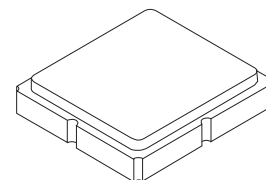


SF2183E

400.00 MHz
SAW Filter



SM3030-6

- Low-low UHF SAW Filter
- Surface-mount 3.0 x 3.0 mm Package
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

Absolute Maximum Ratings

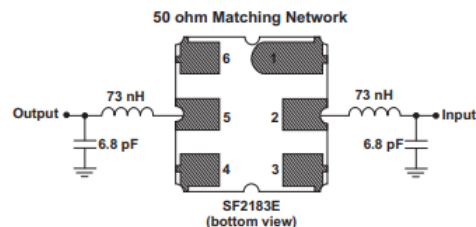
Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any Non-ground Terminal	6	V
Operating Temperature Range	-40 to +85	°C
Component Storage Temperature Range	-40 to +125	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/ 10 seconds maximum	265	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			400.00		MHz
Minimum Insertion Loss	IL_{MIN}			3.0	4.0	dB
Passband Attenuation Relative to IL_{MIN} , 399.875 to 400.125 MHz				0.7	3.0	
Stopband Attenuation Referenced to IL_{MIN} :						dB
10.0 to 370.0 MHz			50	56		
370.0 to 390.0 MHz			42	46		
390.0 to 398.8 MHz			22	25		
401.0 to 409.0 MHz			10	22		
409.0 to 414.0 MHz			30	40		
414.0 to 800.0 MHz			42	50		
800.0 to 2500.0 MHz			45	55		
Input Impedance	Z_S			$865 \Omega \parallel 2 \text{ pF}$		
Output Impedance	Z_L			$865 \Omega \parallel 2 \text{ pF}$		
Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	871, <u>YWW</u>					

Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others

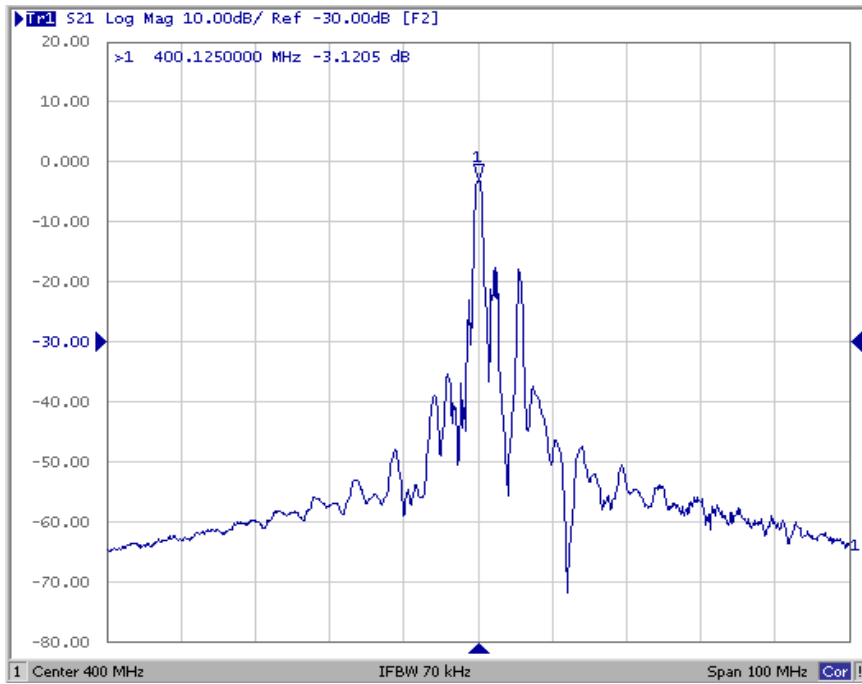


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.

SF2183E Wideband Response, 100 MHz Span



SF2183E Passband Response, 4 MHz Span



SM3030-6 Case

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



PCB Footprint Top View

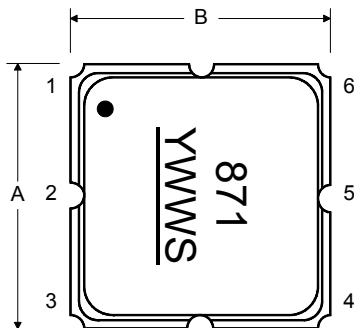
Case and PCB Footprint Dimensions

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		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	

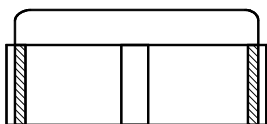
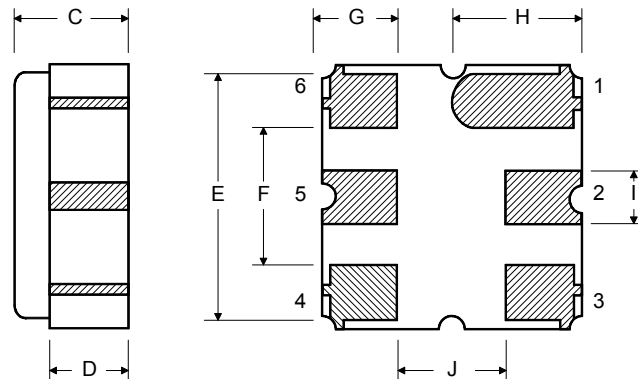
Case Materials

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

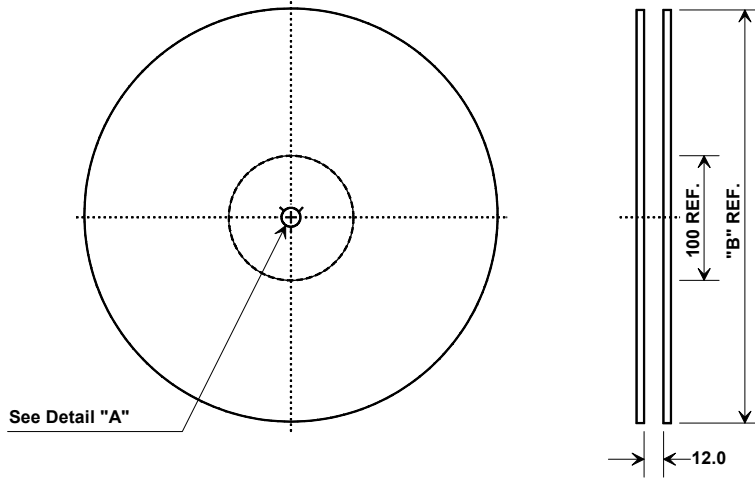


BOTTOM VIEW

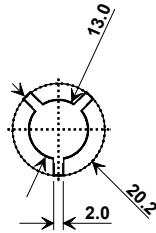


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

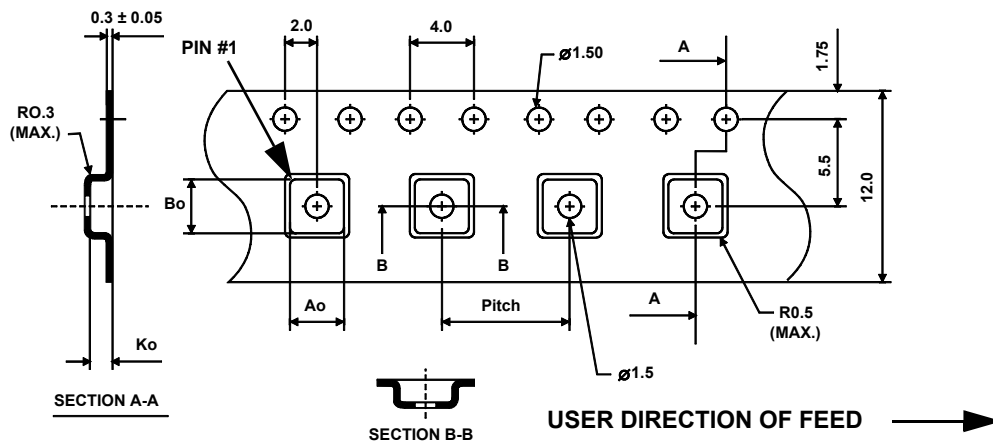


"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



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 150~180°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.

