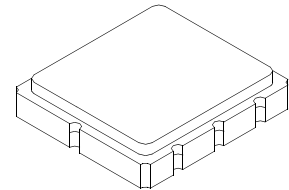


SF1174B

374.00 MHz
SAW Filter



SM5050-8

- *Designed for WLAN IF Applications*
- *Low Insertion Loss*
- *5.0 x 5.0 x 1.7 mm Surface-Mount Case*
- *Differential or Single Ended Input and Output*
- *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 Between any Two Terminals	30	VDC
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-10 to +85	°C
Storage Temperature Range	-40 to +85	°C
Suitable for lead-free soldering - Maximum Soldering Profile	260°C for 30 s	

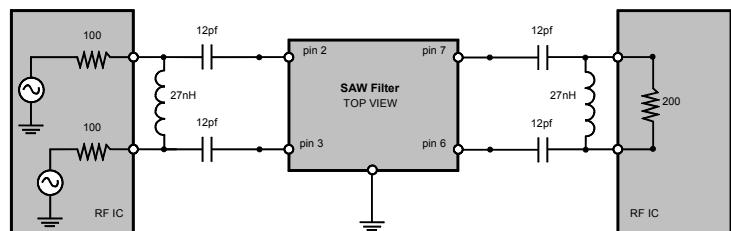
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units	
Nominal Center Frequency	f_C		374.000			MHz	
Passband	Insertion Loss at f_C 3 dB Passband Amplitude Ripple over $f_C \pm 7.0$ MHz Group Delay Variation over $f_C \pm 7.0$	IL		8.7	10.0	dB	
		BW_3	17	23		MHz	
				0.8	1.0		dB _{P-P}
		GDV		61	100		ns _{P-P}
Rejection	$f_C - 100$ to $f_C - 33$ MHz $f_C - 33$ to $f_C - 22$ MHz $f_C - 22$ to $f_C - 16.5$ MHz $f_C + 16.5$ to $f_C + 22$ MHz $f_C + 22$ to $f_C + 43$ MHz $f_C + 43$ to $f_C + 100$ MHz		45	54		dB	
			40	53			
			30	40			
			30	44			
			35	48			
			40	49			
Operating Temperature Range	T_A		-10		+85	°C	

Differential Input / Output Impedance Match	External L-C
Case Style	SM5050-8 5 X 5 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week, S=shift)	447, <u>YWWS</u>

Electrical Connections

Connection	Terminals
Port 1 Hot	2
Port 1 Gnd Return	3
Port 2 Hot	6
Port 2 Gnd Return	7
Case Ground	All others



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.



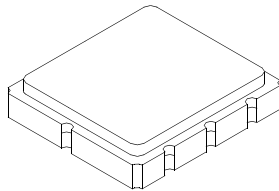
NOTES:

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.

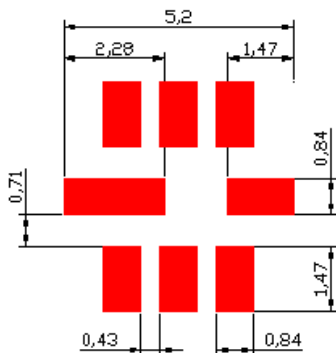
SM5050-8 Case

8-Terminal Ceramic Surface-Mount Case

5.0 X 5.0 mm Nominal Footprint



PCB FOOTPRINT



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.8	5.0	5.2		0.1968	
B	4.8	5.0	5.2		0.1968	
C			1.7			0.0669
D		2.08			0.0818	
E		1.17			0.046	
F		0.64			0.0252	
G	2.39	2.54	2.69		0.100	

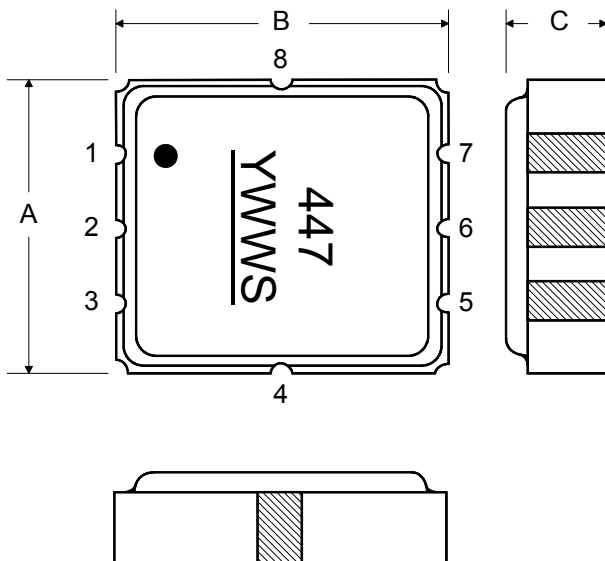
Electrical Connections

Connection		Terminals
Port 1	Differential Input	2,3
Port 2	Differential Output	6,7
	Ground	All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot
Dot indicates Pin 1		

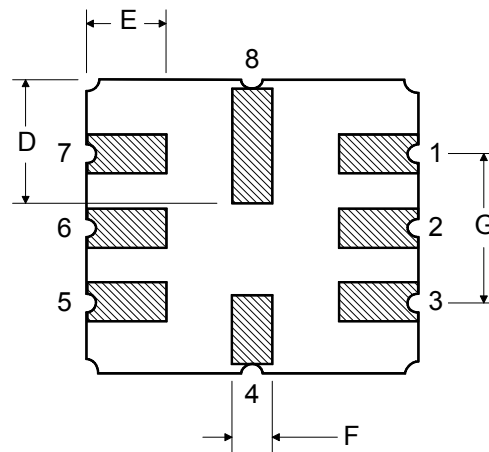
Materials

Solder Pad Termination	Au plating 30 - 60 µmches (76.2-152 µM) over 80-200 µmches (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

TOP VIEW

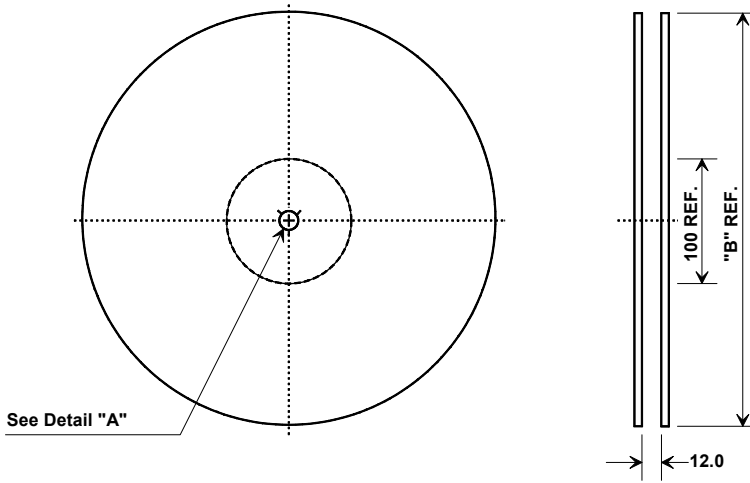


BOTTOM VIEW

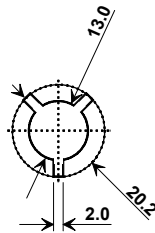


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

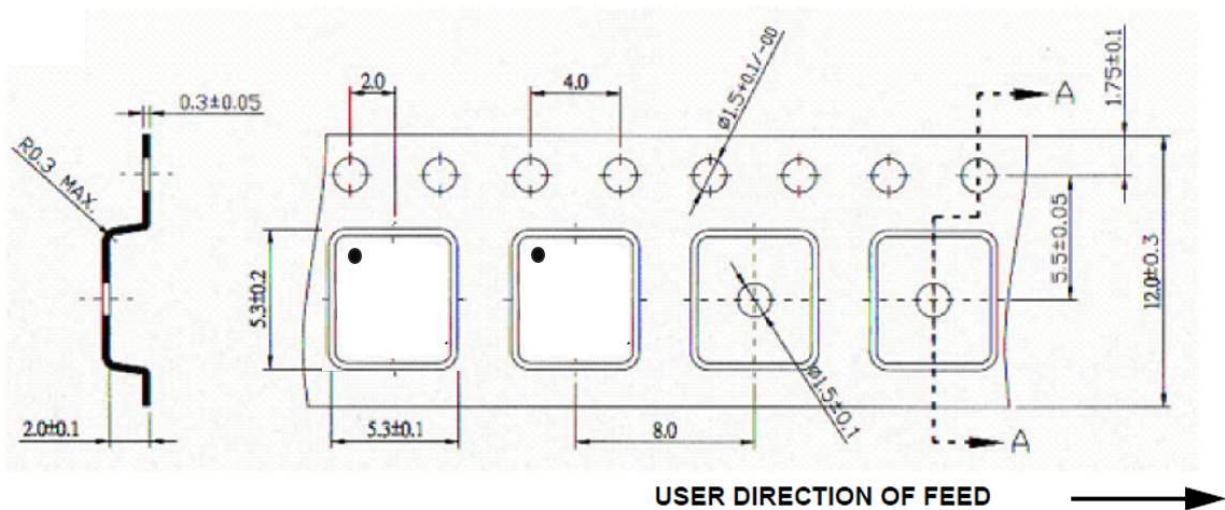


"B "		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000



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



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.

