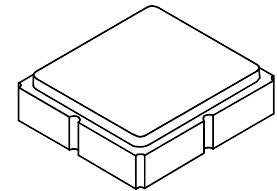


SF1224E-5

**2332.5 MHz
SAW Filter**



SM3030-6

- RF SAW Filter, 2332.5 MHz, 25 MHz Bandwidth
- 3.0 x 3.0 x 1.4 mm Surface-mount Case
- Input/Output Impedance 50Ω/50Ω
- Complies with Directive 2011/65/EU (RoHS)
- Moisture Sensitivity Level: 1
- AEC-Q200 Qualified

Absolute Maximum Ratings

Rating	Value	Units
Incident Power in Passband	+10	dBm
DC Voltage on any Non-ground Terminal	3	VDC
Operable Temperature Range	-40 to +125	°C
Specification Temperature Range	-40 to +105	°C
Component Storage Temperature Range	-40 to +105	°C
Maximum Soldering Profile, 5 cycles/10 seconds maximum	260	°C

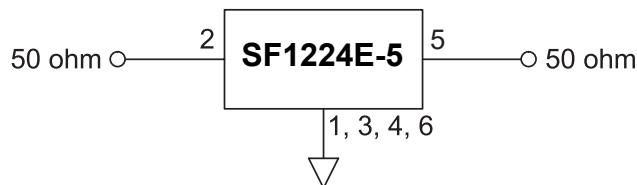
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c		2332.5			MHz
Insertion Loss, 2320.0 to 2345.0 MHz	IL			0.45	0.63	dB
Insertion Loss, 2320.0 to 2345.0 MHz (0.6dB for 25°C)				0.45	0.60	
Amplitude Ripple 2320.0 to 2345.0 MHz				0.12	0.35	
VSWR 2320.0 to 2345.0 MHz				1.3	1.5	
Attenuation (Reference level from 0 dB)						dB
698 to 894 MHz			9	10.3		
1710 to 1750 MHz			9.5	10.3		
1850 to 1990 MHz			10.5	11.3		
2400 to 2484 MHz			8	14		
2496 to 2690 MHz			12	13.5		
3400 to 3500 MHz			12	13.5		
Terminating Source impedance	Z_S			50		Ω
Terminating Load impedance	Z_L			50		Ω
Temp Coefficient				-36		ppm/k

Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms
Case Style	SM3030-6
Lid Symbolization (Y = Year WW = Week)	9V, YWWS

Note: It is critical to calibrate to the device, as the IL is extremely low.

Connections	Terminals
Input	2
Output	5
Ground	1, 3, 4, 6



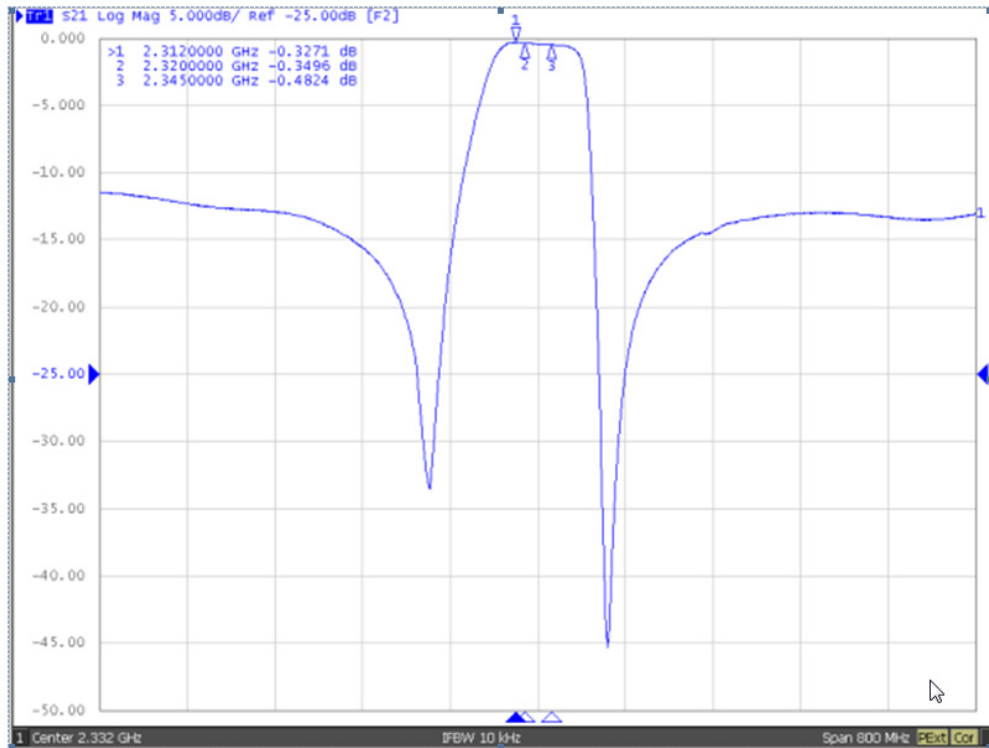
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

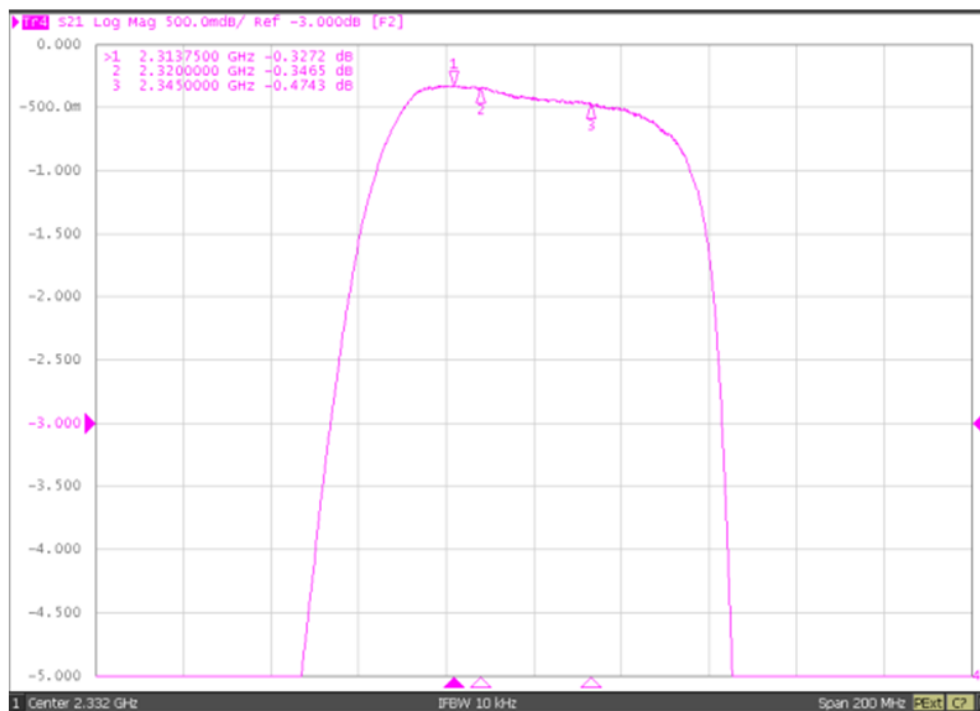
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Frequency Characteristics

S21: Span - 800 MHz

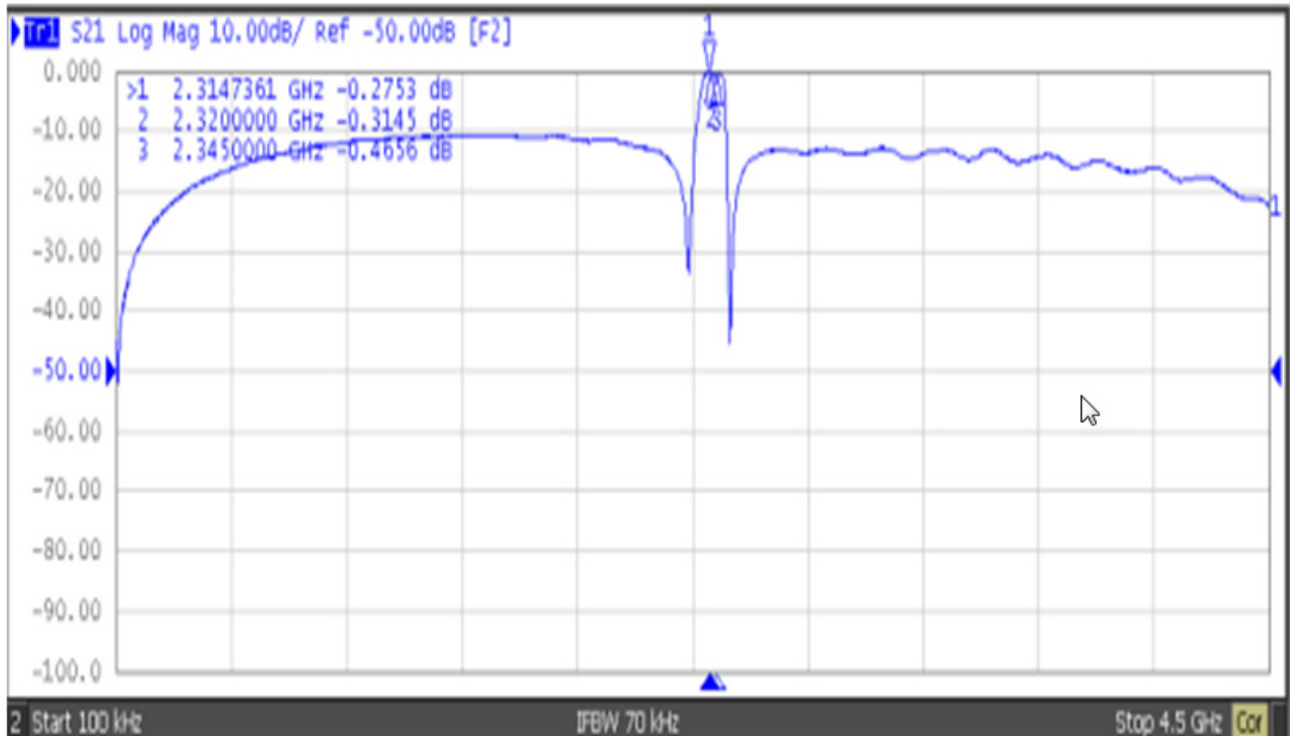


S21: Span - 200 MHz

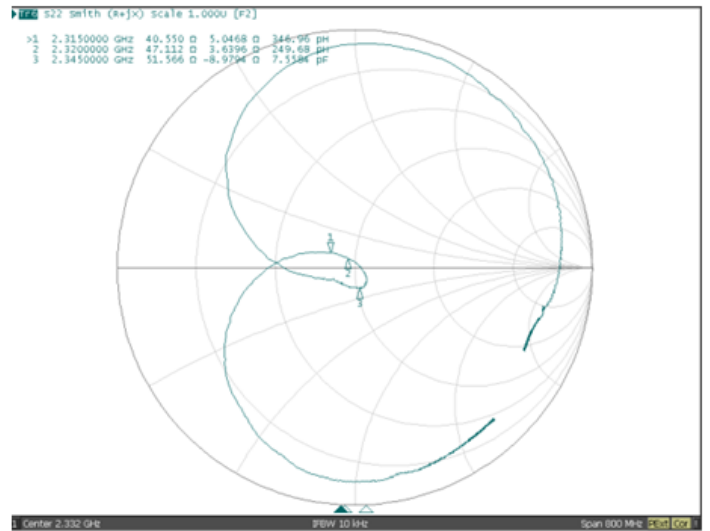
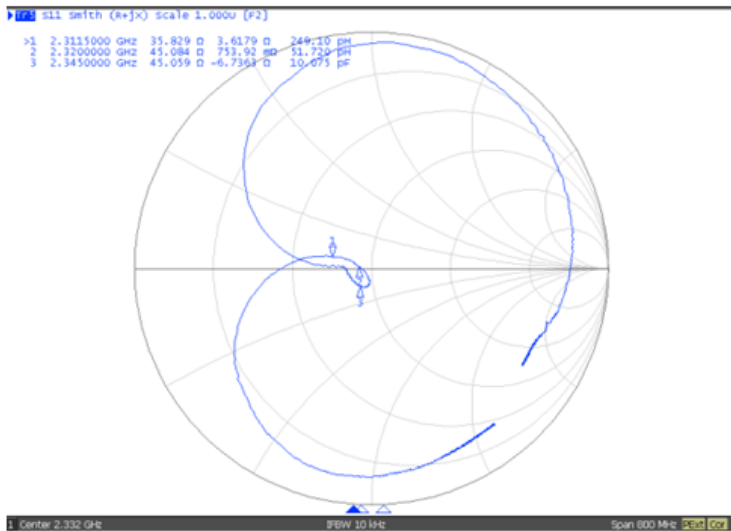


Frequency Characteristics

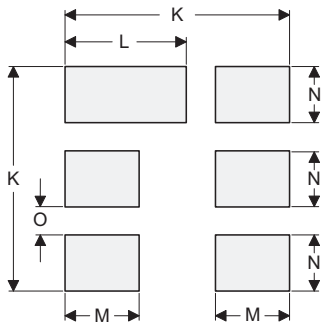
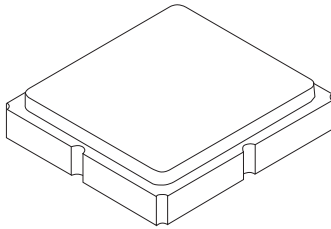
S21: Span - 4.5 GHz



S11/S22: Span - 800 MHz



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



PCB Footprint Top View

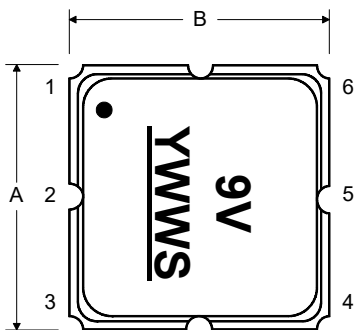
Case and PCB Footprint Dimensions

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	1.40	0.044	0.049	0.055
D	0.77	0.90	1.00	0.030	0.035	0.039
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		0.96			0.037	
N		0.81			0.032	
O		0.38			0.015	

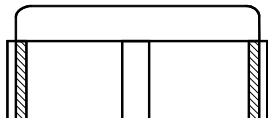
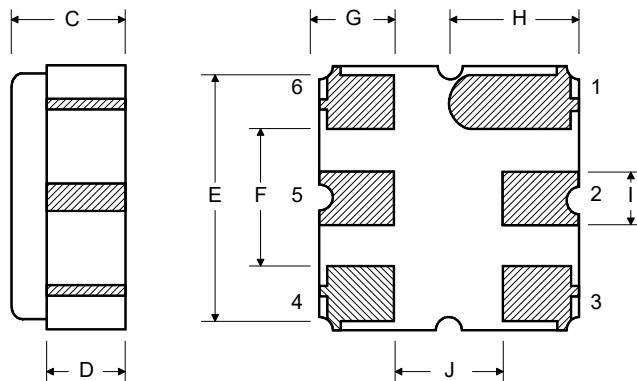
Case Materials

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

TOP VIEW



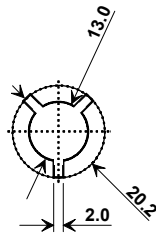
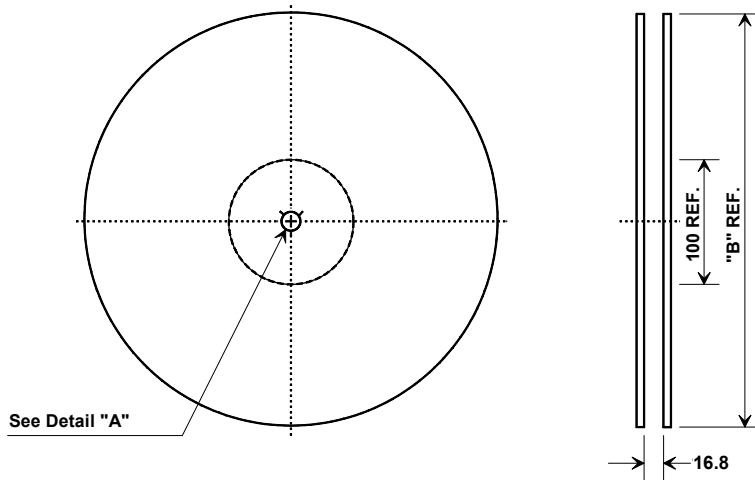
BOTTOM VIEW



Tape and Reel Specifications

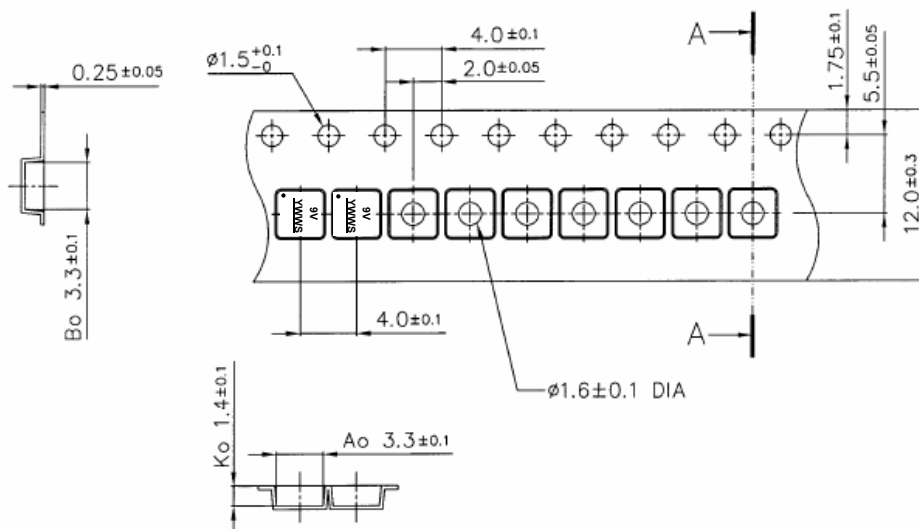
Tape and Reel Standard per ANSI/EIA-481

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



COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.30 mm
Bo	3.30 mm
Ko	1.40 mm
Pitch	4.0 mm
W	12.0 mm



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.

