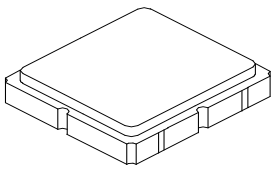
PRELIMINARY

muRata
INNOVATOR IN ELECTRONICS

SF2416D

490 MHz SAW Filter

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



SM3838-8

Absolute Maximum Ratings

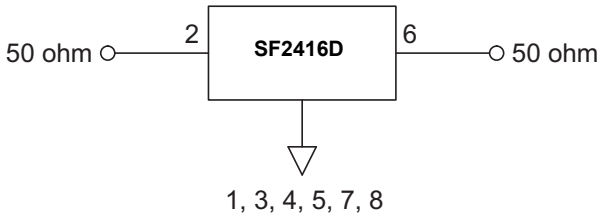
Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage between any Two Terminals	3	VDC
Operating Temperature Range	-40° to +85°	°C
Storage Temperature Range	-40° to +85°	°C

Electrical Characteristics - For Operating/Storage Temperature -40° to 85°C

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	F_C	1		490		MHz
Insertion Loss (480 to 500 MHz)	IL	1		2.4	4	dB
Amplitude Ripple (480 to 500 MHz)		1		0.9	2.8	dB
Return Loss (480 to 500 MHz)		1	6	7.3		dB
Attenuation (referenced from 0 dB)						dB
0.3 to 300 MHz			30	58		
300 to 380 MHz			24	55		
380 to 460 MHz			15	50		
534.825 to 554.825			12	53		
559.65 to 579.65 MHz			28	55		
669.3 to 689.3 MHz			24	49		
689.3 to 1000 MHz			26	43		
Frequency Temperature Coefficient				-36		ppm/°C
Case Style		SM3838-8 3.8 x 3.8 mm Nominal Footprint				
Lid Symbolization (Y=year, WW=week, S=shift)		B35 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, fc.
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.

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Electrical Characteristics - Operating Temperature -10° to +50°C

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	F_C	1		490		MHz
Insertion Loss (480 to 500 MHz)	IL	1		2.4	3.2	dB
Amplitude Ripple (480 to 500 MHz)		1		0.9	2.4	dB
Return Loss (480 to 500 MHz)		1	6	7.3		dB
Attenuation (referenced from 0 dB)						dB
0.3 to 300 MHz			30	58		
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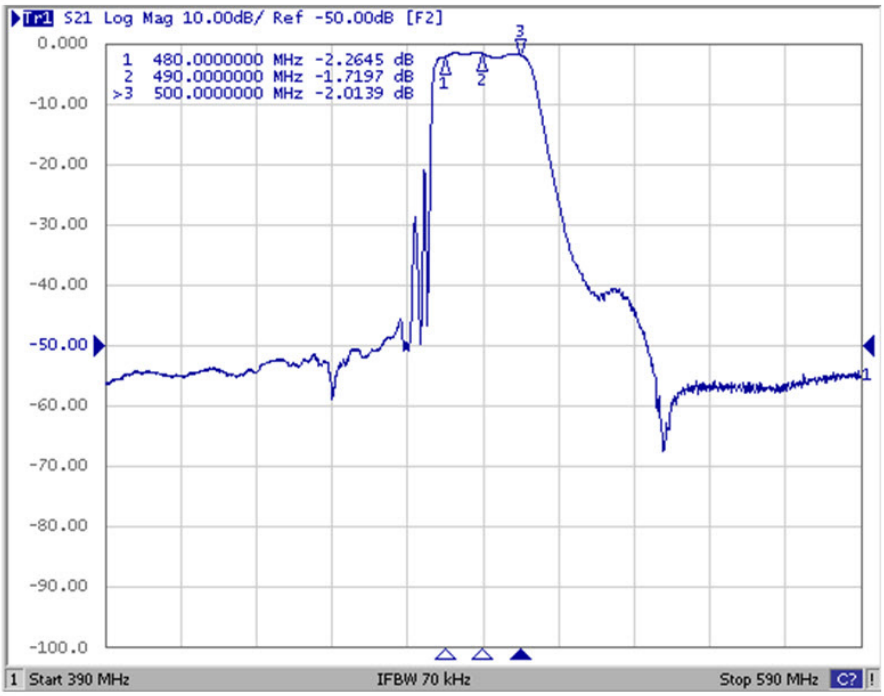
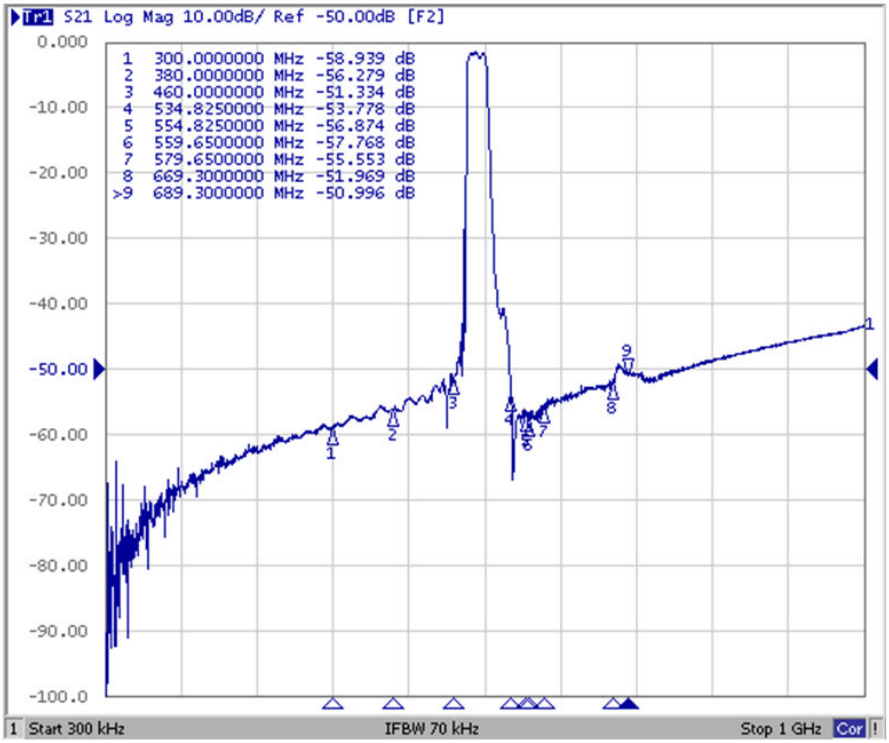
SF2416D Frequency Response





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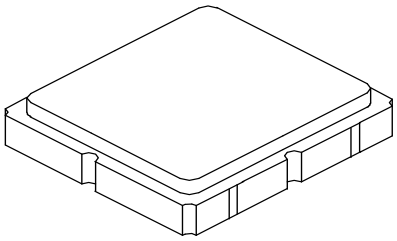
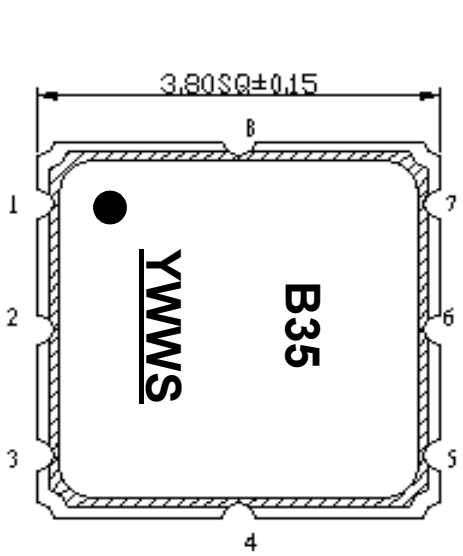
SM3838-8 Case

8-Terminal Ceramic Surface-Mount Case

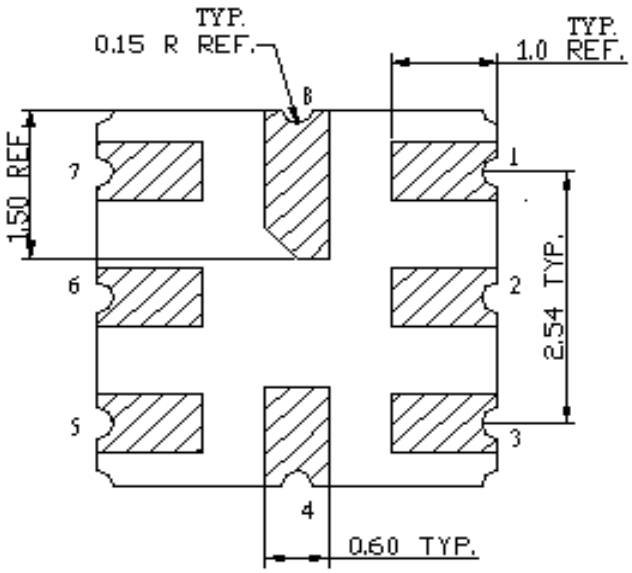
3.8 X 3.8 mm Nominal Footprint



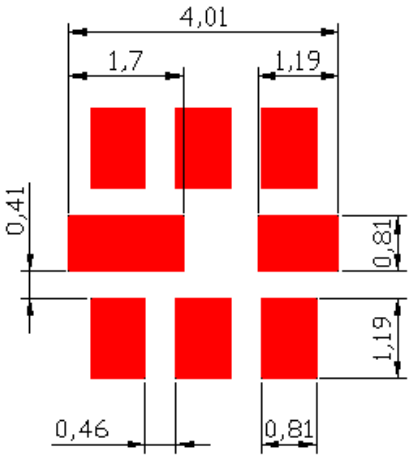
Top View



Bottom View



PCB Footprint



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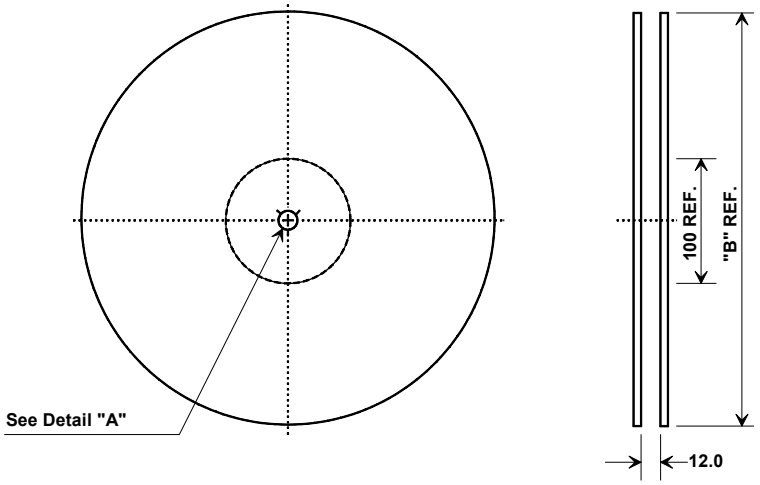
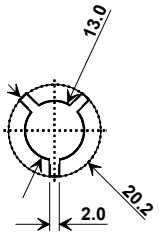
Tape and Reel Specifications

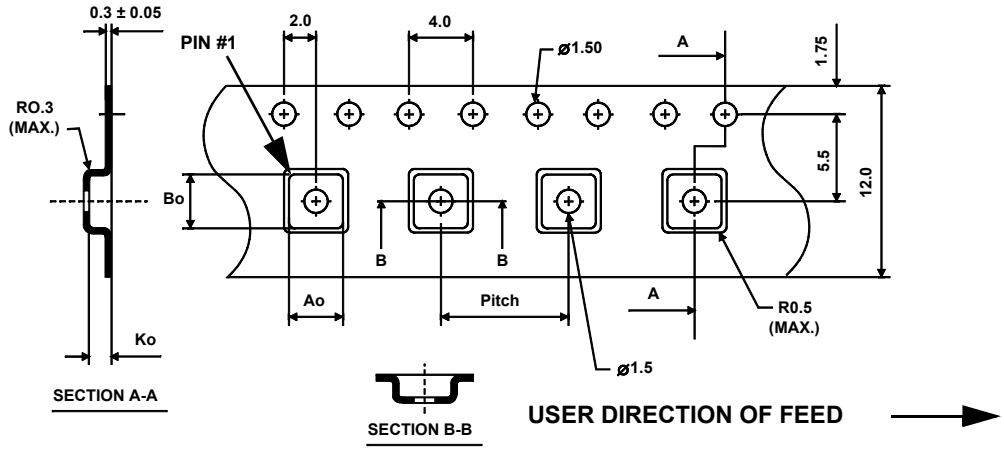




"B " Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 mm
Pitch	8.0 mm
W	12.0 mm



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