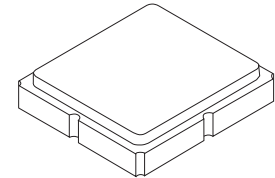


# SF2183E

## 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)



### Absolute Maximum Ratings

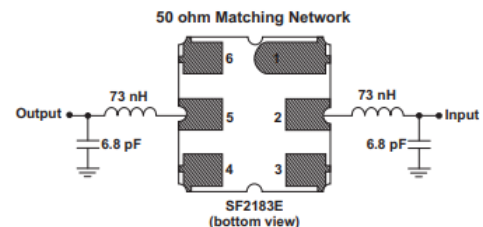
Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any Non-ground Terminal	6	V
Operating Temperature Range	-40 to +85	°C
Component Storage Temperature Range	-40 to +125	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/ 10 seconds maximum	265	°C

### 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>					
Standard Reel Quantity	Reel Size 7 Inch					500 Pieces/Reel
	Reel Size 13 Inch					3000 Pieces/Reel

### Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others

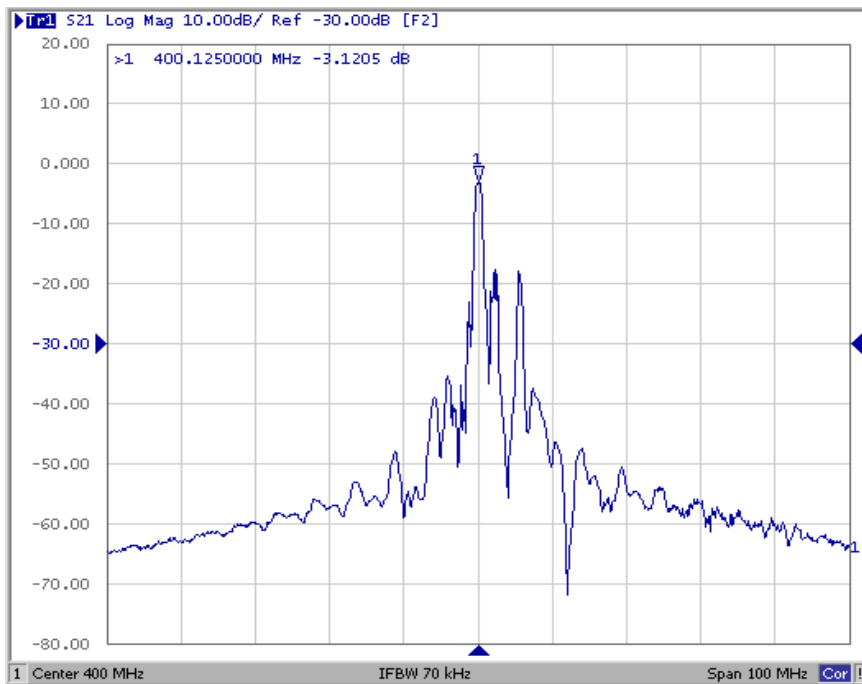


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

### NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

## SF2183E Wideband Response, 100 MHz Span

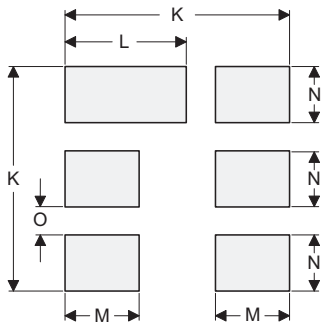
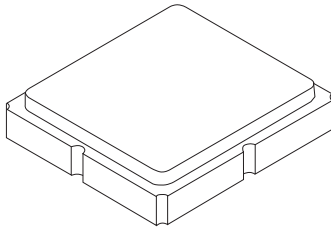


## SF2183E Passband Response, 4 MHz Span



# SM3030-6 Case

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



PCB Footprint Top View

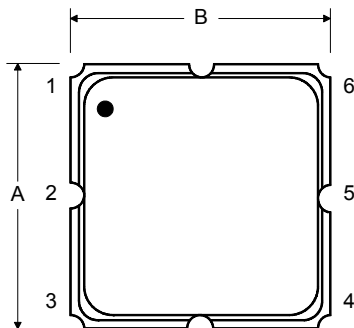
### Case and PCB Footprint Dimensions

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	

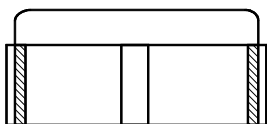
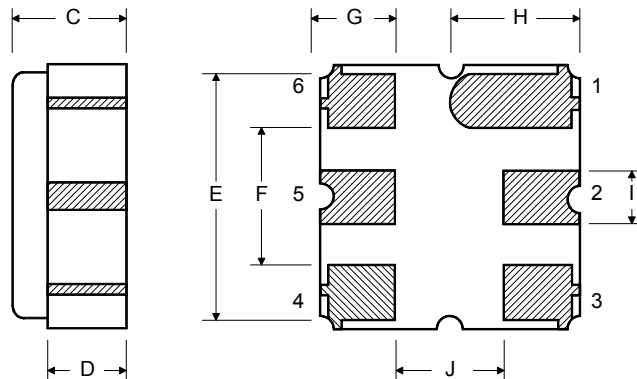
### Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ 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	

### TOP VIEW



### BOTTOM VIEW





## 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.

