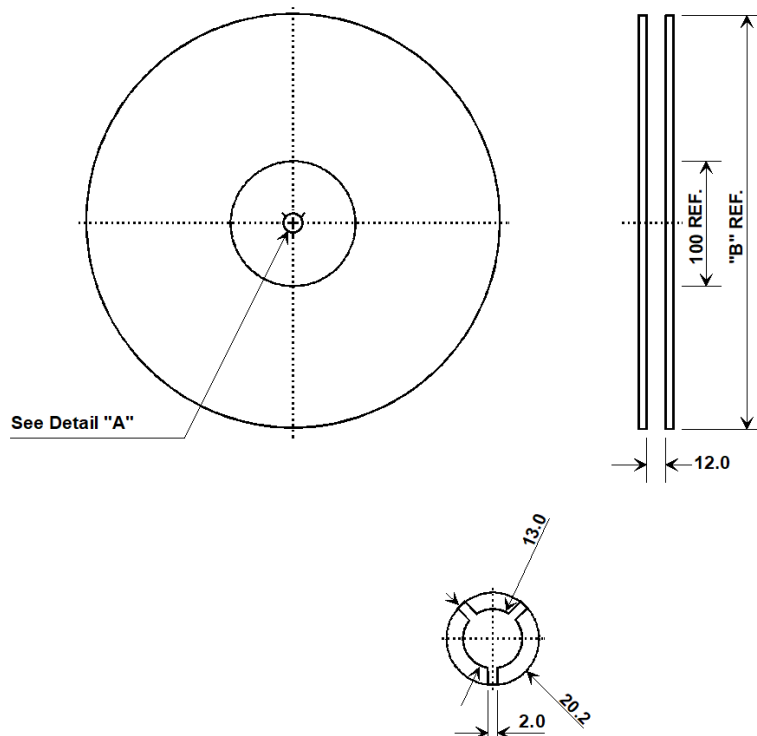
TOP VIEW



BOTTOM VIEW



Tape and Reel Specifications



"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

