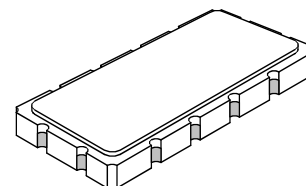


SF2270A

**70 MHz
SAW Filter**



SM13365-12

- **Precision SAW IF Filter**
- **Hermetic 13.3 x 6.5 mm Surface-mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+20	dBm
Maximum DC Voltage on any Non-ground Terminal	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		69.85	70.00	70.15	MHz
Insertion Loss	IL			7.5	8.2	dB
1 dB Bandwidth	BW_1		2.30	2.63		MHz
3 dB Bandwidth	BW_3		3.00	3.55		MHz
35 dB Bandwidth	BW_{35}			6.0	7.5	MHz
Amplitude Ripple, $f_C \pm 0.92$ MHz				0.75	1.00	dB _{p-p}
RMS Phase Linearity, $f_C \pm 1.2$ MHz				2.2	5.0	ns
Group Delay Ripple, $f_C \pm 1.2$ MHz				155	190	ns _{p-p}
Absolute Delay				1.07		µs
Attenuation Referenced to IL:						dB
10 to 66 MHz			40	45		
74 to 140 MHz			40	45		
Operating Temperature Range			-10		+70	°C

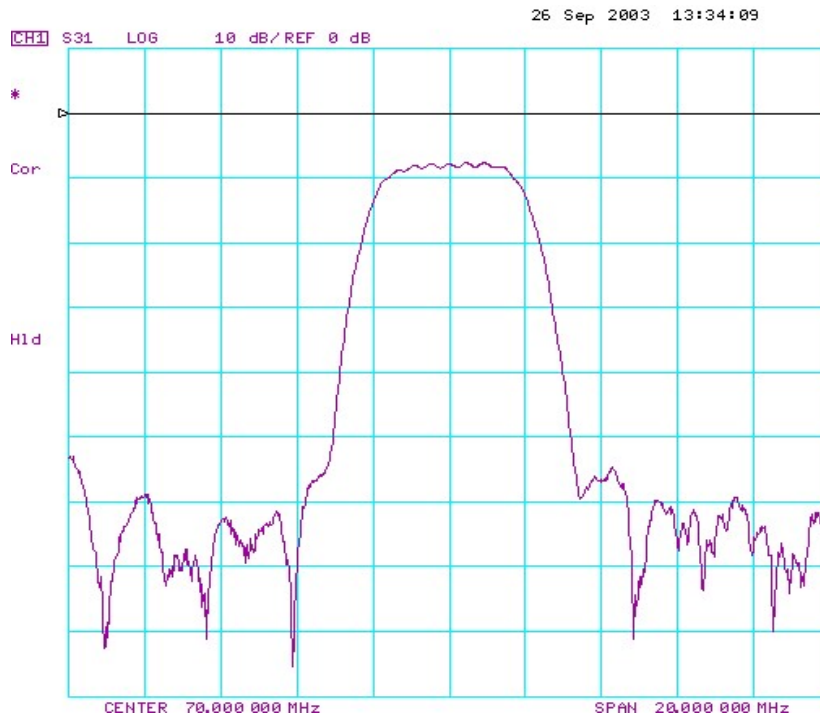
Impedance Matching to 50 Ω Unbalanced Source/Load	External L-C
Case Style	13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week, S = shift, ## = Sequence Code)	RFM, SF2270A, YYWWS##

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

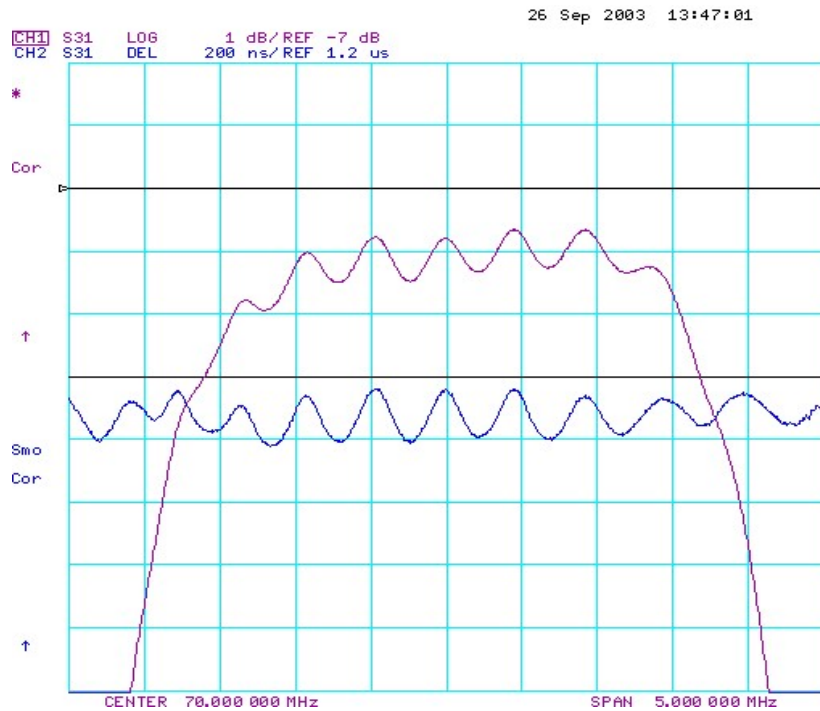
NOTES:

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.

Overall Filter Response



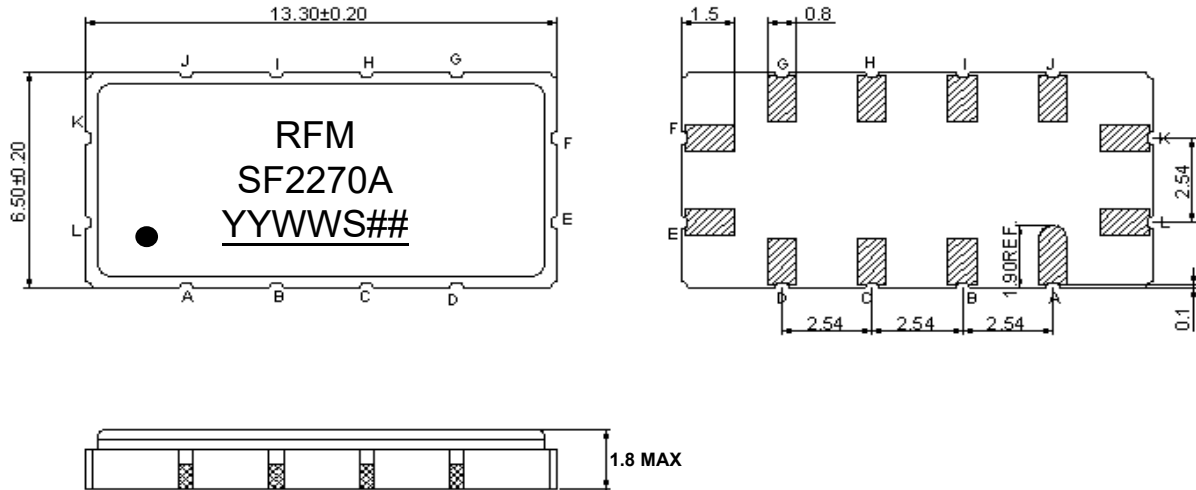
Filter Passband Amplitude and Group Delay Response



Ceramic Surface-mount 12-Terminal Case

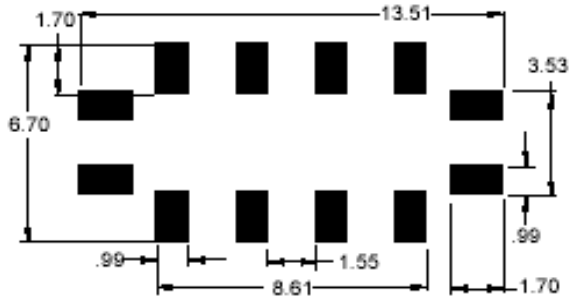
13.3 x 6.5 mm Nominal Footprint

Case Outline Drawing



dimensions in mm

PCB Pad Layout



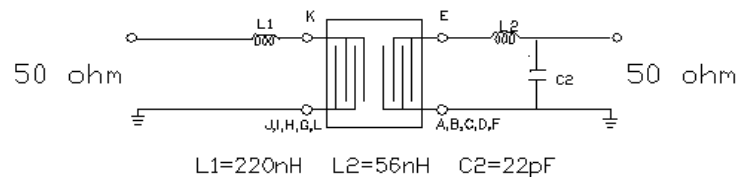
Case Material

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

Electrical Connections

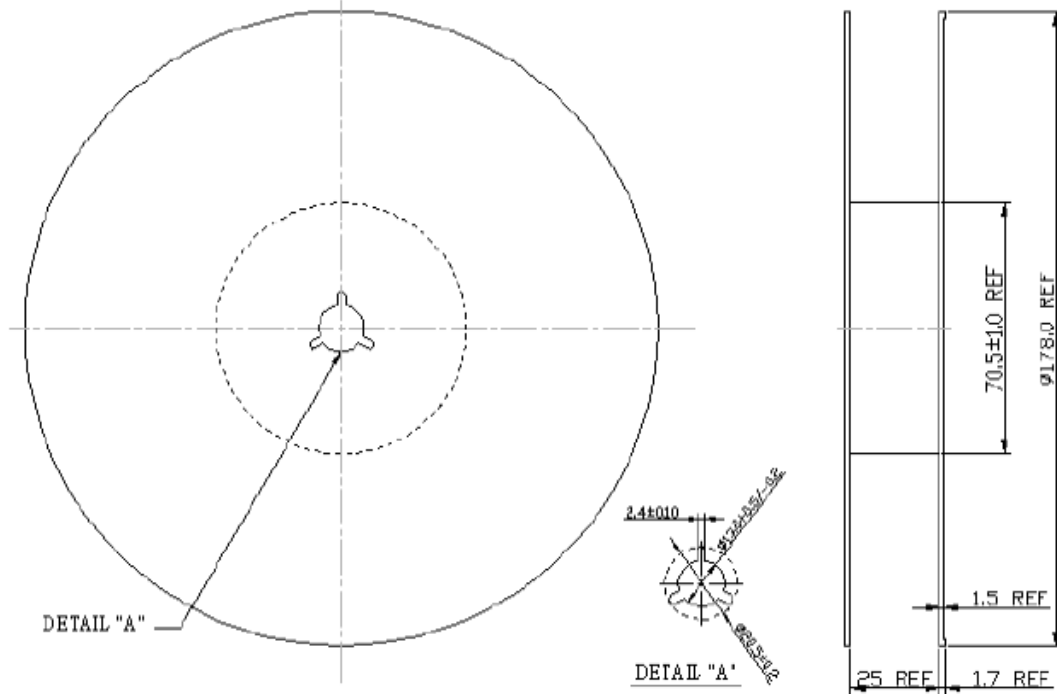
Connection	Terminals
Input	K
Output	E
Ground	All others

Tuning Network

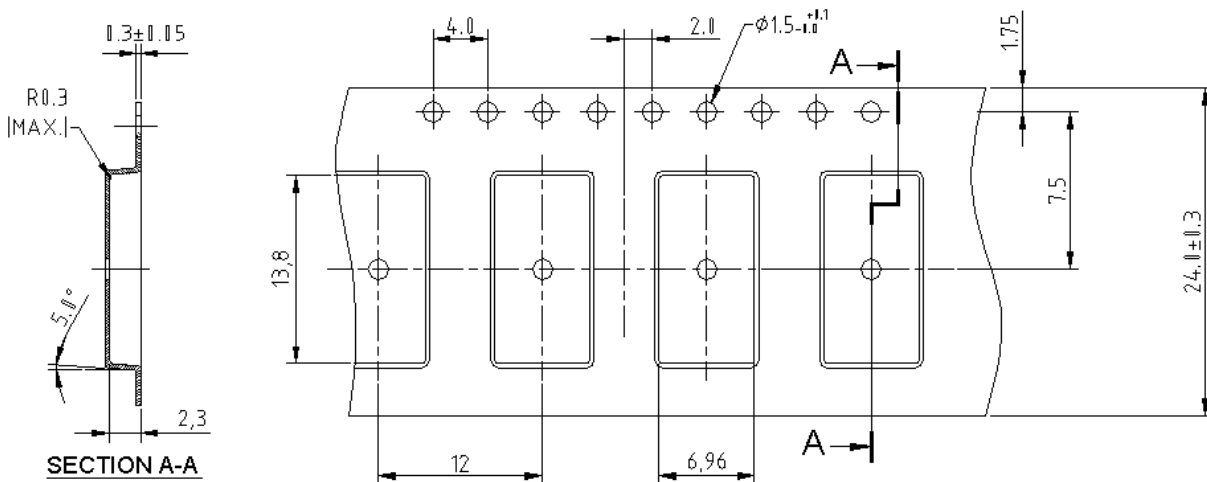


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481



13.3X6.5



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.

