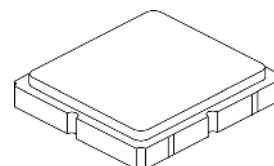


**RF3625E**

**434.42 MHz**  
**SAW Filter**



**SM3030-6**

- **Low-loss RF SAW Filter**
- **3 x 3 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

**Absolute Maximum Ratings**

Rating	Value	Units
Input Power Level	+13	dBm
DC Voltage on any Non-ground Terminal	±0	V
Operating Temperature Range	-40 to +105	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Source Impedance	$Z_S=50$	$\Omega$
Load Impedance	$Z_L=50$	$\Omega$

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			434.42		MHz
Minimum Insertion Loss, $\alpha$ min	IL					dB
Incl. Loss in Matching Elements		433.79 to 435.05 MHz		2.2	2.9	
Excl. Loss In Matching Elements		433.79 to 435.05 MHz		1.4	2.1	
Pass Band (Relative to $\alpha$ min)		433.79 to 435.05 MHz		1.1	2.5	
		433.72 to 435.12 MHz		1.3	3.0	
Relative Attenuation (Relative to $\alpha$ min)						dB
10 to 350 MHz			50	55		
350 to 414 MHz			30	35		
414 to 425 MHz			30	35		
425 to 433.02 MHz			13	17		
436.42 to 437.3 MHz			13	17		
437.3 to 438 MHz			22	27		
438 to 446 MHz			25	30		
446 to 455 MHz			25	30		
455 to 480 MHz			28	33		
480 to 800 MHz			40	45		
800 to 1700 MHz			52	57		
1700 to 2500 MHz			42	47		
Input: $Z_{IN}=Ls1/Cp1$				75/7.5		nH/pF
Output: $Z_{OUT}=Ls2/Cp2$				75/7.5		

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	A85, <u>YWWS</u>	
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

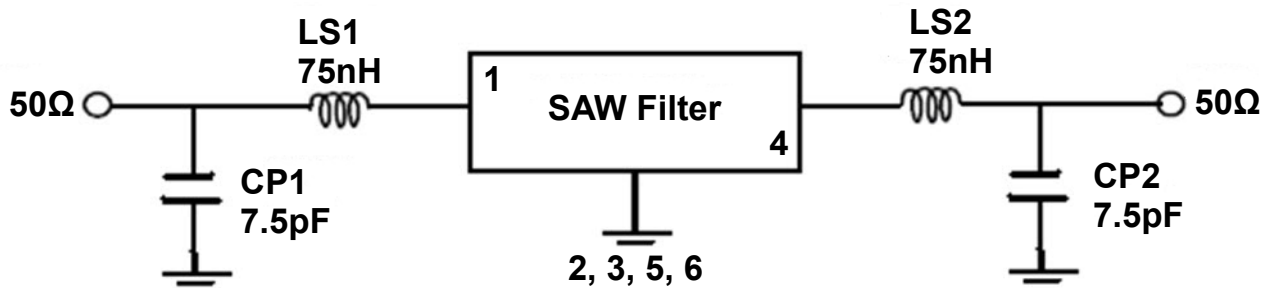
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**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.

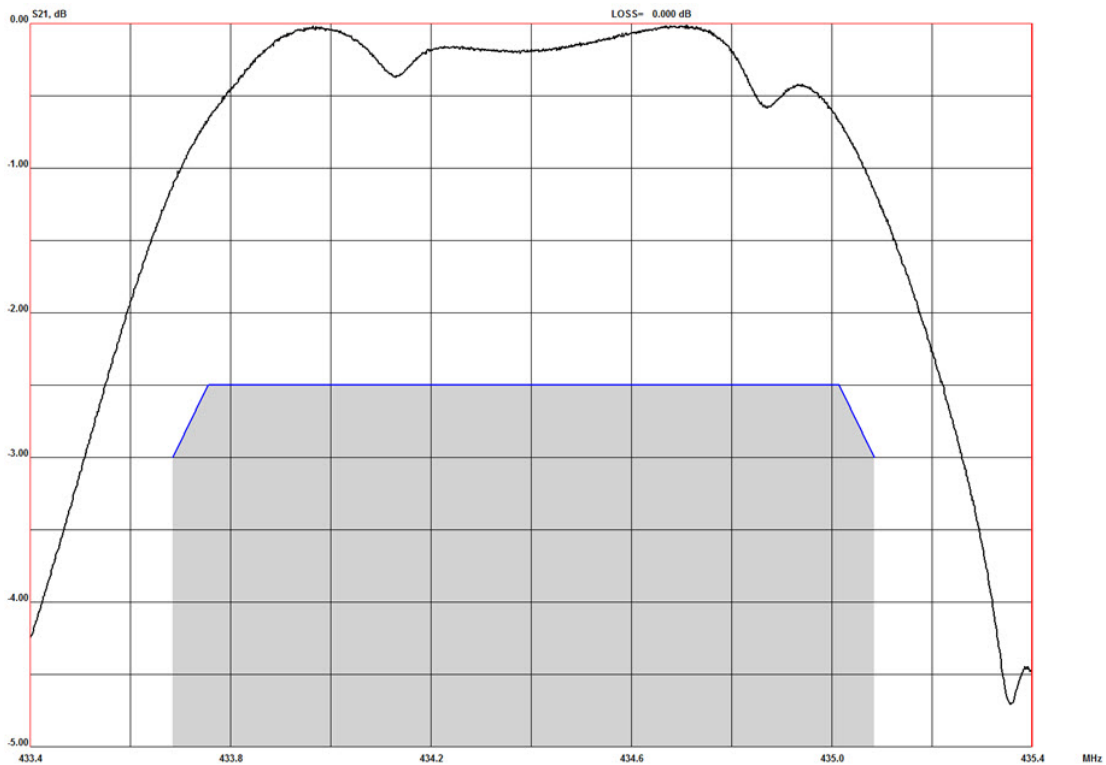
## Electrical Connections

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



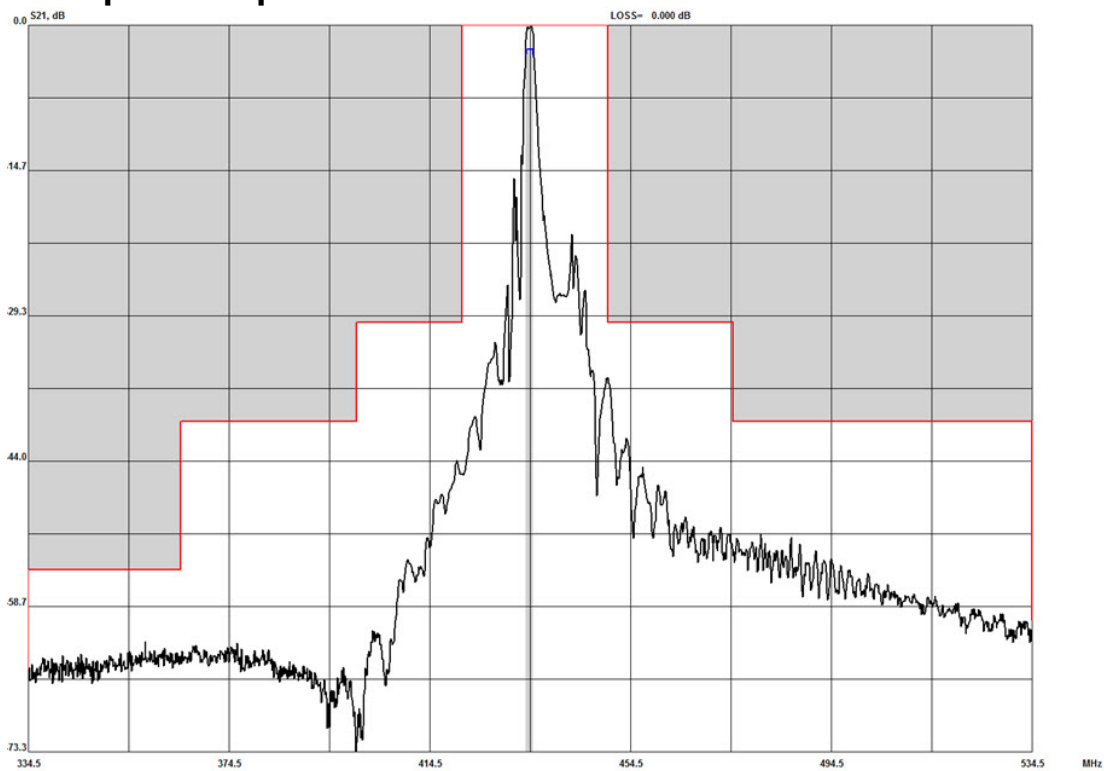
## RF3625E Frequency Characteristics

### S21 Response - span: 2 MHz

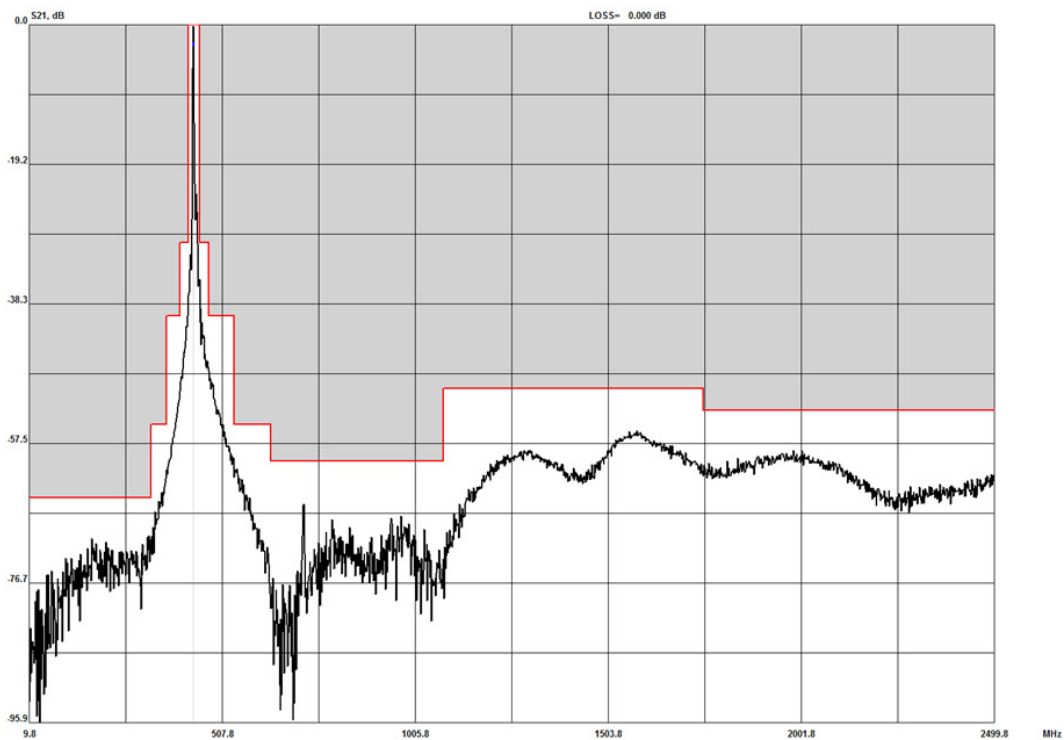


## RF3625E Frequency Characteristics (continued)

### S21 Response: span 200 MHz

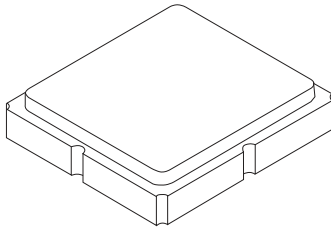


### S21 Response: span 10 MHz to 2.5 GHz



# SM3030-6 Case

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

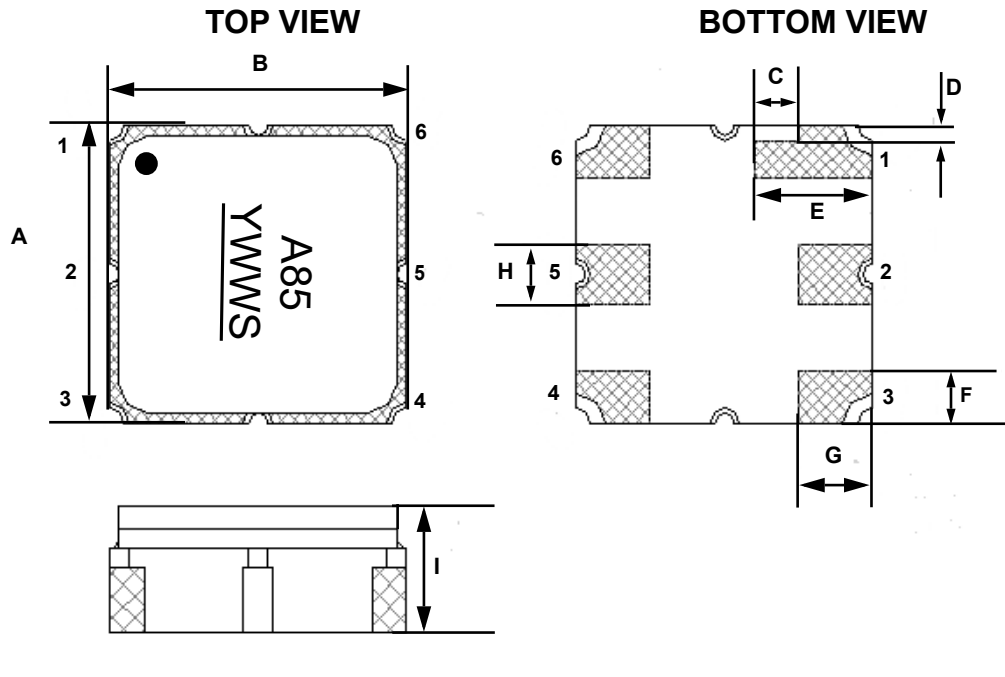


### Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.85	3.00	3.15	0.112	0.118	0.124
B	2.85	3.00	3.15	0.112	0.118	0.124
C	-	0.45	-	-	0.177	-
D	-	0.15	-	-	0.005	-
E	1.05	1.20	1.35	0.041	0.047	0.053
F	0.38	0.53	0.68	0.014	0.020	0.026
G	0.60	0.75	0.90	0.023	0.029	0.035
H	0.55	0.60	0.65	0.021	0.023	0.025
I	-	-	1.40	-	-	0.055

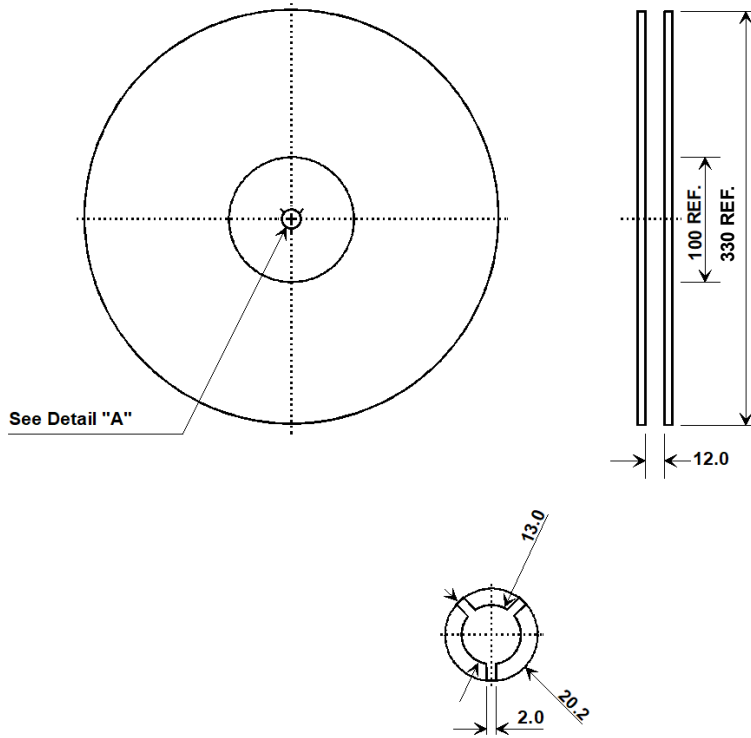
### Case Materials

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



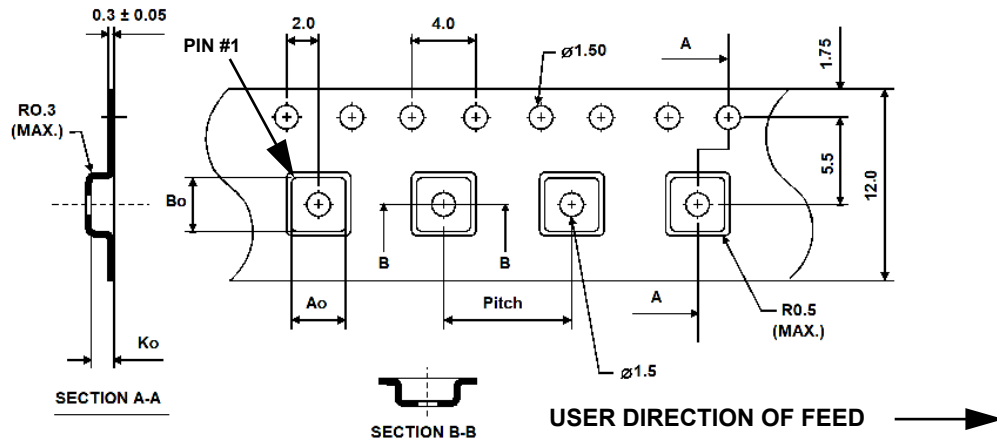
# Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481



## COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 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.

