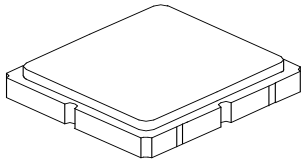
A BRAND OF AKOUSTIS

RF1353D

345.00 MHz SAW Filter

- ***Designed for 345 MHz Low-power Wireless Applications***
- ***Advanced $LiTaO_3$ Design for Low Insertion Loss***
- ***Direct Match to 50 ohms***
- ***Hermetically-sealed Surface Mount package***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level: 1***



SM3838-6 Case

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	+10	dBm
DC Voltage between Terminals	30	VDC
Case Temperature	-40 to +85	°C

Characteristic	Sym	Notes	Minimum	Typical	Maximum	Units
Nominal Operating Frequency	f_C			345		MHz
Passband Insertion Loss	IL				4.5	dB
3.0 dB Bandwidth			f_C±70	f_C±430	f_C±1100	kHz
Rejection:						dB
f_C-10.7 MHz			15			
f_C-21.4 MHz			40			
Direct Input/Output Match:				50		Ω
Operating Temperature Range			-10		70	°C
Case			SM3838-6, 3.8 x 3.8 mm Footprint			
Lid Symbolization (YY=Year, WW=week, S=shift)			444, YWWS			

Electrical Connections

Connection	Terminals
RF Input	2
RFOutput	5
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.

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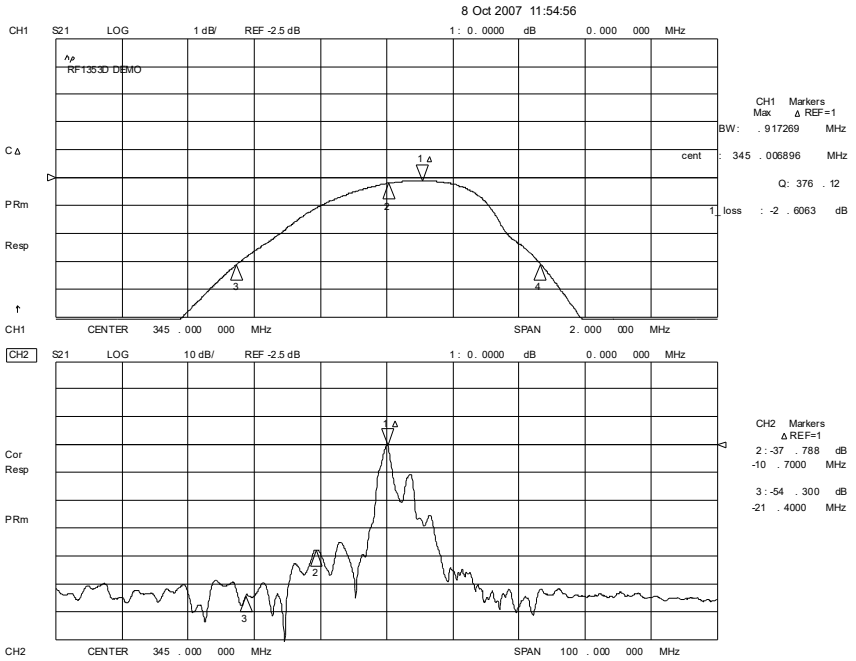
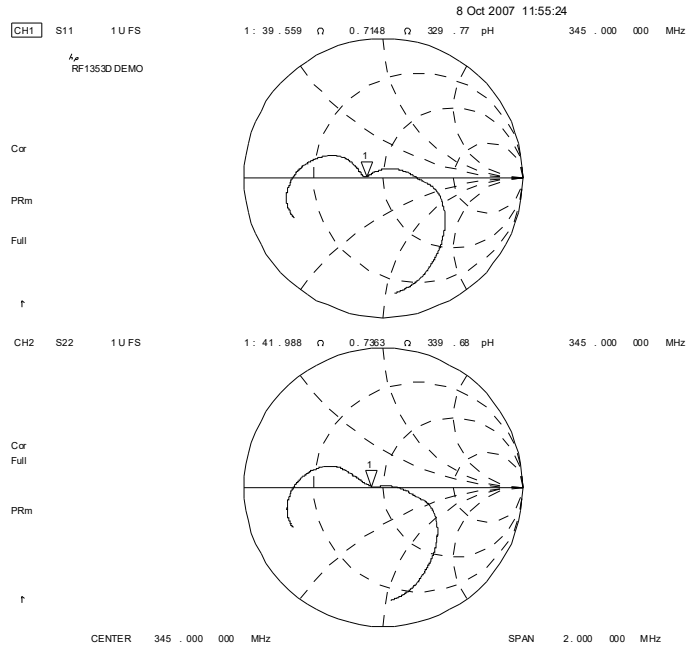
Filter Amplitude Response

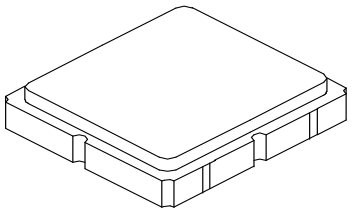


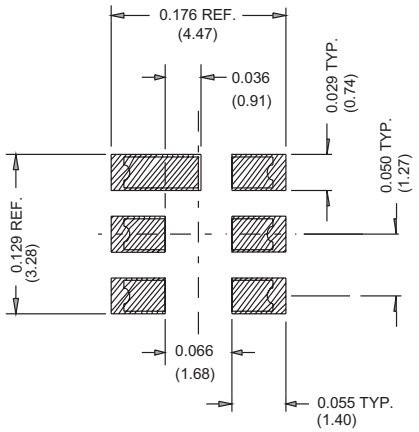
Filter Input/Output Impedance Plots



SM3838-6 Case

6-Terminal Ceramic Surface-Mount Case
3.8 X 3.8 mm Nominal Footprint





PCB Footprint

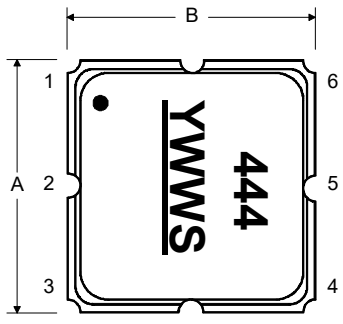
Case Dimensions

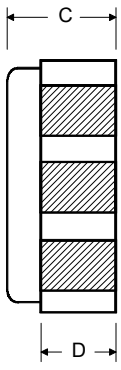
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.60	3.80	4.00	0.142	0.150	0.157
B	3.60	3.80	4.00	0.142	0.150	0.157
C	1.10	1.30	1.50	0.043	0.050	0.060
D	0.95	1.10	1.25	0.037	0.043	0.049
E	2.39	2.54	2.69	0.094	0.100	0.106
G	0.90	1.00	1.10	0.035	0.040	0.043
H	1.90	2.00	2.10	0.748	0.079	0.083
I	0.50	0.60	0.70	0.020	0.024	0.028
J	1.70	1.80	1.90	0.067	0.071	0.075

Case Material

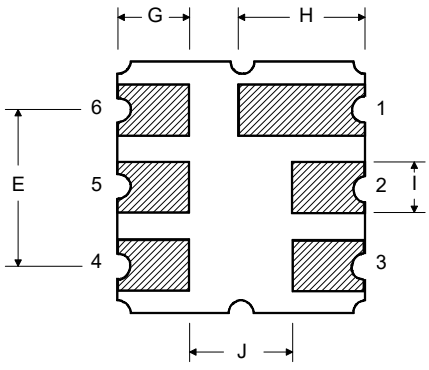
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic

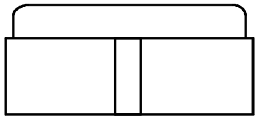
TOP VIEW





BOTTOM VIEW





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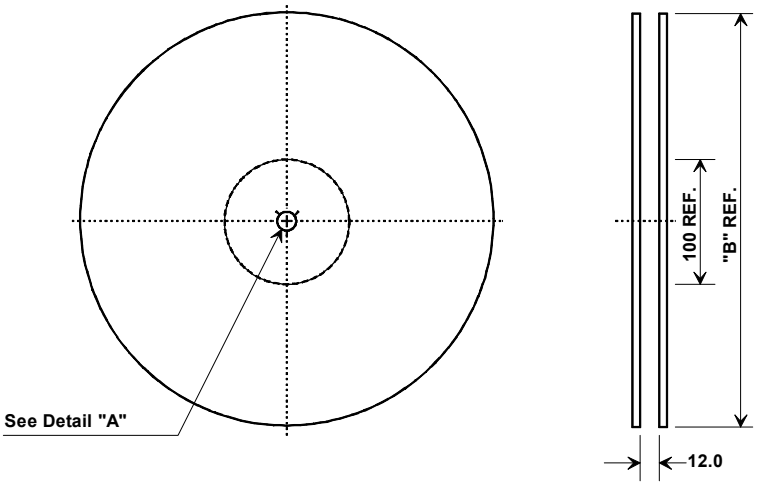
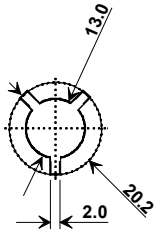
Tape and Reel Specifications



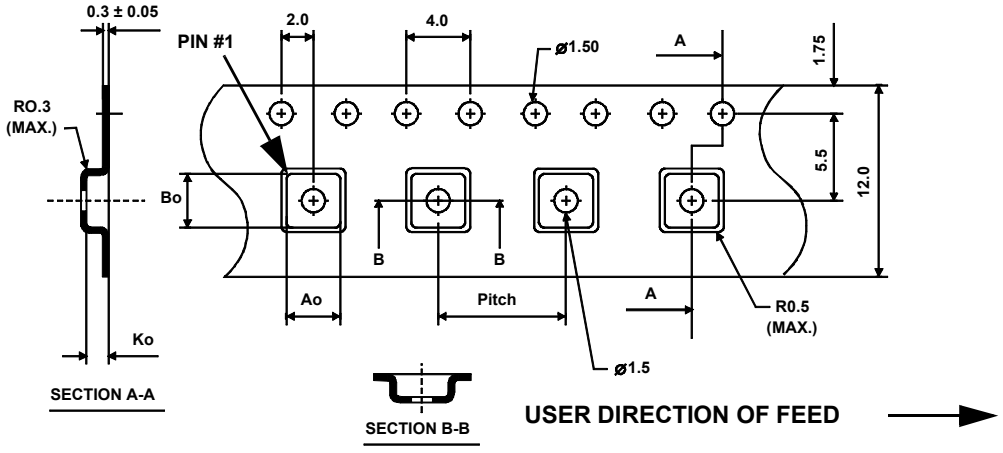


Tape and Reel Standard per ANSI/EIA-481

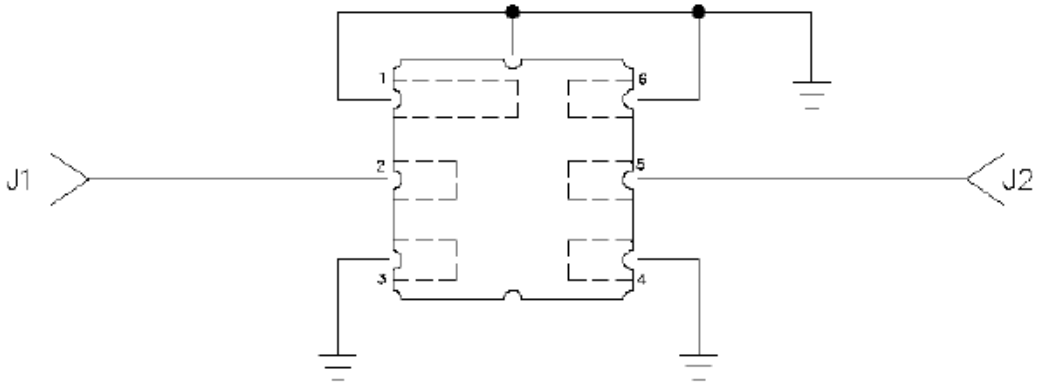
"B " Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

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

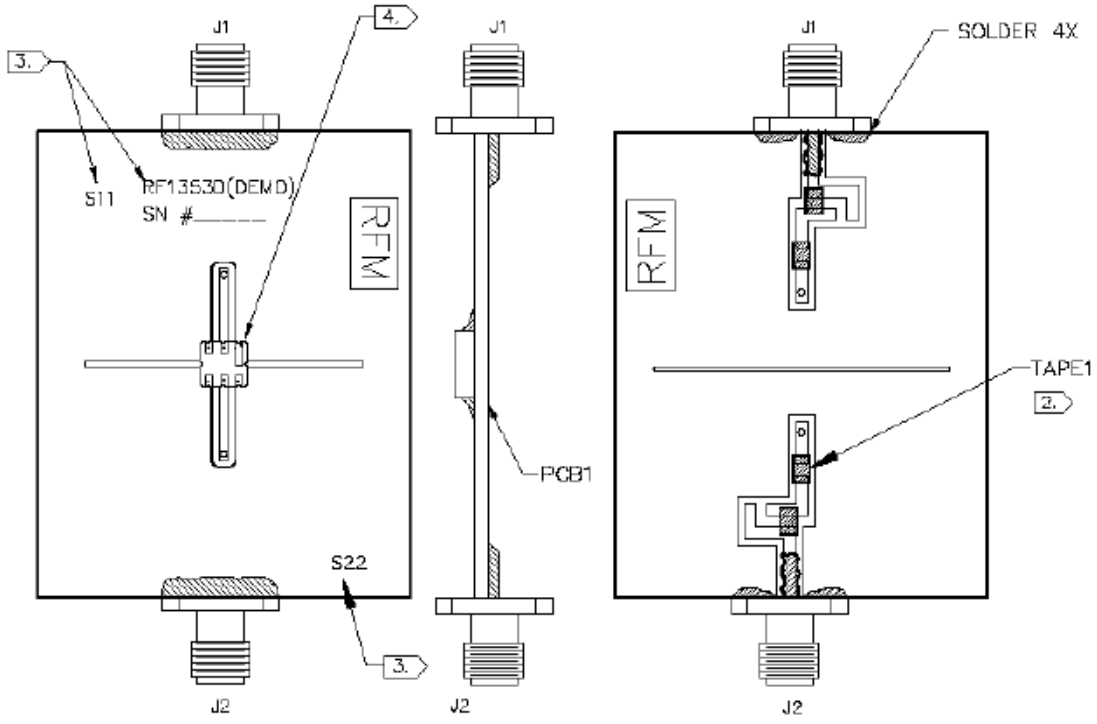


Assembly Diagram, RF1353D



D.U.T.
(TOP VIEW)

NOTES:
1. SOLDER MOUNT FLTR1 AND CONNECTORS TO PCB1
2. SOLDER TAPE1 FOUR PLACES AS SHOWN.
3. ATTACH LABELS AS SHOWN.
4. NOTE PROPER ORIENTATION OF SAW DEVICE.



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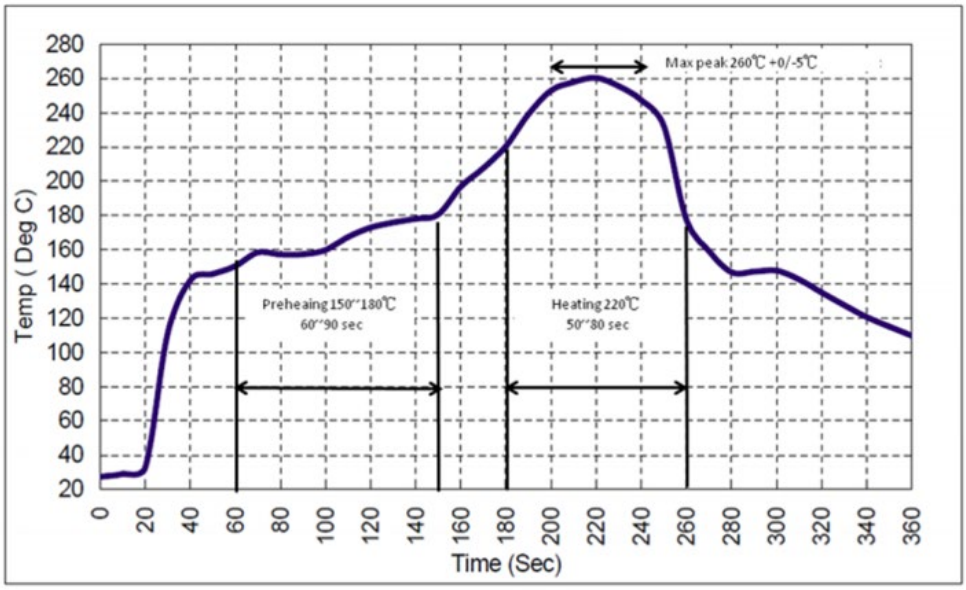
Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.



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