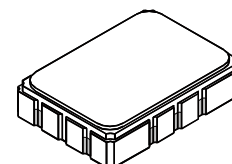


SF2417B

**63.5 MHz
SAW Filter**



SMP-03

- Low Insertion Loss
- 5.0 X 7.0 mm Surface-Mount Case
- Single Ended Input and Output
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1
- AEC-Q200 Qualified

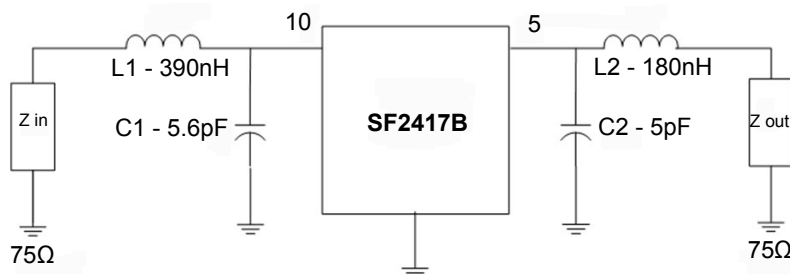
Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	10	VDC
Storage Temperature Range	-40 to +85	°C
Operating Range	-40 to +85	°C
Suitable for lead-free soldering - Max Soldering Temperature	260°C for 40 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			63.5		MHz
Insertion Loss IL				11.3	12.0	dB
1dB Band Width			5.0	6.1		MHz
3dB Band Width				7.1		MHz
35dB Band Width				10.8	12.0	MHz
Amplitude Ripple $F_C \pm 2.5$ MHz				0.6	1.0	dB
Group Delay Ripple $F_C \pm 2.5$ MHz				60		ns
Absolute Group Delay at F_C				0.78		us
Attenuation (Reference level from minimum Insertion Loss 10MHz to 58MHz)			30	40		dB
Temperature Coefficient				-94		ppm/°C
Source Impedance				75		Ohm
Load Impedance				75		Ohm
Case Style	SMD 7 x 5 mm Nominal Footprint					
Lid Symbolization (YY=year, WW=week, S=shift, ## =Sequence Code)	RFM, SF2417B, YYWWS##					

Connection	Terminal
RF Input	10
RF 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.
3. RoHS compliant from the first date of manufacture.

FREQUENCY CHARACTERISTICS

Wide Band Response

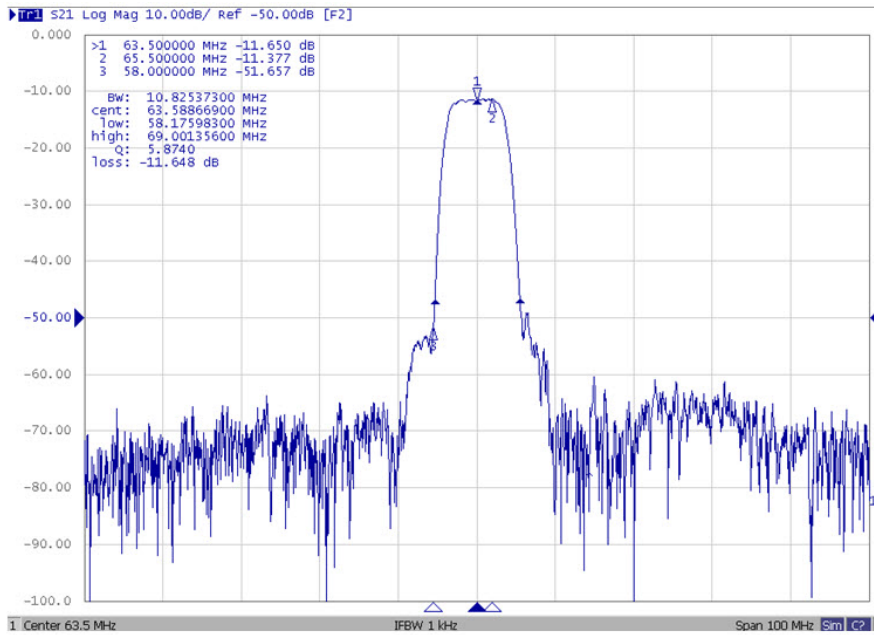
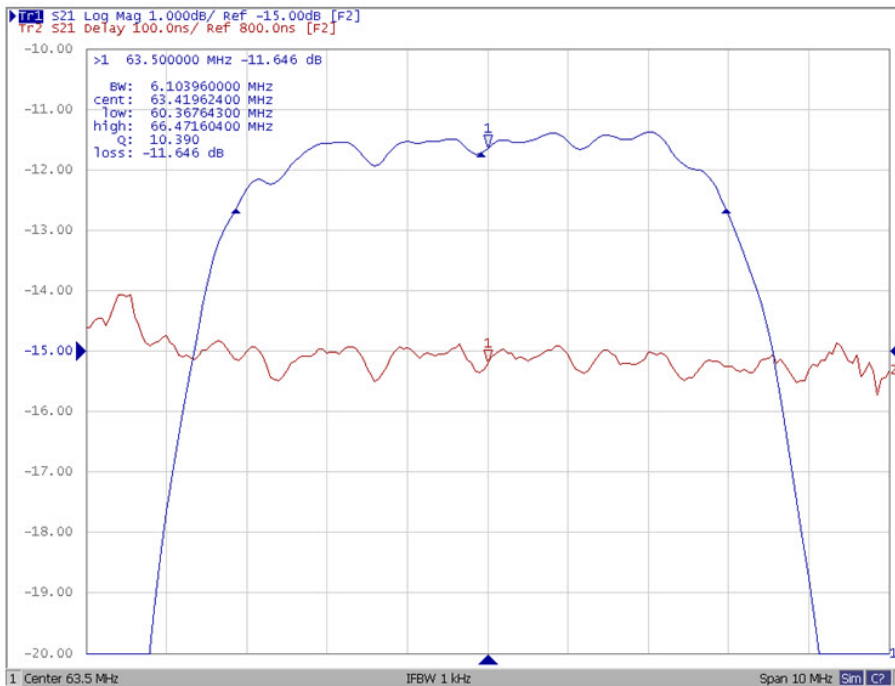


Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div

Pass Band And Group Time Delay Response

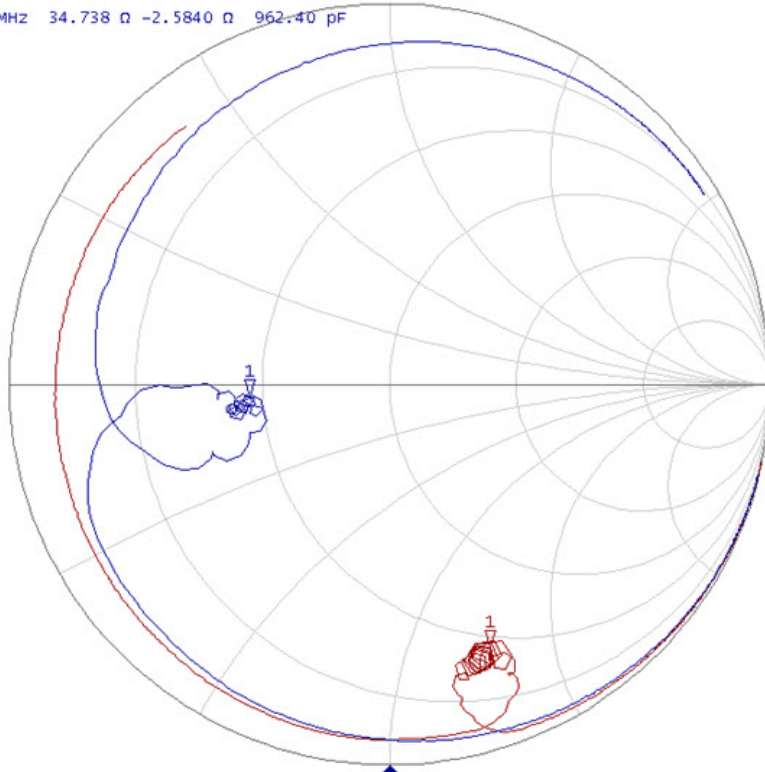


Horizontal: 1MHz/Div Vertical: 1dB/Div
Vertical: 100ns/Div

Smith Chart

▶ **F2** S11 Smith (R+jX) Scale 1.000U [F2]
▶ **F2** S22 Smith (R+jX) Scale 1.000U [F2]

>1 64.000000 MHz 34.738 Ω -2.5840 Ω 962.40 pF

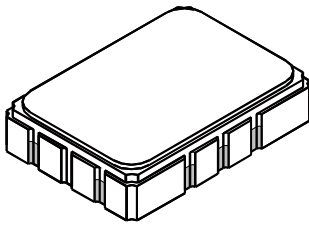


Center 64 MHz IFBW 1 kHz Span 100 MHz Sim C?

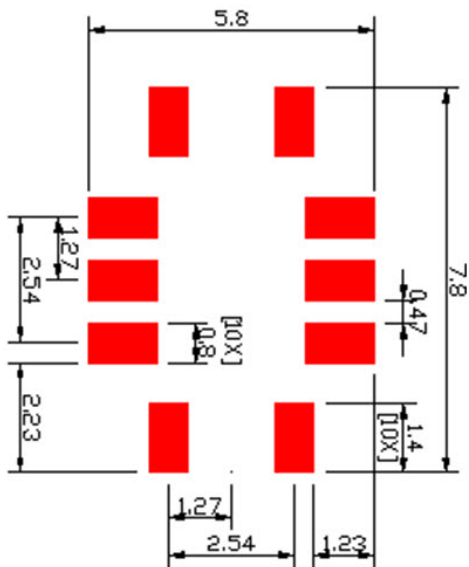
SMP-03 Case

10-Terminal Ceramic Surface-Mount Case

7 x 5 mm Nominal Footprint

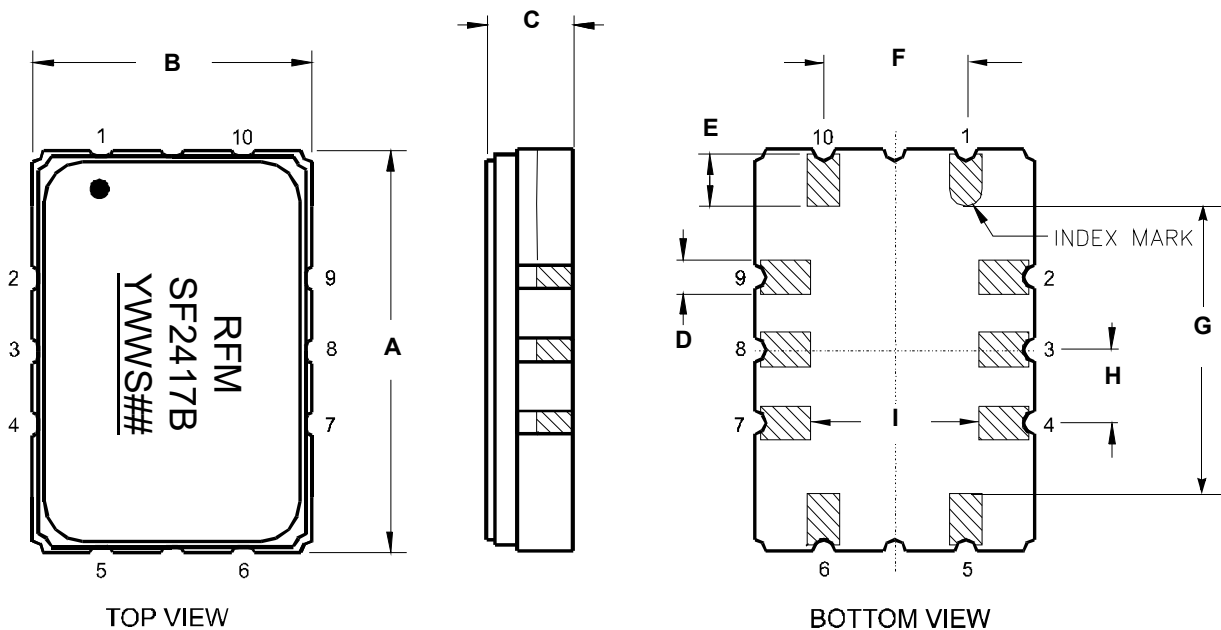


Recommended PCB Footprint



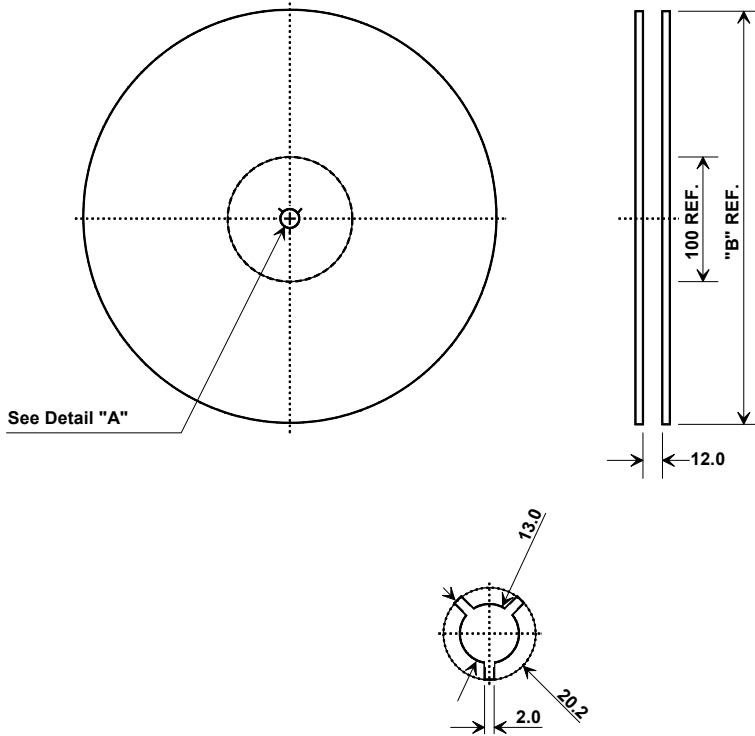
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C	-	-	1.82	-	-	0.071
D	-	0.60	-	-	0.023	-
E	-	1.00	-	-	0.039	-
F	-	2.54	-	-	0.100	-
G	-	5.00	-	-	0.196	-
H	-	1.27	-	-	0.050	-
I	-	1.27	-	-	0.050	-

Materials	
Solder Pad Termination	Au plating 30 - 60 μinches (76.2-152 μm) over 80-200 μinches (203-508 μm) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μinches Thick
Body	Al ₂ O ₃ Ceramic



Tape and Reel Specifications

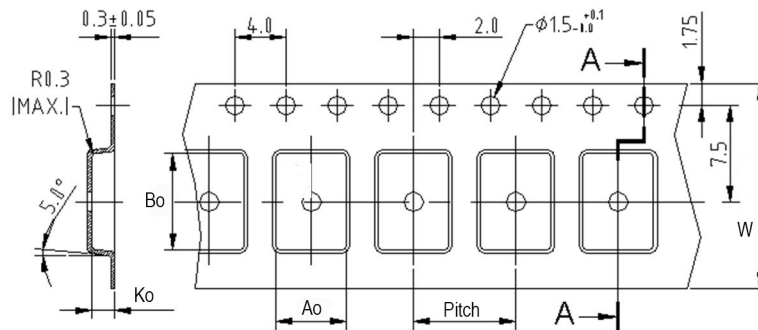
Tape and Reel Standard per ANSI/EIA-481



"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions		Tolerance
Ao	5.5 mm	± 0.1mm
Bo	7.5 mm	± 0.1mm
Ko	2.0 mm	± 0.1mm
Pitch	8.0 mm	± 0.1mm
W	16.0 mm	± 0.3mm



USER DIRECTION OF FEED →

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.

