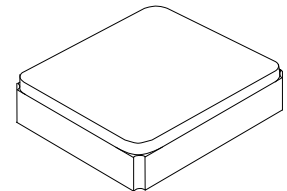


**SF2371H**

**869.225 MHz  
SAW Filter**



**SM2016-4**

- **RF Filter for Mobile Communication Applications**
- **Low Insertion Loss**
- **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 Between any 2 Terminals	0	VDC
Operating 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
Minimum Insertion Loss,	$\alpha$ min					dB
Incl. Loss in matching elements (868.3 to 870.15 MHz)				2.7	3.4	
Excl. Loss in matching elements (868.3 to 870.15 MHz)				1.9	2.6	
Pass Band Relative to $\alpha$ min (868.3 to 870.15 MHz)				1.1	2.5	
Attenuation Relative to $\alpha$ min:						dB
10 to 350 MHz			50	55		
350 to 600 MHz			35	40		
600 to 846 MHz			35	40		
846 to 862 MHz			15	20		
880 to 889 MHz			30	35		
889 to 1000 MHz			35	40		
1000 to 1700 MHz			52	57		
1700 to 2500 MHz			42	47		
Impedance for Pass Band Matching						nH
	Input: $Z_{IN} = Ls1/Cp1$ Output: $Z_{OUT} = Ls2/Cp2$			54/2		nH
				48/2		nH

Case Style	SM2016-4
Lid Symbolization (Y=year, WW=week, S=shift)	5X <u>YW</u>

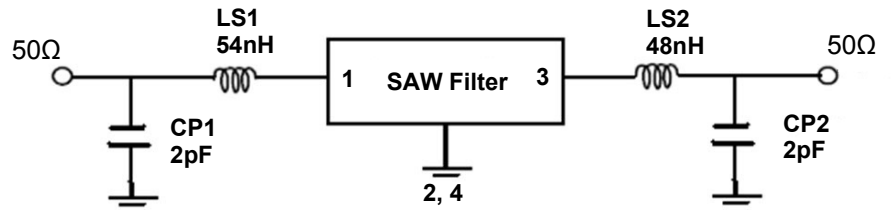
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**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	1
Output	3
Ground	All others

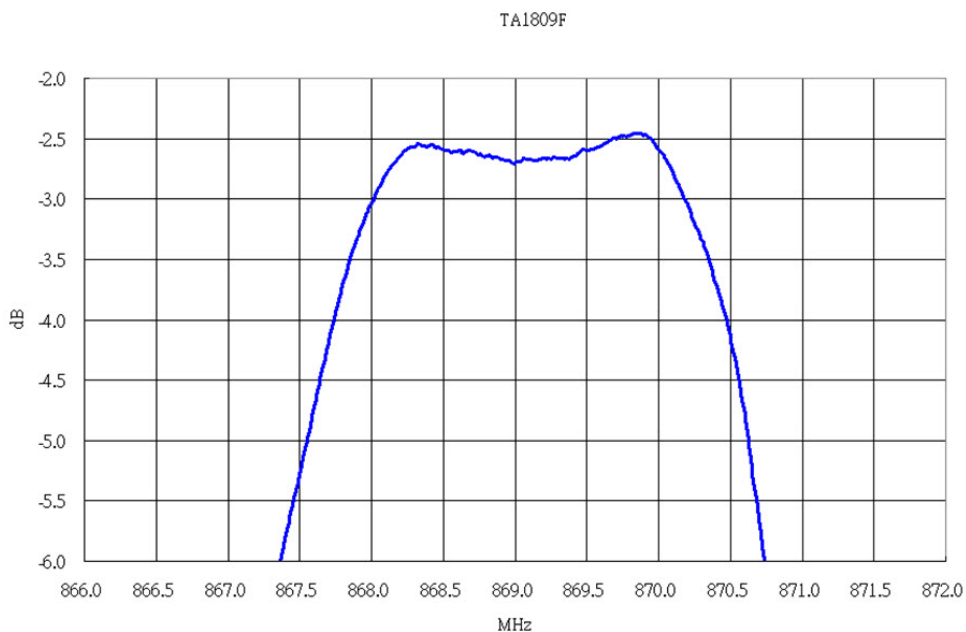


## Frequency Characteristics

### S21 Response: Span 20 MHz

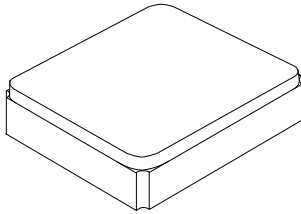


### S21 Response: Span 5 MHz

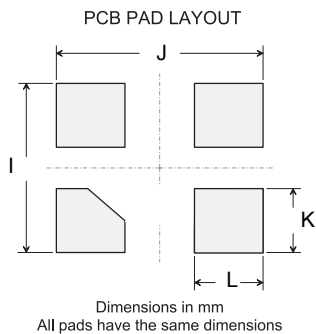


# SM2016-4 Case

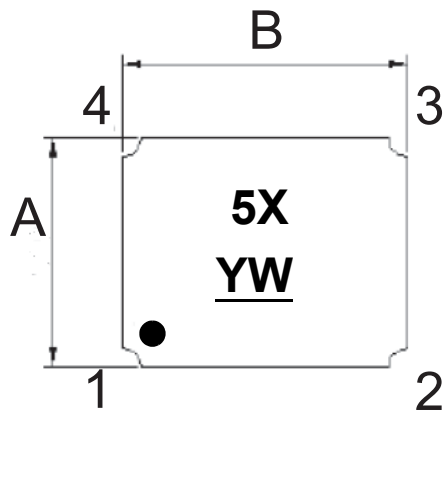
## 6-Terminal Ceramic Surface-Mount Case 2.0 X 1.6 mm Nominal Footprint



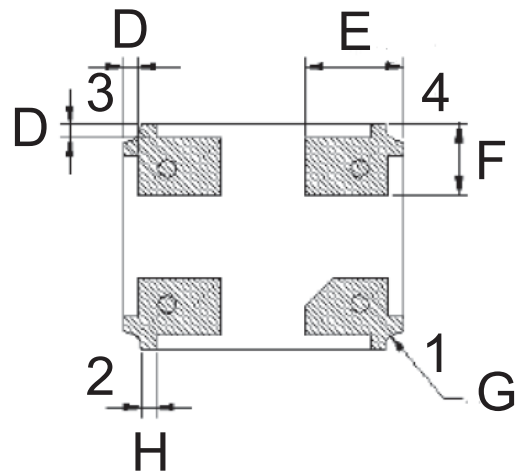
PCB Footprint, Top View



TOP VIEW



BOTTOM VIEW



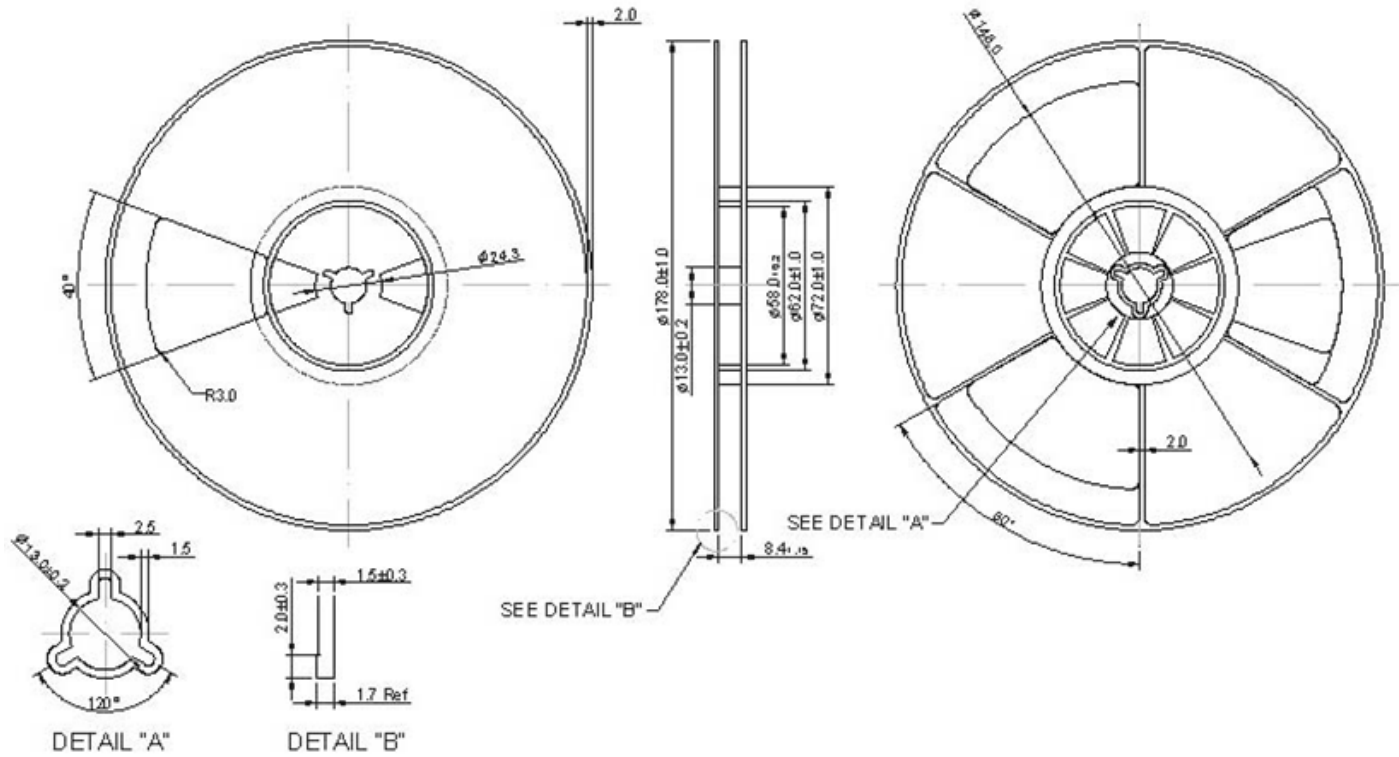
Case Dimensions

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	-

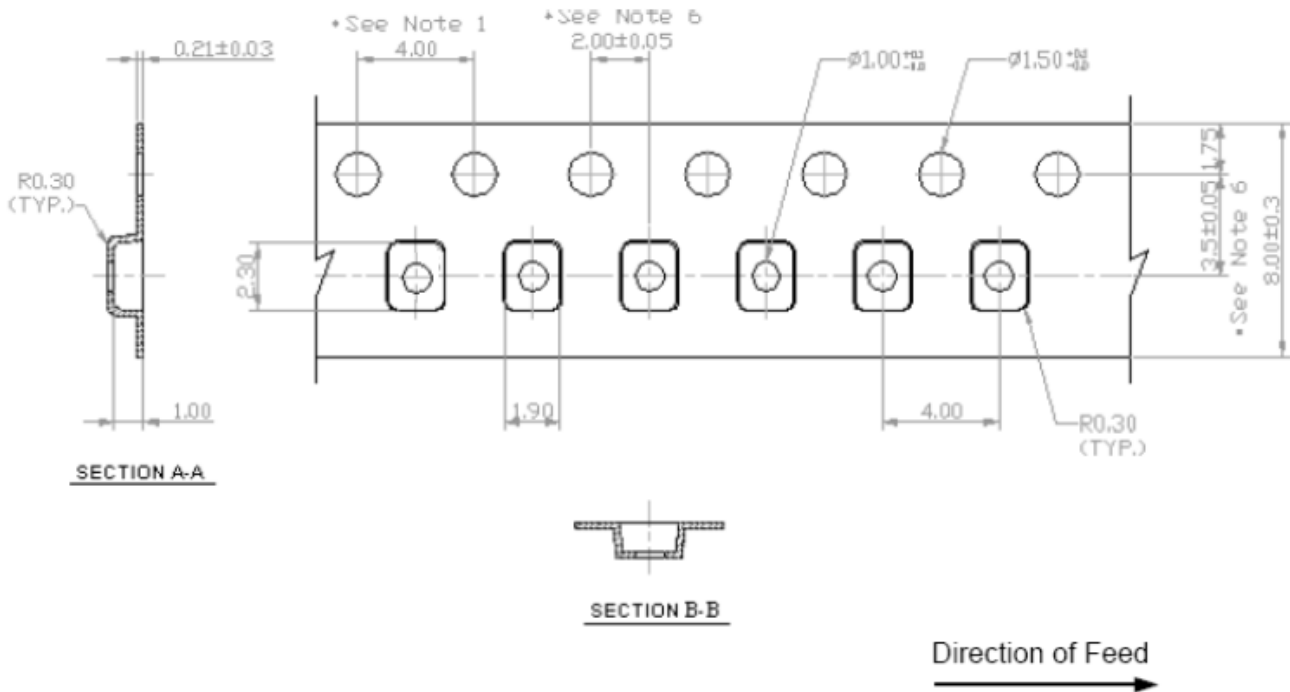
# Tape and Reel Specifications

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.

