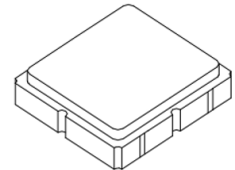


**SF2008D**

**930.5 MHz  
SAW Filter**



**SM3838-6**

- *RF Filter for Pager Applications*
- *High Rejection Out of Band*
- *Complies with Directive 2002/95/EC (RoHS)*
- *Moisture Sensitivity Level: 1*

**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Incident Power in Passband	0	dBm
Maximum DC Voltage Between Any Two Terminals	30	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 30 s	

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			930.5		MHz
Passband Insertion Loss, 928.5 to 932.5 MHz	$IL_{MAX}$				4.5	dB
Passband Amplitude Ripple, 928.5 to 932.5 MHz					2.0	dB <sub>P-P</sub>
Rejection Referenced to $IL_{MAX}$						
400 to 880 MHz			35			dB
884.8 to 890.2 MHz			40			
906.8 to 911.2 MHz			30			
980 to 1300 MHz			35			
Operating Temperature Range	$T_A$		-20		+70	°C
Input Impedance at $f_C$			50 - j57 ohm			
Output Impedance at $f_C$			50 - j57 ohm			
Case Style	SM3838-6 3.8 x 3.8 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	455, <u>YWWS</u>					

**Electrical Connections**

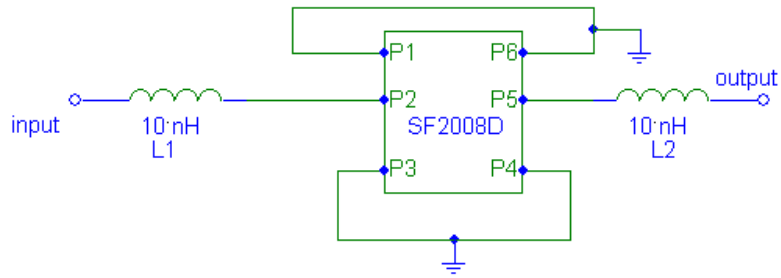
Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others

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

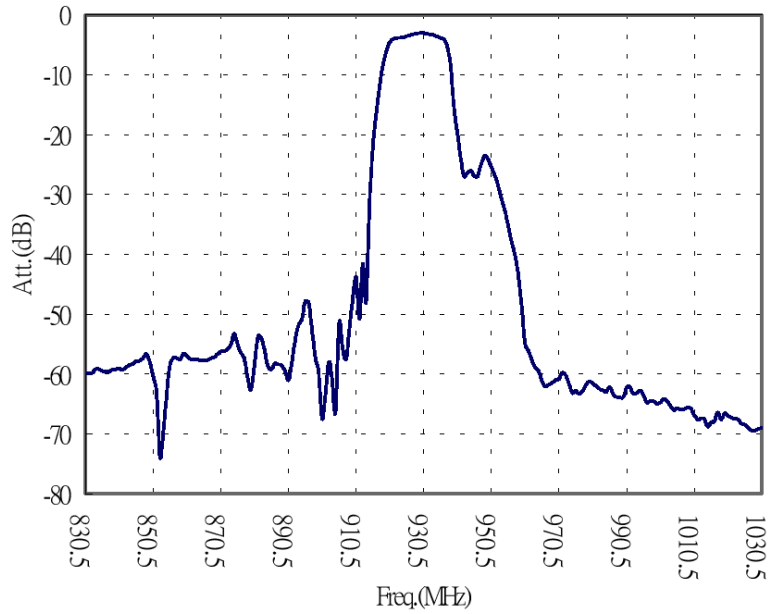
**NOTES:**

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.

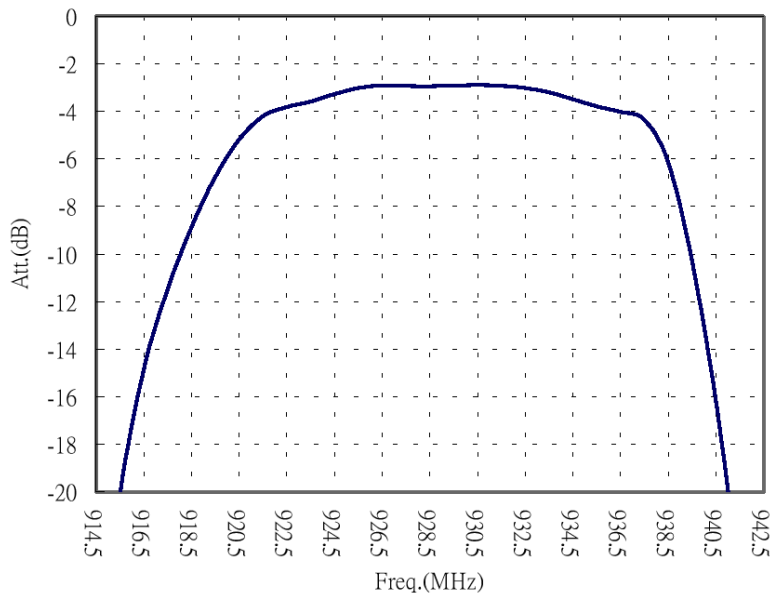
## Matching Circuit



## S21 Wide Span



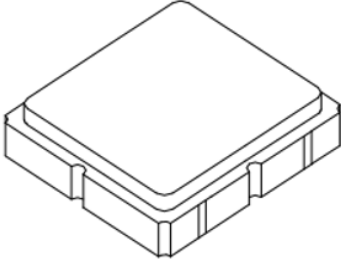
## S21 Narrow Span



# SM3838-6 Case

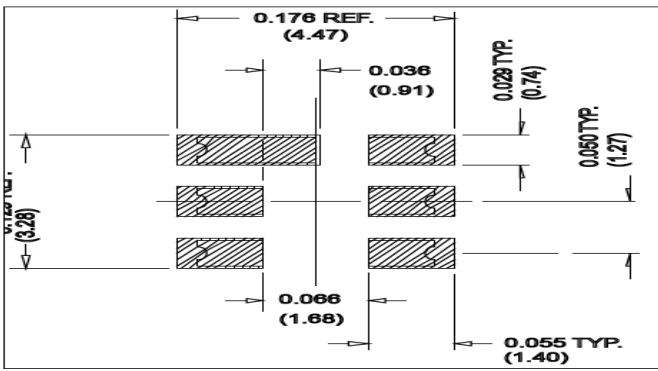
## 6-Terminal Ceramic Surface-Mount Case

### 3.8 X 3.8 mm Nominal Footprint



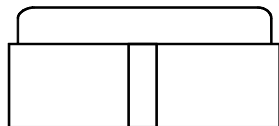
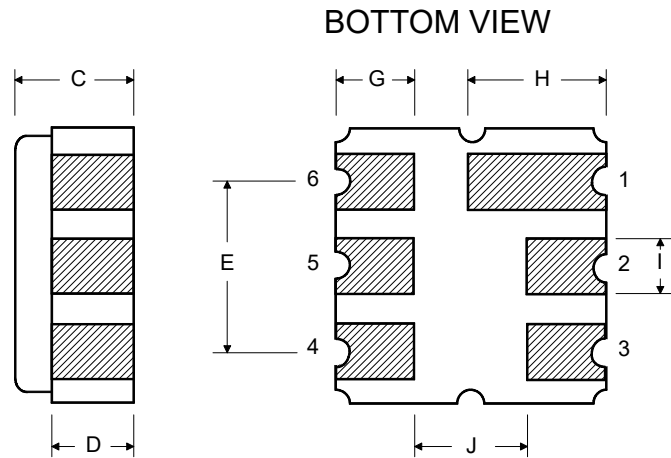
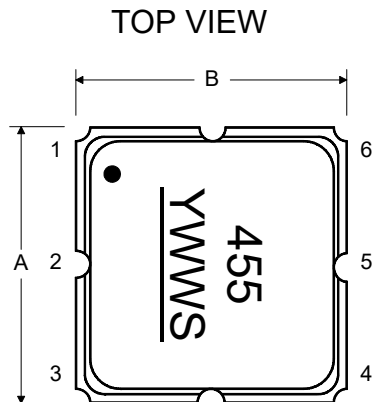
Dimension	Case Dimensions					
	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.60	3.80	4.0	0.14	0.15	0.16
B	3.60	3.80	4.0	0.14	0.15	0.16
C	1.30	1.50	1.70	0.05	0.06	0.067
D	0.95	1.10	1.25	0.037	0.043	0.05
E	2.39	2.54	2.69	0.090	0.10	0.110
G	0.90	1.0	1.10	0.035	0.04	0.043
H	1.90	2.0	2.10	0.75	0.08	0.83
I	0.50	0.6	0.70	0.020	0.024	0.028
J	1.70	1.8	1.90	0.067	0.07	0.075

Electrical Connections		
Connection	Terminals	
Port 1	Single-ended Input	2
Port 2	Single-ended Output	5
	Ground	All others
<b>Single-ended Operation Only</b>		
Dot indicates Pin 1		



PCB Footprint

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





## 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.

