

# Preliminary



## SF2332B

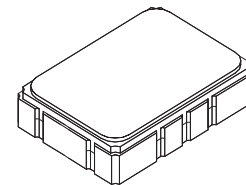
## 183.6 MHz SAW Filter

- SAW Filter, 183.6 MHz
- 7.0 x 5.0 x 2.0 mm Surface-mount Case
- Input/Output Impedance 200Ω/200Ω
- Complies with Directive 2002/95/EC (RoHS)
- AEC-Q200



### Absolute Maximum Ratings

Rating	Value	Units
Incident Power in Passband	+10	dBm
DC Voltage on any Non-ground Terminal	3	VDC
Operating Temperature Range	-30 to +85	°C
Component Storage Temperature Range	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/10 seconds maximum	+260	°C



SMP-03

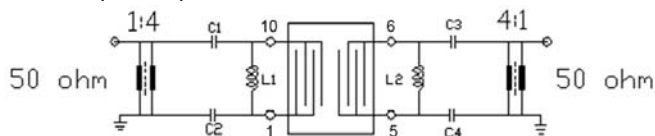
### Electrical Characteristics

Characteristic	Sym	Note	Min	Typ	Max	Units
Center Frequency	$f_c$		183.6			MHz
5dB Bandwidth			1.26	1.46		
33dB Bandwidth				1.73	1.8	
Minimum Insertion Loss at $f_c$	IL			9.5	10.5	dB
Passband Ripple ( $f_c-0.3$ MHz..... $f_c+0.3$ MHz)				0.6	1.2	
Phase Linearity ( $f_c-0.63$ MHz..... $f_c+0.63$ MHz)	rms			1.7	2.5	deg
Attenuation						dB
$f_c \pm 0.9$ MHz			28	31		
$f_c \pm 1.25$ MHz			33	36		
$f_c \pm 1.7$ MHz			30	33		
$f_c \pm 2.05$ MHz			33	37		
10 to 168 MHz			50	58		
168.6 to 174.6 MHz			40	48		
174.6 to 182.7 MHz			28	31		
184.5 to 192.6 MHz			30	33		
192.6 to 198.6 MHz			40	48		
198.6 to 283.6 MHz			50	75		

200 Ω balance in and out	
Case Style	SMP03 - 7 X 5 mm
Lid Symbolization (Y = Year WW = Week S = Shift)	RFM/SF2332B/YWWS##

### Measurement Circuit - SF2332B

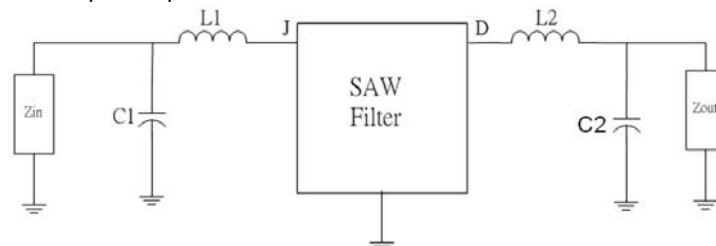
200 Ω Input/Output



$$C1=C2=7PF \quad C3=C4=4PF$$

$$L1=33NH \quad L2=56NH$$

50 Ω Input/Output



$$L1=100nH, C1=27pF, L2=56nH, C2=36pF$$



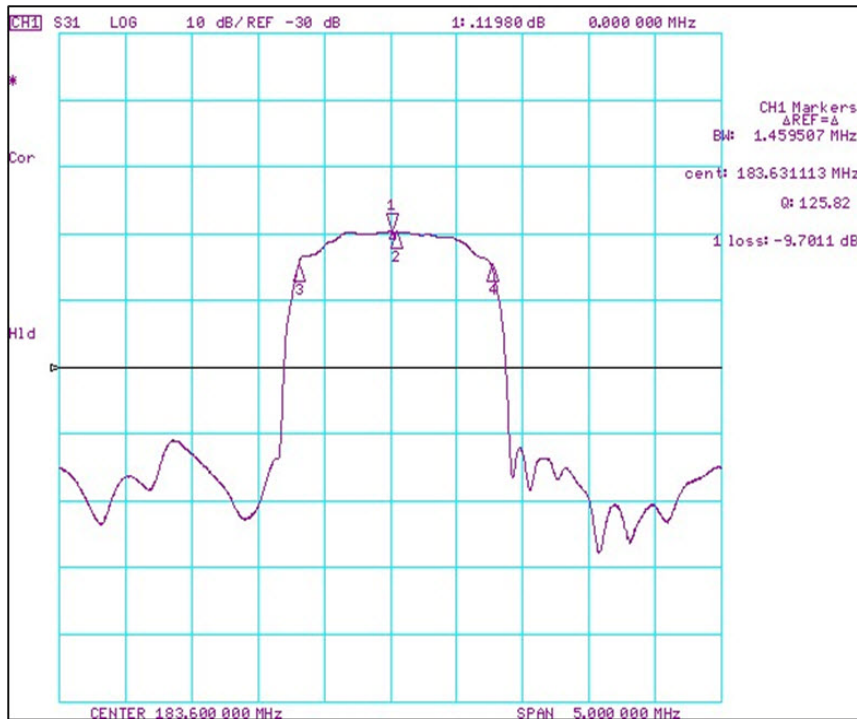
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

#### Notes:

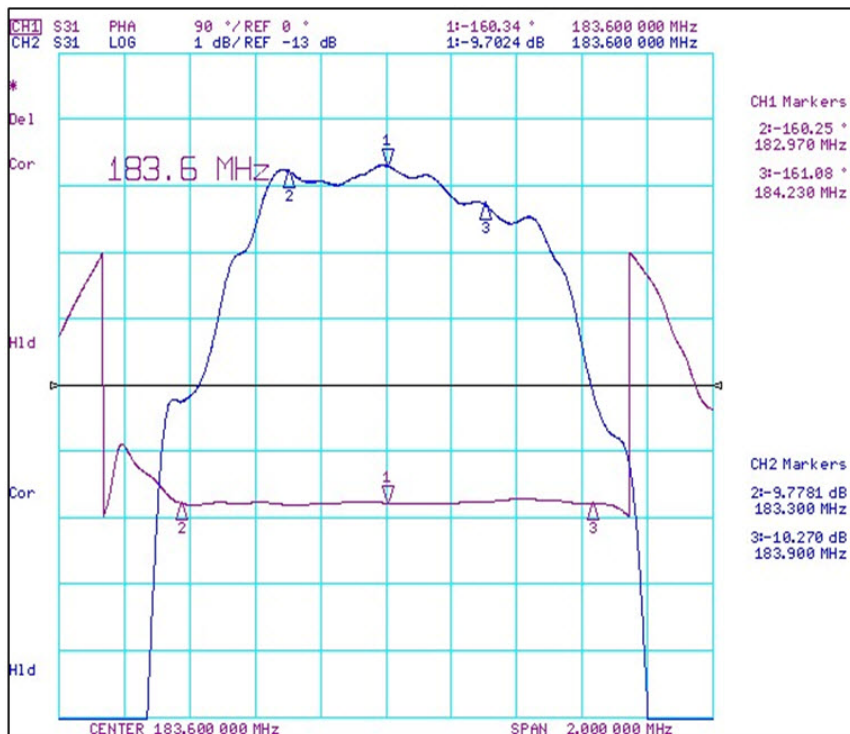
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# Filter Response Plots

## Wide Band Response

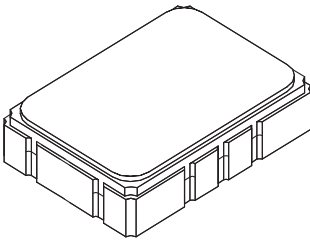


## Pass Band Response

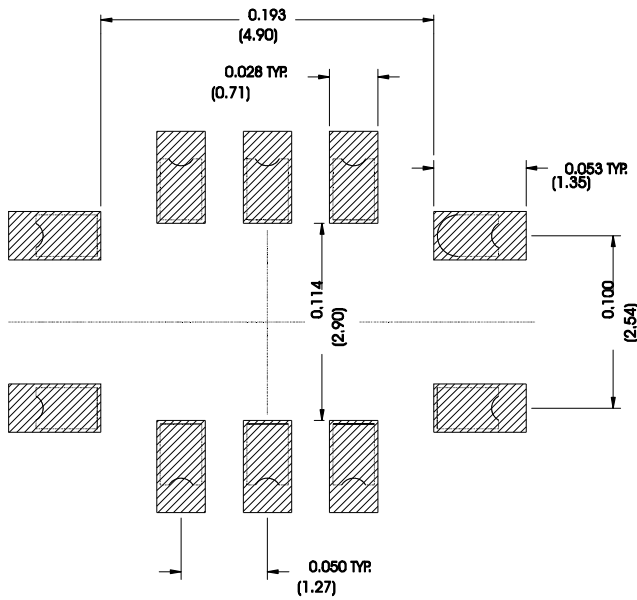


# SMP-03 10-Terminal Ceramic Surface-mount Case

## 5.0 X 7.0 mm Nominal Footprint



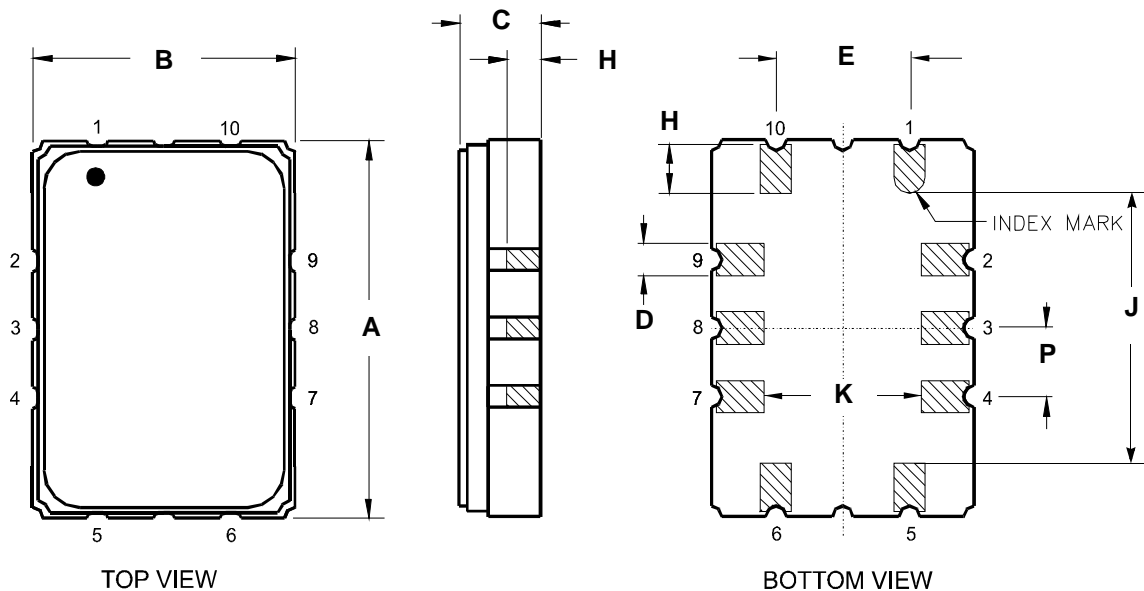
### Recommended PCB Footprint



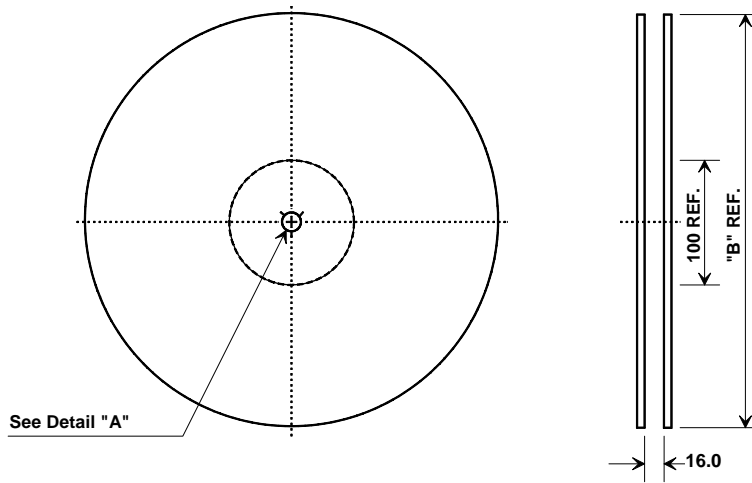
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C	-	1.65	2.00	-	0.065	0.079
D	0.47	0.60	0.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

Electrical Connections		
Connection		Terminals
Port 1	Differential Input	10, 1
Port 2	Differential Output	5, 6
Ground		All others

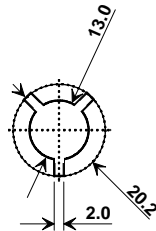
Case Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel
Lid Plating	2.0 to 3.0 $\mu\text{m}$ Nickel
Body	$\text{Al}_2\text{O}_3$ Ceramic
Pb Free	



## Tape and Reel Specifications



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



### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.6 mm
Bo	7.6 mm
Ko	2.0 mm
Pitch	8.0 mm
W	16.0 mm

