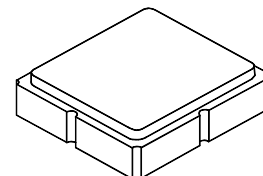


- **Low-loss UHF SAW Filter**
- **Single-ended Input, Balanced Output**
- **3.0 x 3.0 mm Surface-Mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

**SF1219E-1**

**2338.75 MHz  
SAW Filter**



**SM3030-6s**

**Maximum Ratings**

Rating	Value	Units
Input Power Level	+15	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +125	°C
Operating Temperature Range	-40 to +105	°C
Component Storage Temperature Range	-40 to +105	°C
Tape and Reel Storage Temperature Range	-40 to +85	°C
Solder Reflow Temperature, 10 seconds/5 cycles maximum	260	°C

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_0$			2338.75		MHz
Maximum Insertion Loss, 2332.5 to 2345 MHz	$IL_{MAX}$			2.1	3.0	dB
Amplitude Ripple, 2332.5 to 2345 MHz				0.4	1.4	dB <sub>P-P</sub>
Group Delay Ripple, 2332.5 to 2345 MHz				4	12	ns <sub>P-P</sub>
Input Return Loss, 2332.5 to 2345 MHz			6.5	20		dB
Output Return Loss, 2332.5 to 2345 MHz			6.5	23		dB
Attenuation, 0 dB Reference:						
88 to 108 MHz			60	70		dB
880 to 960 MHz			50	54		
1710 to 1910 MHz			40	46		
2305 MHz				17		
2310 MHz				10		
2315 MHz				6		
2320 MHz				4		
2450 MHz			30	35		
3060 MHz			35	50		
Single-ended Source Impedance	$Z_S$			50		
Balanced Load Impedance	$Z_L$			100		$\Omega$

Case Style	SM3030-6 3 x 3 mm Nominal Footprint		
Lid Symbolization y=year, ww=week, s=shift, dot=pin 1 indicator	989 <u>Y</u> <u>W</u> <u>W</u> <u>S</u>		
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel	
	Reel Size 13 Inch	3000 Pieces/Reel	

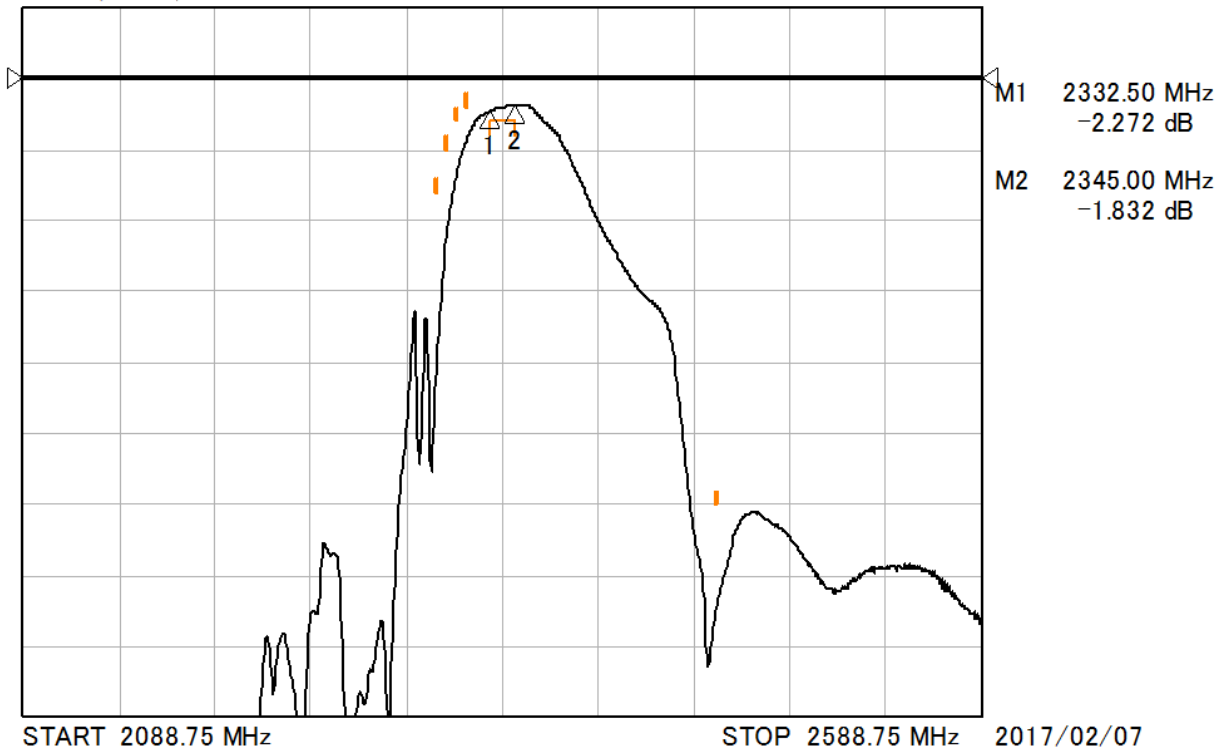
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**  
**NOTES:**

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.

Frequency characteristics:

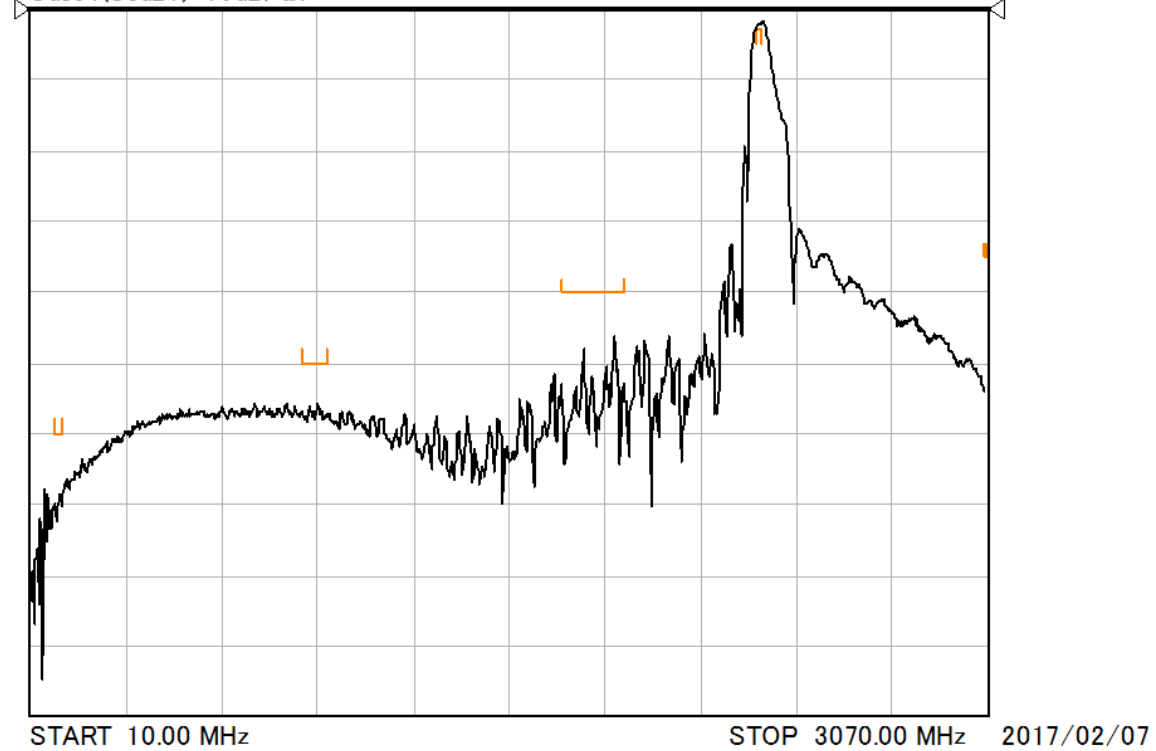
Format: LogMag REF: 0dB

Sds31(Ssd21) 5dB/div



Format: LogMag REF: 0dB

Sds31(Ssd21) 10dB/div

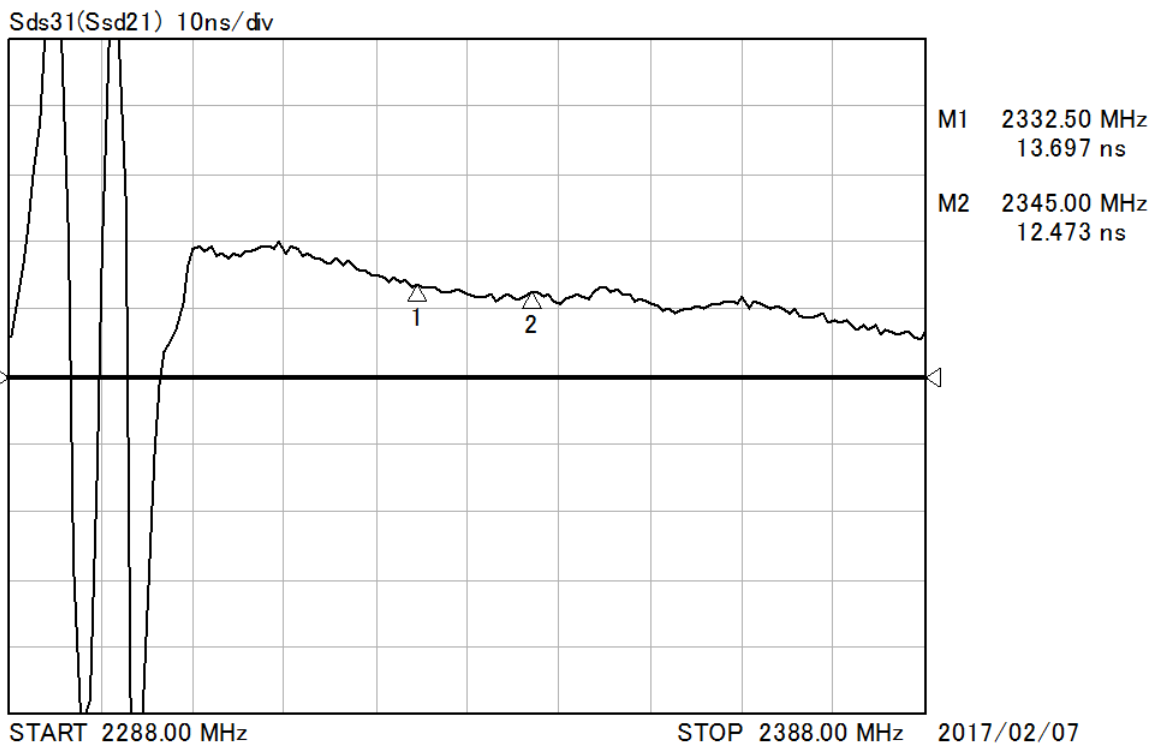


Frequency Characteristics: (continued)

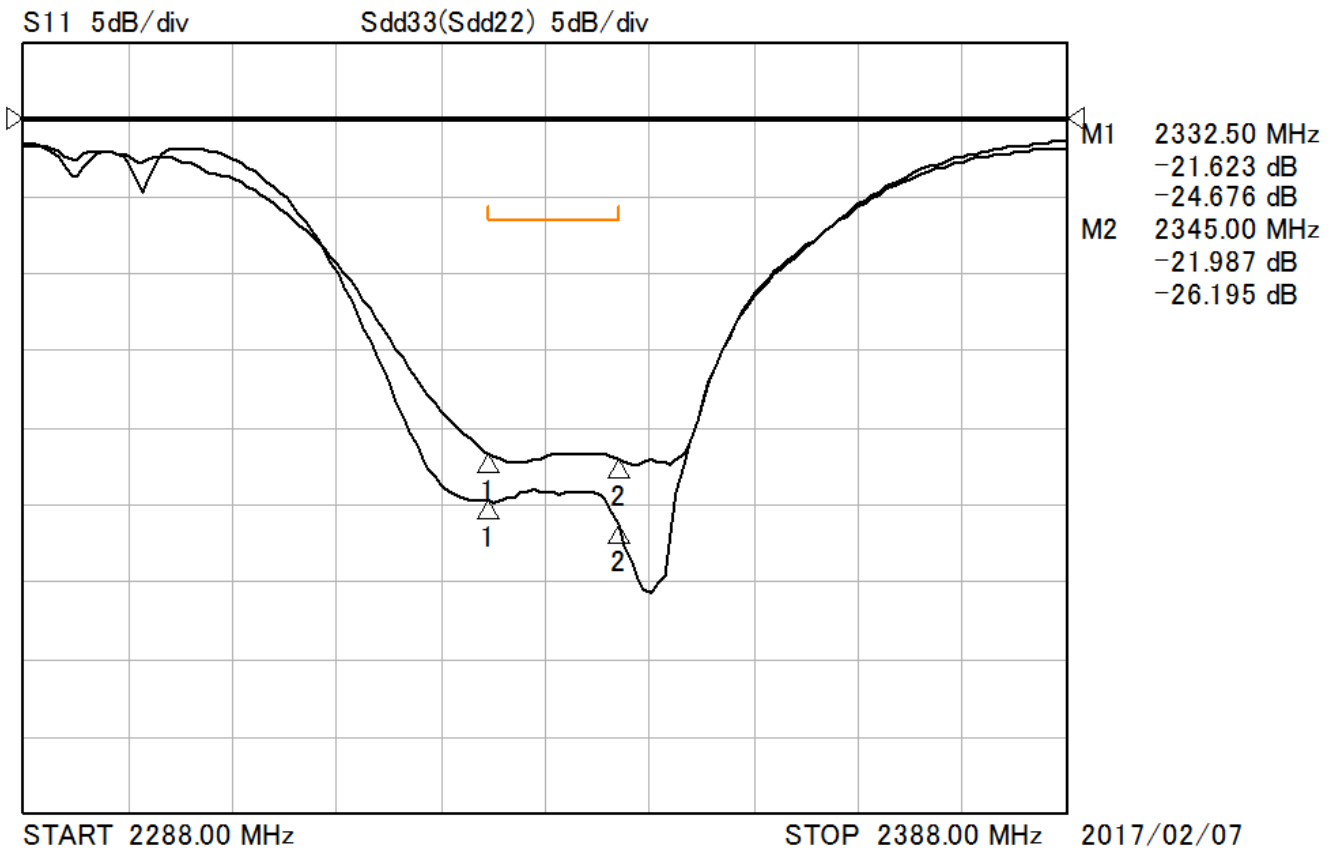
Format: LogMag REF: 0dB



Format: Group Delay REF: 0ns



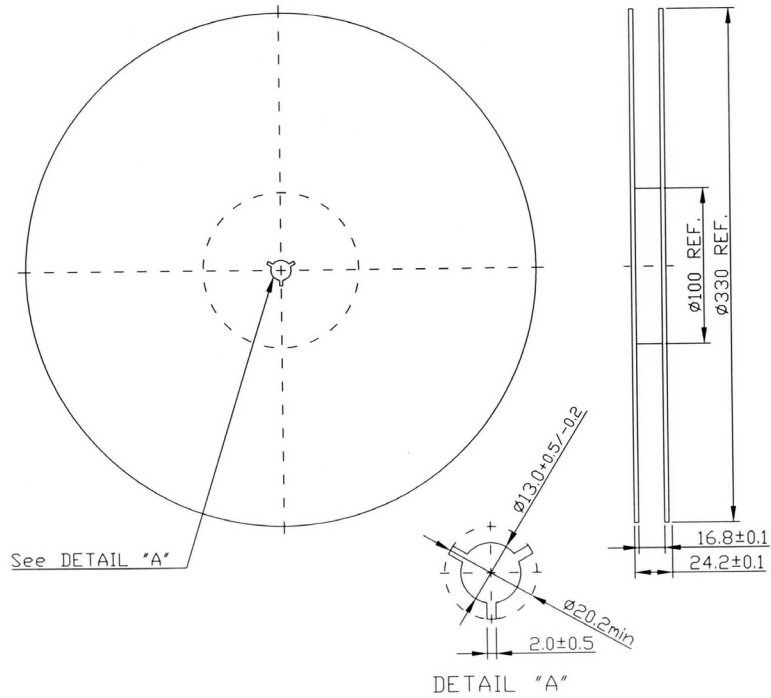
Frequency Characteristics: (continued)



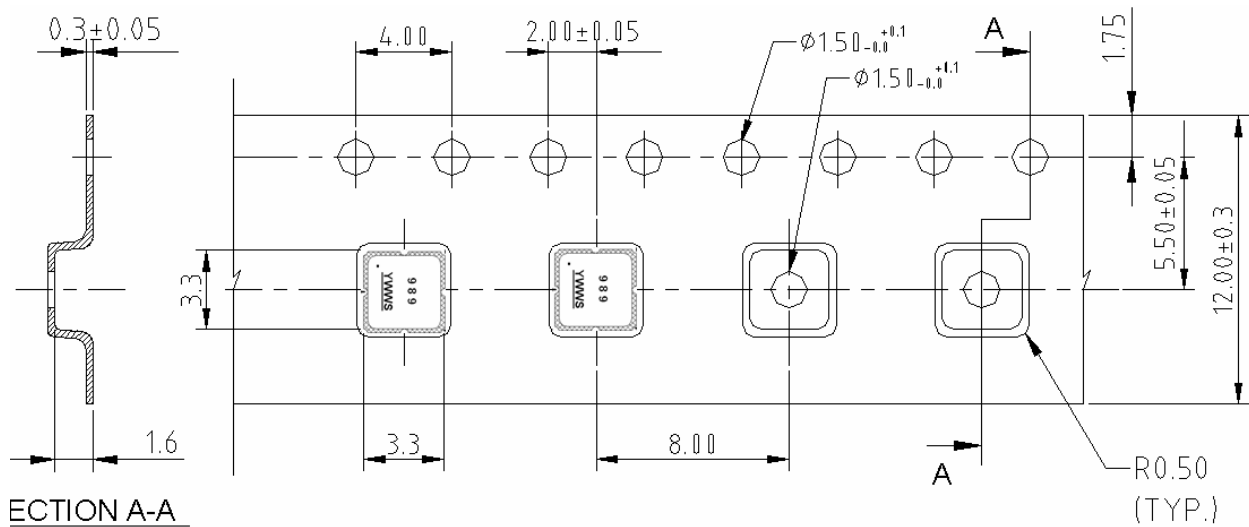
# Tape and Reel Specifications

Reel Count:  
 7" = 500  
 13" = 3000

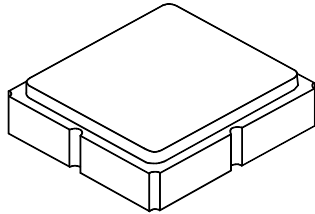
Tape and Reel Standard per ANSI/EIA-481



## Tape Dimension



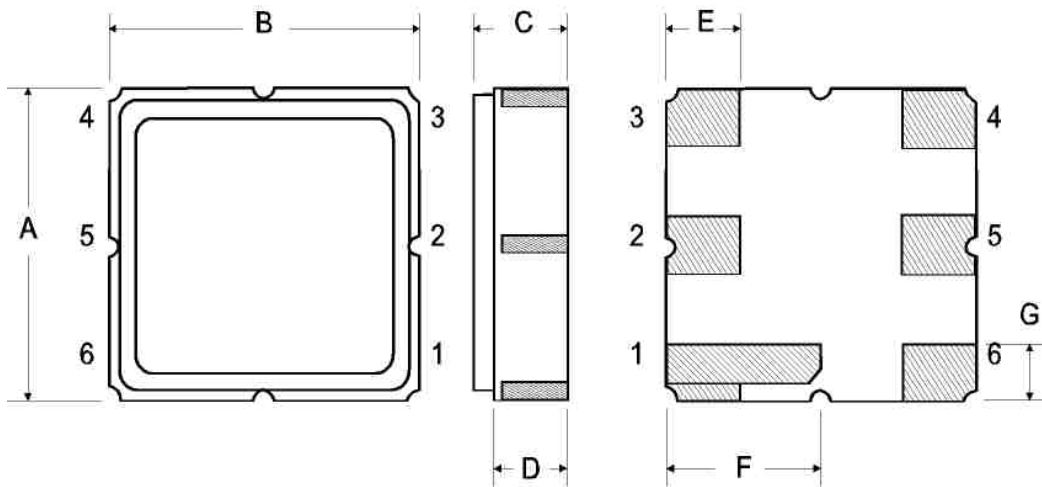
## 6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint



### Electrical Connections

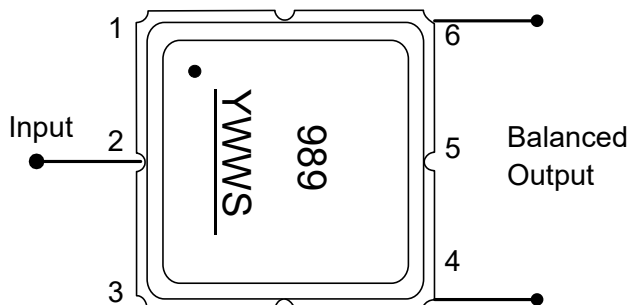
Connection	Terminals
Input	2
Balanced Output	4, 6
Ground	1, 3, 5

Dimensions	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.0	3.13			
B	2.87	3.0	3.13			
C	0.90	1.0	1.10			
D		0.75				
E		0.75				
F		1.50				
G		0.60				



### Measurement Circuit

Z<sub>in</sub>: 50 ohm    Z<sub>out</sub>: 100 ohm



## 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.

