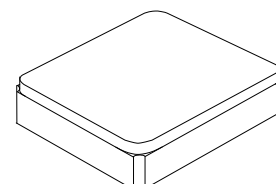


- RF SAW Filter, 719 MHz, 5 MHz Bandwidth
- 2.0 x 1.6 x 0.9 mm Surface-mount Case
- Input/Output Impedance 50Ω/50Ω
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

**SF2171H**

**719 MHz  
SAW Filter**



**SM2016-4**

#### Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage on any Non-ground Terminal	3	VDC
Operating Temperature Range	-30 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 Cycles	265 °C for 10 s	

#### Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$			719		MHz
Maximum Insertion Loss, 716.5 - 721.5 MHz	$IL_{MAX}$			2.7	3.2	dB
Amplitude Ripple, p-p, 716.5 - 721.5 MHz				0.7	2.2	
Return Loss, 716.5 - 721.5 MHz			5	8		
Group Delay Ripple, 716.5 - 721.5 MHz				42	95	ns
Attenuation, Referenced to 0 dB:						dB
0 to 690 MHz			40	54		
690 to 704 MHz			35	47		
704 to 710 MHz			30	48		
728 to 734 MHz			25	29		
734 to 750 MHz			27	33		
750 to 824 MHz			37	53		
824 to 960 MHz			45	54		
960 to 2500 MHz			32	39		
Temperature Coefficient of Frequency				-36		ppm/C
Terminating Source impedance	$Z_S$			50		Ω
Terminating Load impedance	$Z_L$			50		Ω
Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms					
Case Style	SM2016-4					
Lid Symbolization: Y = Year, W =Week	3N, <u>YW</u>					

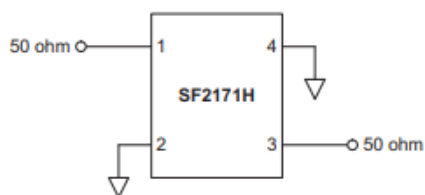


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

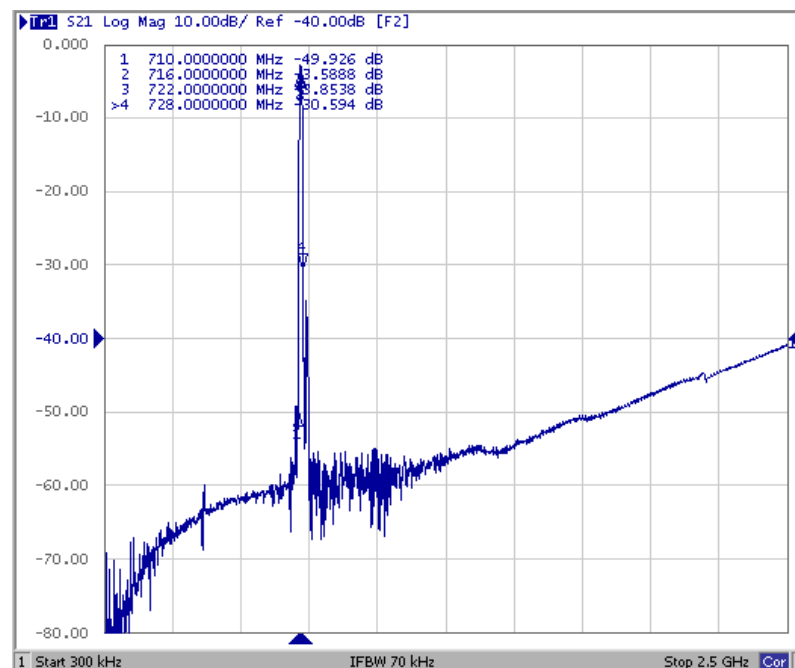
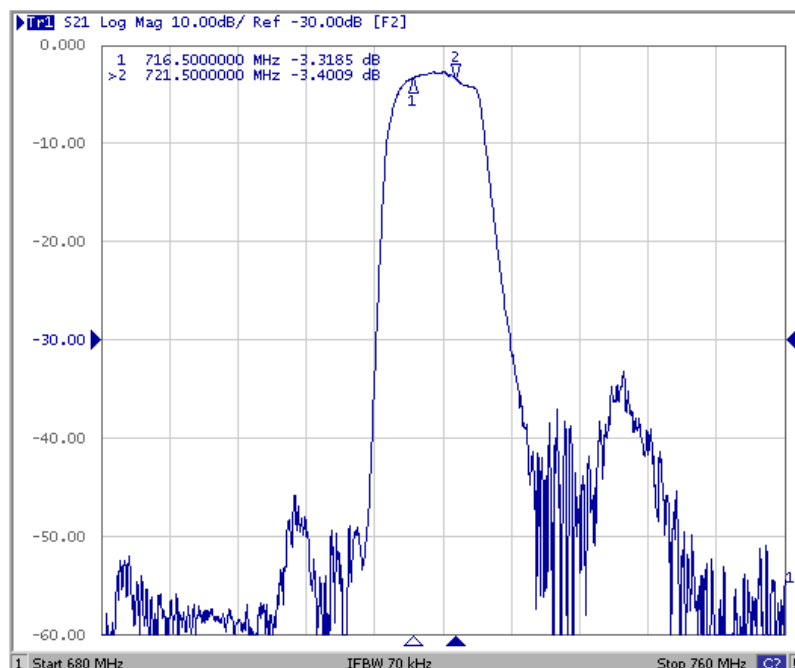
#### NOTES:

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.

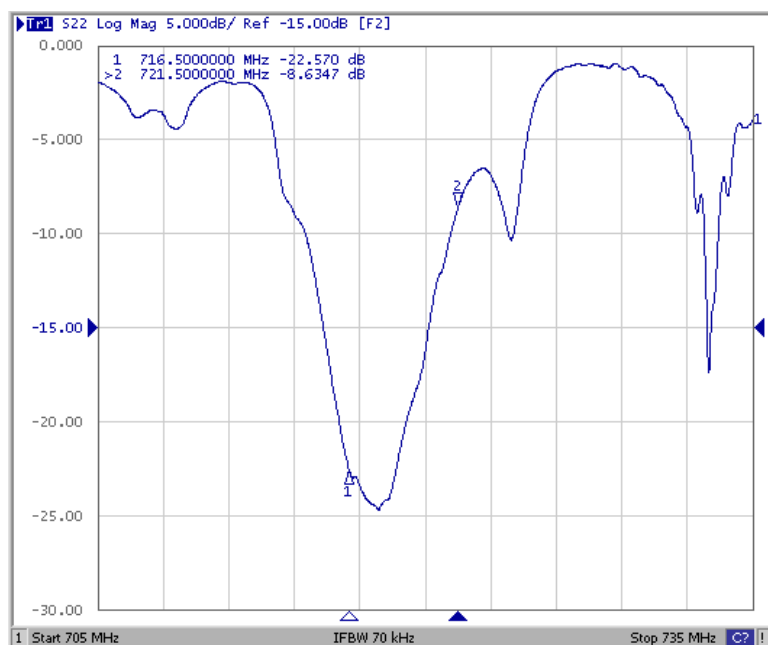
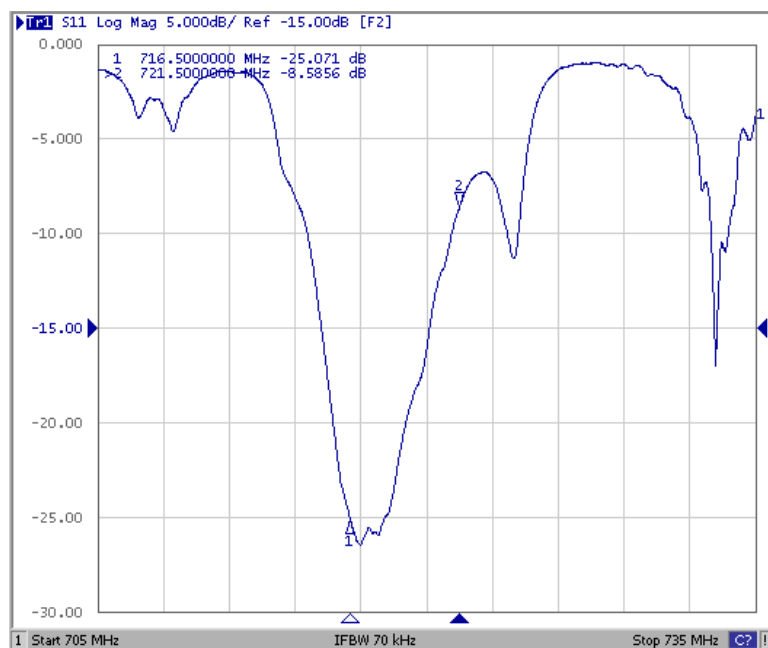
## Matching Circuit



## Frequency Response Plots



## Return Loss Plots



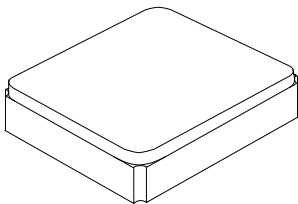
# SM2016-4 Case

## 4-Terminal Ceramic Surface-Mount Case

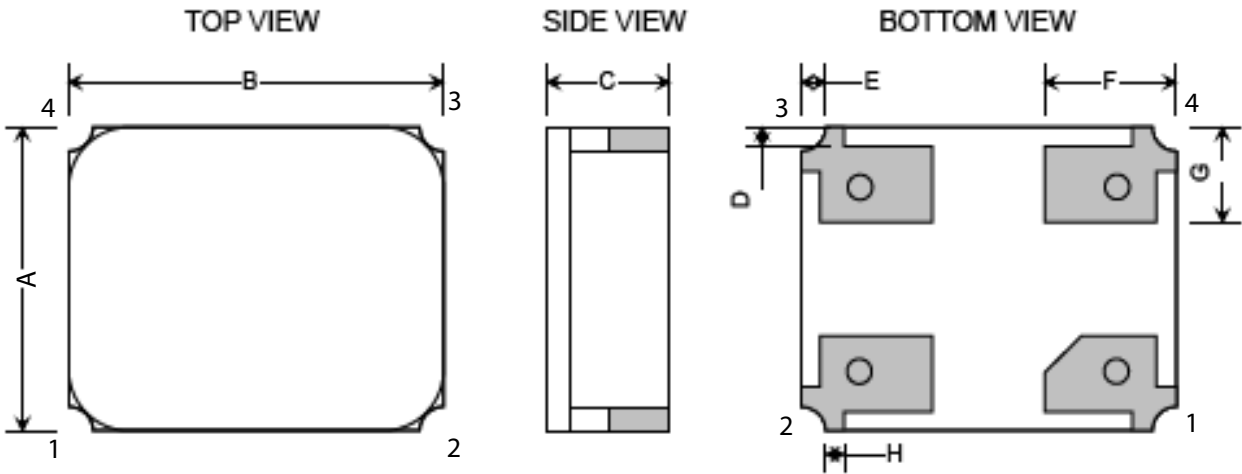
### 2.0 X 1.6 mm Nominal Footprint

Electrical Connections

Connection	Terminals
Input	1
Output	3
Ground	2, 4



Dimensions	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A		1.60			0.063	
B		2.00			0.079	
C		0.90			0.035	
D		0.10			0.004	
E		0.10			0.004	
F		0.70			0.028	
G		0.50			0.020	
H		0.10			0.004	

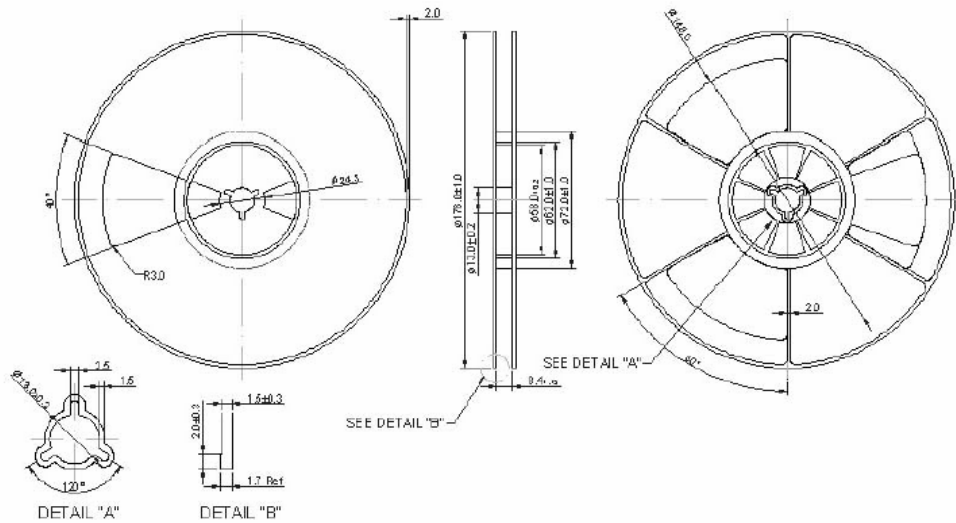


## Tape and Reel Standard per ANSI/EIA-481

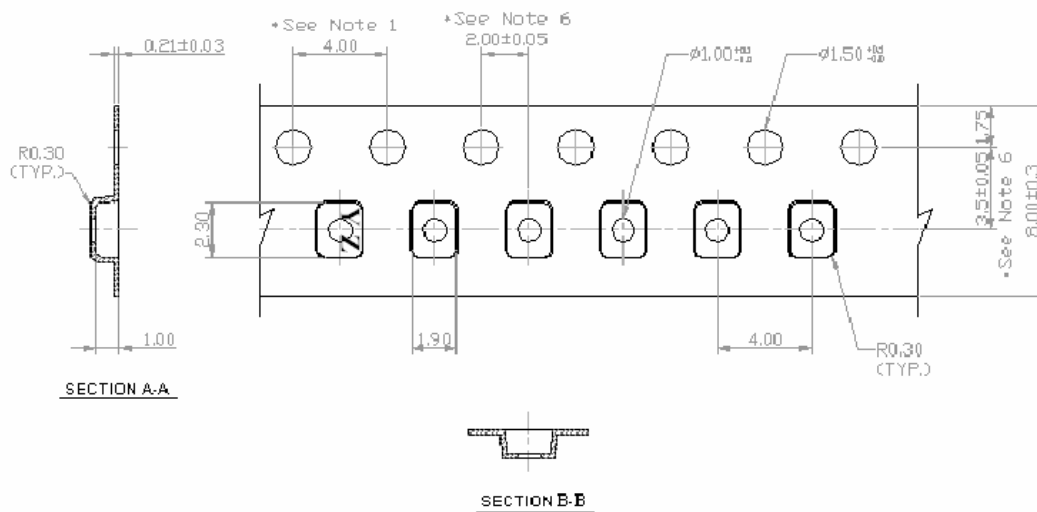
**F. PACKING:**

## 1. REEL DIMENSION

( Reel Count : 7''=2000 typ. ; 13''=10000 typ.)



## 2. TAPE DIMENSION



## 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.

