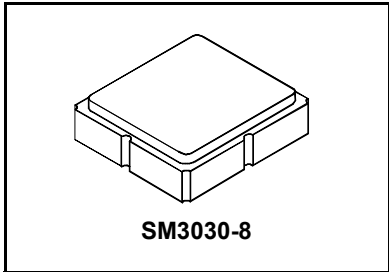


- **Low-loss UHF SAW Filter**
- **3.0 x 3.0 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

RoHS  
Compliant

SF2489E

916.5 MHz  
SAW Filter



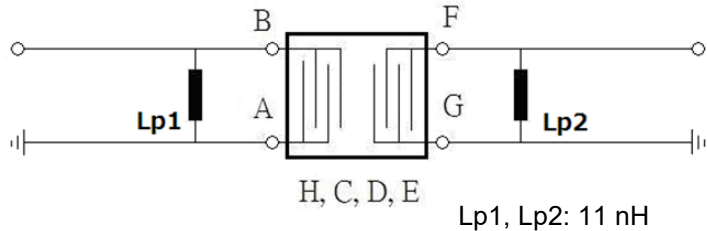
**Maximum Rating**

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	+40 to +85	°C
Specification Temperature Range	0 to +50	°C
Storage Temperature Range	-40 to +85	°C
Moisture Sensitivity Level	1	MSL

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			916.5		MHz
Maximum Insertion Loss, 699 to 886.5 MHz 886.5 to 870 MHz 870 to 894 MHz 1710 to 1880 MHz 1880 to 2170 MHz	$IL_{MAX}$			0.8	2.5	dB
				1.0	2.5	
				1.2	2.5	
				3.0	3.5	
				4.0	4.5	
Attenuation, 0 dB Reference: 915.5 to 917.5 MHz			25	36		dB
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	E2, YWWS		
Standard Reel Quantity	Reel Size 7 inch	500 Pieces/Reel	
	Reel Size 13 inch	3000 Pieces/Reel	

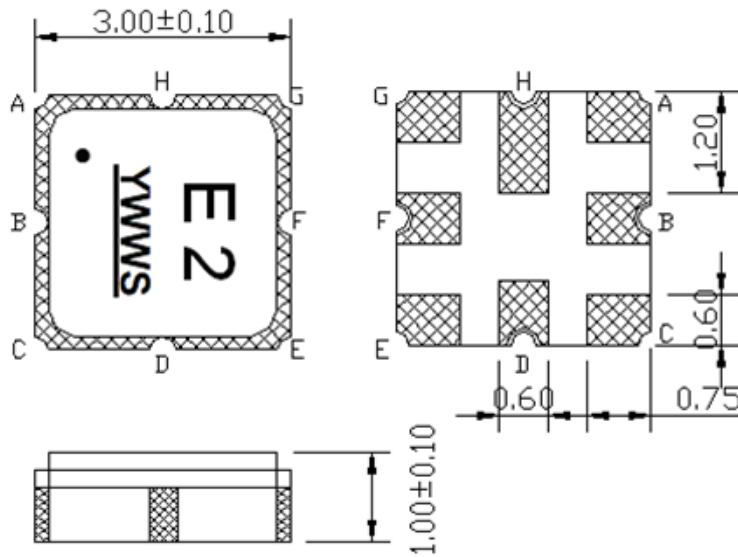
Electrical Connections	
Input	B
Output	F
All Others	A, C, D, E, G, H



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

**Outline Drawing:**



Mark Name: E2

**Y** : year code( 2010→0, 2019→9.)

**WW**: Week Code. 01 for W01, 02 for W02 , .....,52 for WK52.

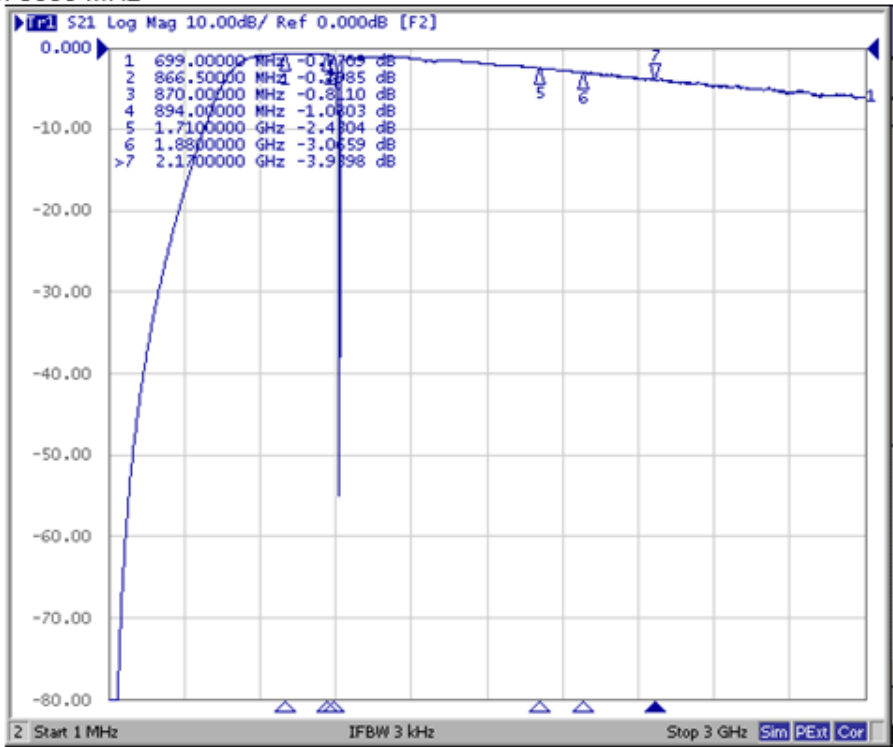
**S** : Shift Code. Follow below table.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
A Shift	A	D	G	K	N	S	V
B Shift	B	E	H	L	P	T	W
C Shift	C	F	J	M	R	U	X

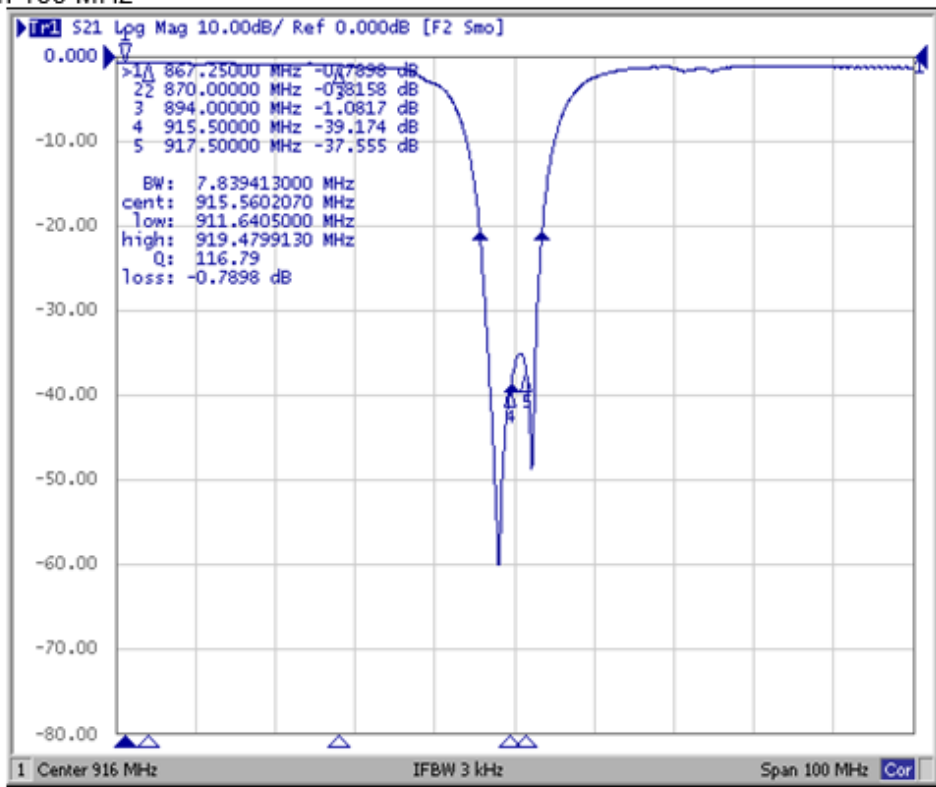
For example : Today (2016/04/20), Shall be mark 617G .

# Frequency Characteristics:

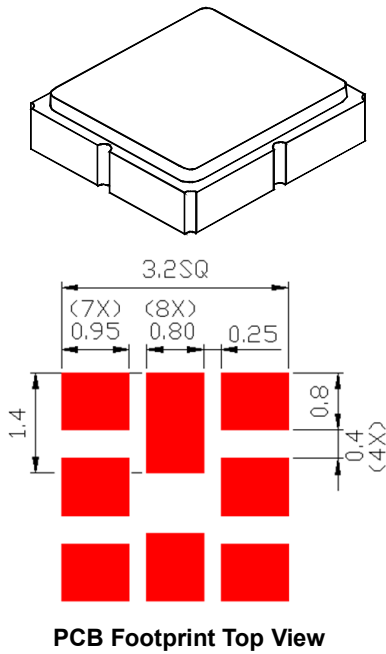
Span 3000 MHz



Span 100 MHz



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



**Case and PCB Footprint Dimensions**

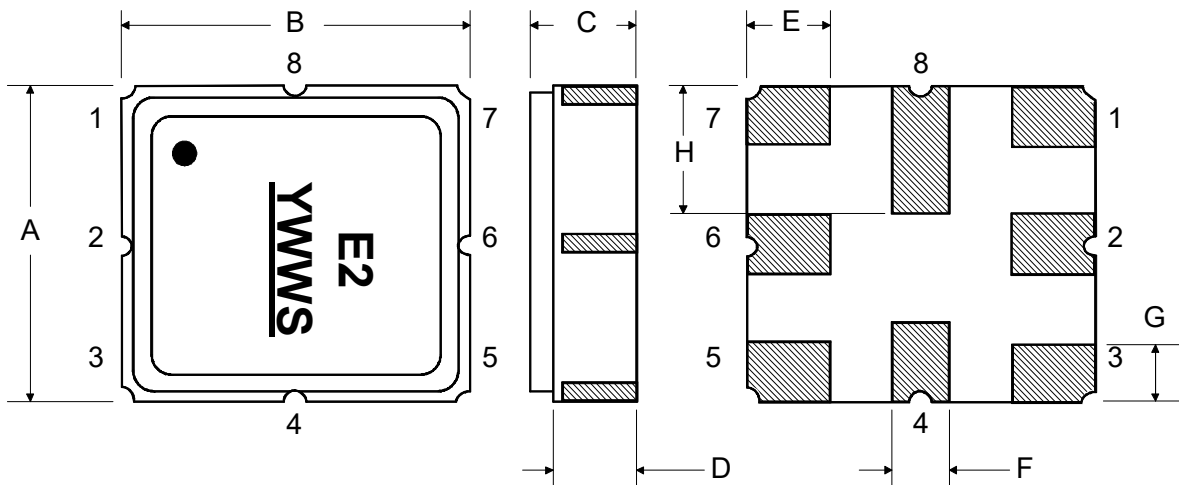
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
<b>A</b>	2.90	3.00	3.10	0.114	0.118	0.122
<b>B</b>	2.90	3.00	3.10	0.114	0.118	0.122
<b>C</b>	0.90	1.00	1.10	0.035	0.039	0.043
<b>D</b>	0.79	0.92	1.05	0.031	0.036	0.041
<b>E</b>	0.62	0.75	0.88	0.024	0.029	0.034
<b>F</b>	0.47	0.60	0.73	0.018	0.023	0.028
<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
Pb Free	

TOP VIEW

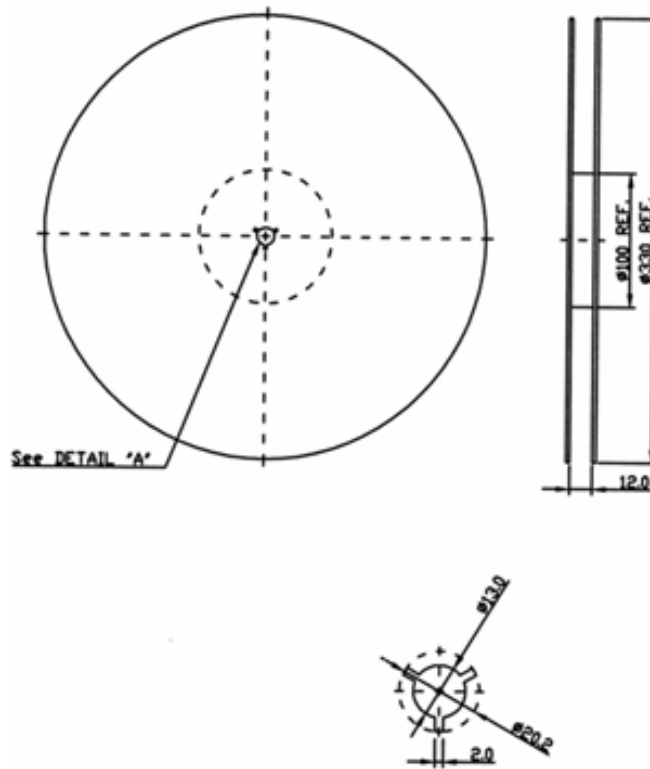
BOTTOM VIEW



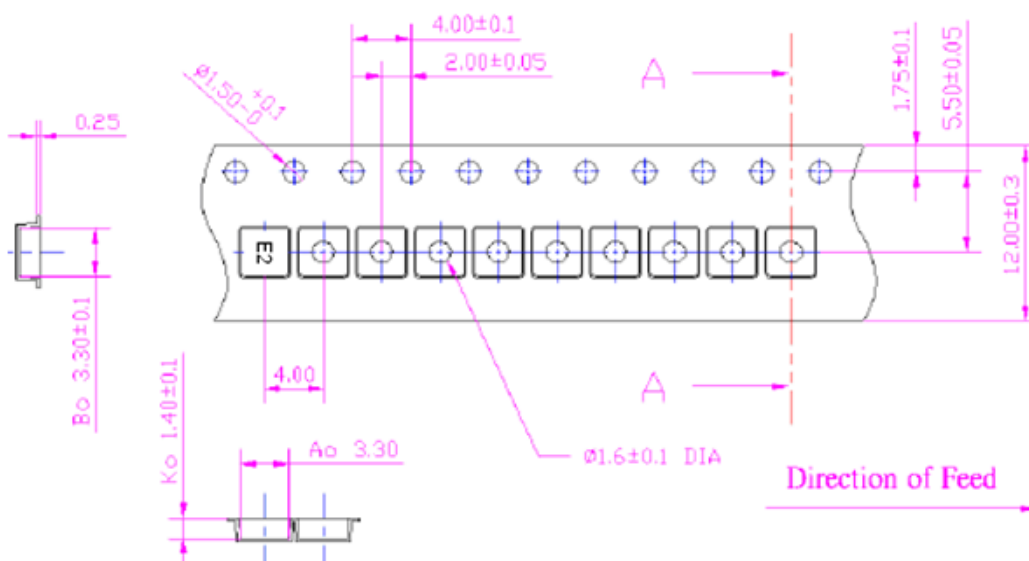
## Packaging;

### 1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



### Tape Dimension:



## 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.

