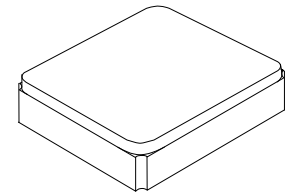


**SF2370H**

**869.225 MHz**  
**SAW Filter**



**SM2016-4**

- **RF Filter for ISM Band Applications**
- **2.0 x 1.6 x 0.9 mm Surface-Mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

**Absolute Maximum Ratings**

Rating	Value	Units
Input Power Level	+20	dBm
Maximum DC Voltage	5	VDC
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-40 to +85	°C
Storage Temperature Range	-40 to +85	°C
Terminating Source Impedance (single) $Z_S$	50	$\Omega$
Terminating Load Impedance (single) $Z_L$	50	$\Omega$
Maximum Soldering Profile	265 °C for 10 s	

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			869.225		MHz
Insertion Loss (868.3 to 870.15 MHz)	IL			4.0	5.0	dB
Minimum Insertion Loss	$a_{min}$			3.0	3.5	dB
VSWR (868.3 to 870.15 MHz)				1.3	2.0:1	
Amplitude Ripple (868.3 to 870.15 MHz)				1.0	2.0	dB
Attenuation						dB
50 to 791 MHz			45	50		
791 to 848 MHz			35	40		
848 to 862 MHz			35	40		
880 to 883 MHz			35	40		
883 to 1000 MHz			45	50		

Case Style	SM2016-4
Lid Symbolization (Y=year, W=week)	5V <u>YW</u>



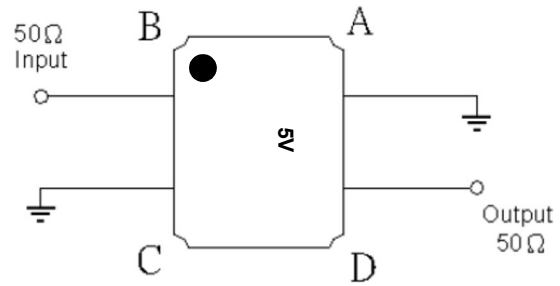
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**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.

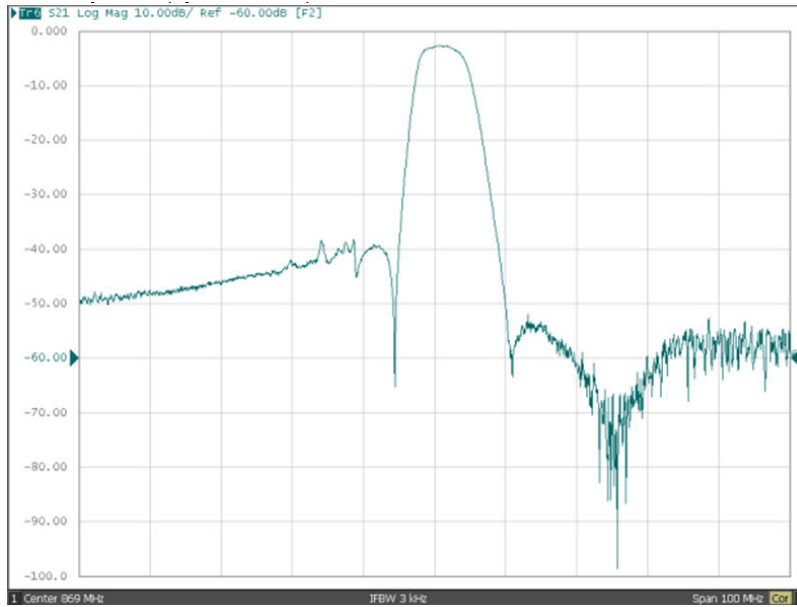
## Electrical Connections

Connection	Terminals
Input	2
Output	4
Ground	All others

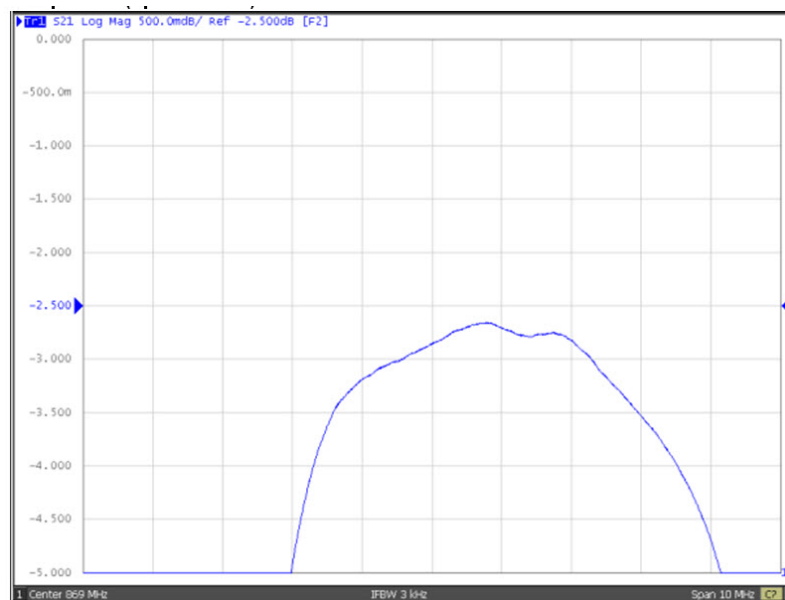


## Frequency Characteristics

### S21 Response: Span 100 MHz

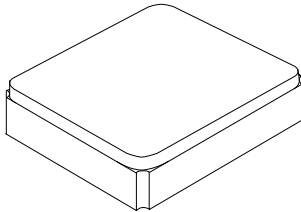


### S21 Response: Span 10 MHz

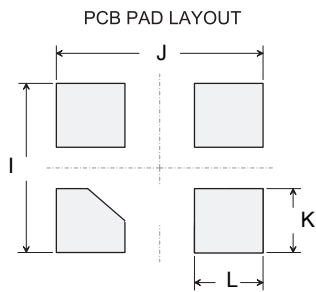


# SM2016-4 Case

## 6-Terminal Ceramic Surface-Mount Case 2.0 X 1.6 mm Nominal Footprint

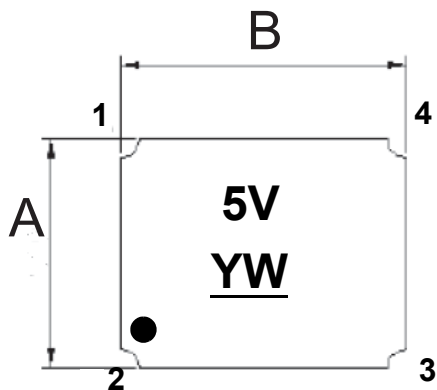


PCB Footprint, Top View

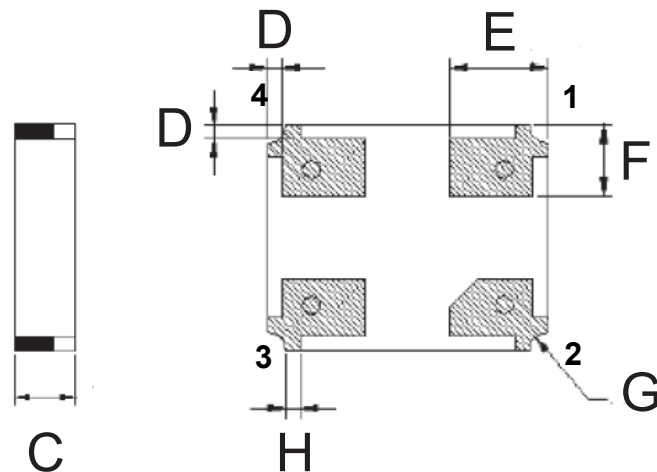


Dimensions in mm  
All pads have the same dimensions

TOP VIEW



BOTTOM VIEW



C

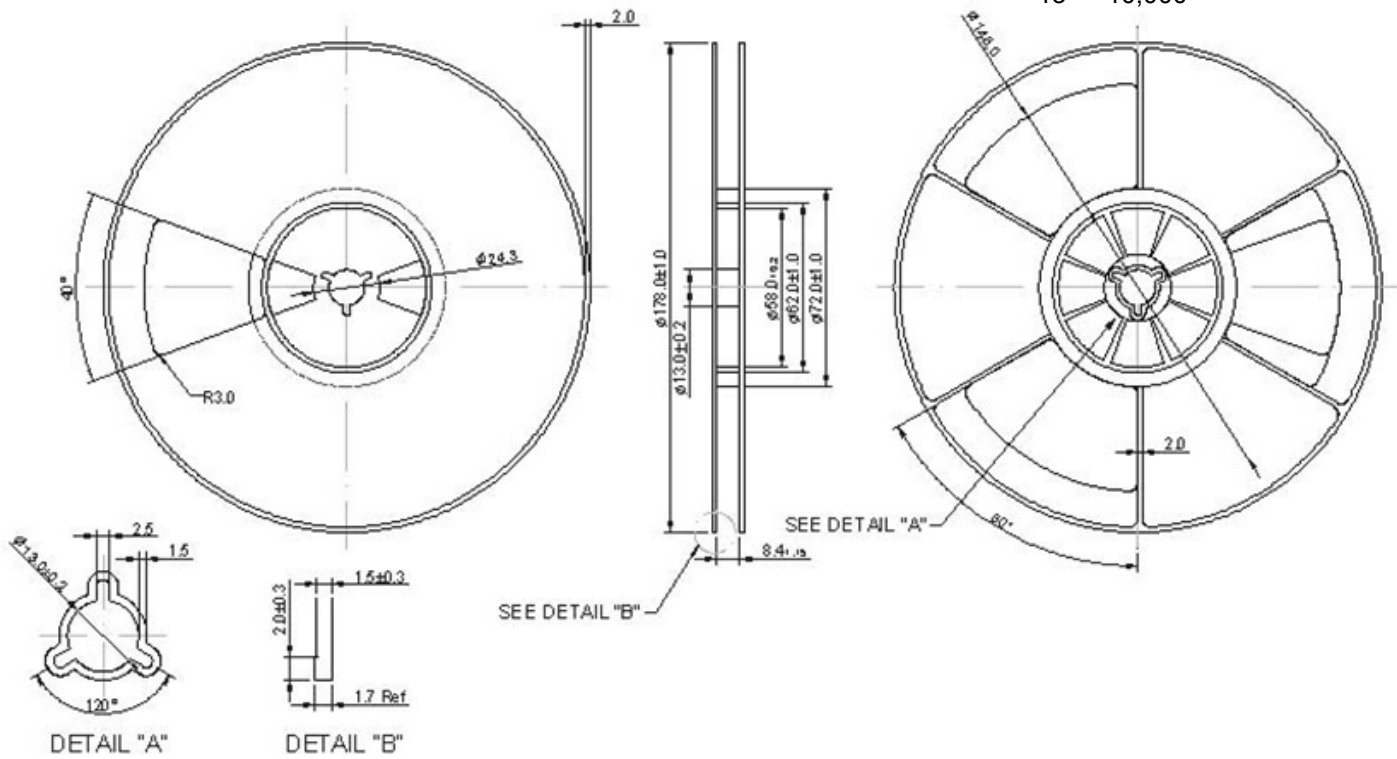
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.57	1.60	1.73	0.061	0.062	0.068
B	1.97	2.00	2.13	0.077	0.078	0.083
C	0.55	0.65	0.75	0.021	0.025	0.029
D	-	0.10	-	-	0.003	-
E	-	0.70	-	-	0.027	-
F	-	0.50	-	-	0.019	-
G	-	0.13	-	-	0.005	-
H	-	0.10	-	-	0.003	-
I	-	1.80	-	-	0.070	-
J	-	2.20	-	-	0.086	-
K	-	0.60	-	-	0.023	-
L	-	0.80	-	-	0.031	-

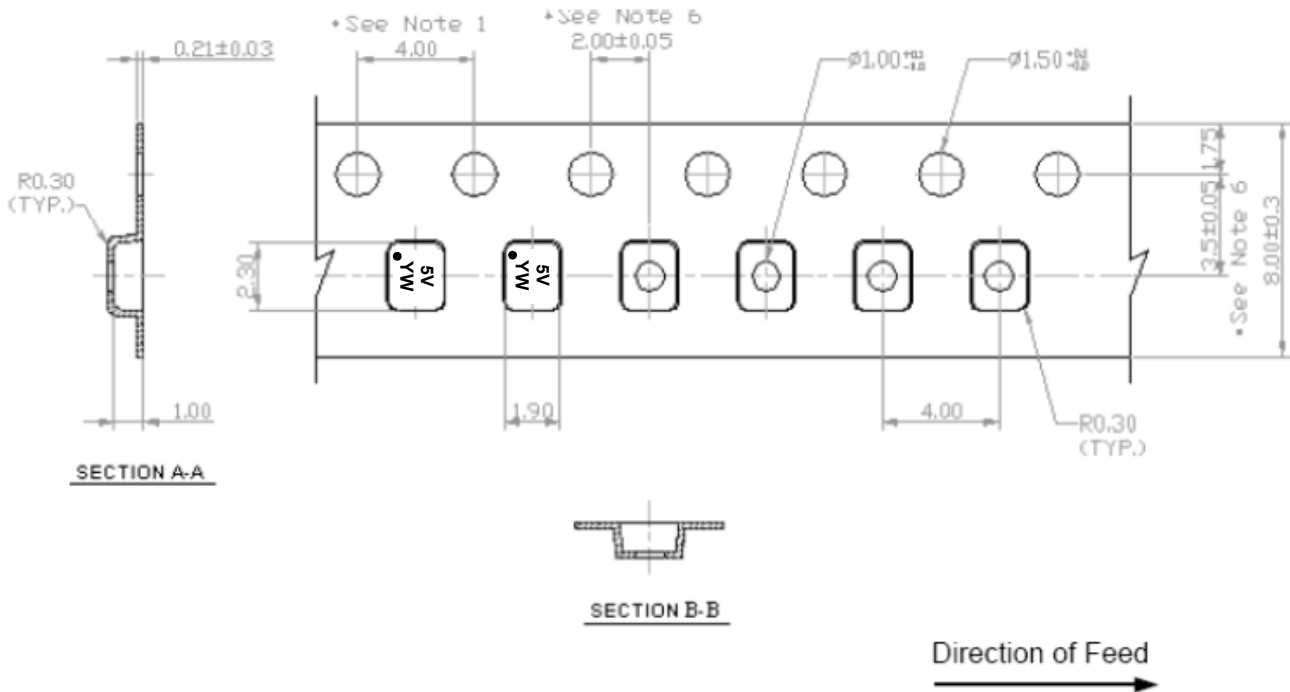
# Tape and Reel Specifications

Reel Count:  
 7" = 2000  
 13" = 10,000

Tape and Reel Standard per ANSI/EIA-481



## COMPONENT ORIENTATION and DIMENSIONS



## 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.

