

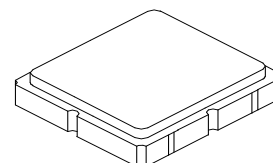
- Low Loss Filter for 915 MHz Front End
- Complies with Directive 2011/65/EU (RoHS)

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	20	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-20 to +60	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 Cycles/10 seconds Maximum	265	°C

SF2053E

915.00 MHz SAW Filter



SM3030-6

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			915		MHz
Insertion Loss, 908.75 to 921.25 MHz	IL_{MIN}			3.0	5.0	dB
Amplitude Variation, 910.25 to 921.25 MHz				1.0	1.5	dB _{P-P}
Amplitude Variation, 908.75 to 921.25 MHz				1.0	3.1	
Attenuation, Referenced to IL_{MIN}						dB
850 to 902 MHz			18	31		
928 to 940 MHz			7.5	15		
800 to 850 MHz			35	48		
940 to 1000 MHz			33	41		
Temperature Coefficient of Frequency	TC_f			-42		ppm/K
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	531, 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



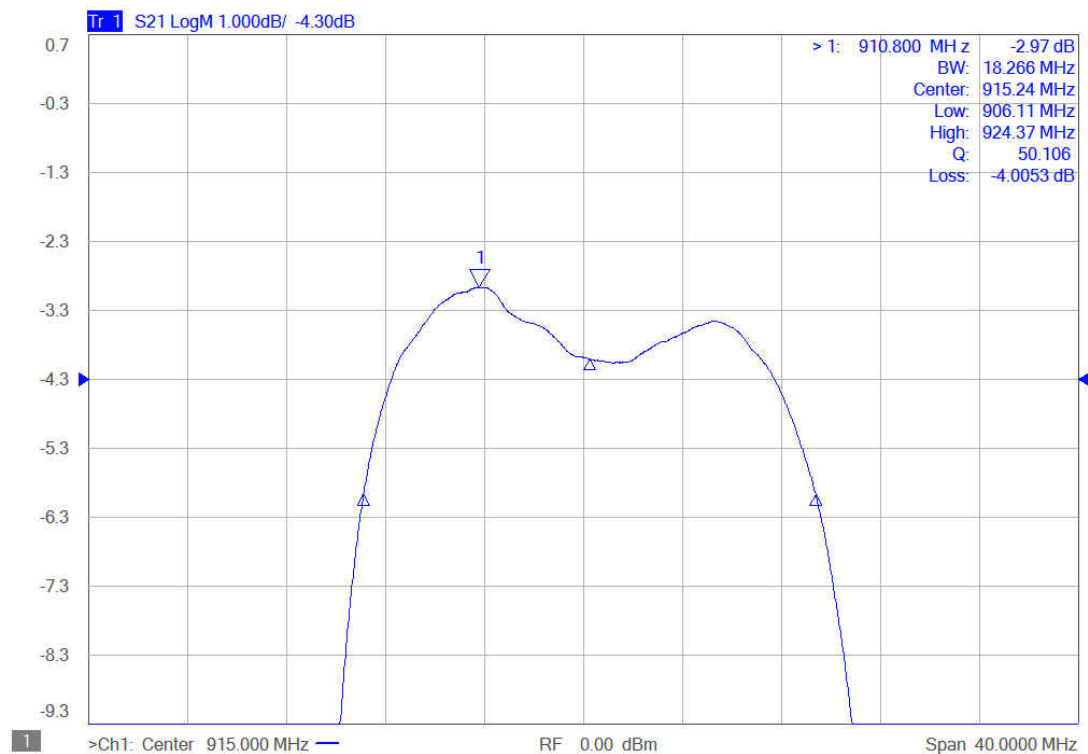
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

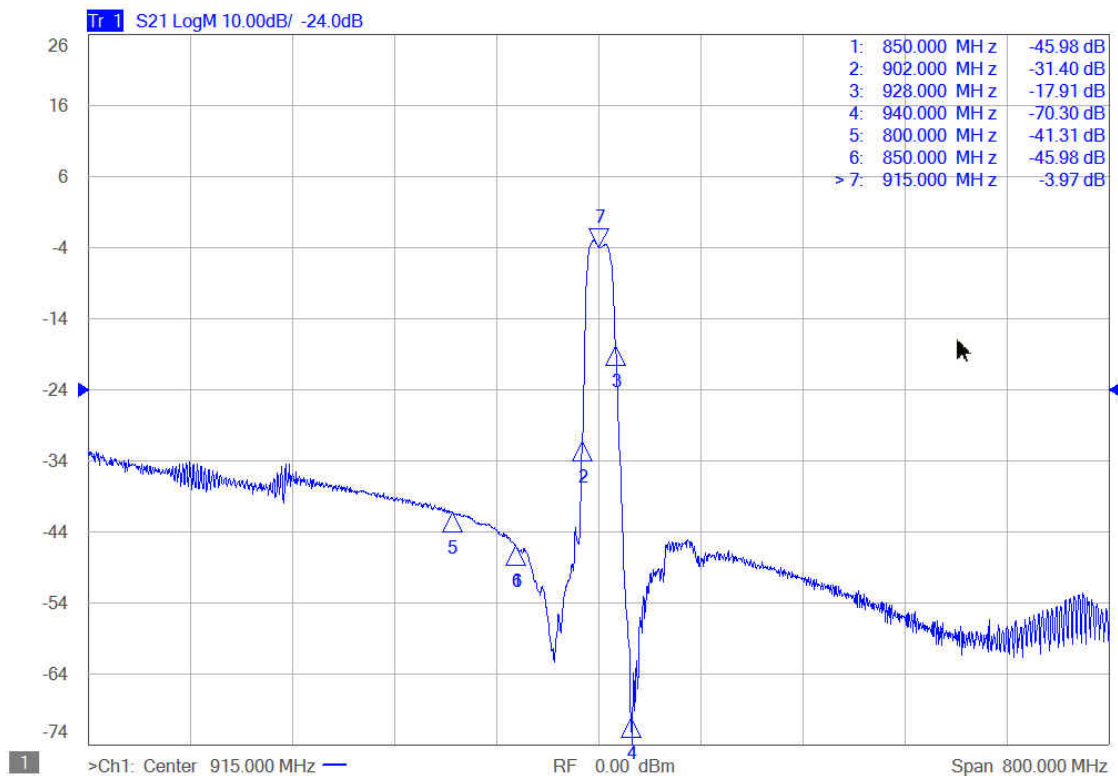
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_C .
3. The design, manufacturing process, and specifications of this filter are subject to change.
4. US and international patents may apply.
5. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

Frequency Characteristics

Passband

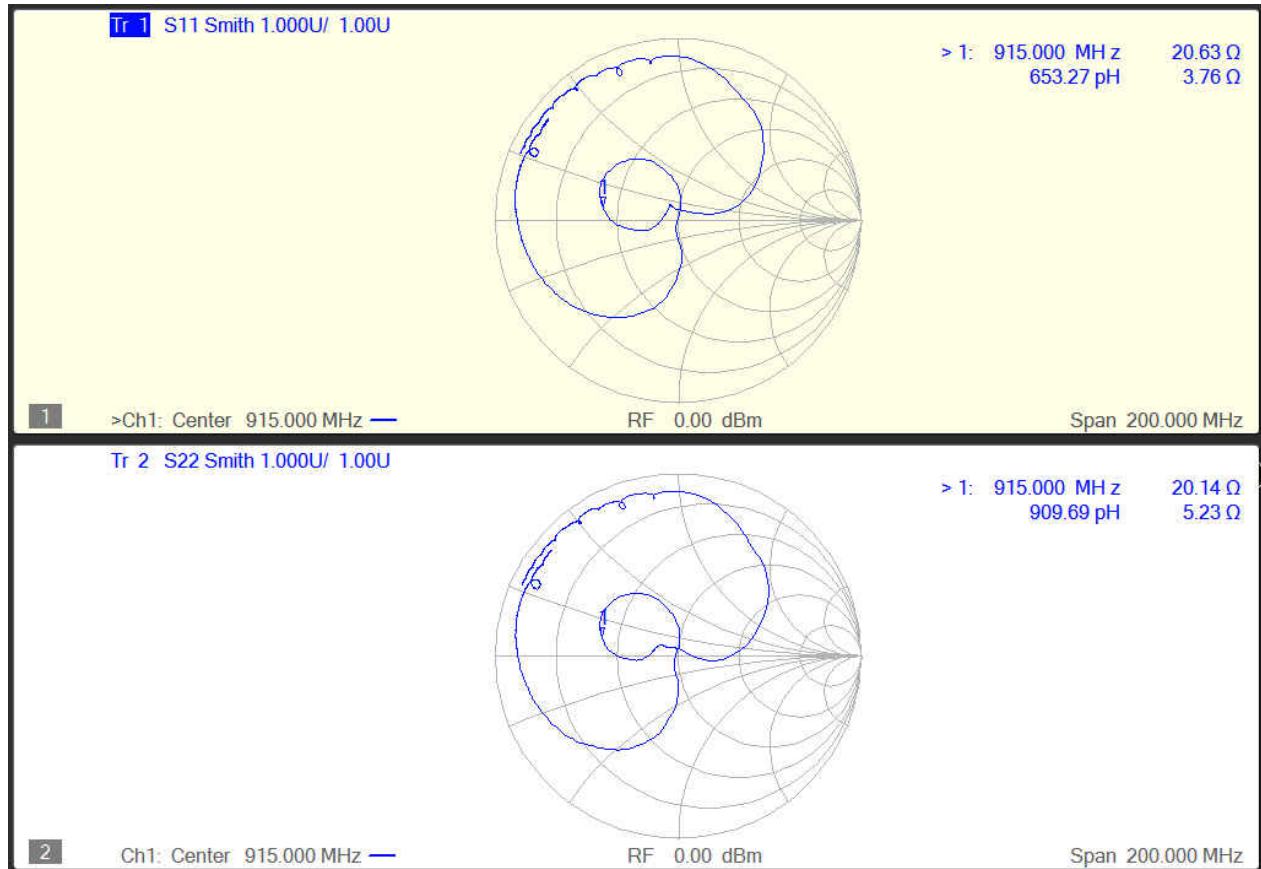


Rejection



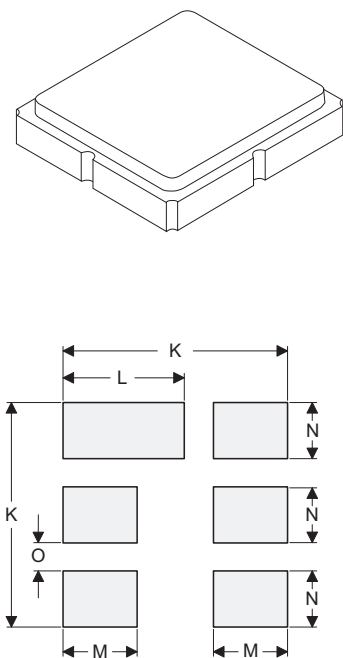
Frequency Characteristics (Continued)

Smith Chart



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

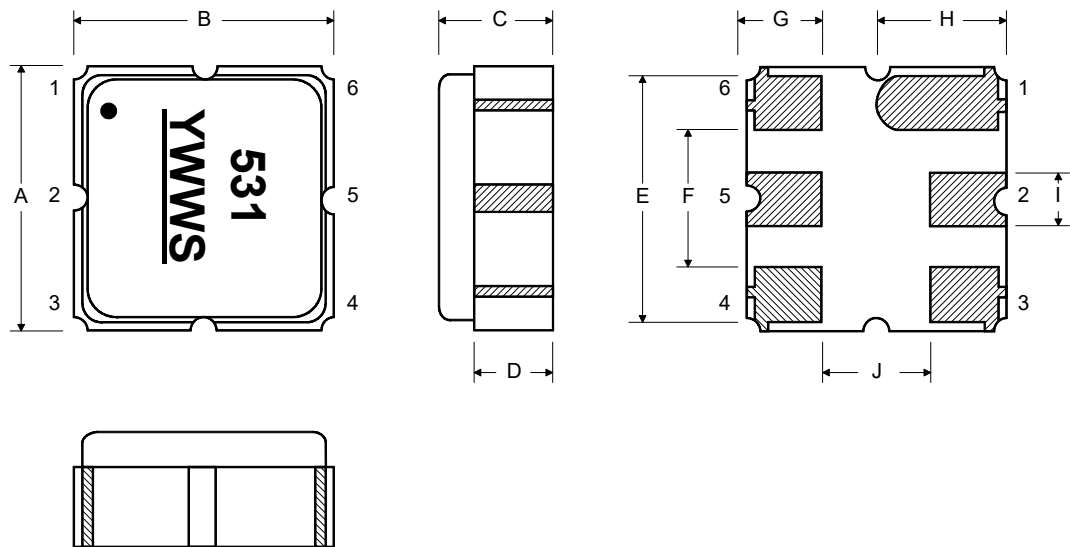
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37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



See Detail "A"

100 REF.
"B" REF.

12.0

13.0
20.2
2.0

This technical drawing shows a circular part with a central hole. The part is defined by two concentric circles. A horizontal and vertical dashed line intersect at the center. A leader line points from the text "See Detail 'A'" to the central hole. To the right, a vertical dimension line indicates a distance of "100 REF." and "B" REF." from the center to the top edge. Below this, a horizontal dimension line indicates a distance of 12.0 from the center to the right edge. At the bottom, a detail view of the central hole is shown. It is a circular feature with a central hole and four radial slots. The dimensions for this detail are: 13.0 for the outer radius, 20.2 for the inner radius, and 2.0 for the width of the radial slots.

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

Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.40 mm
Pitch	8.0 mm
W	12.0 mm

