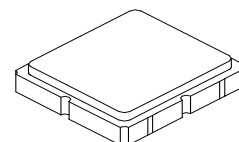


# SF2421D

## 485 MHz SAW Filter



SM3838-8

- **Hermetically sealed Surface Mount package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

### Absolute Maximum Ratings

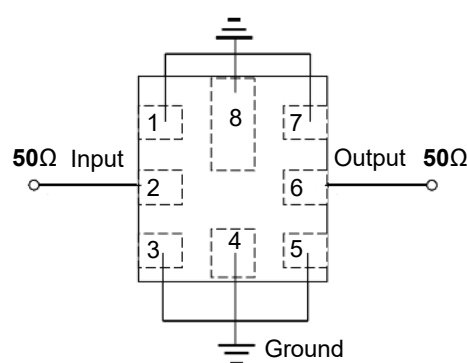
Rating	Value	Units
Maximum Input Power	+10	dBm
DC Voltage	3	VDC
Operable Temperature Range	-45 to +125	°C
Specification Temperature	-40 to +85	°C
Storage Temperature	-40 to +85	°C

### Electrical Characteristics

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Operating Frequency	$f_c$			485		MHz
Insertion Loss 480 to 490 MHz				2.6	4.0	dB
Amplitude Ripple 480 to 490 MHz				.6	2.0	dB
Attenuation (Reference level from 0dB)						
385 to 445 MHz			47	63		dB
525 to 585 MHz			36	54		dB
Impedance at $f_c$ : Input $Z_{IN} = R_{IN} // C_{IN}$ Output $Z_{OUT} = R_{OUT} // C_{OUT}$			50 // 0pF			$\Omega$
Footprint Size: 3.8 X 3.8					SM3838-8	
Lid Symbolization (Y=Year, WW=week, S=shift)	B36//YVWS					

### Electrical Connections

Connection	Terminals
Input	2
Output	6
Ground	All Others



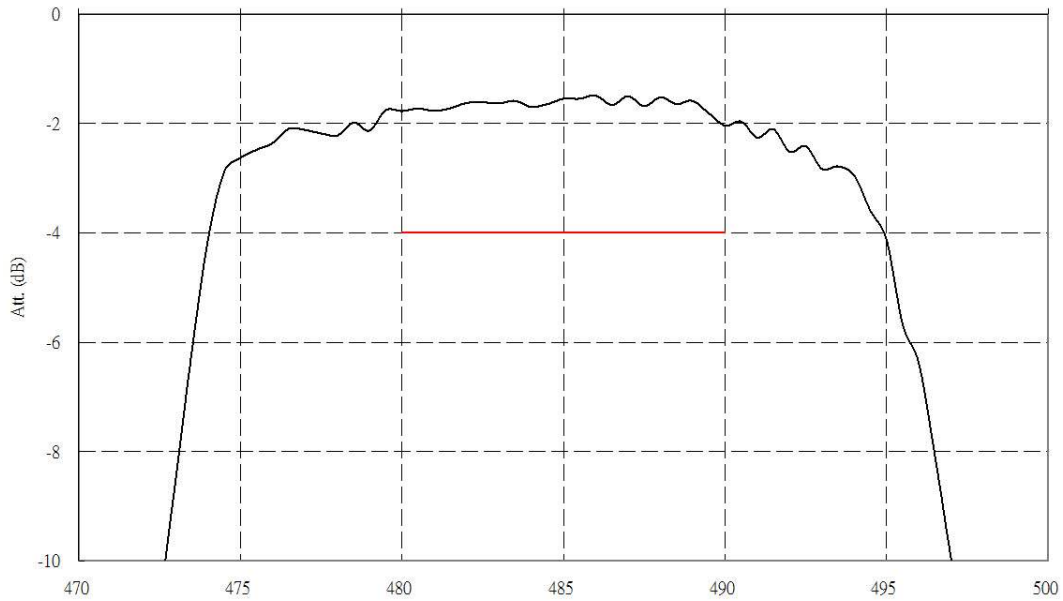
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

#### NOTES:

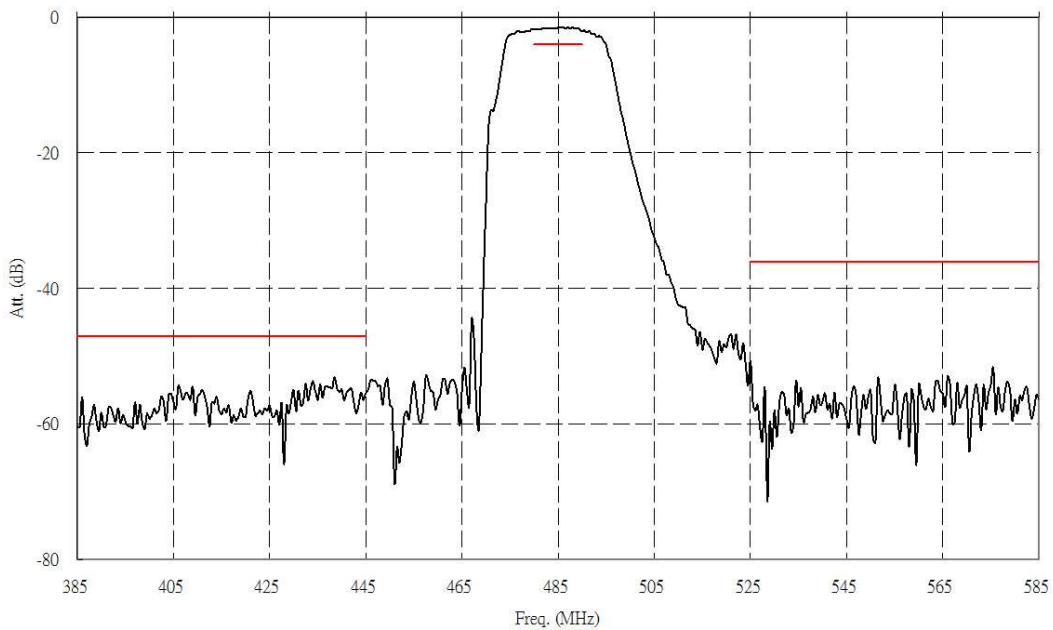
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

## Frequency Characteristics

### S21 Response: Center 485 MHz, 30 MHz span



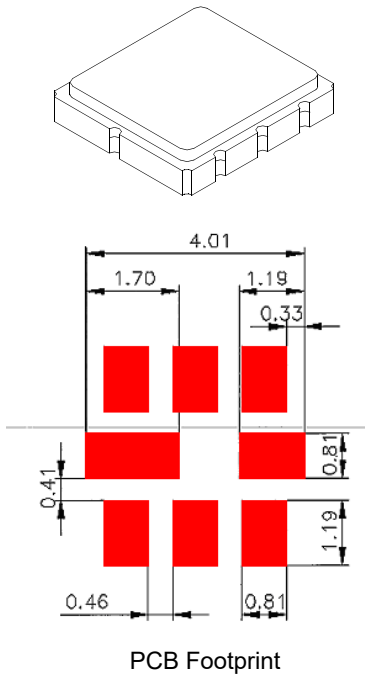
### S21 Response: Center 485 MHz, 200 MHz span



# SM3838-8 Case

## 8-Terminal Ceramic Surface-Mount Case

### 3.8 X 3.8 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.65	3.8	3.95		0.15	
B	3.65	3.8	3.95		0.15	
C			1.40		0.06	
D		1.0			0.04	
E		1.0			0.04	
F		0.6			0.02	
G	-	2.54	-		0.100	
H		1.5			0.06	

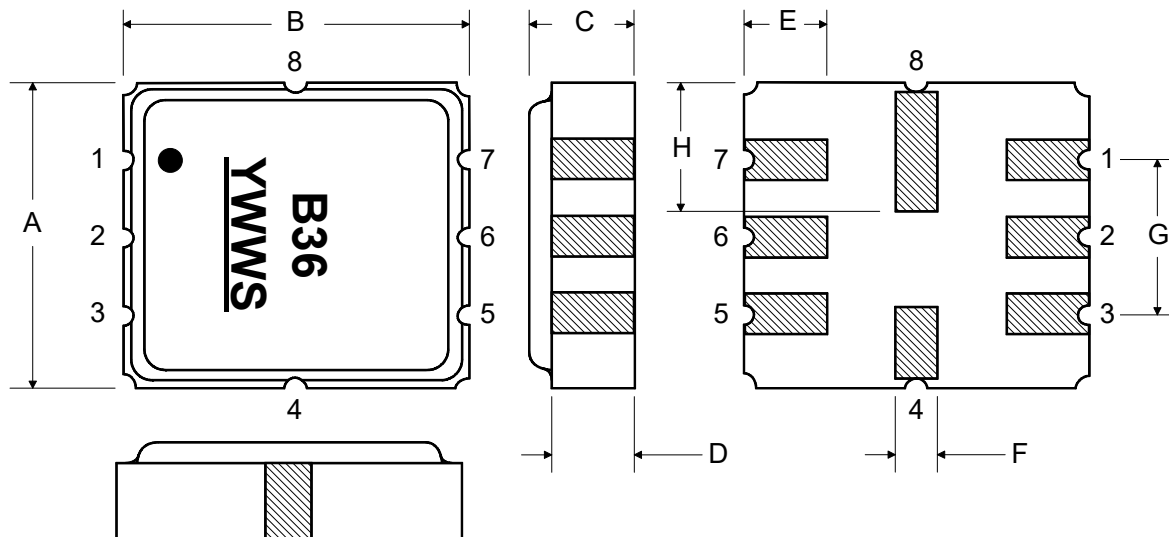
Electrical Connections		
	Connection	Terminals
Port 1	Input	2
Port 2	Output	6
	Ground	All Others

Dot Indicates Pin 1

Materials	
Solder Pad Termination	Au plating 30 - 60 $\mu$ Inches (76.2-152 $\mu$ M) over 80-200 $\mu$ Inches (203-508 $\mu$ M) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 $\mu$ Inches Thick
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic

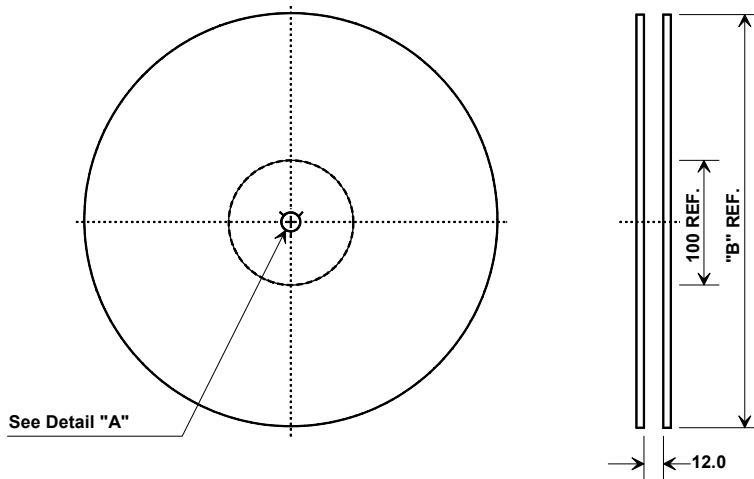
TOP VIEW

BOTTOM VIEW

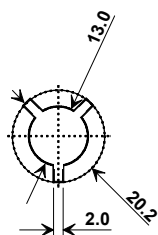


## Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

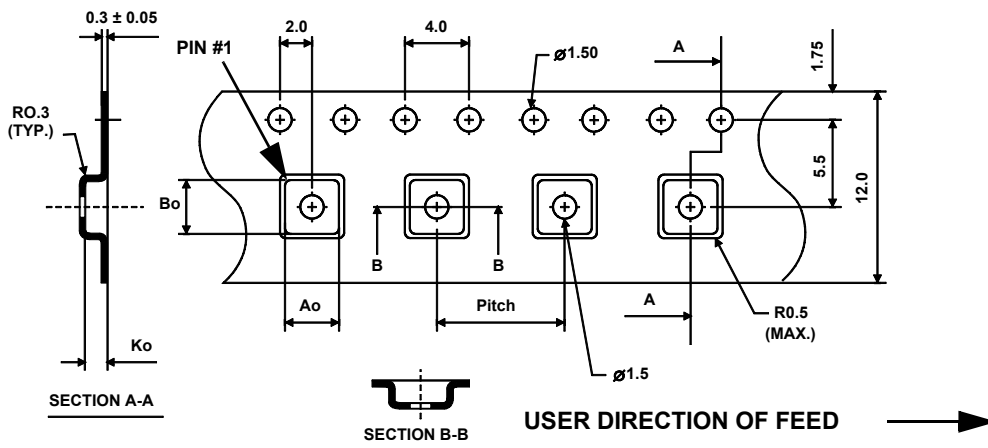


"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



### COMPONENT ORIENTATION and DIMENSIONS

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

