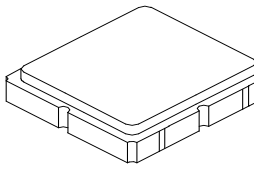
RFMi
A BRAND OF AKOUSTIS

RoHS compliant

SF2198E

806 MHz SAW Filter

- ***Surface Mount 3.0 x 3.0 mm Package***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level: 1***



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/10 seconds maximum	265	°C

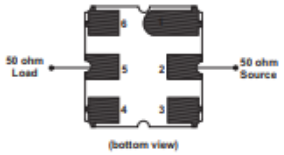
Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Center Frequency		f_C			806		MHz
Insertion Loss	791 to 821 MHz	IL			2.9	4.5	dB
	800 to 812 MHz				2.3	3.0	
	805 to 806 MHz				1.8	2.5	
Amplitude Ripple, 791 to 821 MHz					1.3	3.0	
VSWR, 791 to 821 MHz					1.7	2.5	
Attenuation, 0 dB Reference:							dB
DC to 760 MHz				45	55		
760 to 775 MHz				30	48		
832 to 862 MHz				8	15		
862 to 900 MHz				30	39		
900 to 1500 MHz				45	57		
1500 to 2000 MHz				35	45		
Source Impedance		Z_S			50		Ω
Load Impedance		Z_L			50		

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	928, YWWS

Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others



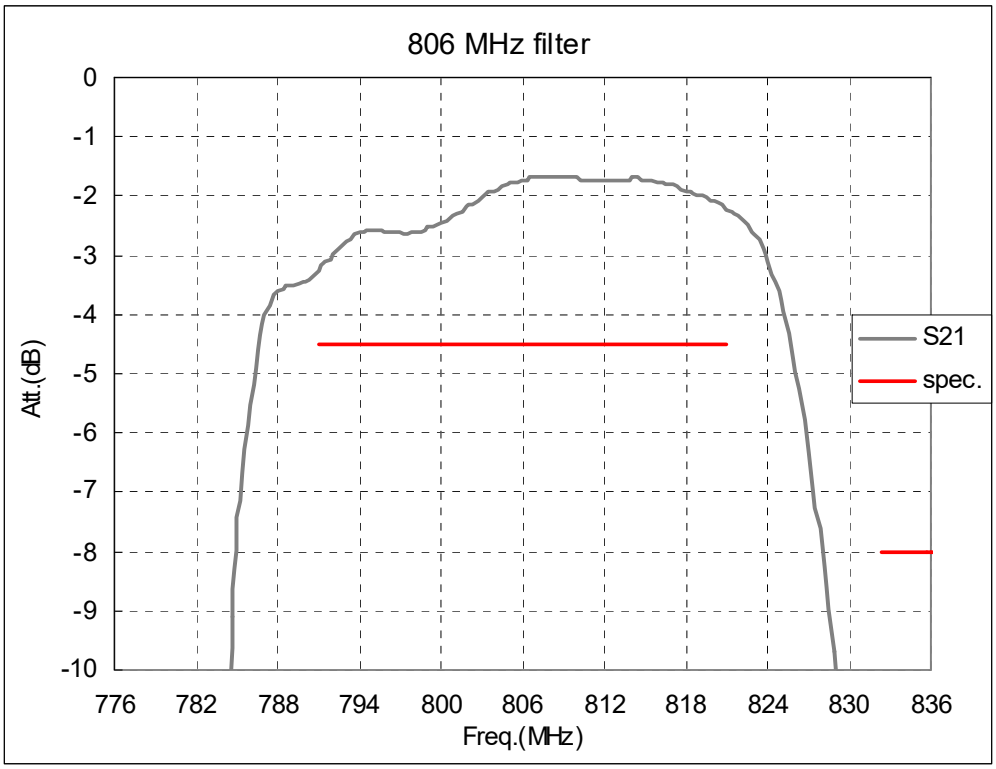
(bottom view)

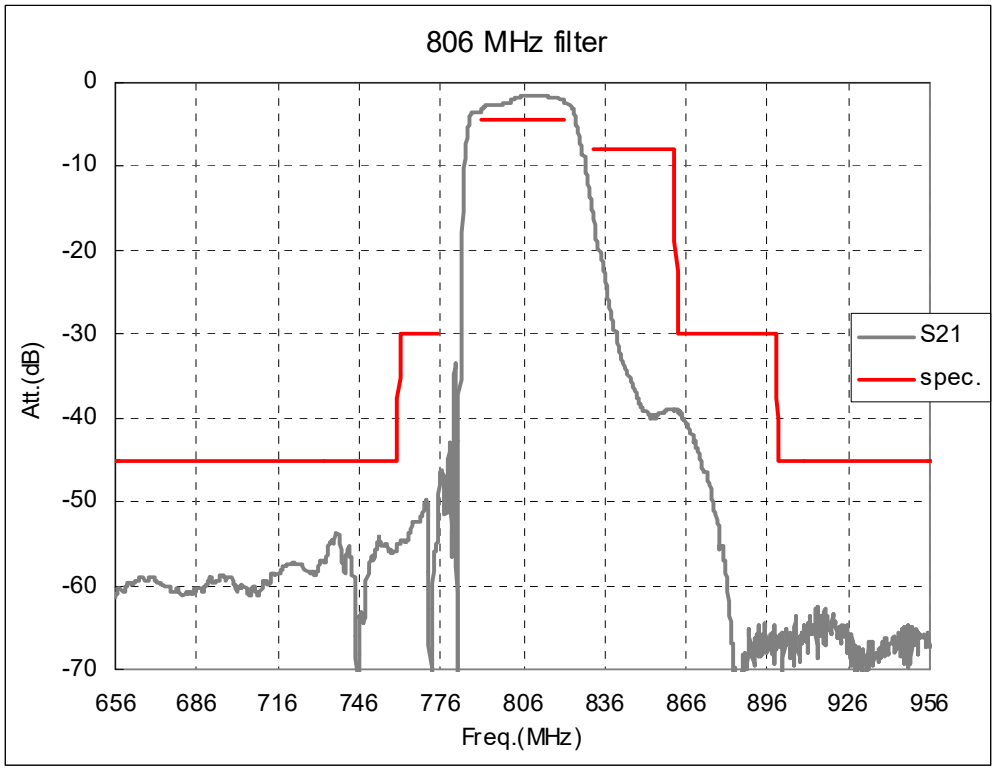
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

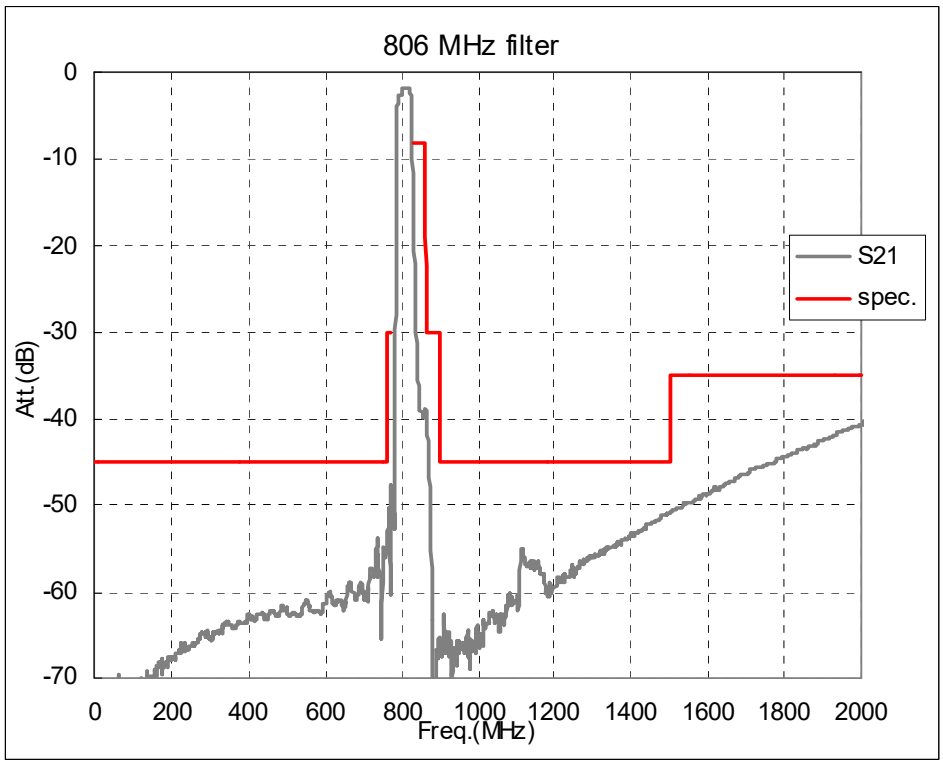
NOTES:

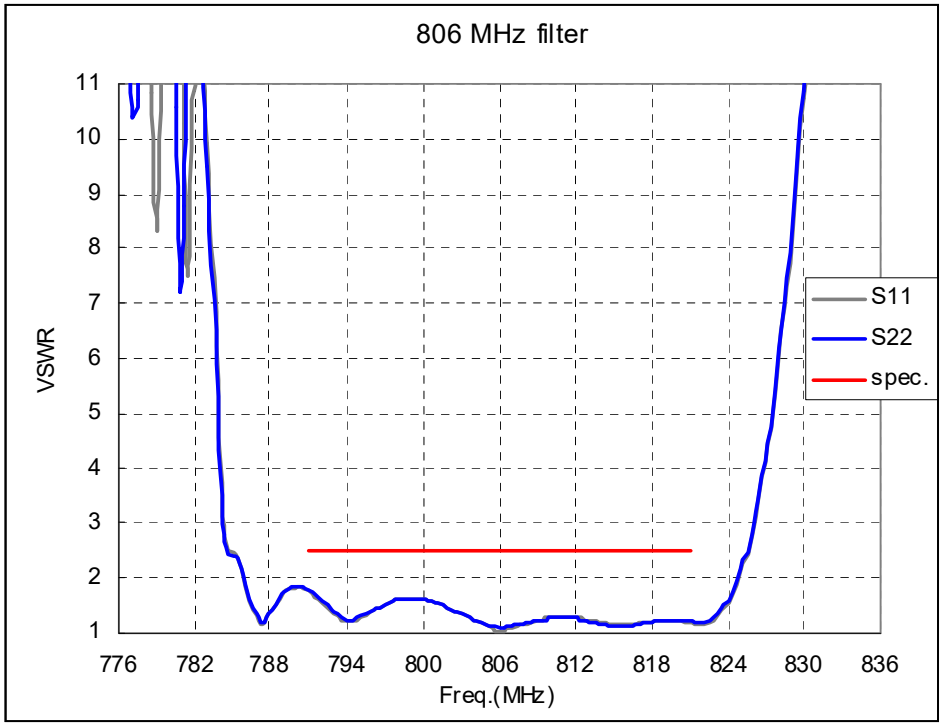
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Filter Response Plots



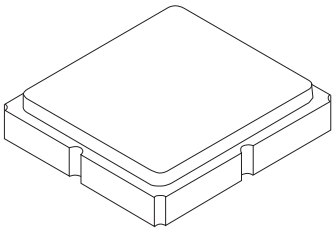


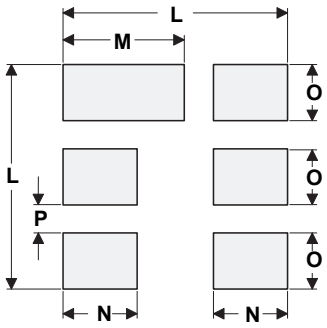




SM3030-6 Case

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





PCB Footprint Top View

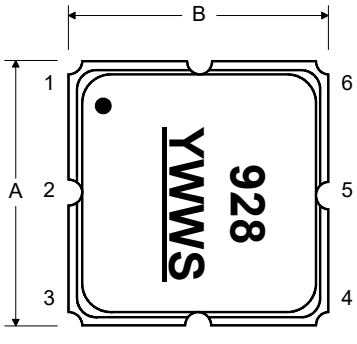
Case and PCB Footprint Dimensions

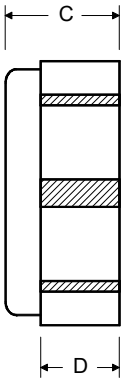
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	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	0.62	0.75	0.88	0.024	0.029	0.034
L		3.20			0.126	
M		1.70			0.067	
N		1.05			0.041	
O		0.81			0.032	
P		0.38			0.015	

Case Materials

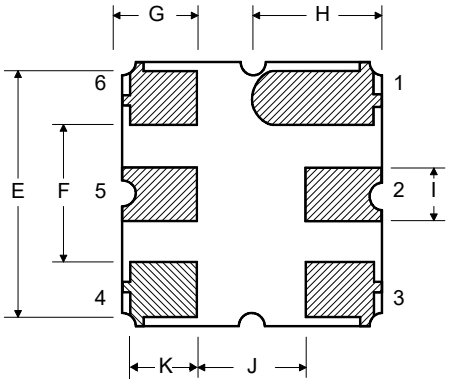
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic

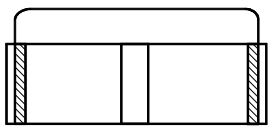
TOP VIEW





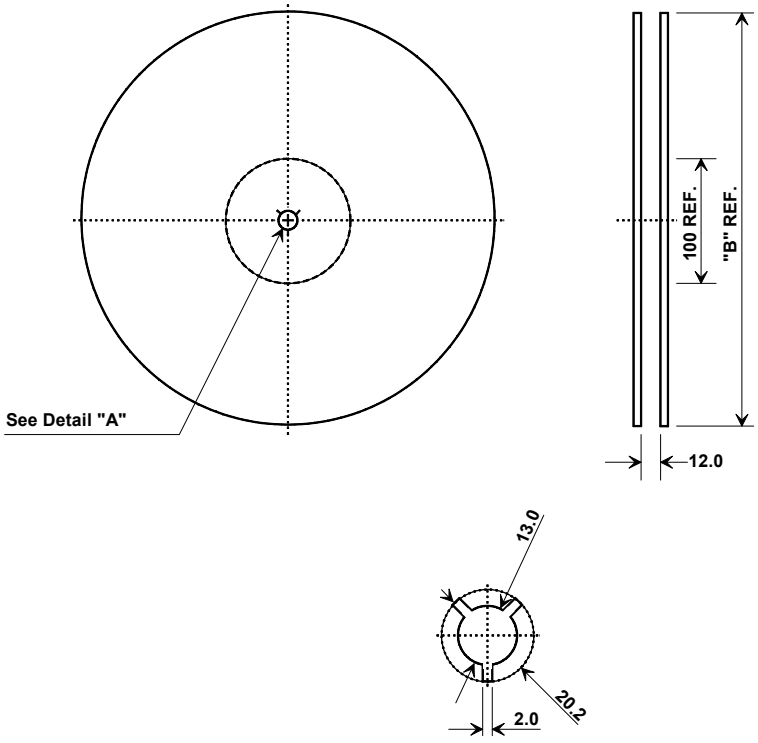
BOTTOM VIEW





Tape and Reel Specifications

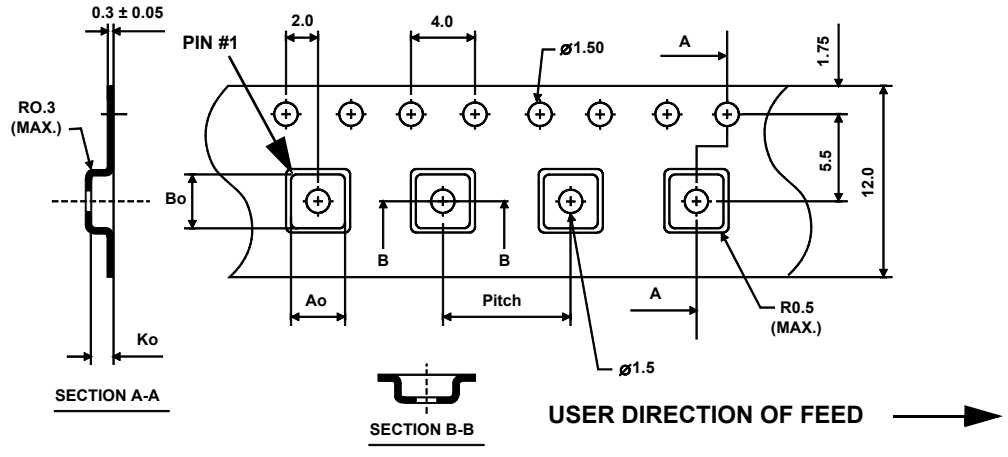
Tape and Reel Standard per ANSI/EIA-481



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

COMPONENT ORIENTATION and DIMENSIONS

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



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.