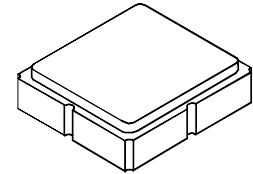


**SF2471E**

**915 MHz  
SAW Filter**



**SM3030-8**

- **Low-loss UHF SAW Filter**
- **3.0 x 3.0 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

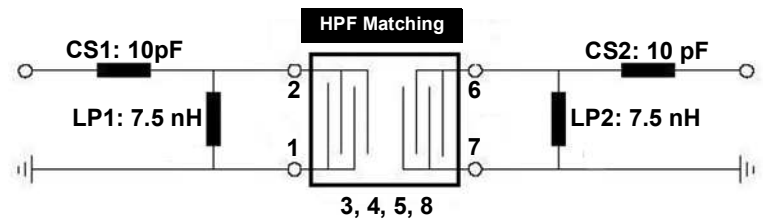
**Maximum Rating**

Rating	Value	Units
DC Voltage on any Non-ground Terminal	3	V
Input Power Level: Pass Band	33	dBm
Stop Band:	15	dBm
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	0 to +50	°C
Storage Temperature Range	-40 to +85	°C

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			915		MHz
Maximum Insertion Loss, 824 to 894 MHz	$IL_{MAX}$			1.8	2.5	dB
1850 to 1990 MHz				2.7	3.1	
Attenuation, 0 dB Reference:						dB
902.0 to 908.5 MHz (0 to +25°C)			1.0	4.0		
(+25 to +50°C)			1.5	4.0		
908.5 to 910.5 MHz			14	30		
910.5 to 920.5 MHz			14	19		
920.5 to 928.5 MHz			1.5	3.0		
Temperature Coefficient of Frequency				-36		ppm/k
Source Impedance $Z_S$				50		ohm
Load Impedance $Z_L$				50		

Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization, Y=year, WW=week, S=shift, dot=pin 1 indicator	B6, <u>YWWS</u>
Standard Reel Quantity	500 Pieces/Reel
Reel Size 7 inch	
Reel Size 13 inch	3000 Pieces/Reel

Electrical Connections	
Input	2
Output	6
All Others - Ground	1, 3, 4, 5, 7, 8



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

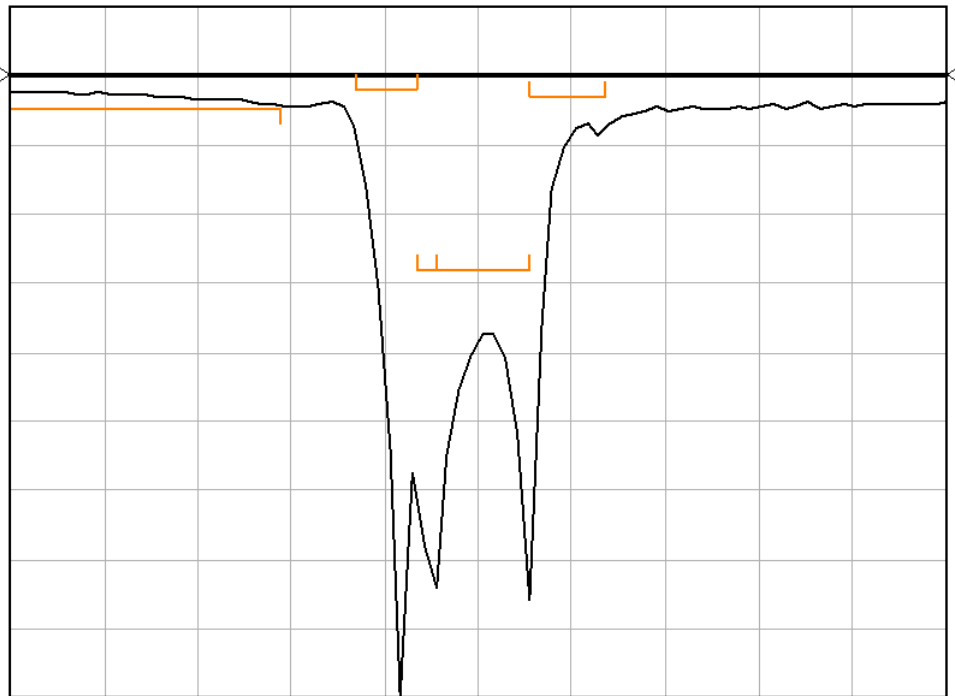
**NOTES:**

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.

# Transfer Function

Span: 100 MHz

S21 5dB/div



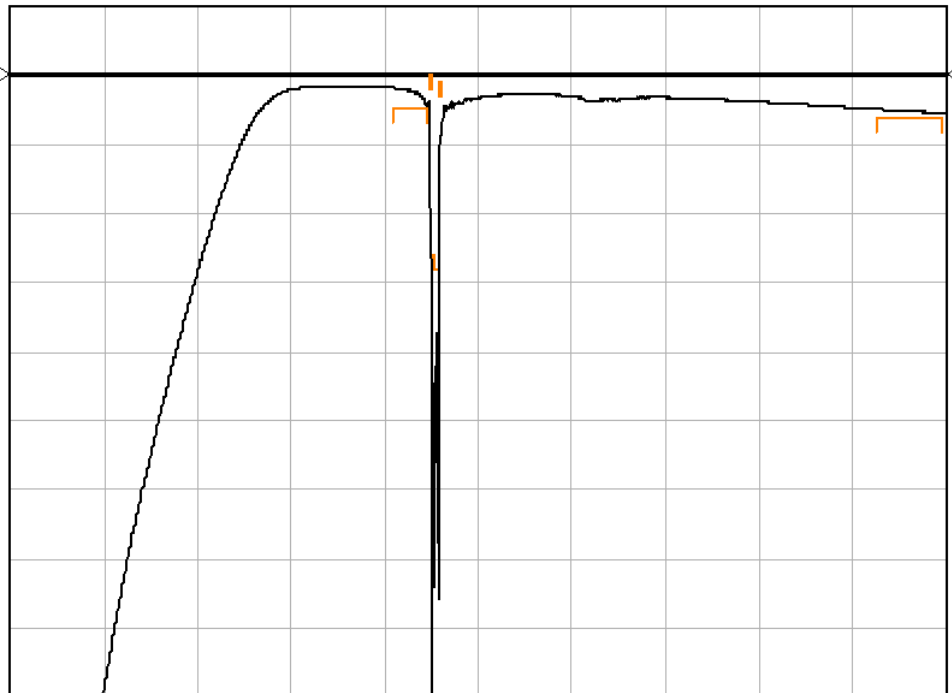
START 865.00 MHz

STOP 965.00 MHz

2019/03/01

Span: 2000 MHz

S21 5dB/div

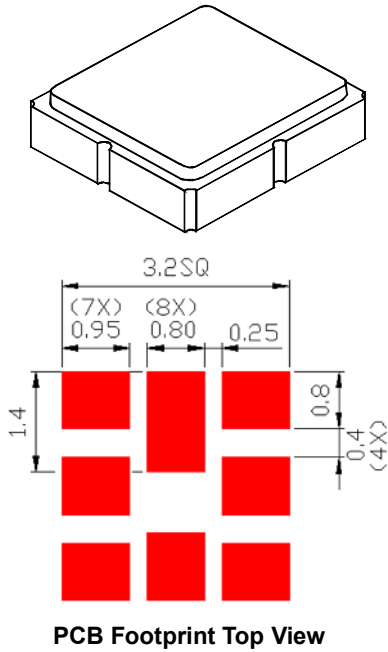


START 10.00 MHz

STOP 2000.00 MHz

2019/03/01

## 8-Terminal Ceramic Surface-Mount Case 3.0 x 3.0 mm Nominal Footprint



**Case and PCB Footprint Dimensions**

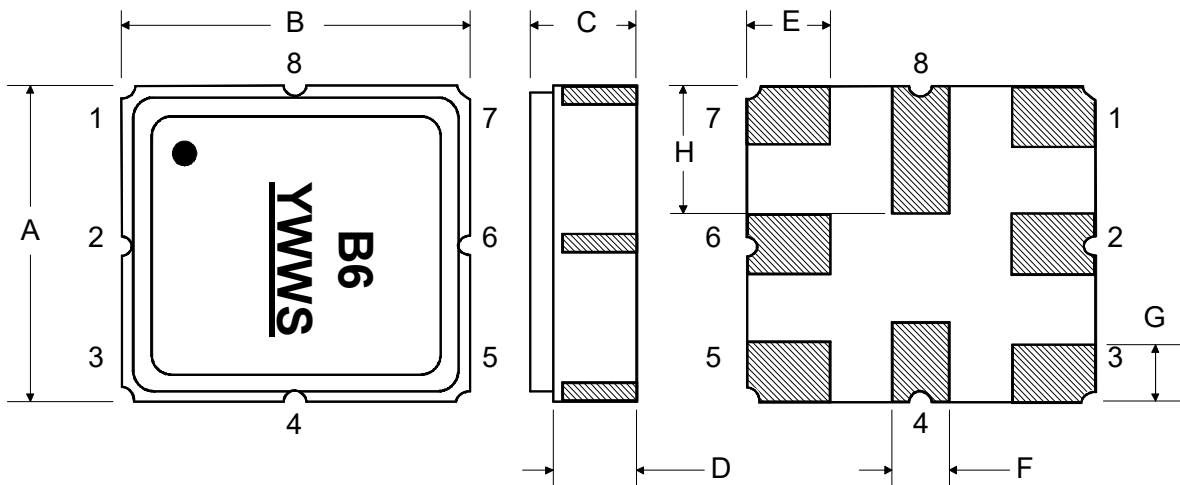
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
<b>A</b>	2.90	3.00	3.10	0.114	0.118	0.122
<b>B</b>	2.90	3.00	3.10	0.114	0.118	0.122
<b>C</b>	0.90	1.00	1.10	0.035	0.039	0.043
<b>D</b>	0.79	0.92	1.05	0.031	0.036	0.041
<b>E</b>	0.62	0.75	0.88	0.024	0.029	0.034
<b>F</b>	0.47	0.60	0.73	0.018	0.023	0.028
<b>G</b>	0.50	0.60	0.70	0.019	0.023	0.027
<b>H</b>	1.10	1.20	1.30	0.043	0.047	0.051

**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

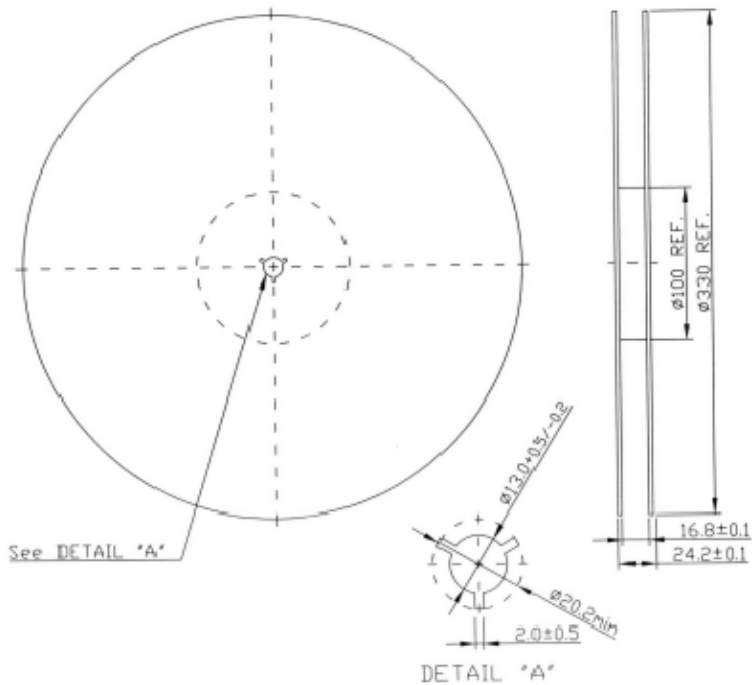
**TOP VIEW**

**BOTTOM VIEW**



## Tape and Reel Specifications

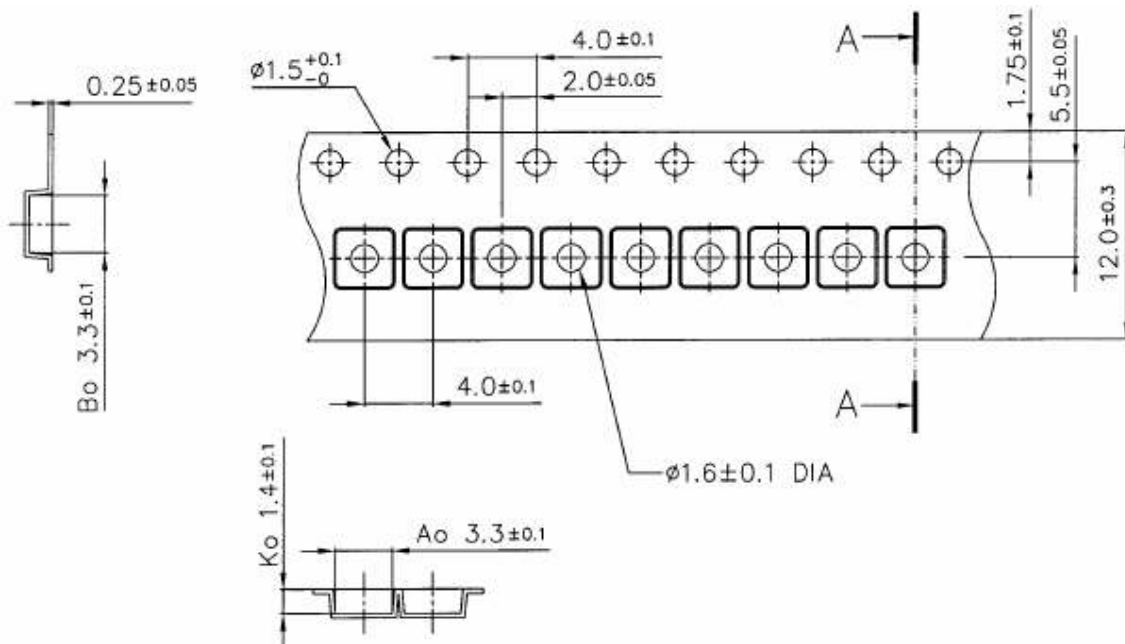
Tape and Reel Standard per ANSI/EIA481



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

Carrier Tape Dimensions	
Ao	3.30 mm
Bo	3.30 mm
Ko	1.4 mm
Pitch	4.0 mm
W	12.0 mm

### COMPONENT ORIENTATION and DIMENSIONS



## 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.

