

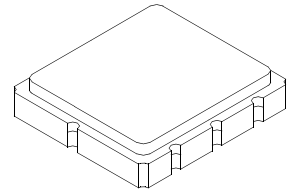
- **Low Insertion Loss SAW Filter**
- **5.0 x 5.0 mm Surface-mount Case**
- **Direct 50 ohm Operation**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage on any Non-ground Terminal	3	V
Operating Temperature	-40 to + 85	°C
Storage Temperature Range in Tape and Reel	-40 to + 85	°C
Maximum Soldering Profile	265 °C for 10 s	

SF2271C

**460 MHz
SAW Filter**



SM5050-8

Electrical Characteristics

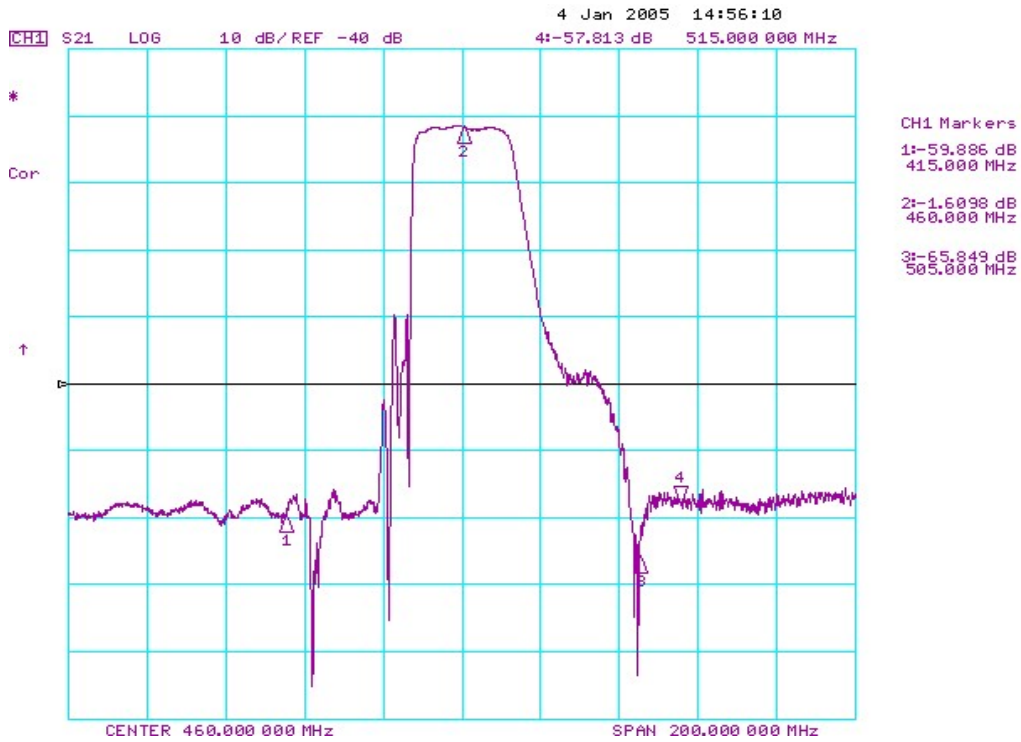
Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			460		MHz
Minimum Insertion Loss	IL_{MIN}			1.5	2.8	dB
2 dB Bandwidth	BW_2		20	23.4		MHz
Rejection Referenced to 0 dB:						dB
f_C-45 to f_C-100 MHz			40	56		
f_C+45 to f_C+55 MHz			30	56		
f_C+55 to f_C+100 MHz			40	54		
Frequency Temperature Coefficient	FTC			-36		ppm/°C
Source Impedance				50		ohms
Load Impedance				50		ohms
Case Style			SM5050-8 5 x 5 mm Nominal Footprint			
Lid Symbolization (Y=year, WW=week, S=shift)			A19, YWWS			

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

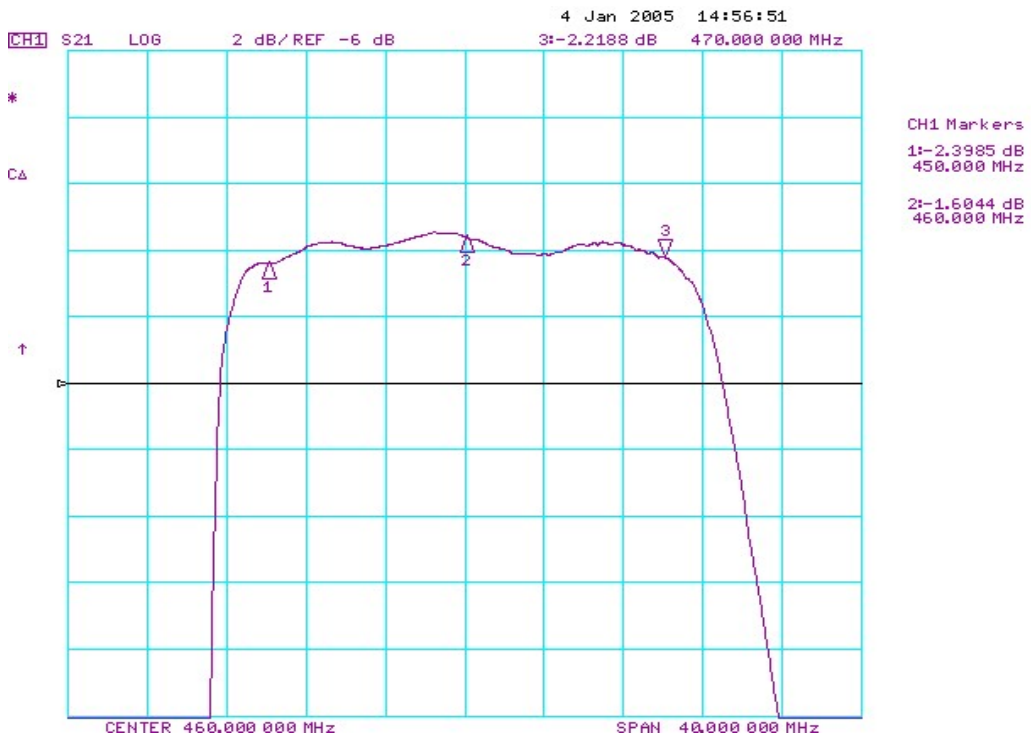
NOTES:

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 Transition Bandwidth Plot



Filter Passband Plot



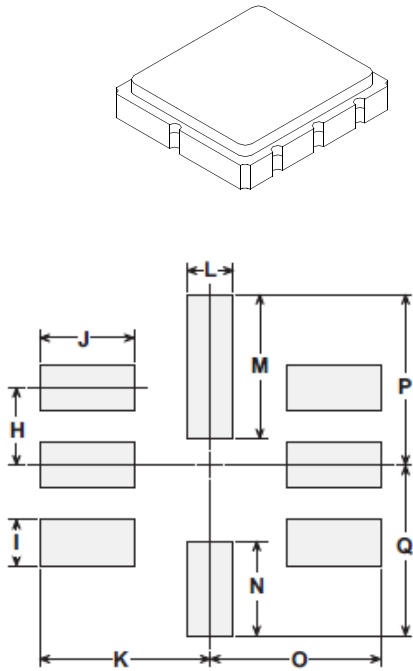
SM5050-8 Surface-Mount 8-Terminal Ceramic Case 5.0 X 5.0 mm Nominal Footprint

Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.80	5.00	5.20	0.189	0.197	0.205
B	4.80	5.00	5.20	0.189	0.197	0.205
C	1.30	1.50	1.70	0.050	0.060	0.067
D	1.98	2.08	2.18	0.078	0.082	0.086
E	1.07	1.17	1.27	0.042	0.046	0.050
F	0.50	0.64	0.70	0.020	0.025	0.028
G	2.39	2.54	2.69	0.094	0.100	0.106
H		1.27			0.050	
I		0.76			0.030	
J		1.55			0.061	
K		2.79			0.110	
L		0.76			0.030	
M		2.36			0.093	
N		1.55			0.061	
O		2.79			0.110	
P		2.79			0.110	
Q		2.79			0.110	

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

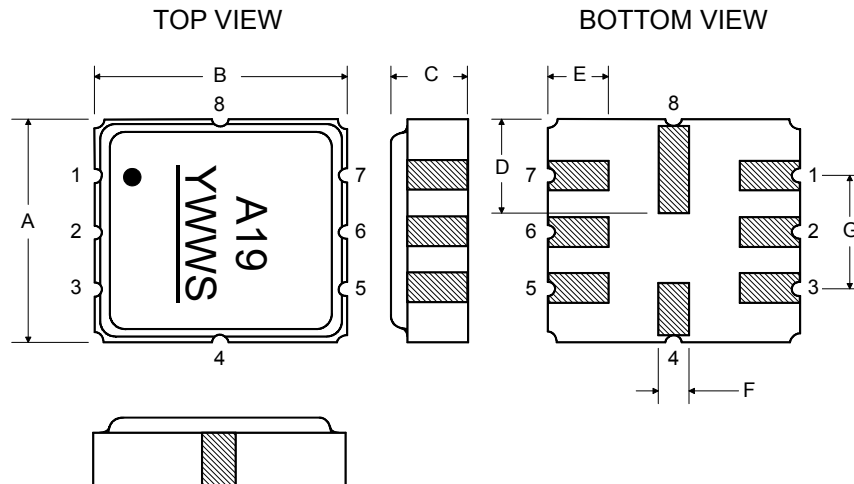


PCB Footprint

Electrical Connections

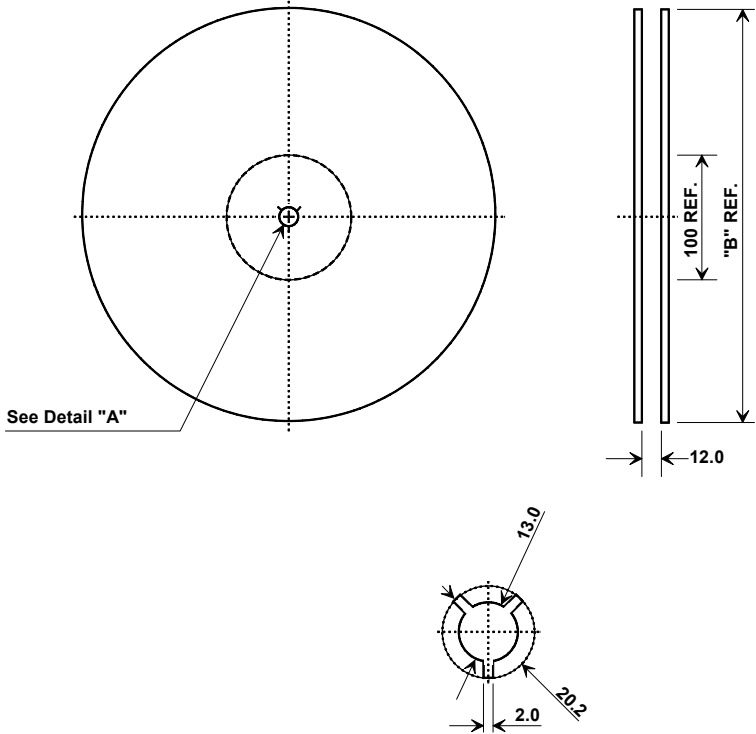
Connection		Terminals
Port 1	Input	2
Port 2	Output	6
	Ground	All others

Dot indicates Pin 1



Tape and Reel Specifications

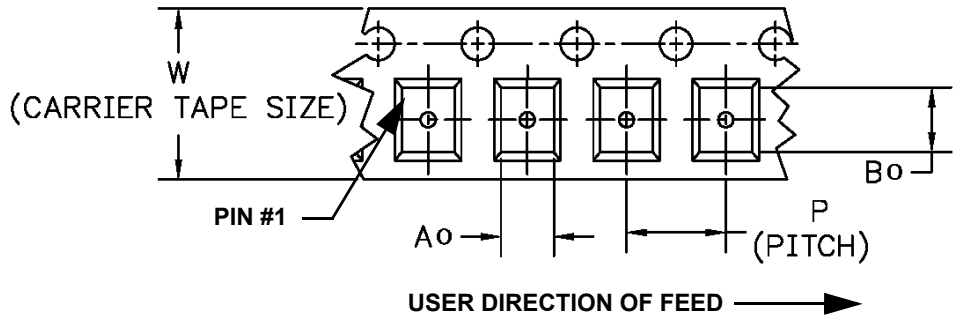
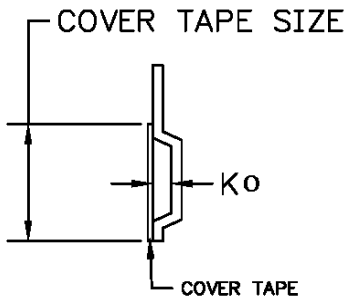
Tape and Reel Standard per ANSI/EIA-481



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

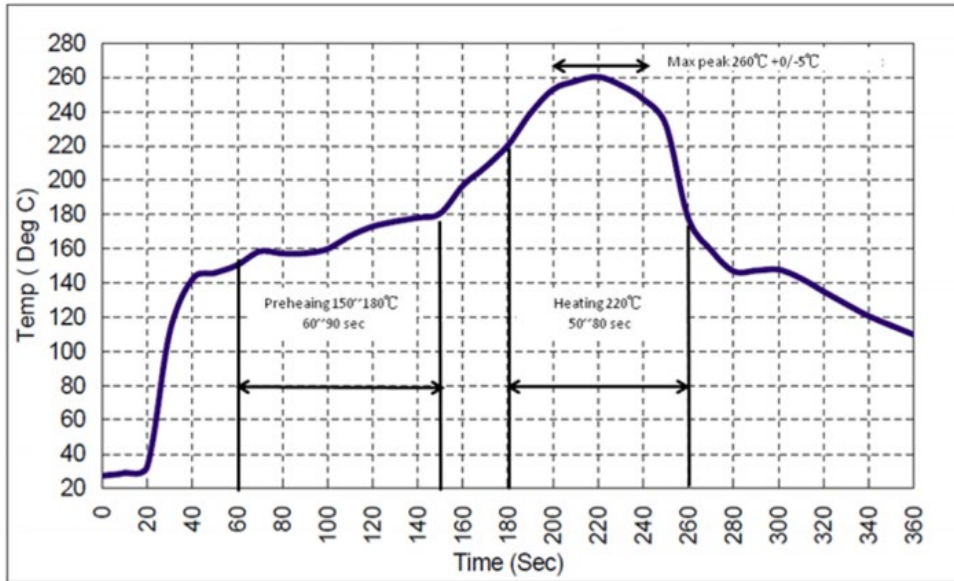
COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.3 mm
Bo	5.3 mm
Ko	2.0 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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