

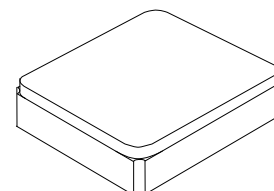


- **RF Filter for ISM Band Applications**
- **2.0 x 1.6 x 0.9 mm Surface-Mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

RoHS
Compliant

SF2370H

869.225 MHz
SAW Filter



SM2016-4

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	Ω
Terminating Load Impedance (single) Z_L	50	Ω
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	amin			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>



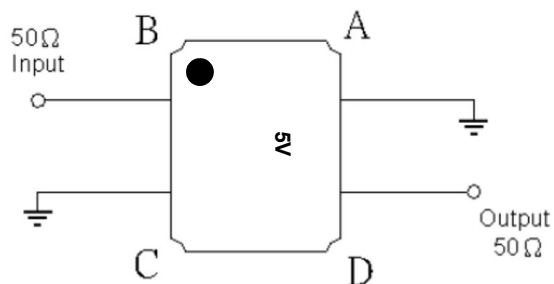
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.

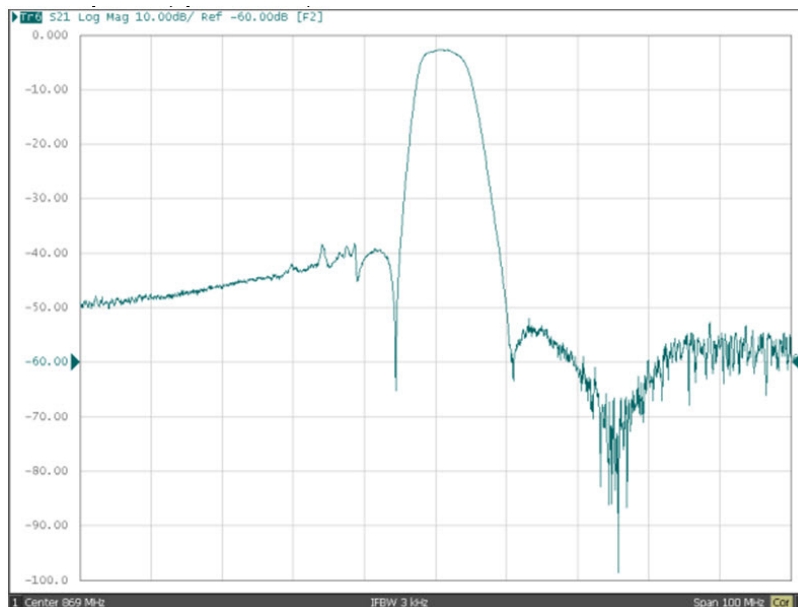
Electrical Connections

Connection	Terminals
Input	2
Output	4
Ground	All others

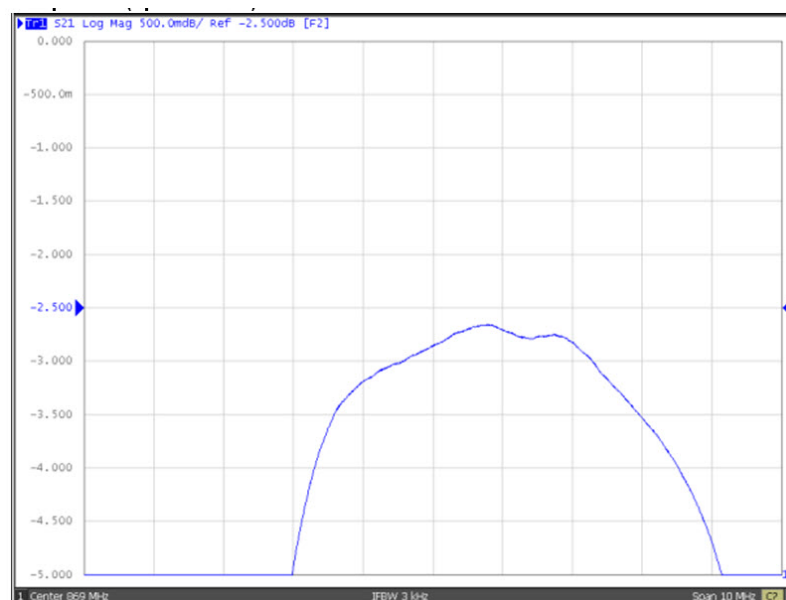


Frequency Characteristics

S21 Response: Span 100 MHz

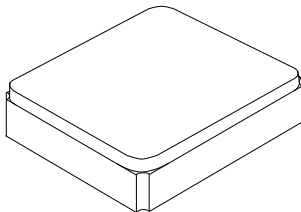


S21 Response: Span 10 MHz

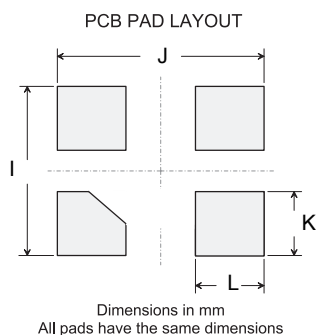


SM2016-4 Case

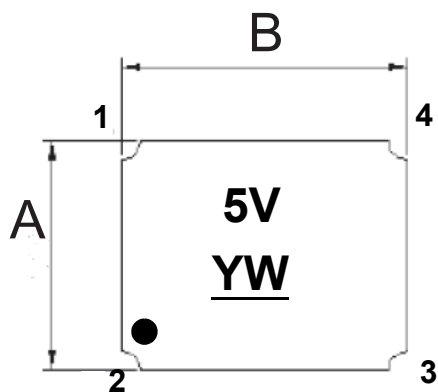
6-Terminal Ceramic Surface-Mount Case 2.0 X 1.6 mm Nominal Footprint



PCB Footprint, Top View



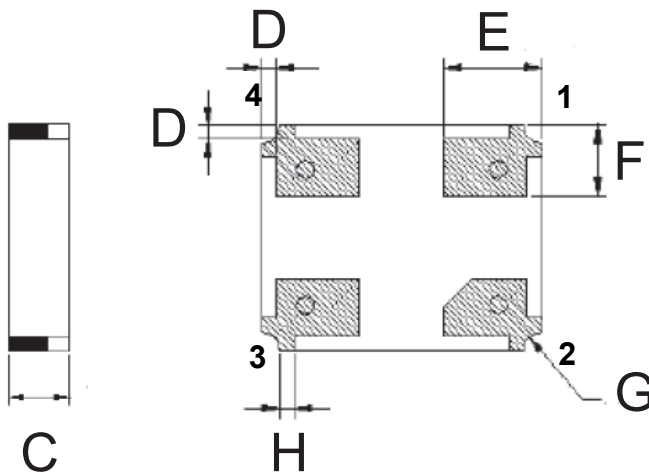
TOP VIEW



Case Dimensions

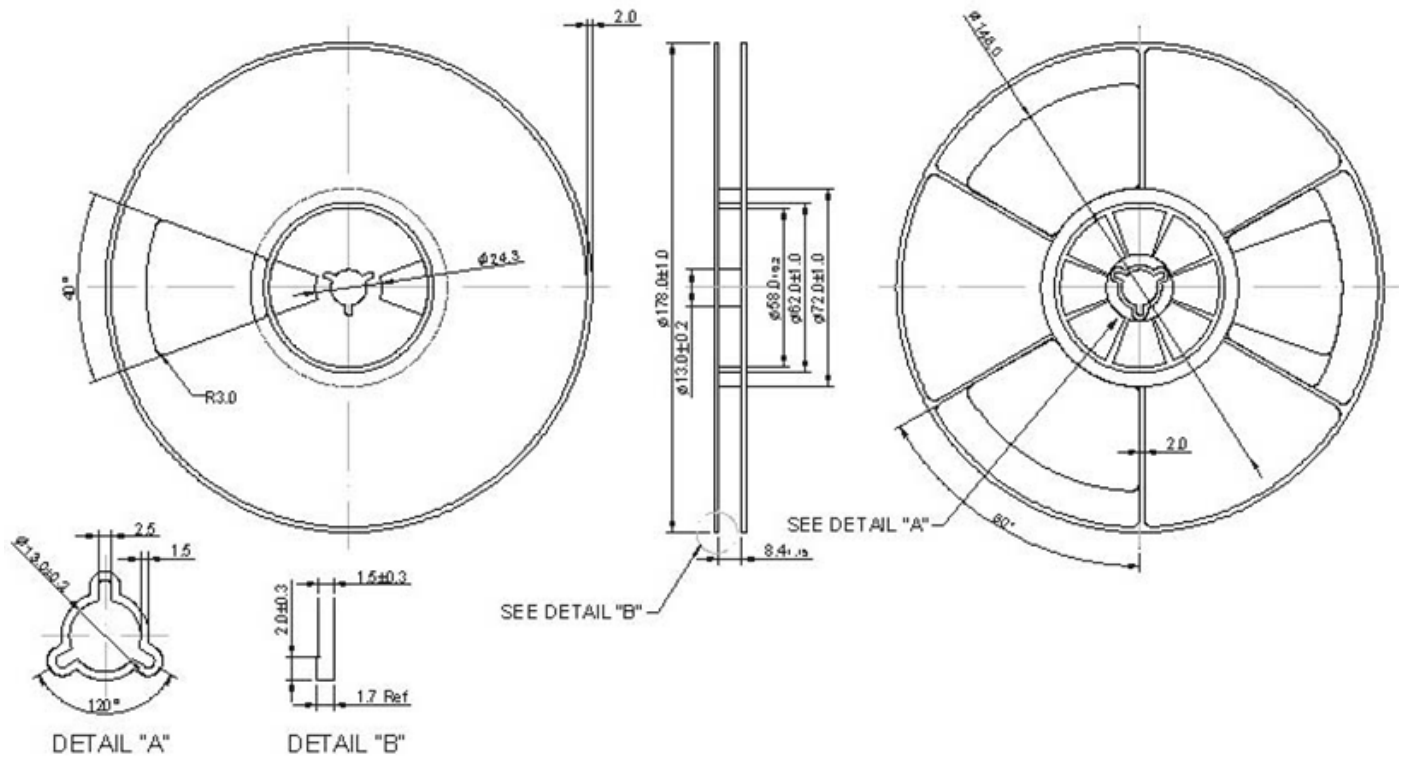
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.57	1.60	1.73	0.061	0.062	0.068
B	1.97	2.00	2.13	0.077	0.078	0.083
C	0.55	0.65	0.75	0.021	0.025	0.029
D	-	0.10	-	-	0.003	-
E	-	0.70	-	-	0.027	-
F	-	0.50	-	-	0.019	-
G	-	0.13	-	-	0.005	-
H	-	0.10	-	-	0.003	-
I	-	1.80	-	-	0.070	-
J	-	2.20	-	-	0.086	-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

BOTTOM VIEW

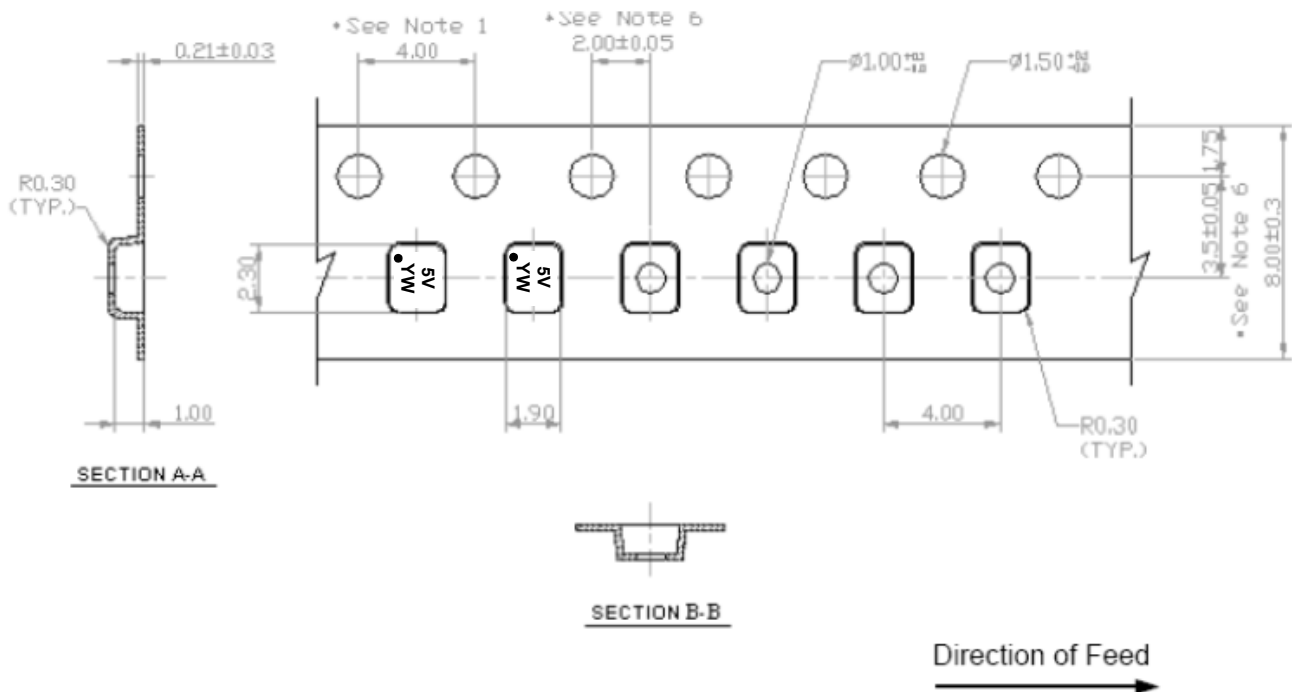


Tape and Reel Specifications

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.

