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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



- Low Loss Filter for 915 MHz Front End
- Complies with Directive 2002/95/EC (RoHS)

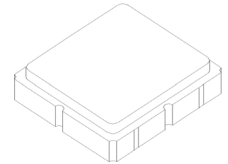


Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	20	dBm
DC Voltage on any Non-ground Terminal	0	V
Operating 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

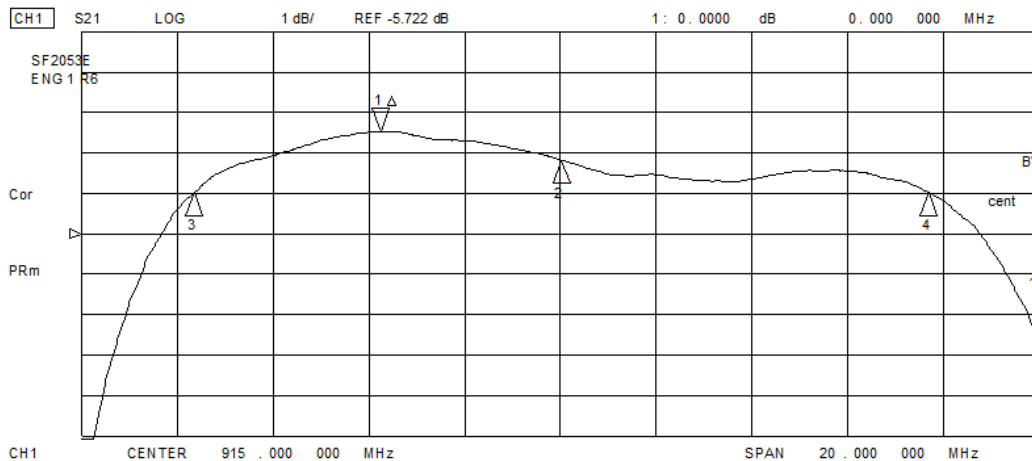


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

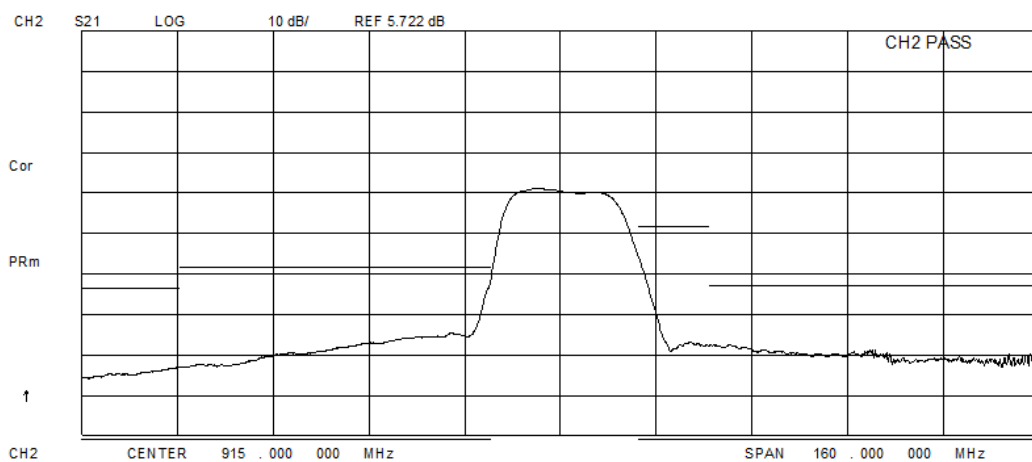
NOTES:

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.

29 Jun 2005 13:25:50



CH1 Markers
Max Δ REF=1
BW: 15.332815 MHz
cent: 915.024363 MHz
Q: 59.678
1. loss: -3.1939 dB



29 Jun 2005 13:17:42

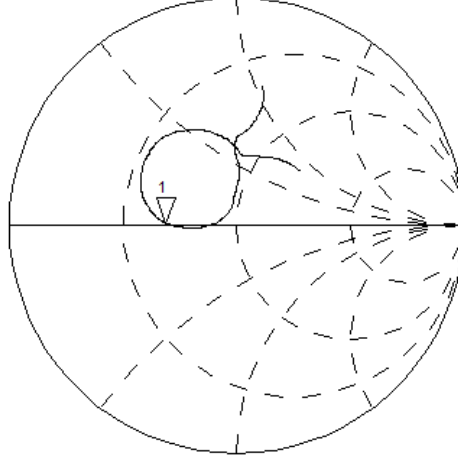
CH1 S11 1 UFS
SF2053E
ENG 1 R6

1: 26.243 Ω 0.5830 Ω 101.41 pF 915.000 000 MHz

Cor

PRm

↑

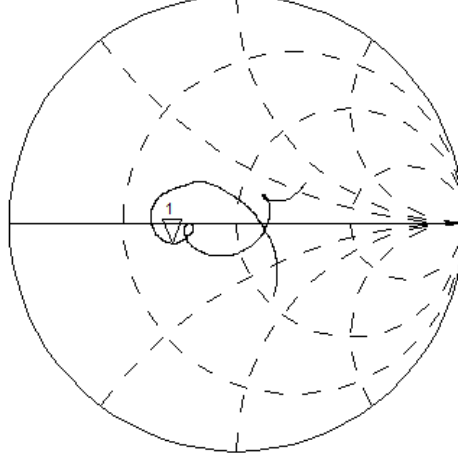


CH3 S22 1 UFS

1: 27.504 Ω -5.4668 Ω 31.818 pF 915.000 000 MHz

Cor

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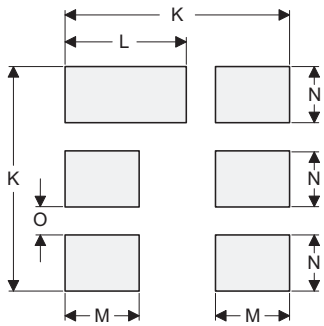
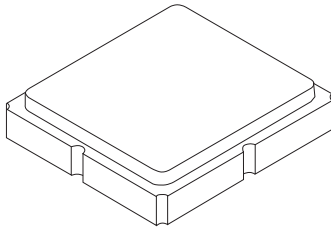


CENTER 915.000 000 MHz

SPAN 20.000 000 MHz

SM3030-6 Case

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



PCB Footprint Top View

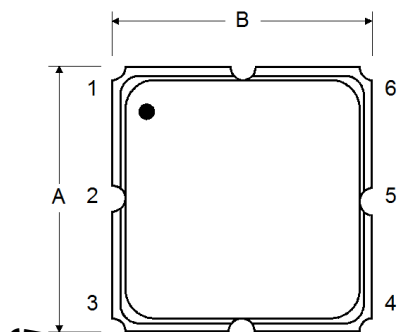
Case and PCB Footprint Dimensions

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	

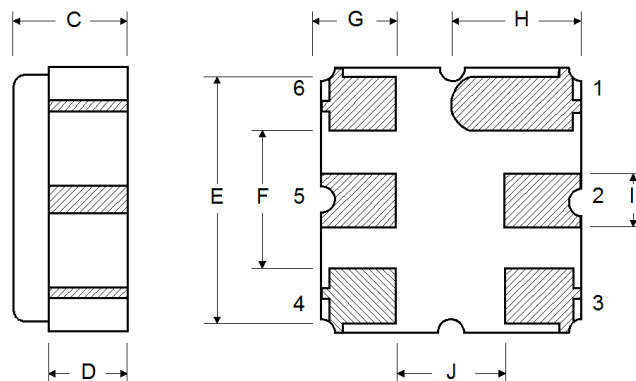
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 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	

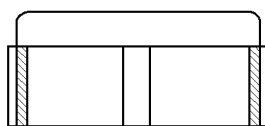
TOP VIEW



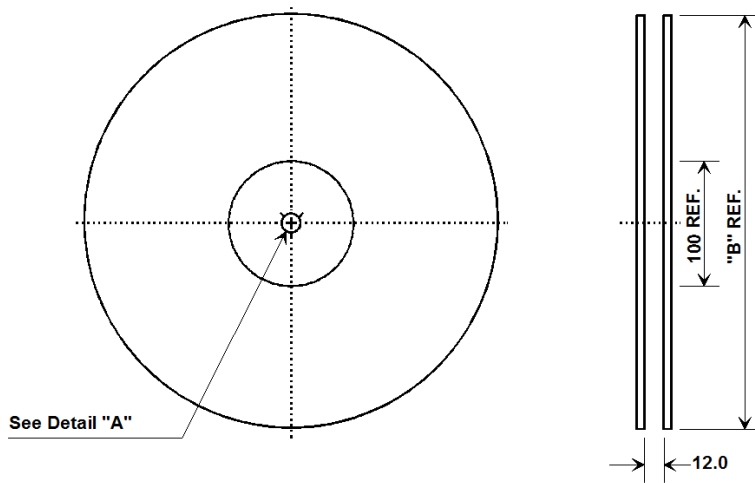
BOTTOM VIEW



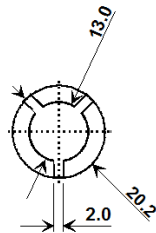
531



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

