

- **No External Matching Required**
- **3.8 x 3.8 x 1.4 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**

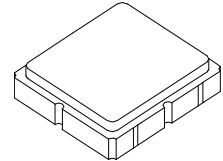
**Absolute Maximum Ratings**



Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage between any Two Terminals	3	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260°C for 30 s	

**SF2188D**

**340 MHz  
SAW Filter**



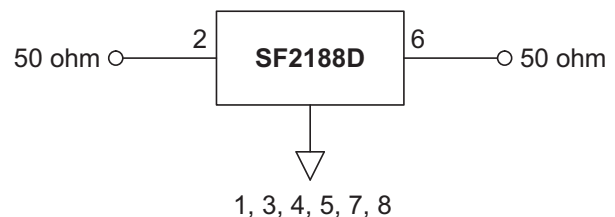
**SM3838-8**

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	$F_C$	1	339	340	341	MHz
Insertion Loss	IL	1		2.0	3.0	dB
1 dB Bandwidth		1		8	11	MHz
Passband Ripple, 336 to 344 MHz		1		0.4	1.0	dB <sub>P-P</sub>
Absolute Attenuation (referenced from 0 dB)						
10 to 300 MHz		2	50	54		dB
300 to 320 MHz		2	40	47		dB
375 to 800 MHz		2	40	45		dB
Frequency Temperature Coefficient				-36		ppm/°C
Source Impedance				50		ohm
Load Impedance				50		ohm
Operating Temperature Range			-40		+85	°C
Case Style			SM3838-8 3.8 x 3.8 mm Nominal Footprint			
Lid Symbolization (Y=year, WW=week, S=shift)			RFM 876 YWWS			

**Electrical Connections**

Connection	Terminals
Port 1	2
Port 2	6
Case Ground	All others



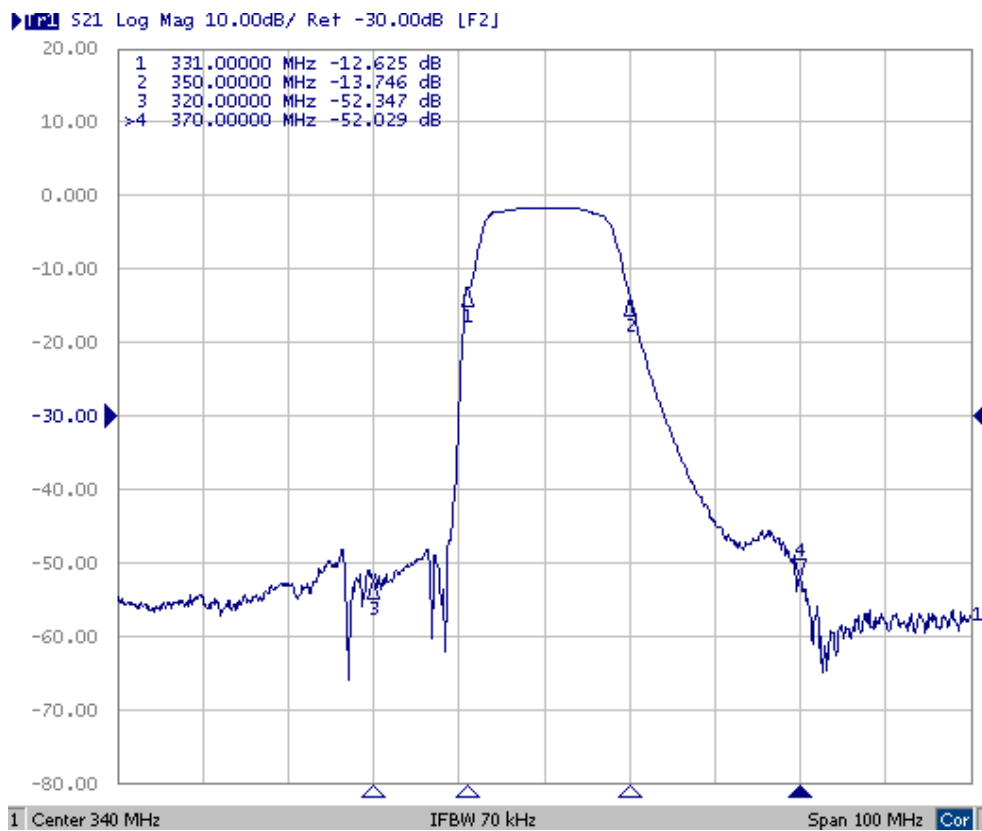
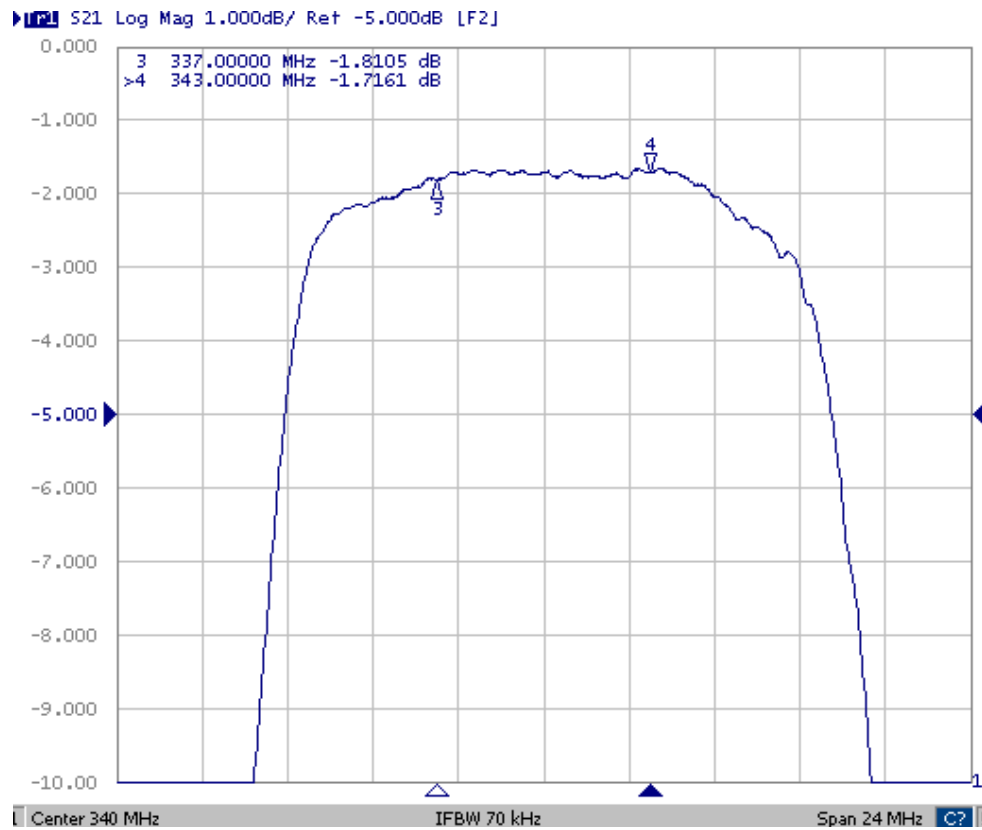
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**



**NOTES:**

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_c$ .
3. Rejection is measured as absolute attenuation (0 dB reference). Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

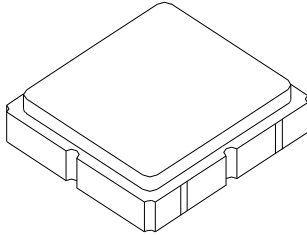
# SF2188D Frequency Response



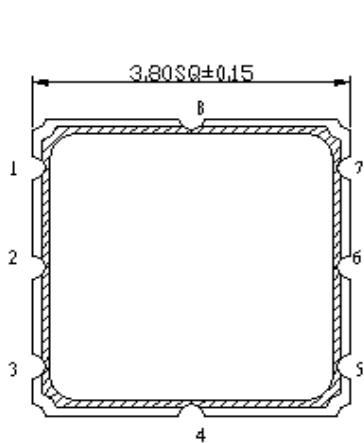
# SM3838-8 Case

8-Terminal Ceramic Surface-Mount Case

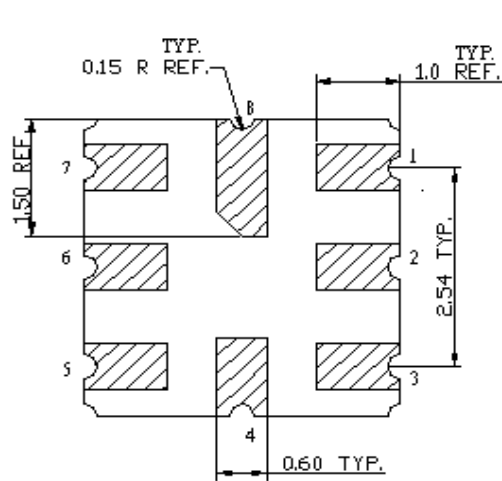
3.8 X 3.8 mm Nominal Footprint



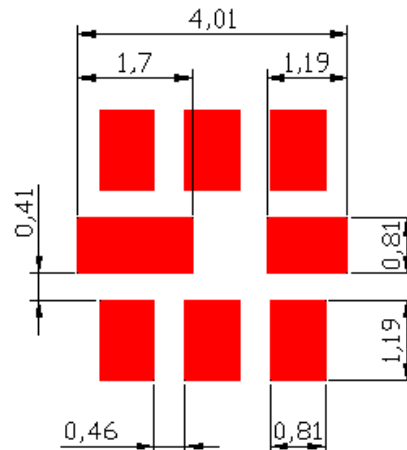
Top View



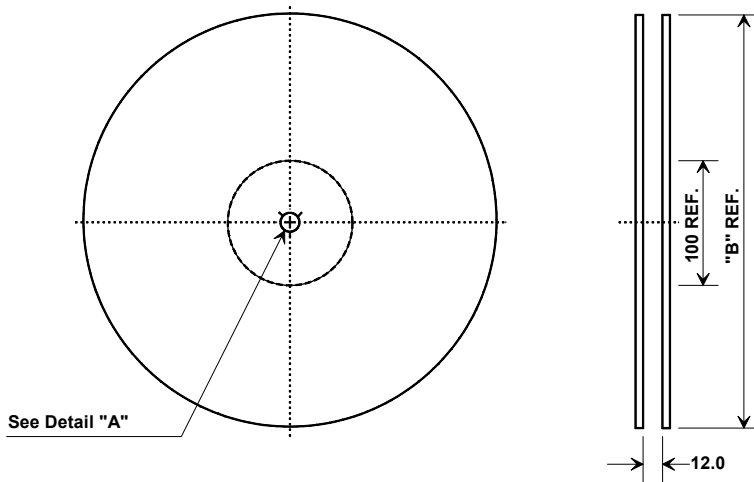
Bottom View



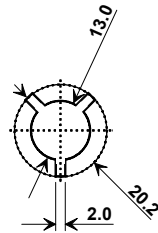
## PCB Footprint



## Tape and Reel Specifications

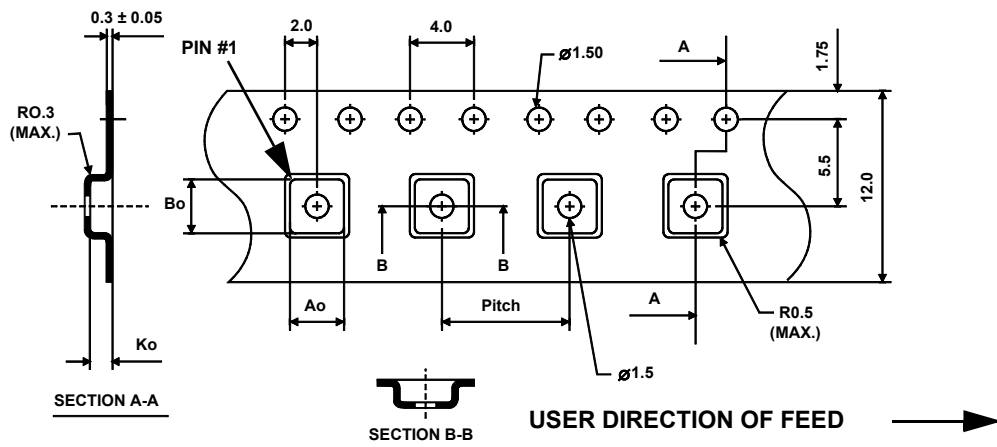


"B "		Quantity Per Reel
Inches	millimeters	
7	178	1000
13	330	3000



## 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



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