



- Surface Mount 3.0 x 3.0 mm Package
- Complies with Directive 2002/95/EC (RoHS)
- For the GPS L5 Band

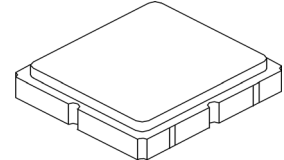


AEC-Q200

This component was always RoHS compliant from the first date of manufacture.

SF2388E

**1176.45 MHz
SAW Filter**



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	10	dBm
DC Voltage	7.5	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

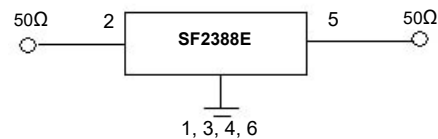
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Min	Typ	Max	Units
			-40 to +85°C			-40 to +105°C			
Center Frequency	f_C			1176.45			1176.45		MHz
Insertion Loss, 1166.45 to 1186.45 MHz	IL			3.3	4.1		3.3	4.3	dB
Amplitude Ripple, 1166.45 to 1186.45 MHz				1.0	1.5		1.0	1.8	
Attenuation, Referenced from 0dB:									dB
1121.45 MHz			30	42		30	42		
1231.45 MHz			30	45		30	45		
Input/Output VSWR, 1166.45 to 1186.45 MHz				1.5	2.0		1.5	2.2	
Source Impedance	Z_S			50			50		Ω
Load Impedance	Z_L			50			50		

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint								
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	6V, YWWS								
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

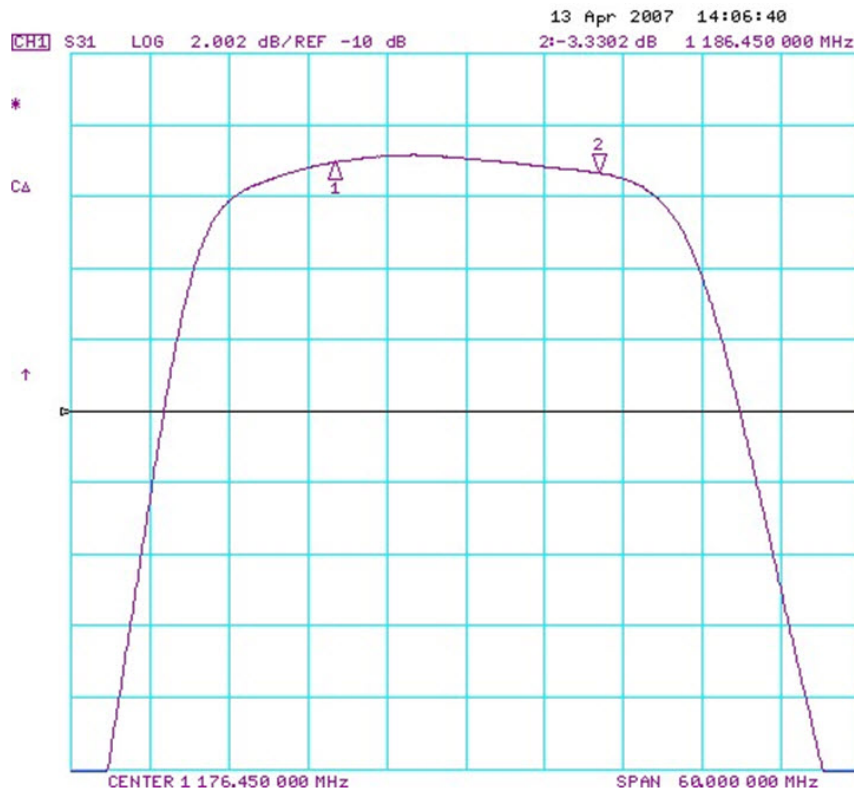


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

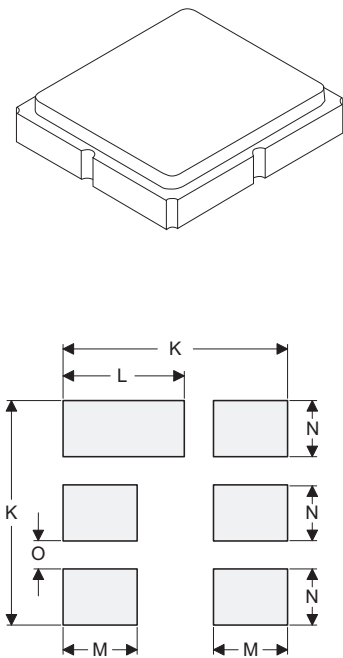
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

SF2388E Frequency Characteristics



SM3030-6 Case

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



PCB Footprint Top View

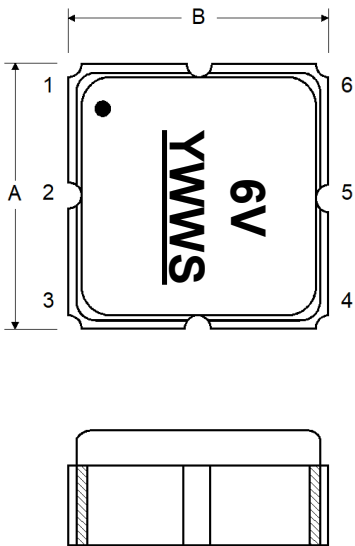
Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	-	3.00	-	-	0.118	-
B	-	3.00	-	-	0.118	-
C	-	-	1.30	-	-zzzz	0.054
D	-	0.90	-	-	0.035	-
E	-	2.80	-	-	0.110	-
F	-	1.60	-	-	0.063	-
G	-	0.85	-	-	0.033	-
H	-	1.50	-	-	0.059	-
I	-	0.60	-	-	0.024	-
J	-	1.30	-	-	0.051	-
K	-	3.20	-	-	0.126	-
L	-	1.70	-	-	0.067	-
M	-	0.96	-	-	0.037	-
N	-	0.81	-	-	0.032	-
O	-	0.38	-	-	0.015	-

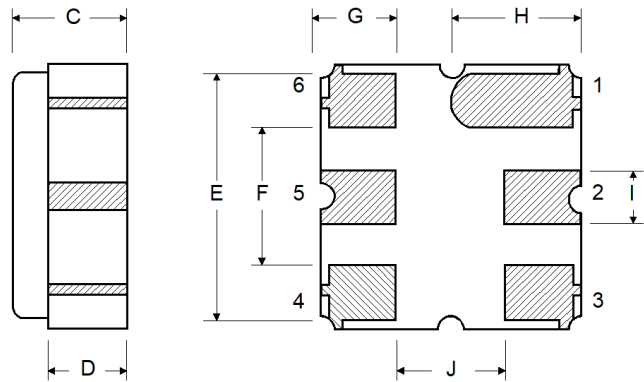
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic
Pb Free	

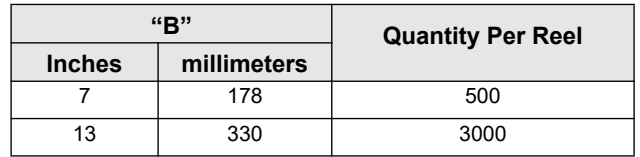
TOP VIEW



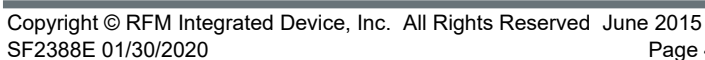
BOTTOM VIEW



Tape and Reel Standard per ANSI/EIA-481

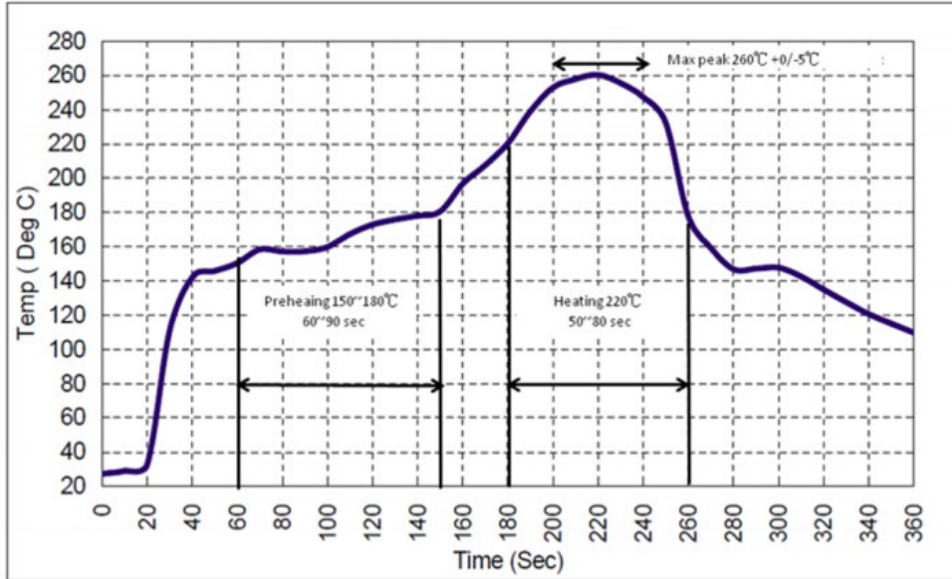


Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.40 mm
Pitch	8.0 mm
W	12.0 mm



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.



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