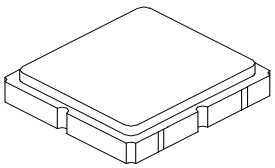
muRata
INNOVATOR IN ELECTRONICS

Discontinued

SF2001E

1960 MHz SAW Filter

- ***RF Filter for Mobile Communication Applications***
- ***No Matching Circuit Required***
- ***3.0 x 3.0 x 1.3 mm Package***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+10	dBm
DC Voltage on any Non-ground Terminal	3	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/10 seconds maximum	265	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency	f_C			1960		MHz
Passband Insertion Loss, 1930 -1990 MHz	IL			2.35	4.0	dB
Amplitude Ripple, 1930 -1990 MHz				1.4	2.4	dB_{P-P}
Attenuation Referenced to 0 dB						
DC to1870 MHz			25.0	32.0		dB
1870 to 1910 MHz			10.0	21.0		dB
2010 to 2040 MHz			4.5	10.0		dB
2040 to 2050 MHz			20.0	50		dB
2050 to 3800 MHz			25.0	29.0		dB
3800 to 5000 MHz			22.0	15.0		dB
5000 to 6000 MHz			10.0	15.0		
VSWR, 1930 to 1990 MHz				1.7	2.4	
Source impedance	Z_S			50		Ω
Load impedance	Z_L			50		Ω
Operating Temperature	T_A		-30		+80	°C

Case Style	SM3030-6 3 x 3 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week S=shift)	652 YWWS

Electrical Connections

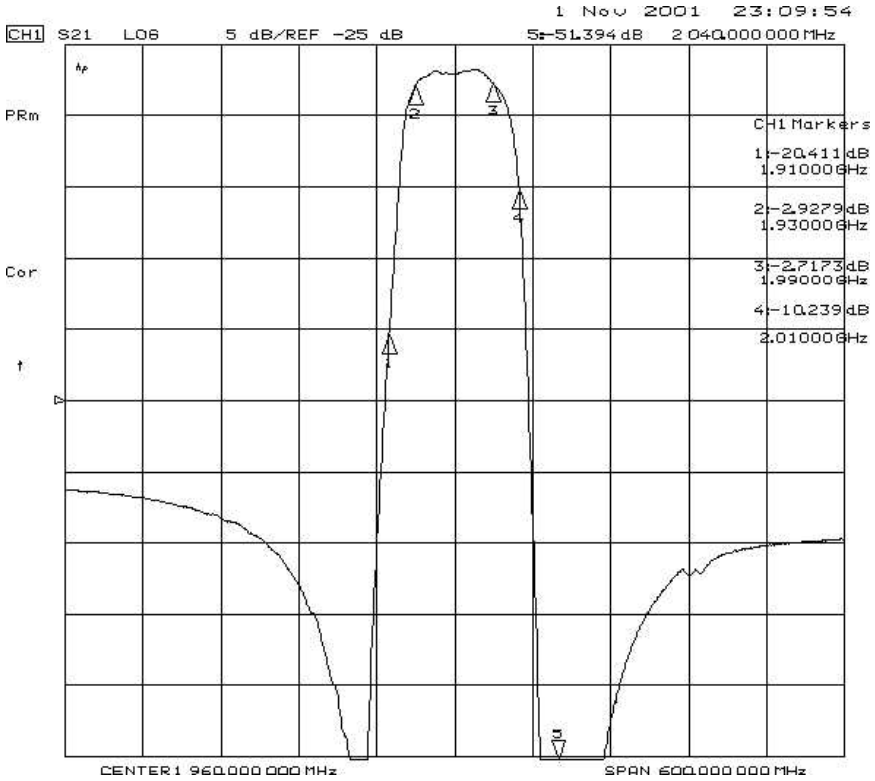
Connection	Terminals
Input	2
Output	5
Ground	All others

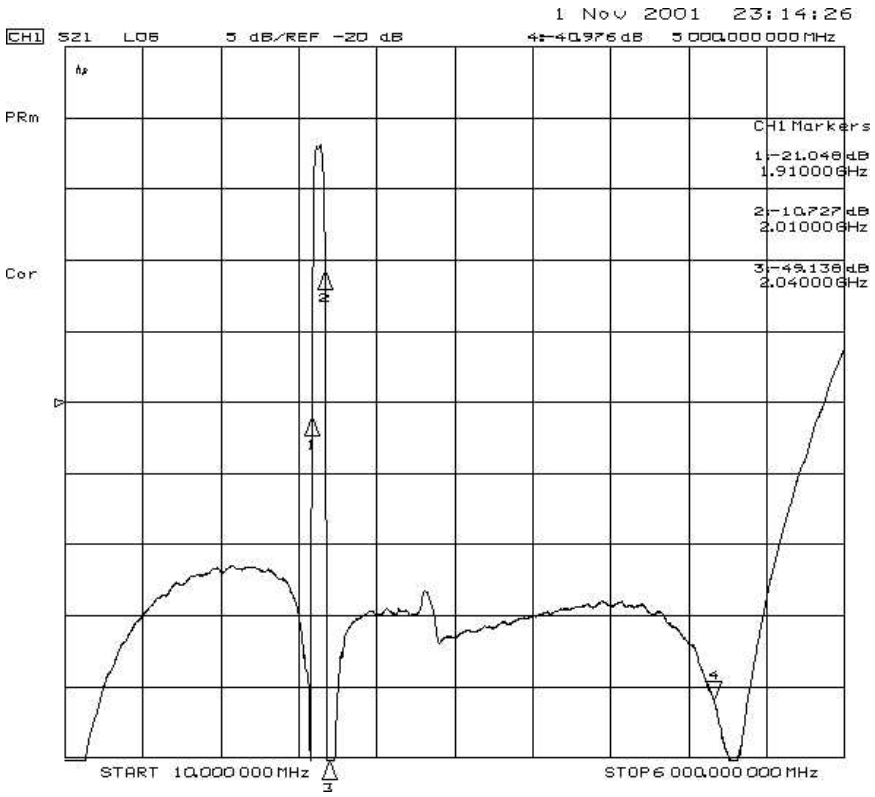
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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, fc.
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.

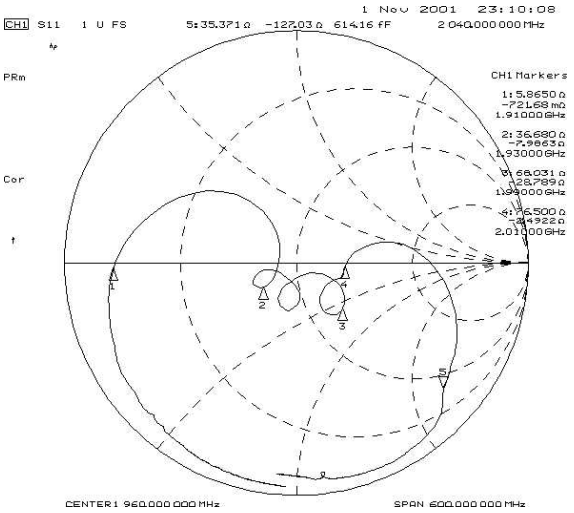
Frequency Characteristics:

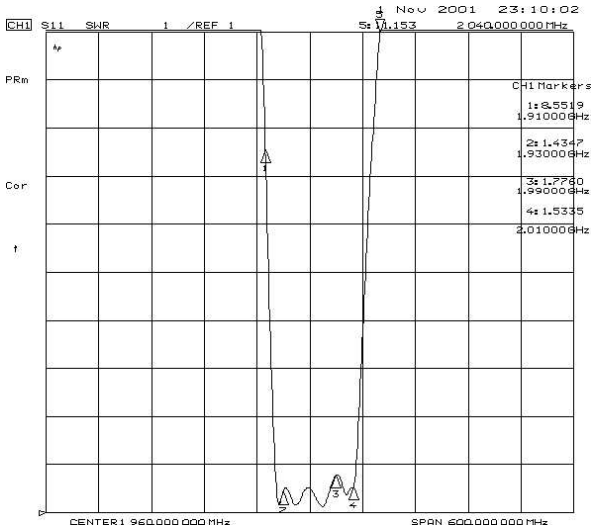




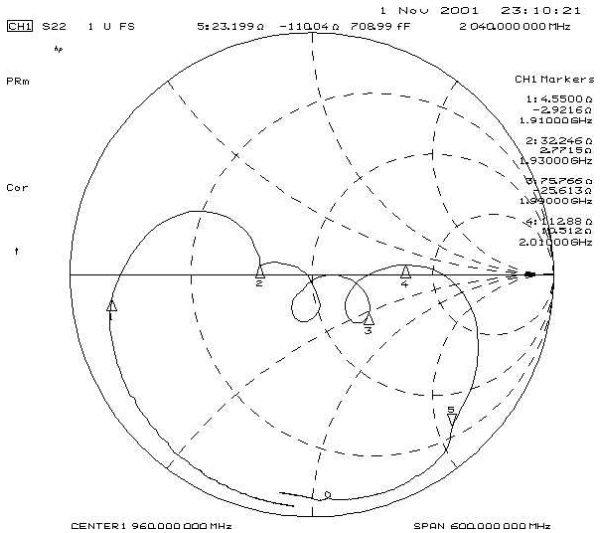
Reflections Functions:

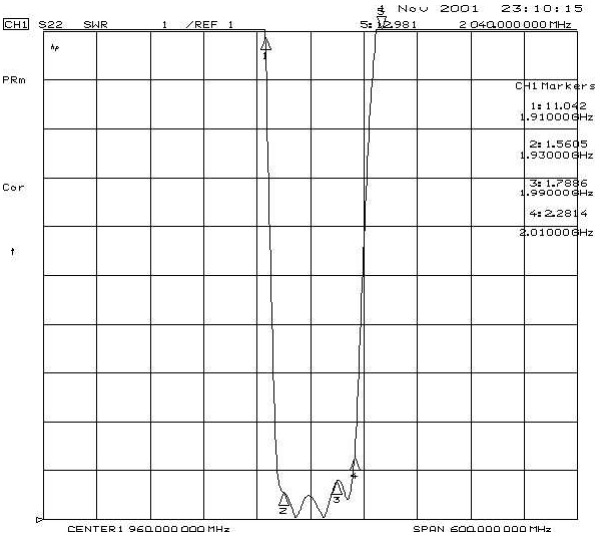
S11 VSWR





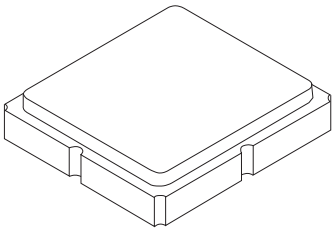
S22 VSWR

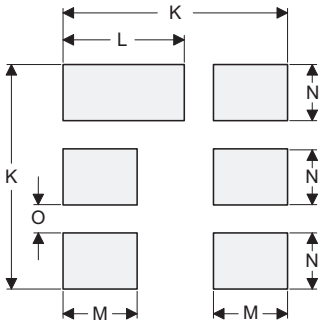




SM3030-6 Case

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





PCB Footprint Top View

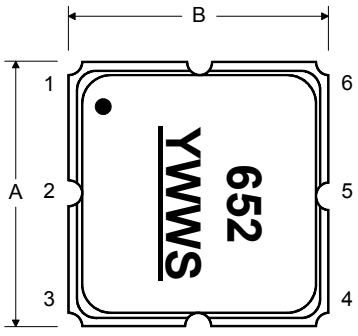
Case and PCB Footprint Dimensions

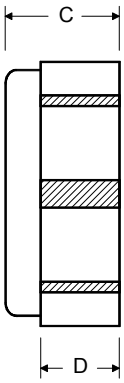
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	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

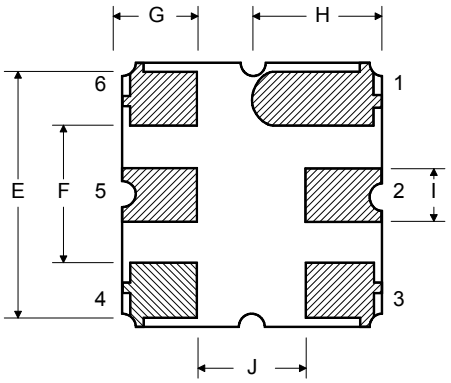
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

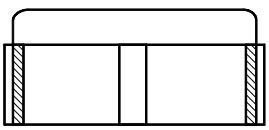
Top View



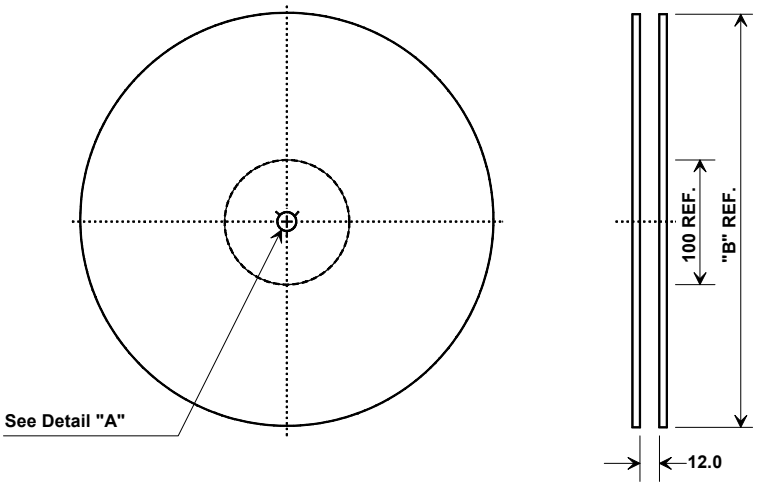


Bottom View

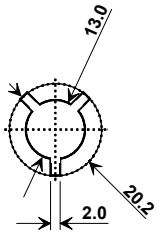




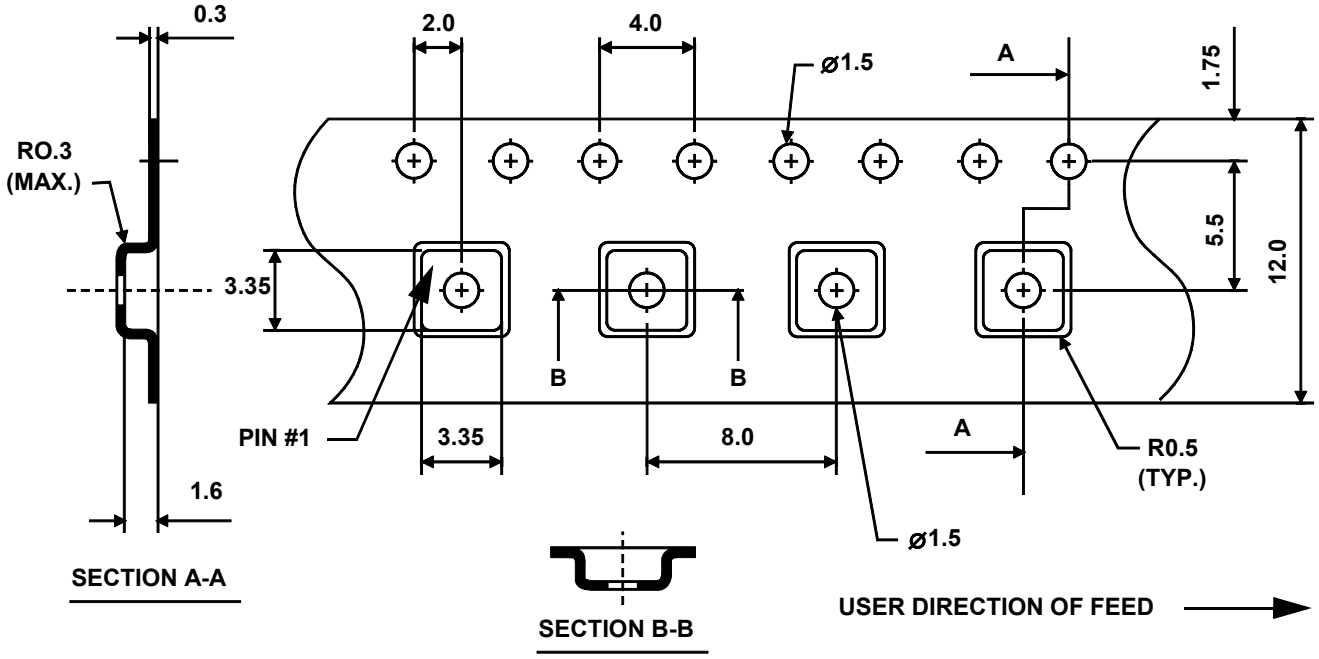
Tape and Reel Specifications



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



COMPONENT ORIENTATION



Mouser Electronics

Authorized Distributor

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