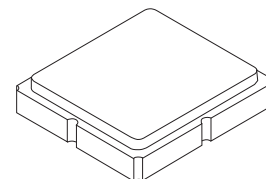


- **Low-loss SAW Filter**
- **No Matching Required for 50 ohm Source/Load**
- **3.0 x 3.0 x 1.25 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**



SF2464E

400 MHz SAW Filter


SM 3030-6

Absolute Maximum Rating	Value	Units
Input Power Level	10	dBm
DC Voltage	6	VDC
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-40 to +105	°C
Storage Temperature Range in Tape and Reel	-45 to +85	°C
Moisture Sensitivity Level	1	MSL
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 20 - 40 s	

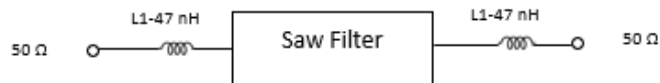
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units	
Center Frequency	f _C			400		MHz	
3dB BW				680		kHz	
Insertion Loss	ILmin			2.8	3.5	dB	
Insertion Loss (excluding loss in matching elements)	ILmin			2.3	3.0		
Passband (relative to ILmin) 399.875 to 400.125 MHz				0.5	3.0		
Attenuation relative to ILmin:						dB	
10 to 370 MHz			50	53			
370 to 390 MHz			45	50			
390 to 399 MHz			22	32			
399 to 399.3 MHz			15	21			
400.7 to 401 MHz			15	21			
401 to 408 MHz			12	29			
404 to 414 MHz			35	43			
414 to 468 MHz			45	46			
468 to 800 MHz			50	50			
800 to 1500 MHz			60	70			
1500 to 2500 MHz			50	68			
Impedance at F _C , Input Z _{in} = R _{in} //C _{in} Z _S	328Ω//2.85pF						
Impedance at F _C , Output Z _{in} = R _{out} //C _{out} Z _L	328Ω//2.85pF						

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	A9, YWWS	
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

Electrical Connections

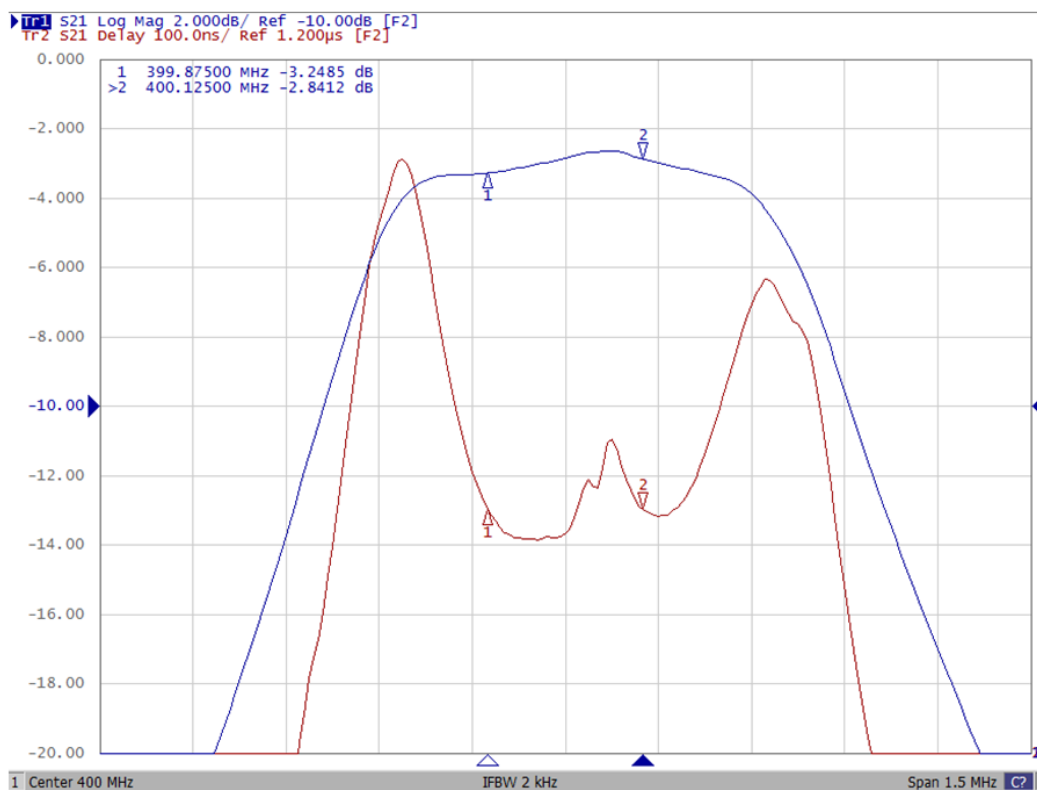
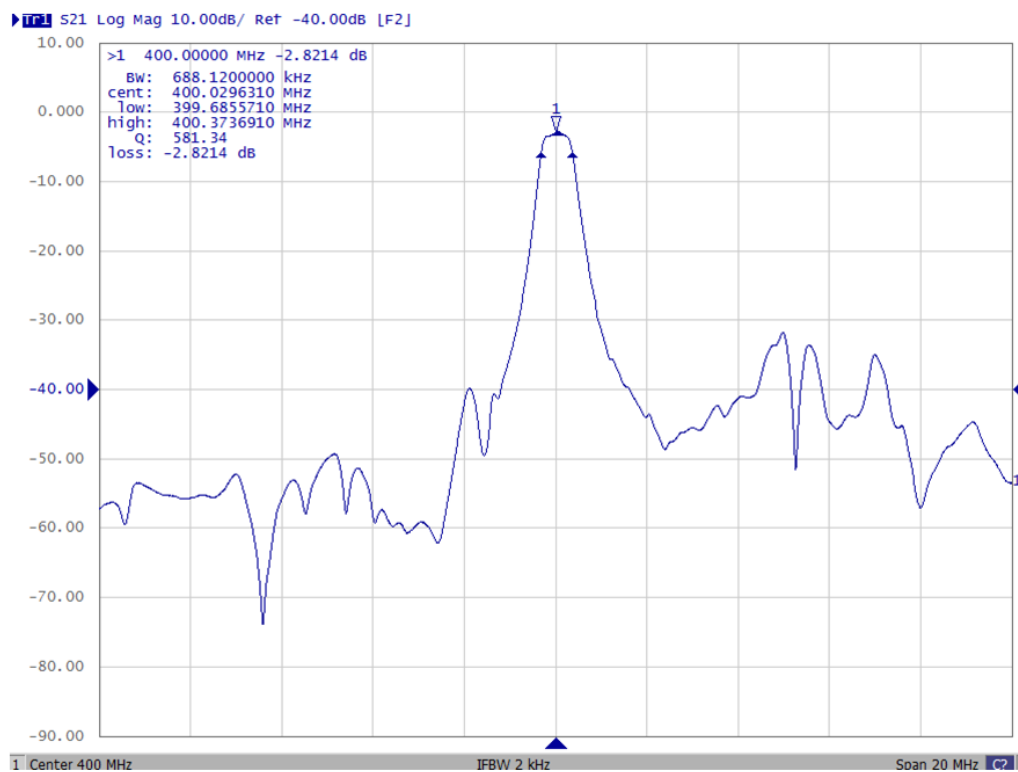
Connection	Terminals
Input (recommended)/Input Ground	1
Input Ground/Input	2
Output (recommended)/Output Ground	4
Output Ground/Output	5
Ground	All others


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

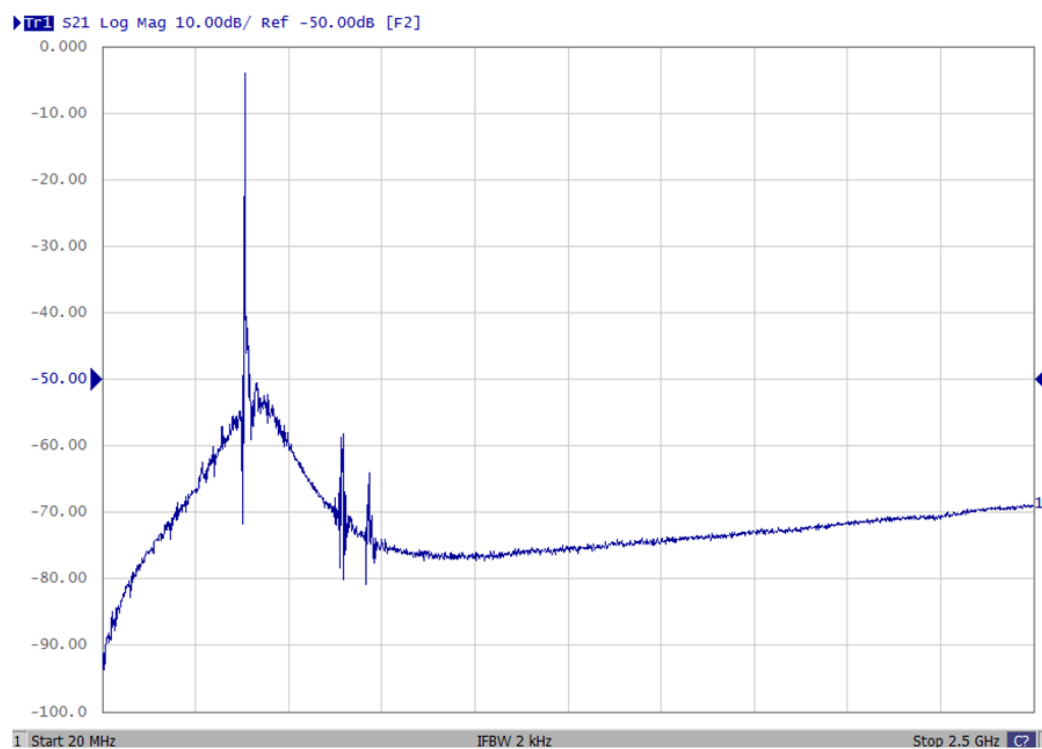
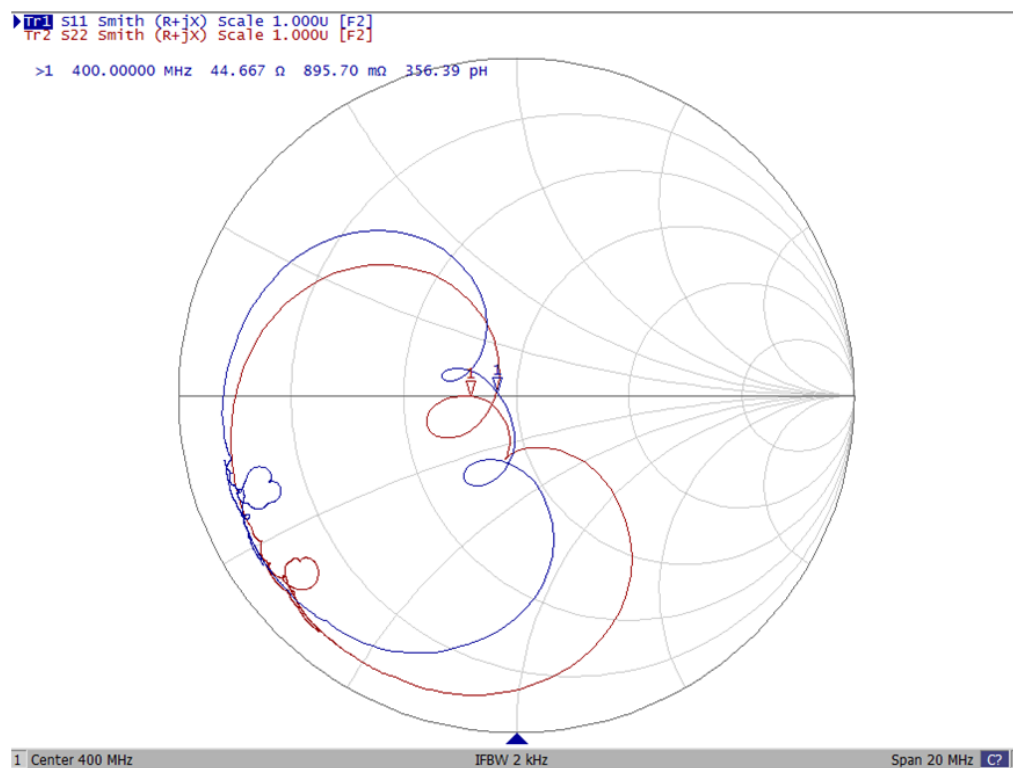
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

Frequency Characteristics



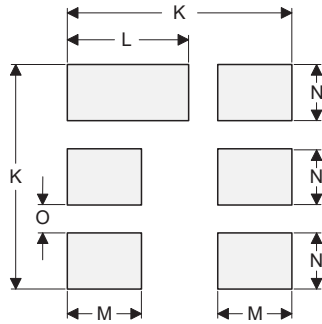
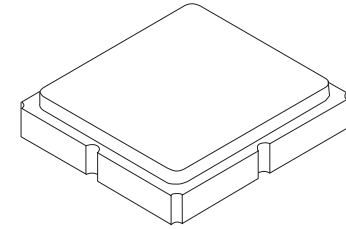
Frequency Characteristics



SM3030-6 Ceramic 6-Terminal Surface-mount Case

3.0 X 3.0 mm Nominal Footprint

Case and PCB Footprint Dimensions



Typical PCB Land Footprint

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	
P	0.15	0.30	0.45	0.005	0.011	0.017
Q	0.07	0.20	0.36	0.002	0.007	0.014
R	0.62	0.7	0.78	0.024	0.027	0.030

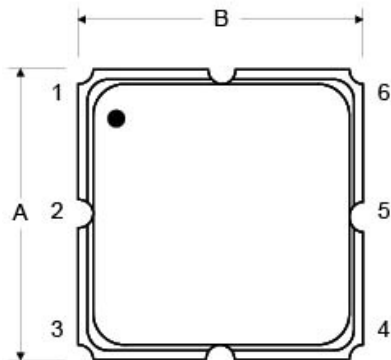
Case Materials

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	

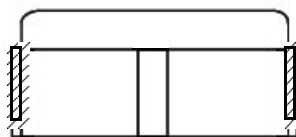
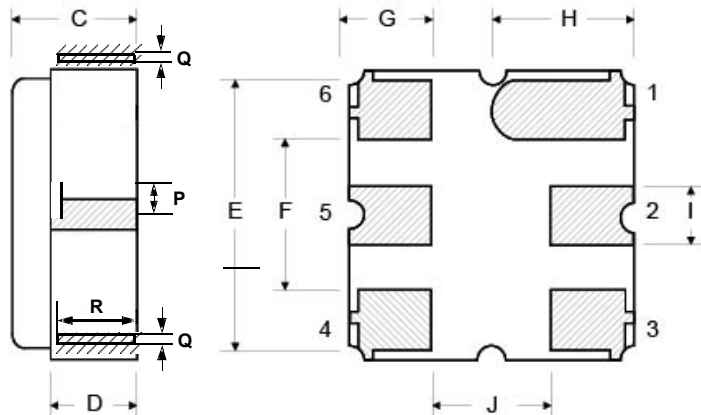
Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others

TOP VIEW



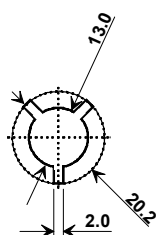
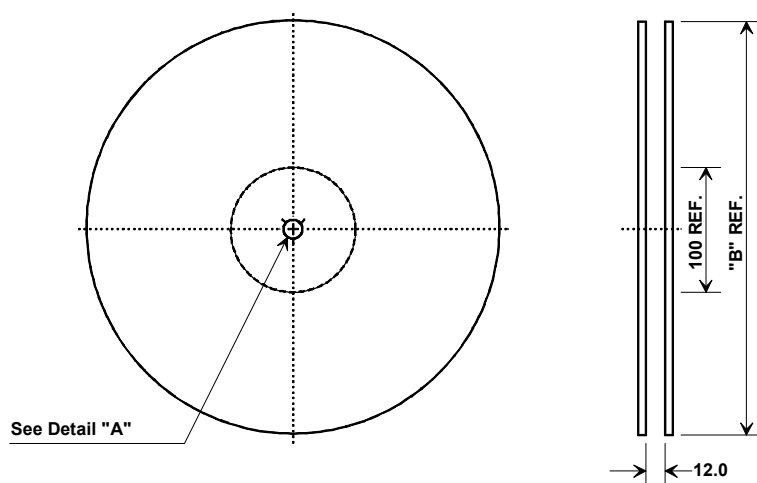
BOTTOM VIEW



Tape and Reel Specifications

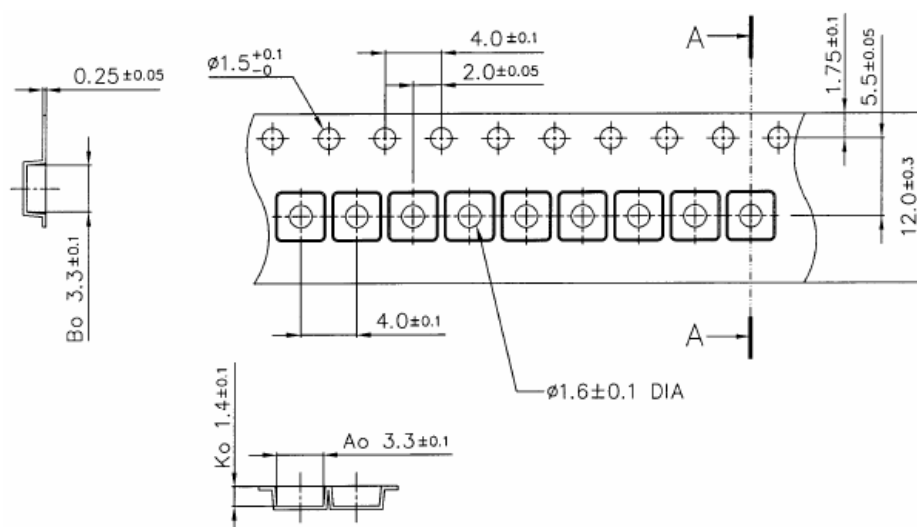
Tape and Reel Standard per ANSI/EIA-481

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



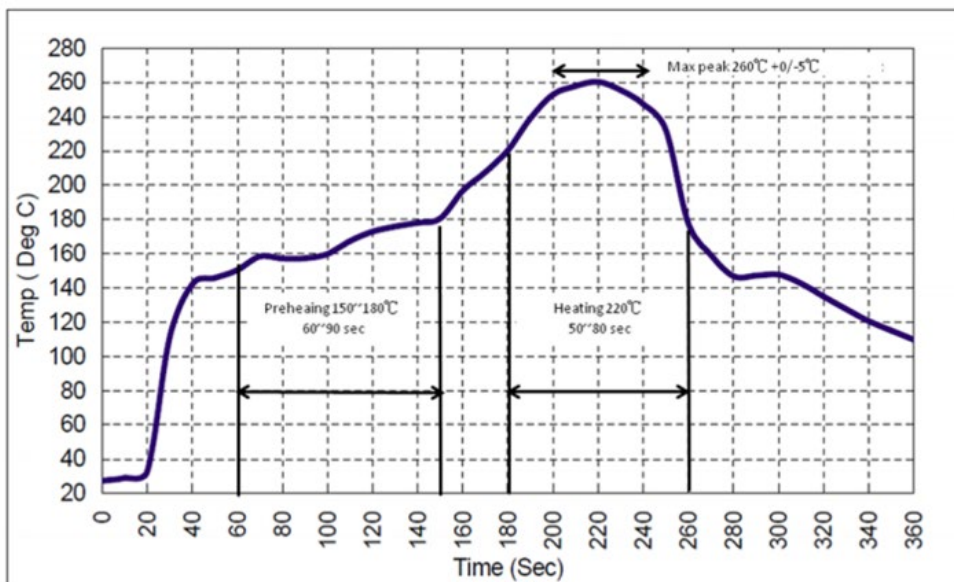
COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.30 mm
Bo	3.30 mm
Ko	1.40 mm
Pitch	8.0 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.



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