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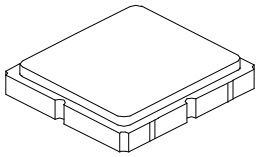
INNOVATOR IN ELECTRONICS

RoHS Compliance
This component is compliant with RoHS directive.
This component was always RoHS compliant from the first date of manufacture.

SF2368E

831.5 MHz SAW Filter



SM3030-6

- ***RF Filter for Mobile Communication Applications***
- ***Low Insertion Loss***
- ***3.0 x 3.0 x 1.3 mm Surface-Mount Case***
- ***No Matching Circuit Required***

Absolute Maximum Ratings

Rating	Value	Units
Input Power	+15, 100000 h, 85°C	dBm
	+20, 1000 h, 85°C	
Maximum DC Voltage Between any 2 Terminals	5	VDC
Operable Temperature Range	-45 to +125	°C
Operating Temperature Range	-30 to +85	°C
Storage Temperature Range	-40 to +85	°C
Maximum Soldering Profile	265 °C for 10 s	

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			831.5		MHz
Insertion Loss, 814-849 MHz	IL			3.0	4.2	dB
Amplitude Ripple, p-p, 814-849 MHz				1.1	2.6	
Attenuation Referenced to 0 dB:						dB
DC to 794 MHz		1, 2, 3	30	46		
859 to 860 MHz			6	16		
869 to 900 MHz			20	31		
900 to 2300 MHz			25	33		
2300 to 2600 MHz			25	30		
2600 to 2800 MHz			20	29		
2800 to 3200 MHz			5	26		
3200 to 6000 MHz			2	4		
VSWR, 814-849 MHz				1.5	2.6	

Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms
Case Style	SM3030-6 3 x 3 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift)	5R YWWS

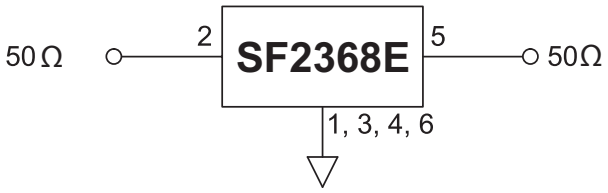
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

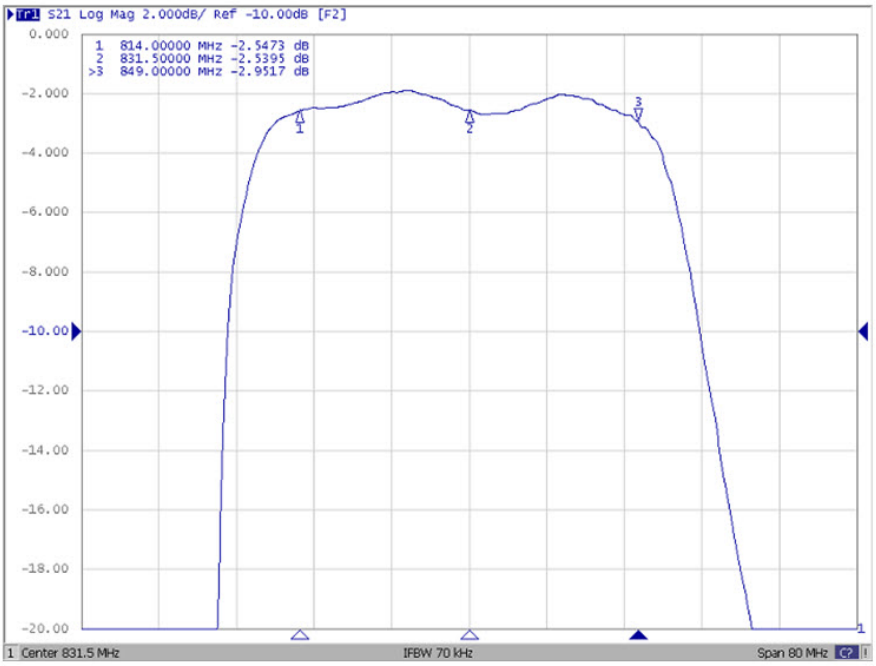
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, 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.
9. Electrostatic Sensitive Device. Observe precautions for handling.

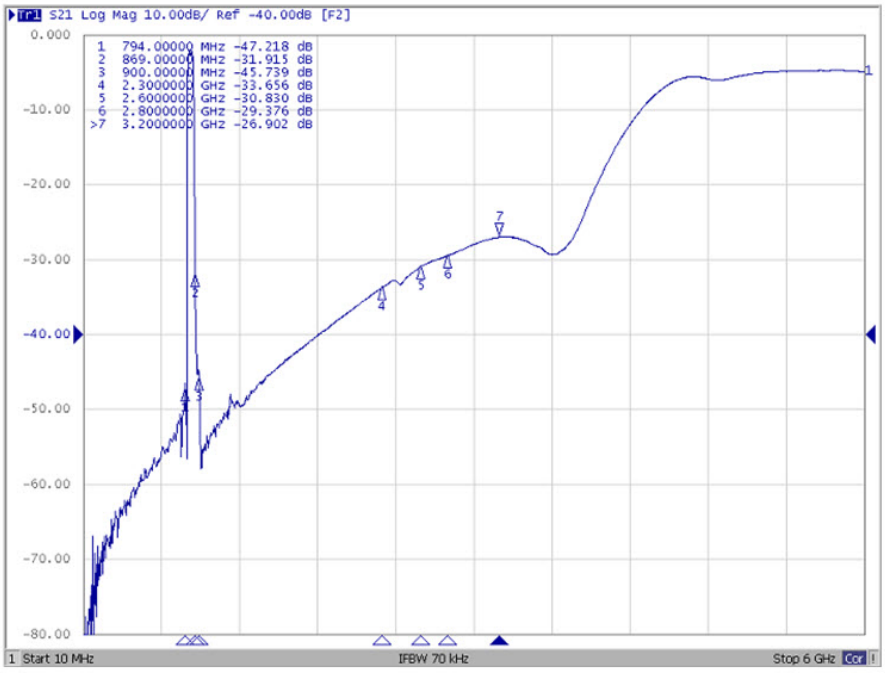
Electrical Connections

Connection	Terminals
Input	2
Output	5
Ground	All others

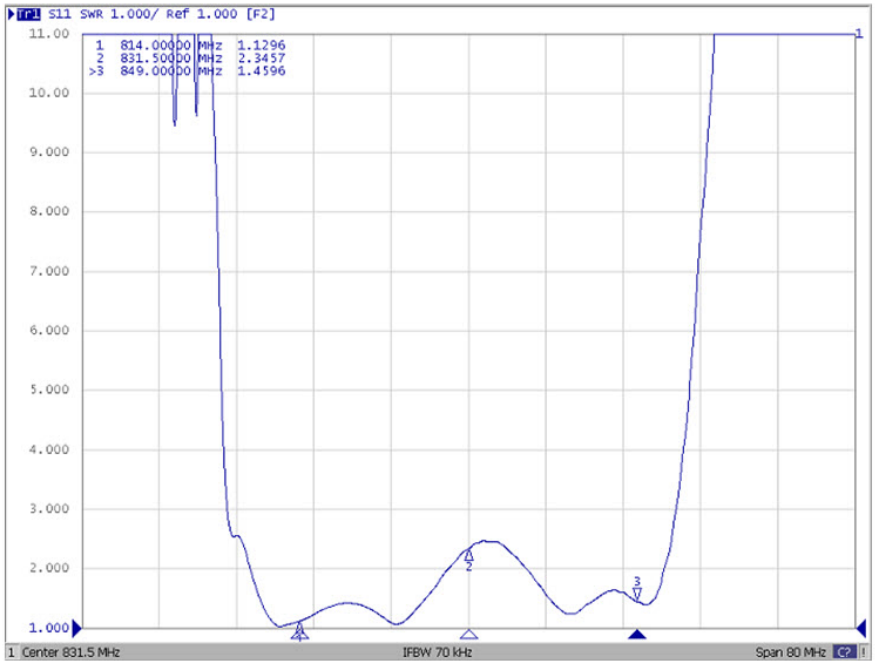


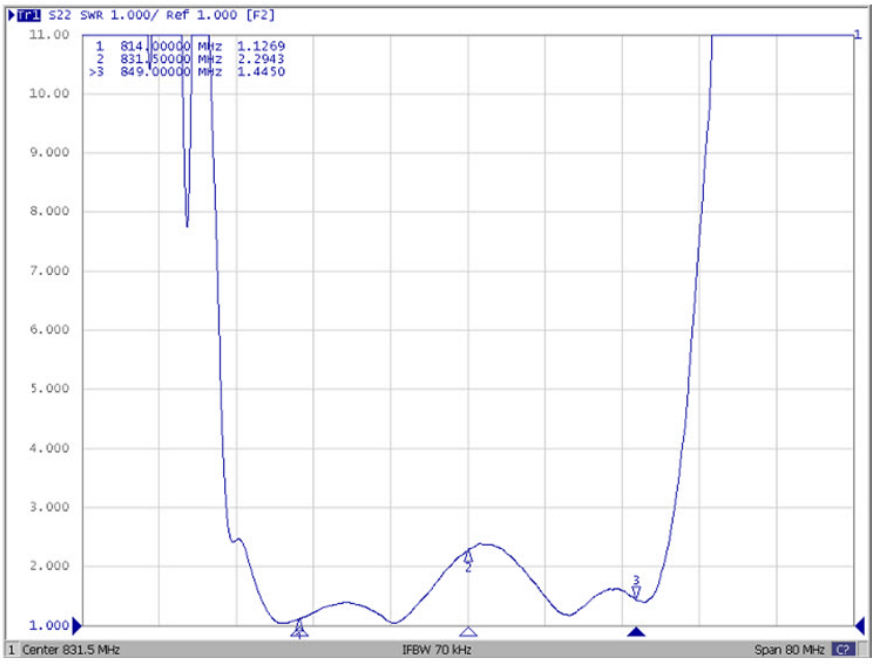
Frequency Characteristics





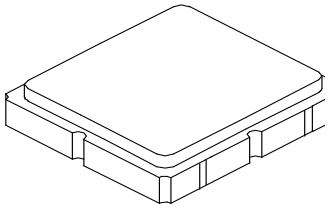
Frequency Characteristics





SM3030-6 Case

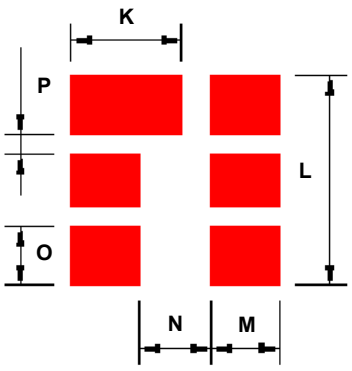
6-Terminal Ceramic Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint



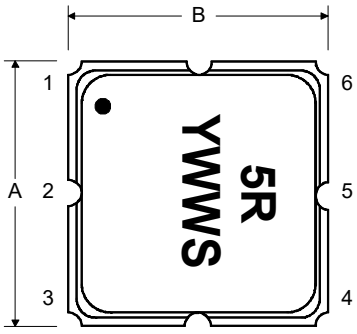
Case Dimensions

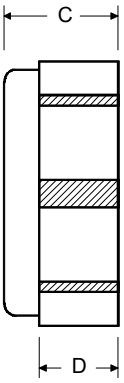
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		3.0			0.118	
B		3.0			0.118	
C			1.4			0.055
D			1.0			0.039
E		2.80			0.110	
F		1.6			0.063	
G		0.85			0.033	
H		1.5			0.059	
I		0.6			0.024	
J		1.3			0.051	
K		1.70			0.066	
L		3.20			0.125	
M		1.05			0.041	
N		1.10			0.043	
O		0.90			0.035	
P		0.30			0.011	

PCB Footprint, Top View

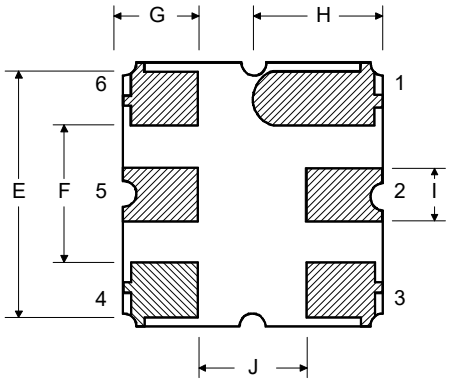


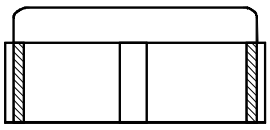
TOP VIEW



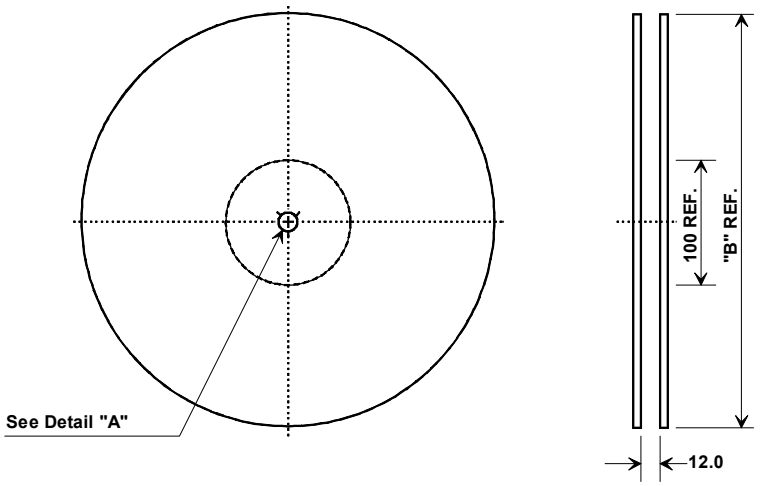


BOTTOM VIEW

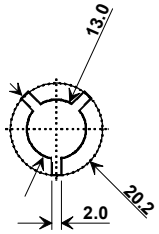




Tape and Reel Specifications



"B" Nominal Size		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	1.4 mm
Pitch	8.0 mm
W	12.0 mm