



AEC-Q200

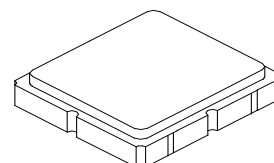
This component was always RoHS compliant from the first date of manufacture.

- **Narrow-band SAW Filter**
- **Balanced/Single-ended Operation**
- **3.8 x 3.8 x 1.4 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**



SF2344D

**241 MHz
SAW Filter**



SM3838-8

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband, Continuous	+15	dBm
Maximum DC Voltage on any Non-ground Terminals	3	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			241		MHz
Minimum Insertion Loss	IL_{MIN}			2.2	3.3	dB
3 dB Bandwidth	BW_3			5		MHz
Amplitude Ripple 240.9 to 241.1 MHz					0.2	dB _{P-P}
Group Delay Ripple 240.9 to 241.1 MHz					0.2	μs _{P-P}
Rejection Referenced to IL_{MIN} :						dB
10 to 232.5 MHz			50	60		
274 to 886.5 MHz			50	60		
Operating Temperature Range			-10		+85	°C

Case Style	SM3838-8 3.8 x 3.8 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	B09, <u>YWWS</u>					
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel				
	Reel Size 13 Inch	3000 Pieces/Reel				

Electrical Connections

Connection	Terminals
50 Ω Input Port	2
200 Ω Balanced Output Port	6, 7
Ground	All others

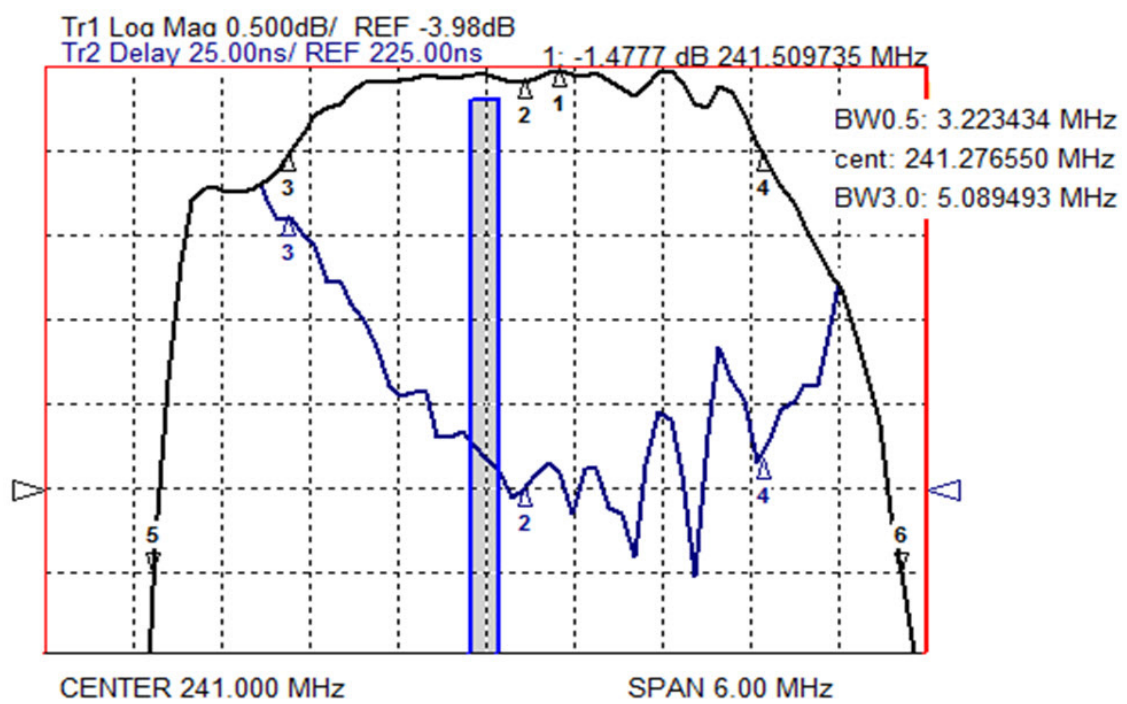
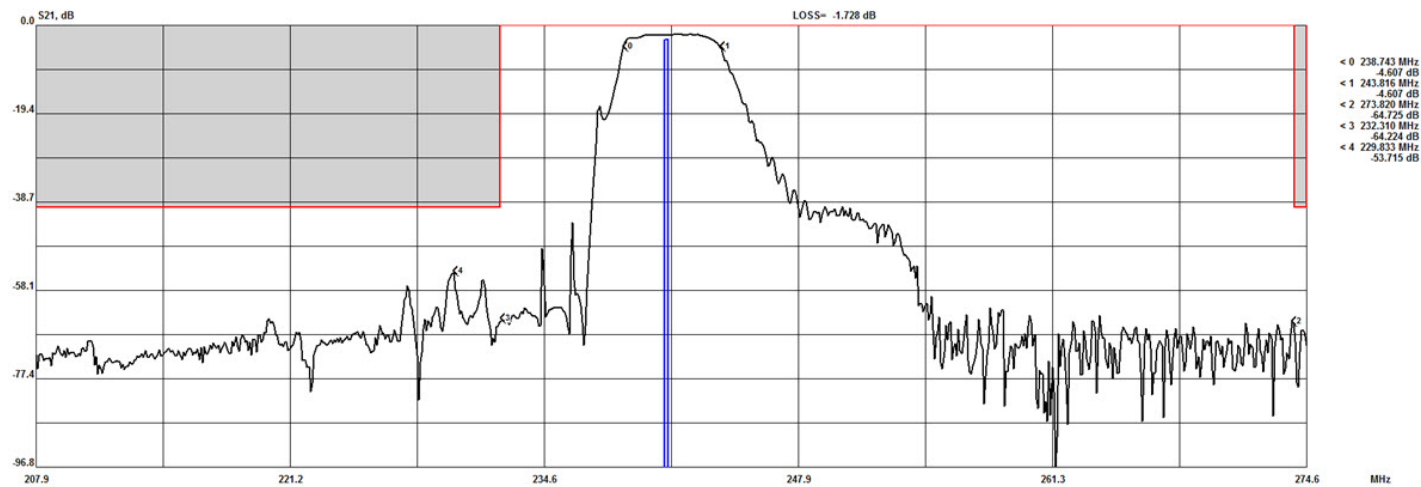


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

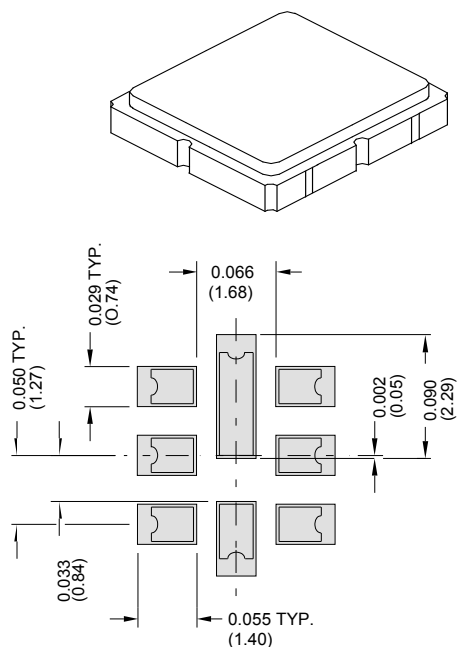
Filter Response Plots



SM3838-8 Case

8-Terminal Ceramic Surface-mount Case

3.8 X 3.8 mm Nominal Footprint



Typical PCB Land Footprint

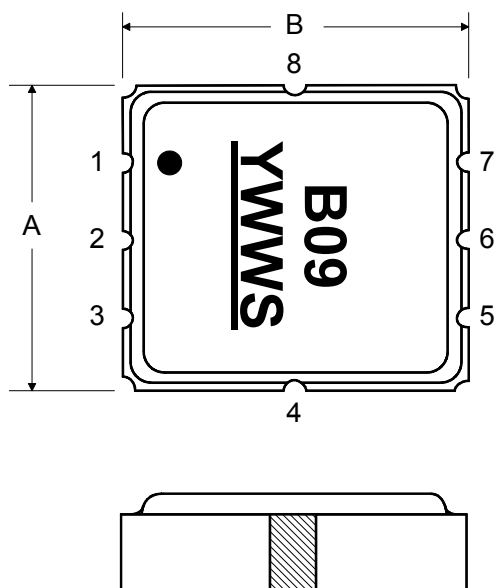
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.6	3.8	4.0	0.142	0.150	0.157
B	3.6	3.8	4.0	0.142	0.150	0.157
C	1.05	1.20	1.40	0.041	0.047	0.055
D	0.95	1.10	1.25	0.037	0.043	0.049
E	0.90	1.00	1.10	0.035	0.040	0.043
F	0.50	0.60	0.70	0.020	0.024	0.028
G	2.39	2.54	2.69	0.090	0.100	0.110
H	1.40	1.75	2.05	0.055	0.069	0.080

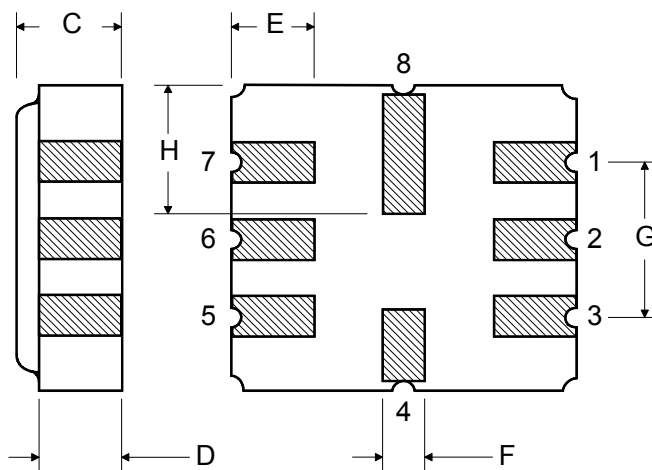
Materials

Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic
Pb Free	

TOP VIEW

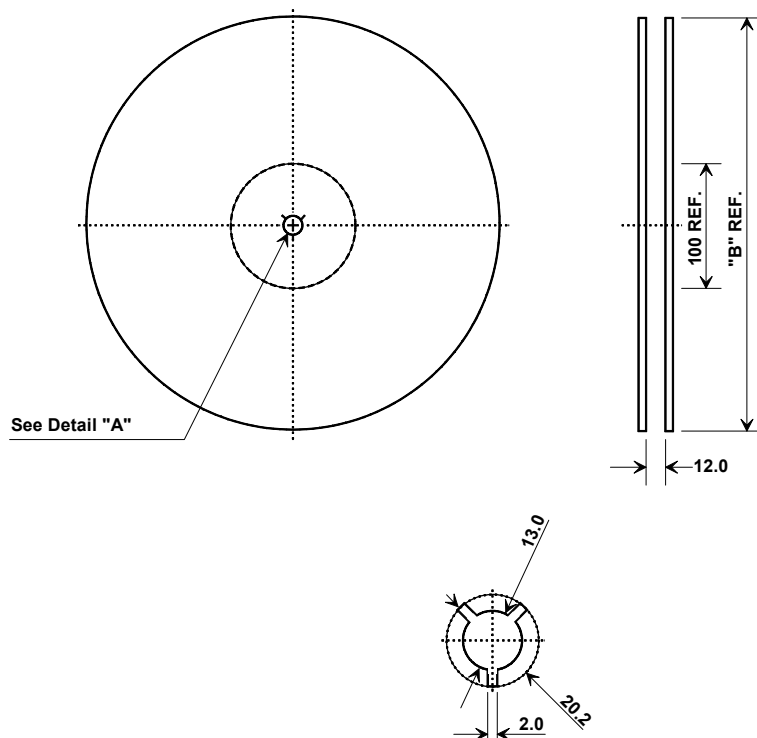


BOTTOM VIEW



Tape and Reel Specifications

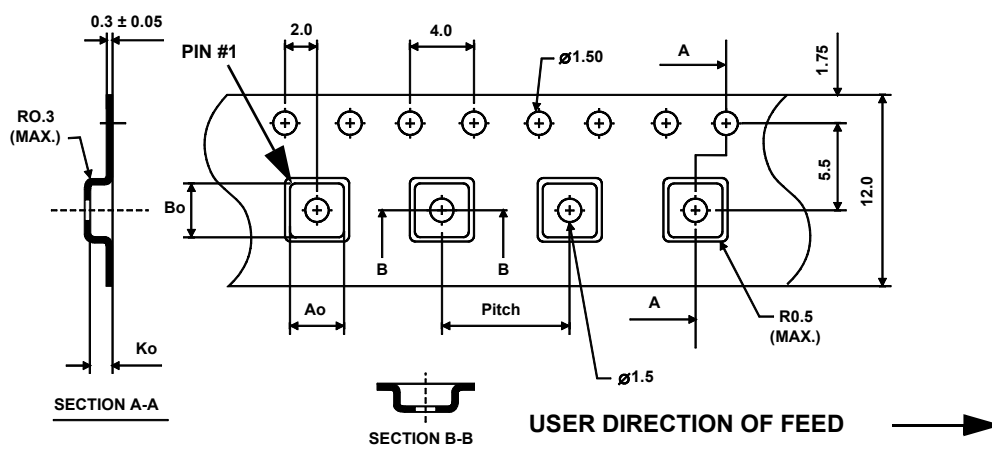
Tape and Reel Standard per ANSI/EIA-481



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

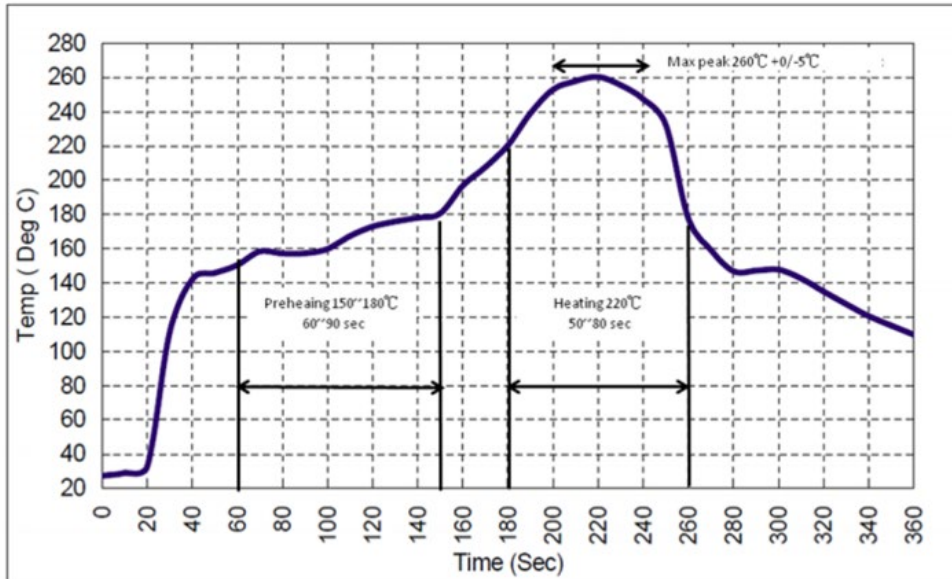
COMPONENT ORIENTATION and DIMENSIONS

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.



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