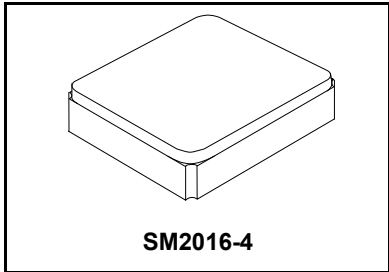


**SF2370H**

**869.225 MHz  
SAW Filter**



- **RF Filter for ISM Band Applications**
- **2.0 x 1.6 x 0.9 mm Surface-Mount Case**

**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, WW=week, S=shift)	5V YW

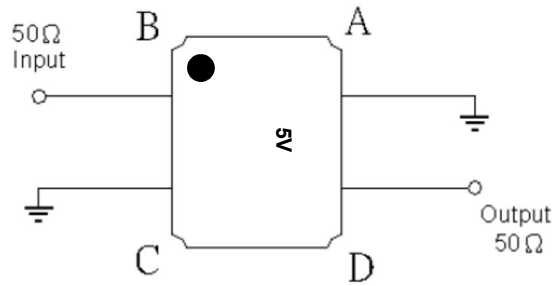
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50  $\Omega$  and measured with 50  $\Omega$  network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_c$ .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
7. US and international patents may apply.
8. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.
9. Electrostatic Sensitive Device. Observe precautions for handling.

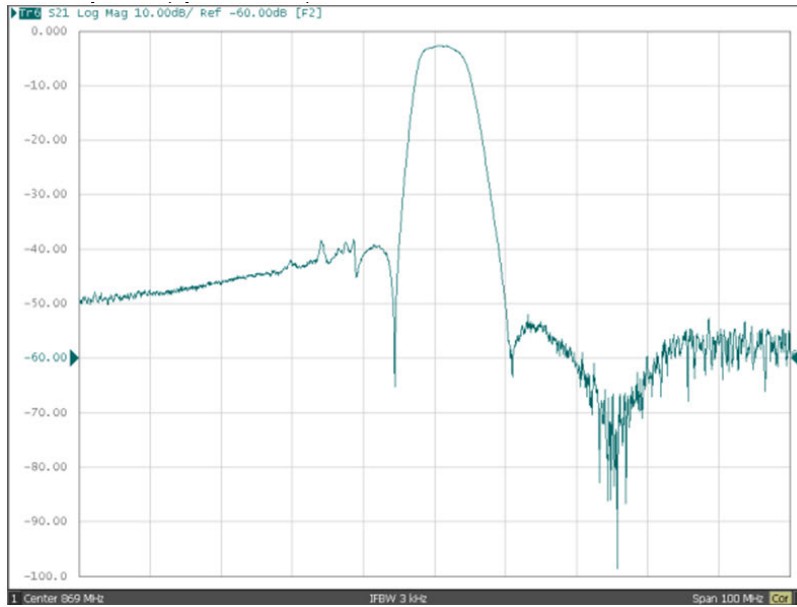
## Electrical Connections

Connection	Terminals
Input	2
Output	4
Ground	All others

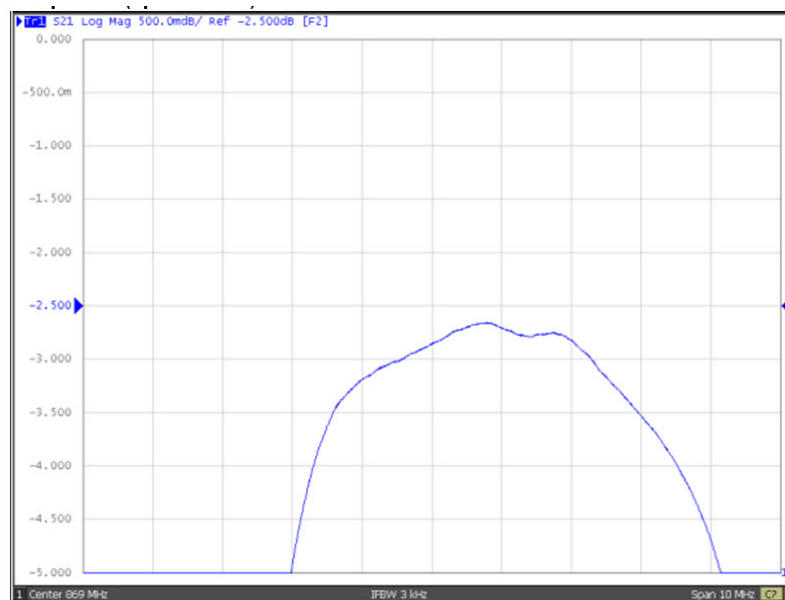


## Frequency Characteristics

### S21 Response: Span 100 MHz

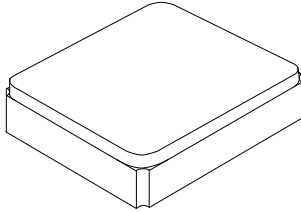


### S21 Response: Span 10 MHz

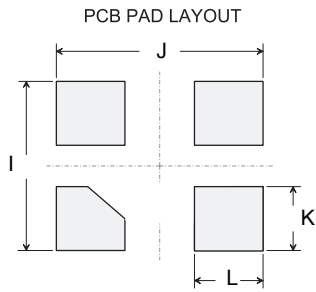


# SM2016-4 Case

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



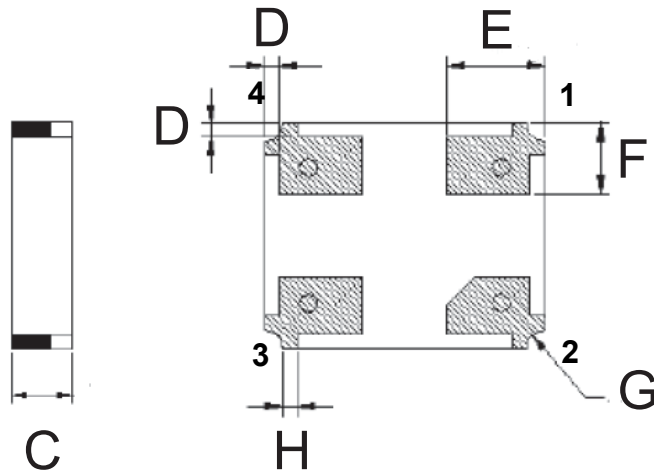
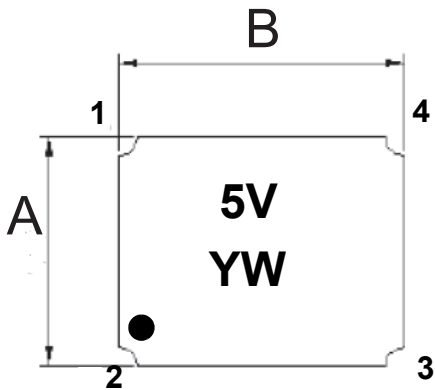
PCB Footprint, Top View



Dimensions in mm  
All pads have the same dimensions

TOP VIEW

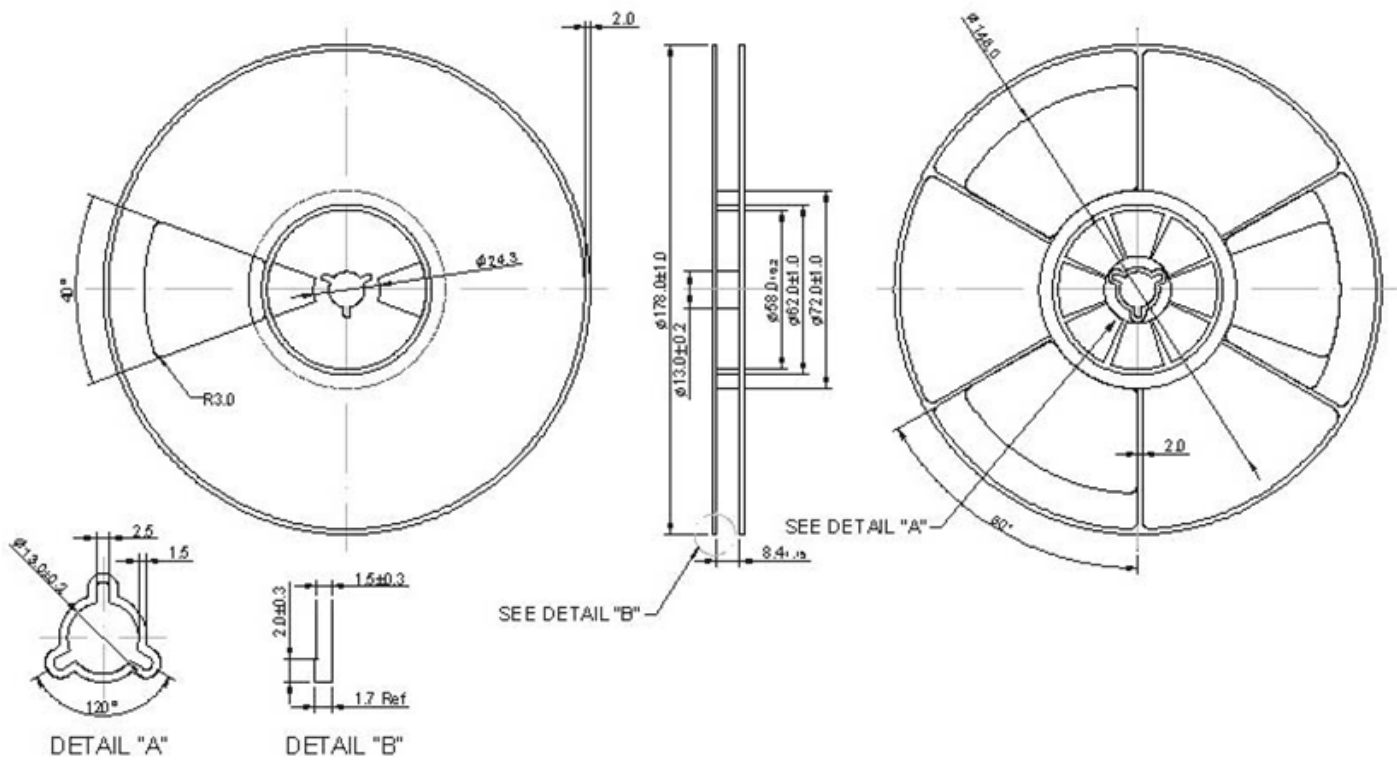
BOTTOM VIEW



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



### COMPONENT ORIENTATION and DIMENSIONS

