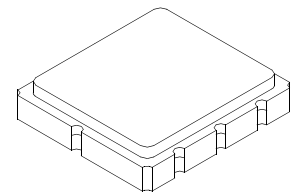


## RF3709D

### 433.92 MHz SAW Filter



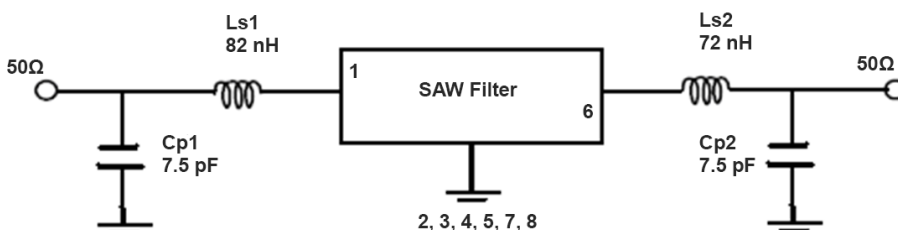
**SM3838-8 Case**  
3.8 x 3.8

- **Ideal Front-End Filter for European Wireless Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

Rating	Value	Units
Input Power Level	13	dBm
DC Voltage	0	VDC
Operable Temperature Range	-45 to +125	°C
Storage Temperature	-40 to +105	°C
Specification Temperature Range	-40 to +105	°C
Soldering Temperature (10 sec/ 5 cycles max.)	260	°C

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency	$f_c$			433.92		MHz
Minimum Insertion Loss (Relative to $\alpha$ min)						
Including loss of matching elements 433.385 to 434.455 MHz	$\alpha$ min			3.0	3.5	dB
Excluding loss in matching elements 433.385 to 434.455 MHz				2.0	2.5	
Passband (relative to $\alpha$ min) 433.385 to 434.455 MHz				1.3	2.8	dB
433.37 to 434.47 MHz				1.5	3.3	
Attenuation (relative to $\alpha$ min)						dB
10 to 100 MHz			65	69		
100 to 207 MHz			59	64		
207 to 334 MHz			48	53		
334 to 417 MHz			35	40		
417 to 430 MHz			9	14		
437 to 451 MHz			9	14		
451 to 490 MHz			30	35		
490 to 534 MHz			42	47		
534 to 1750 MHz			57	62		
1750 to 2500 MHz			60	65		
Package Size			SMD 3.8 X 3.8			mm
Lid Symbolization (Y=year WW=week S=shift)	B26, YWWS					
Terminating Source Impedance (Single)	$Z_s$		50			$\Omega$
Terminating Load Impedance (Single)	$Z_L$		50			

#### Measurement Circuit



Pin	Connection
1	Input or Input Ground
2	Input Ground or Input
5	Output or Output Ground
6	Output Ground or Output
3, 4, 7, 8	Ground



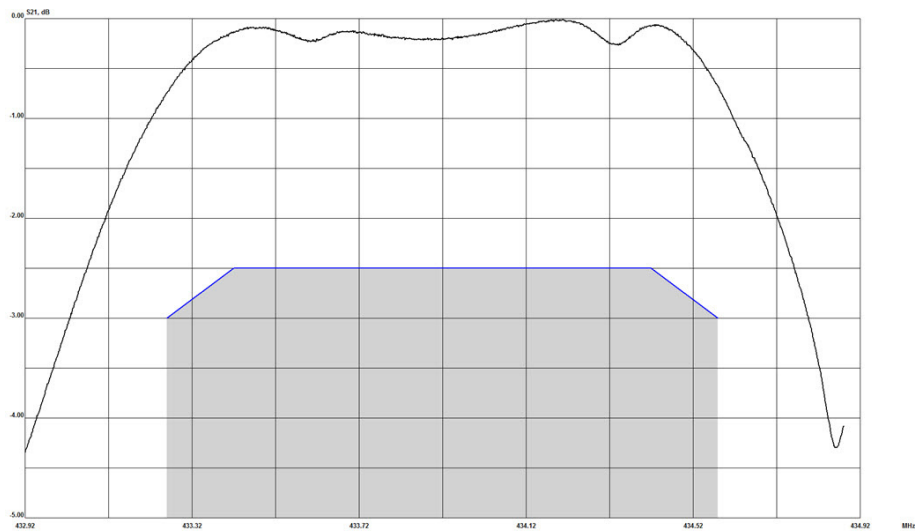
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

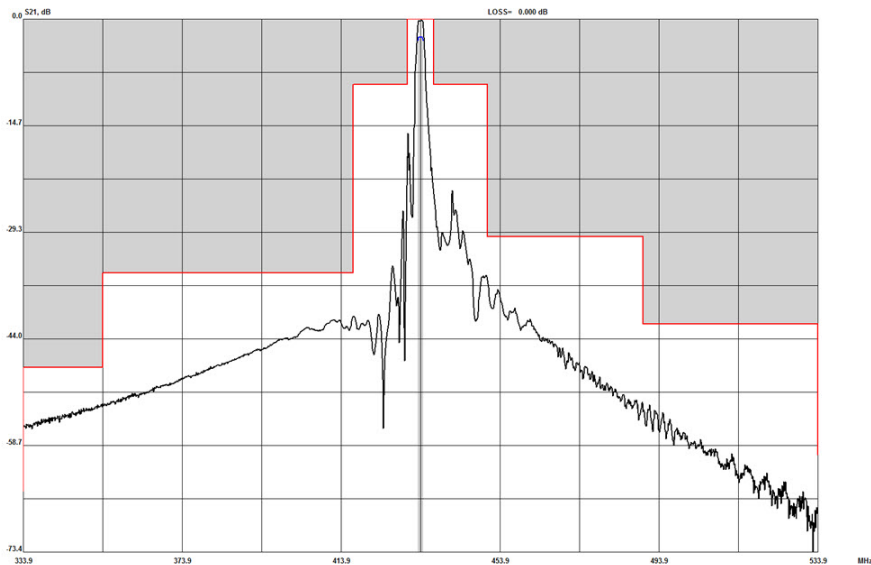
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

## Frequency Characteristics

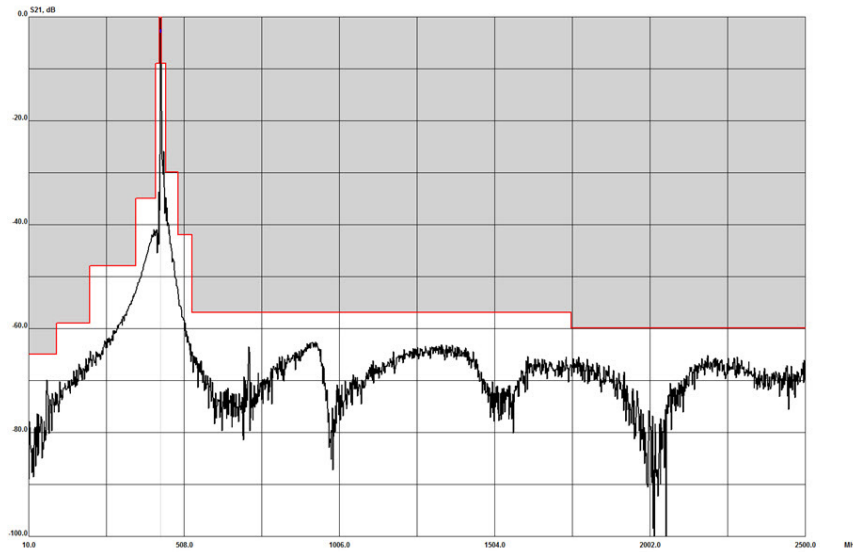
### S21 Response: Span - 2 MHz



### S21 Response: Span - 20 MHz

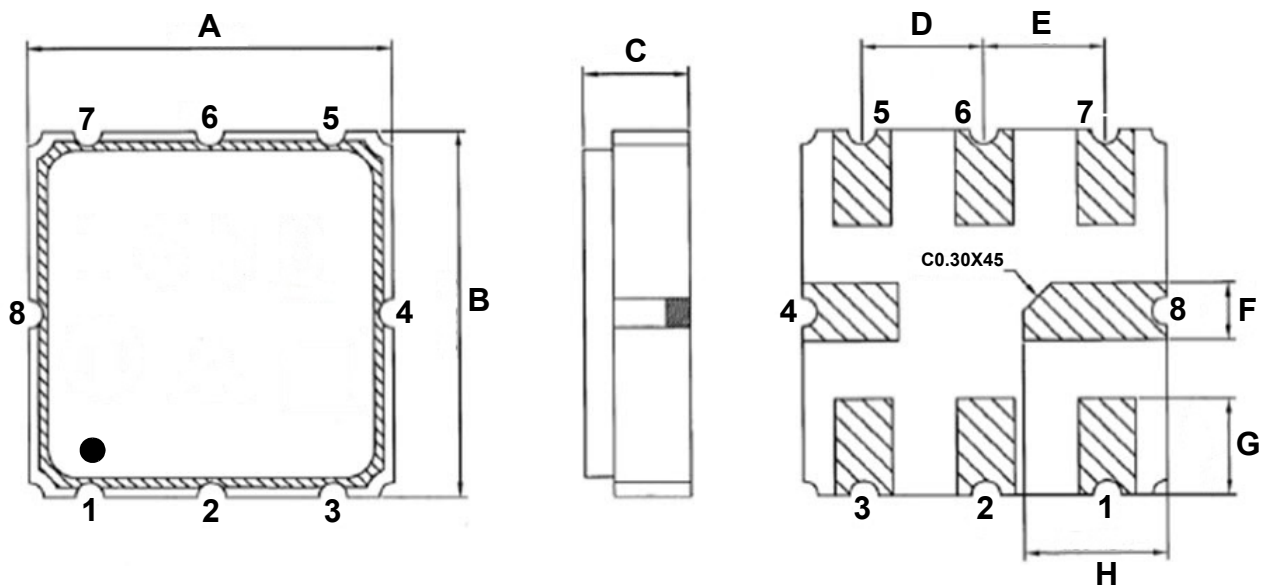


## S21 Response: Span - 10 MHz to 2.5 GHz



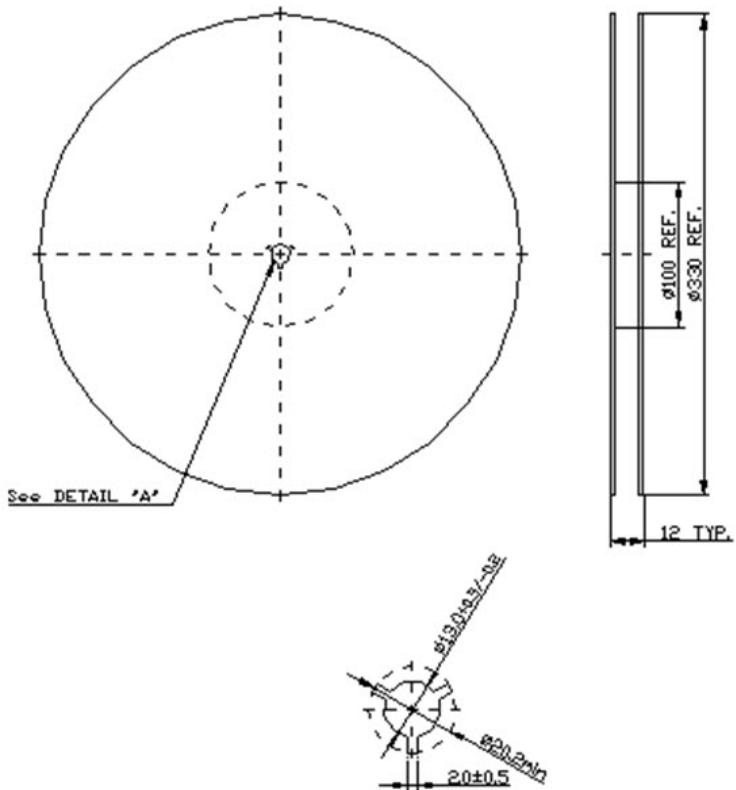
## Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.65	3.8	3.95	0.143	0.149	0.155
B	3.65	3.8	3.95	0.143	0.149	0.155
C	-	-	1.40	-	-	0.055
D	-	1.27	-	-	0.050	-
E	-	1.27	-	-	0.050	-
F	-	0.60	-	-	0.023	-
G	-	1.00	-	-	0.039	-
H	-	1.50	-	-	0.059	-

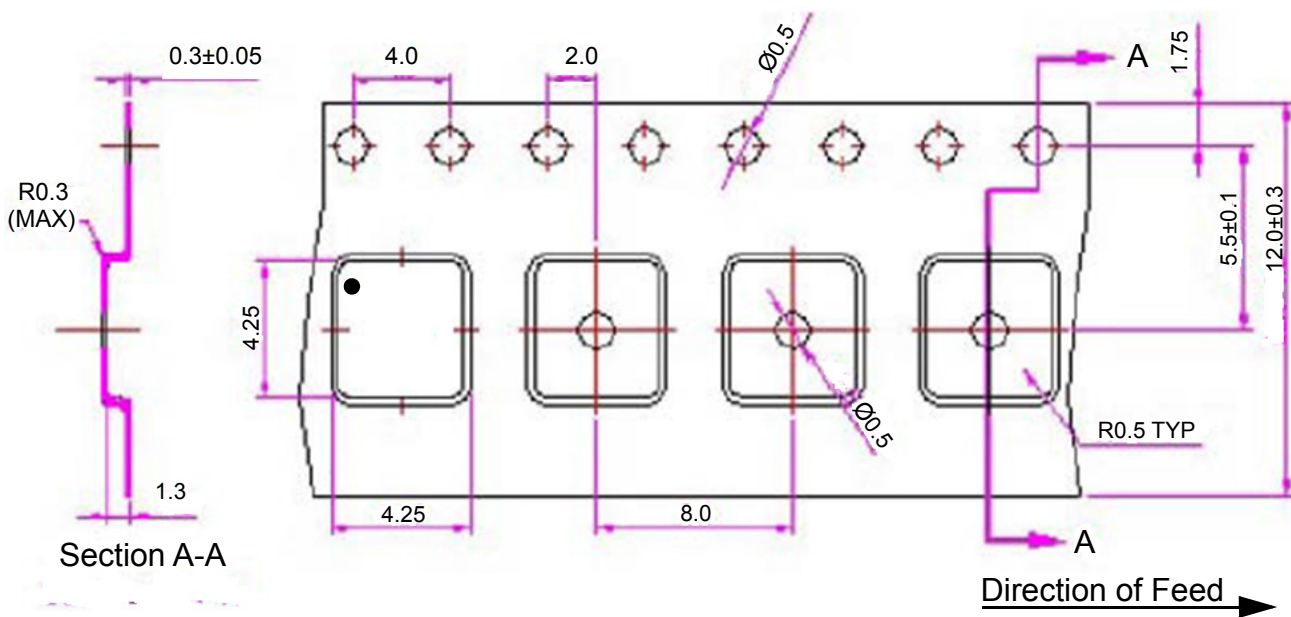


## Reel Dimensions

Tape and Reel Standard per ANSI/EIA-481



## Tape 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.

