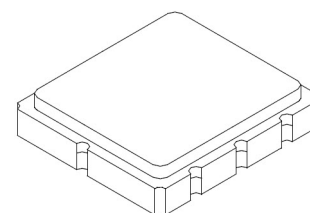


**SF2469D**

**611 MHz  
SAW Filter**



**SM3838-8**

- **High Performance SAW Filter**
- **3.8 x 3.8 mm Surface-mount Package**
- **Complies with Directive 2011/65/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Incident Power in Passband	+20	dBm
Maximum DC Voltage Between any Two Active Terminals	3	VDC
Specification Temperature Range	5 to +40	°C
Storage Temperature Range	-30 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 20 - 40 sec	

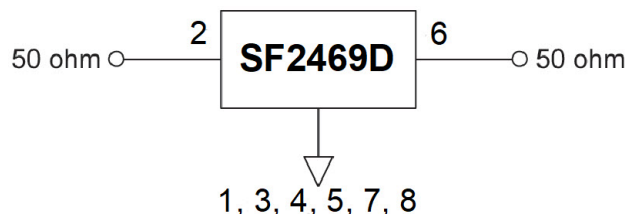
**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$			611		MHz
Insertion Loss 608 to 614 MHz	ILmin			1.7	2.7	dB
Amplitude Ripple 608 to 614 MHz				0.5	1.2	
Return Loss 608 to 614 MHz			10	14		
Attenuation (Reference level from 0 dB)						dB
D.C to 580 MHz			45	47		
736 to 792 MHz			45	52		
792 to 1000 MHz			40	47		
1000 to 2300 MHz			20	25		
2300 to 3000 MHz			12	18		
Temperature Coefficient of Frequency				-36		ppm/°C

Case Style	3.8 x 3.8 mm Nominal Footprint
Lid Symbolization, Y=year, WW=week, S=shift, Dot=pin 1 indicator	B52, <u>YWWS</u>

**Electrical Connections**

Connection	Terminals
Input	2
Output	6
Case Ground	All others

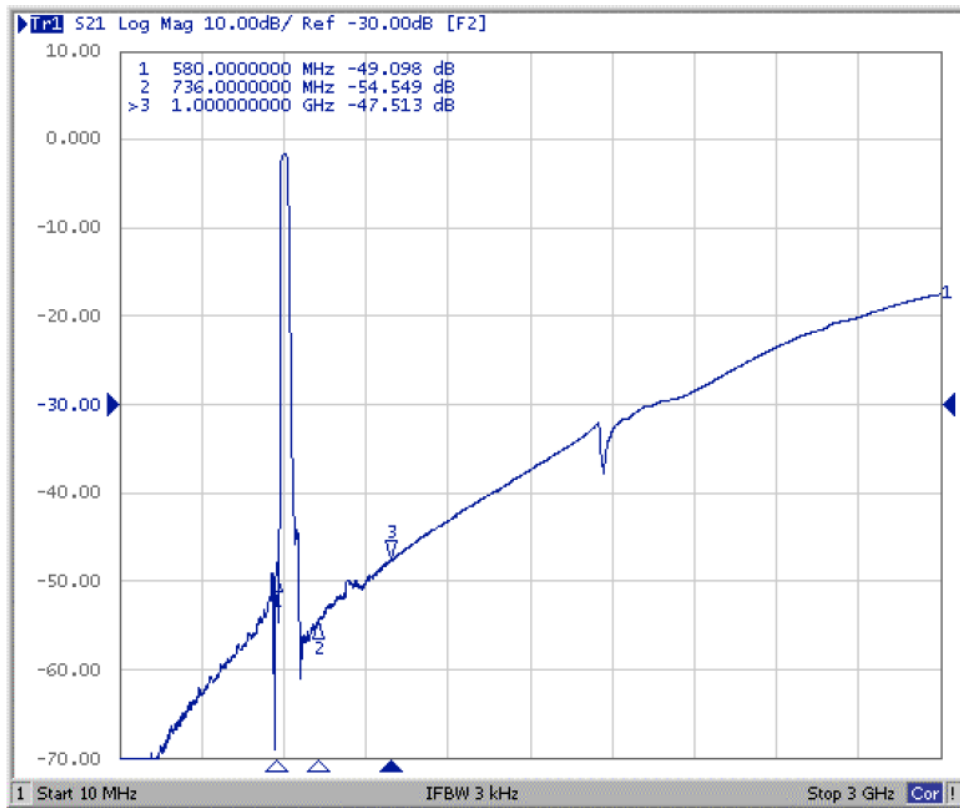
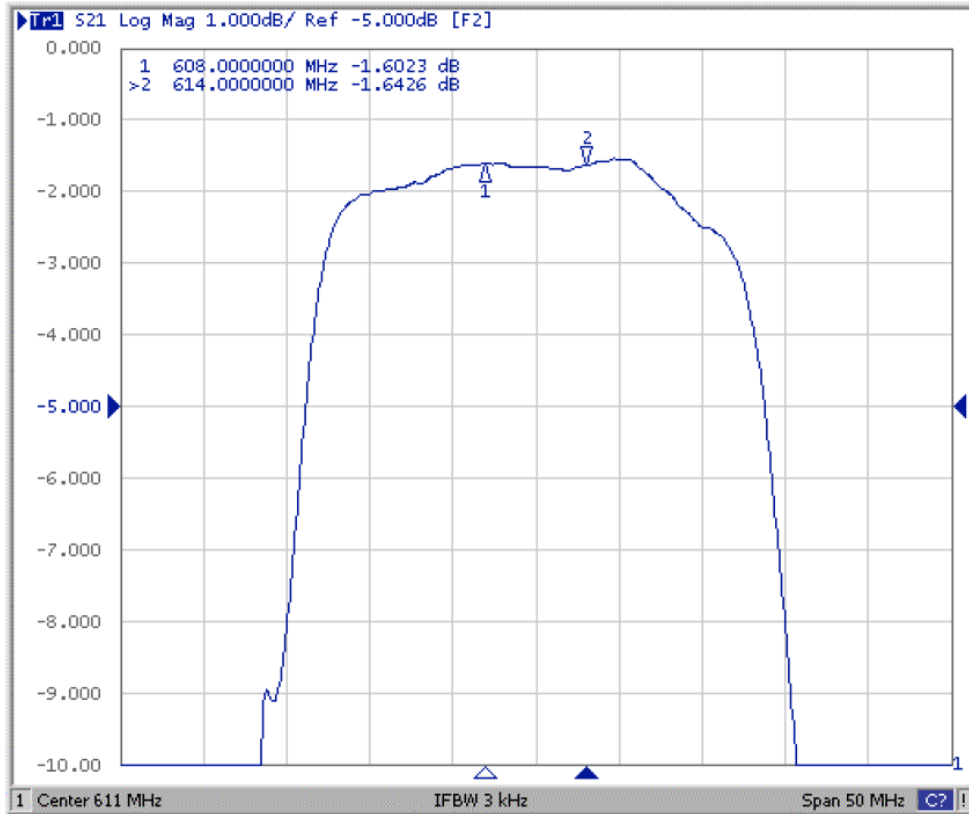


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

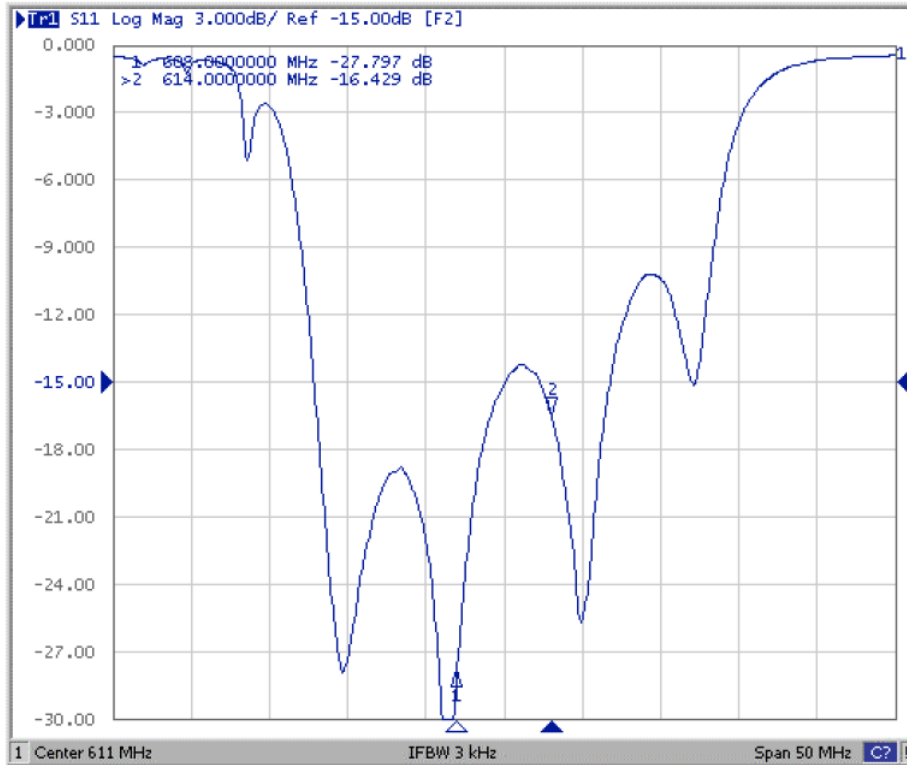
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

# Frequency Characteristics

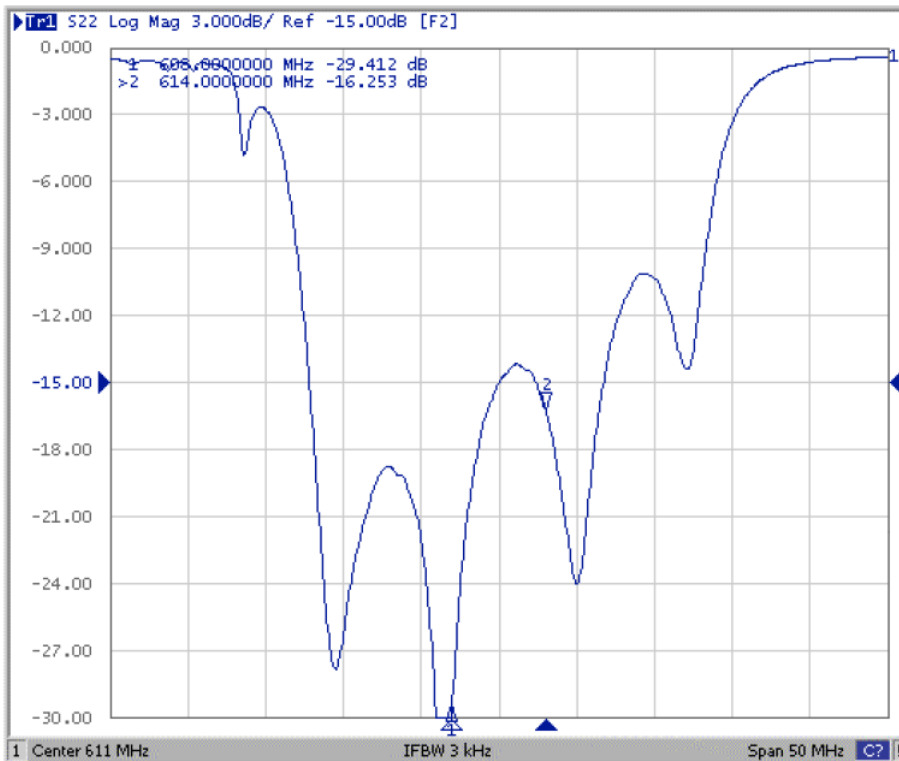


# Reflection Functions

## S11

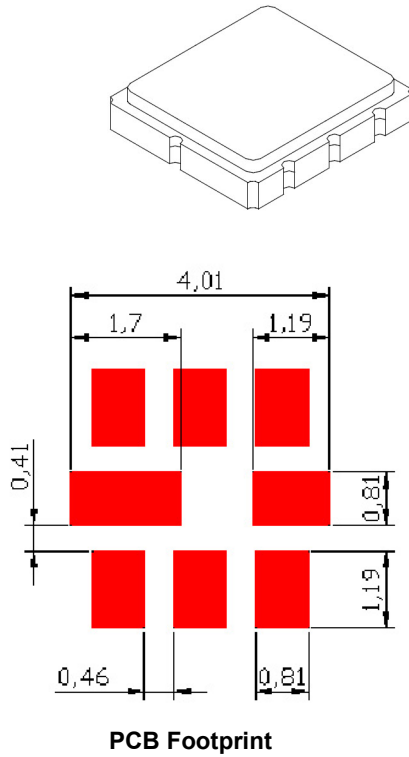


## S22



# SM3838-8 Case

## 8-Terminal Ceramic Surface-Mount Case 3.8 X 3.8mm Nominal Footprint

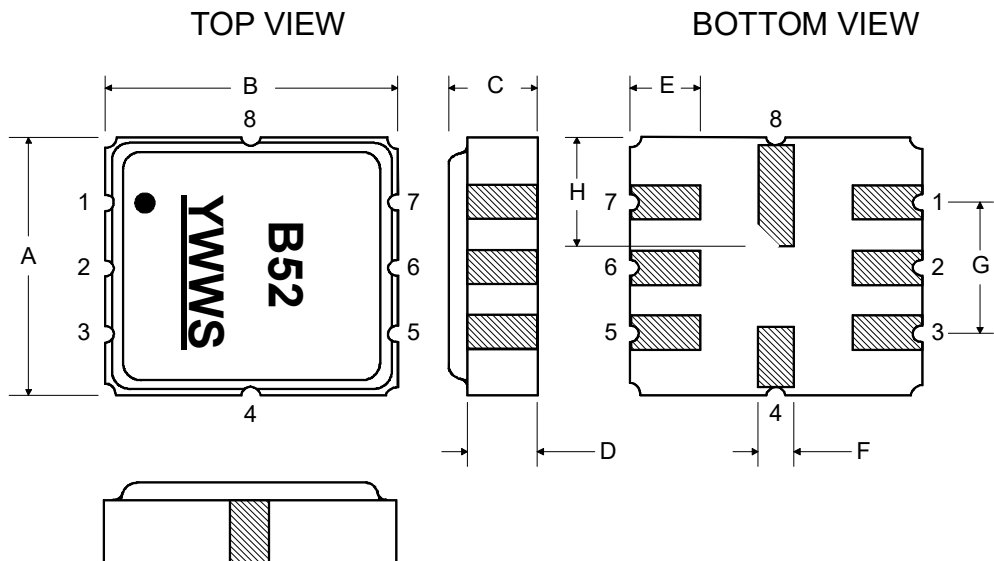


### Case Dimensions

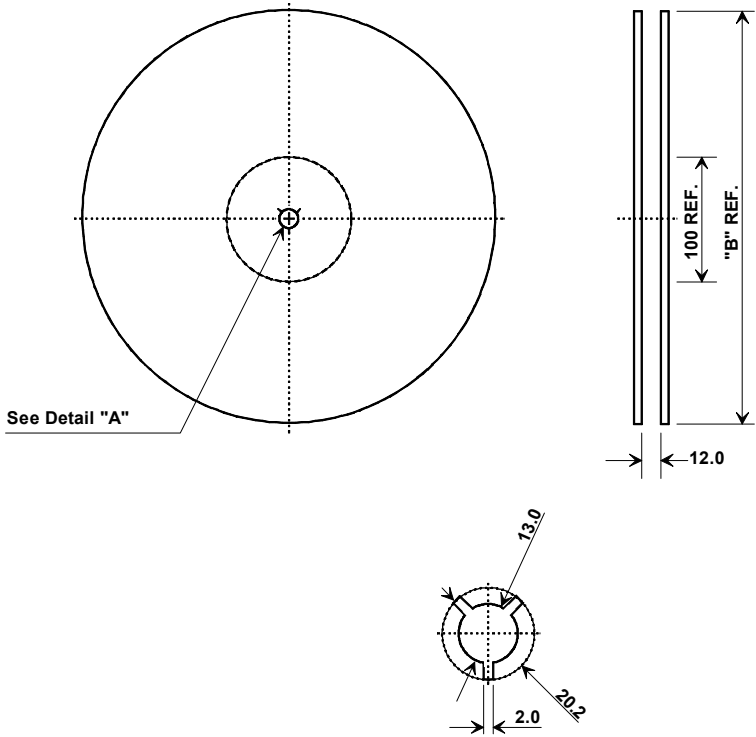
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.65	3.8	3.95	0.14	0.15	0.155
B	3.65	3.8	3.95	0.14	0.15	0.155
C	-	-	1.40	-	-	0.055
D	-	1.10	-	-	0.043	-
E	-	1.0	-	-	0.04	-
F	-	0.6	-	-	0.024	-
G	-	2.54	-	-	0.100	-
H	-	1.50	-	-	0.059	-

### 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



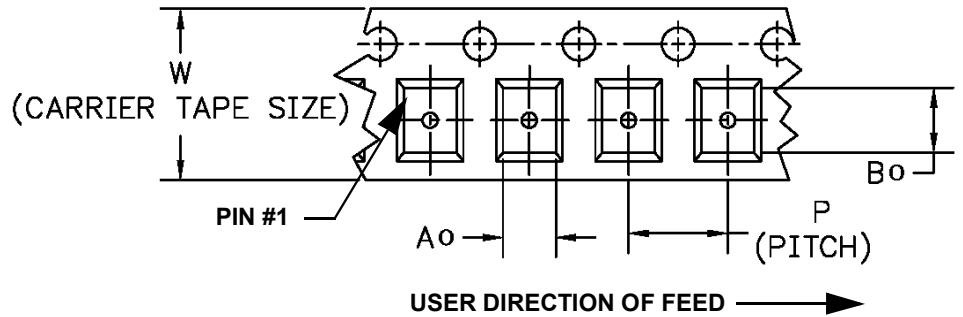
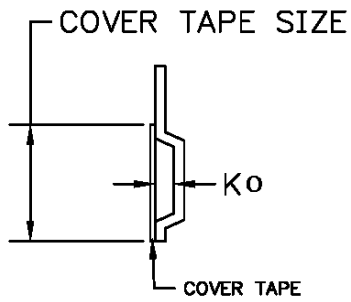
# Tape and Reel Specifications



"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

## COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.3 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.

