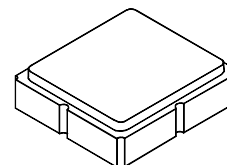


# Preliminary



**SF2171E**

**719 MHz  
SAW Filter**



**SM3030-6**

- RF SAW Filter, 719 MHz, 5 MHz Bandwidth
- 3.0 x 3.0 x 1.4 mm Surface-mount Case
- Input/Output Impedance 50Ω/50Ω
- Complies with Directive 2002/95/EC (RoHS)



## Absolute Maximum Ratings

Rating	Value	Units
Incident Power in Passband	+10	dBm
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/ 10 seconds maximum	265	°C

## Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$		719			MHz
Max. Insertion Loss, 716.5 - 721.5 MHz	IL			2.1	3.0	dB
Amplitude Ripple, p-p, 716.5 - 721.5 MHz				0.4	2.0	
Return Loss, 716.5 - 721.5 MHz			10	15		ns
Group Delay Ripple, 716.5 - 721.5 MHz				25	80	
Attenuation (Reference level from 0 dB)						dB
0 - 690 MHz			40	54		
690 - 704 MHz			35	41		
734 - 750 MHz			27	37		
750 - 824 MHz			37	53		
824 - 960 MHz			45	52		
960 - 2500 MHz			20	35		
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	SM3030-6					
Lid Symbolization	853					

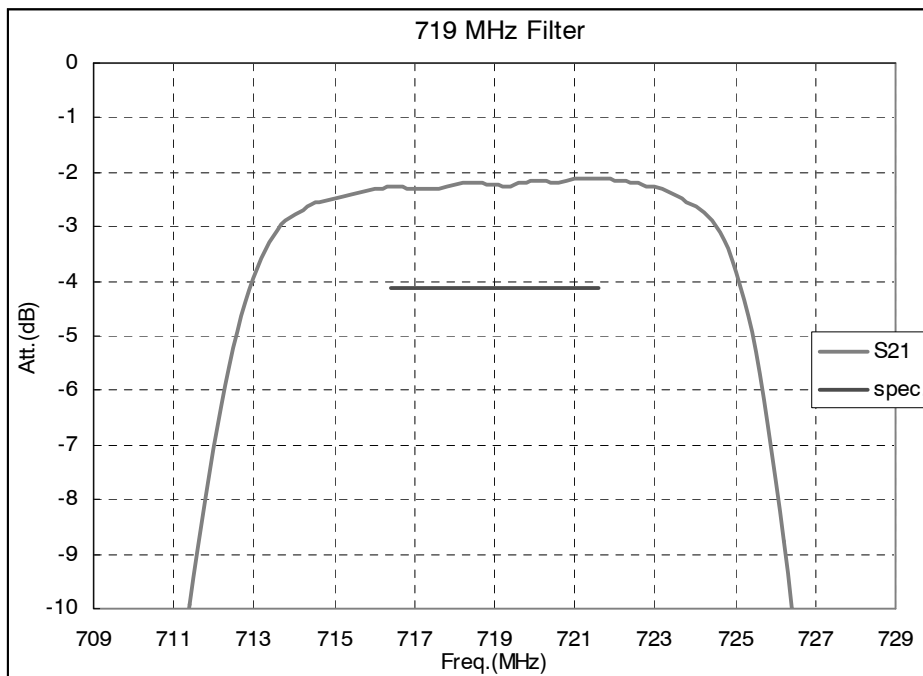
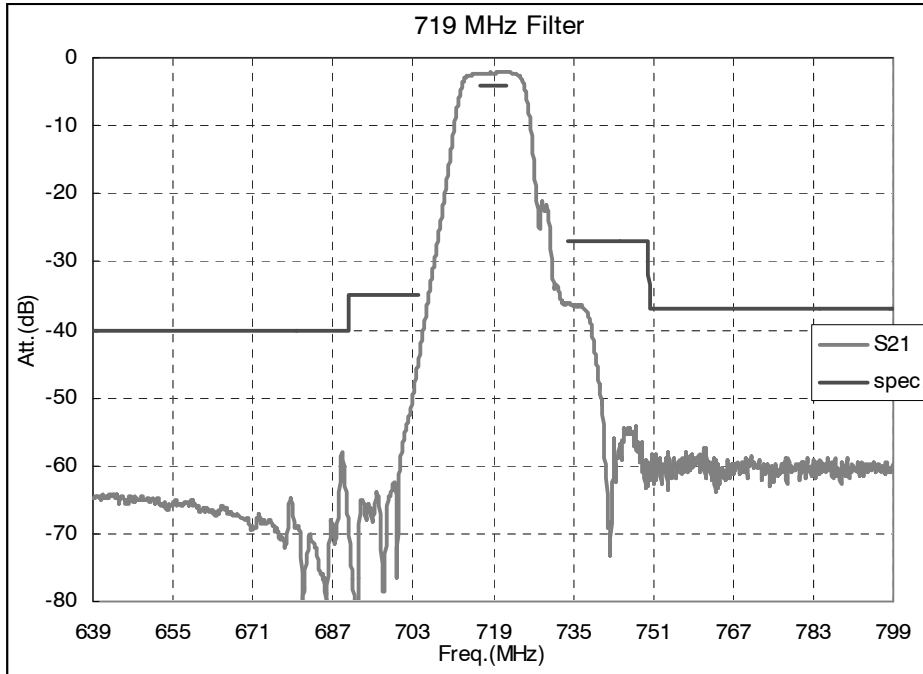
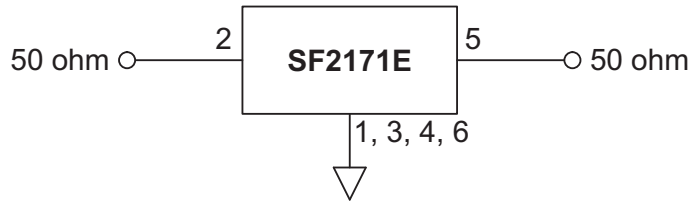


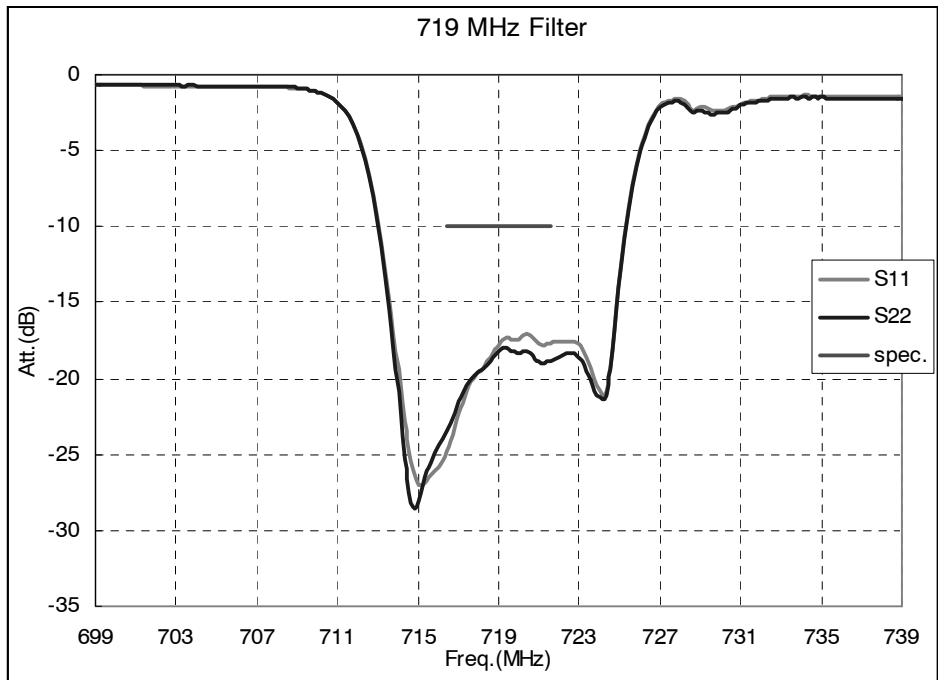
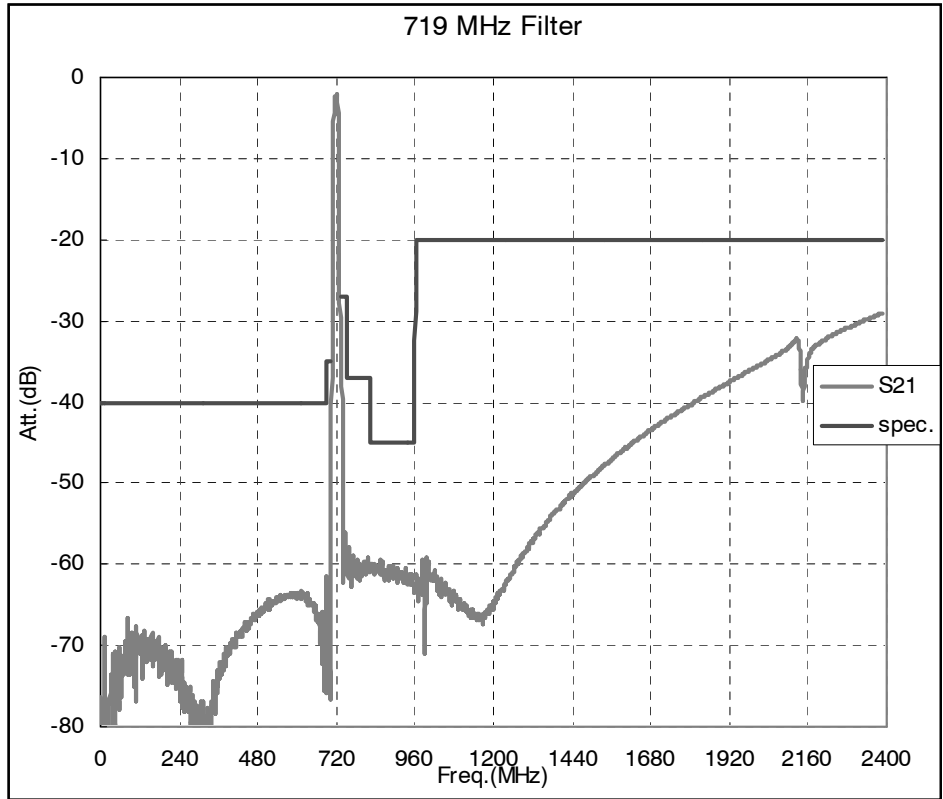
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

### Notes:

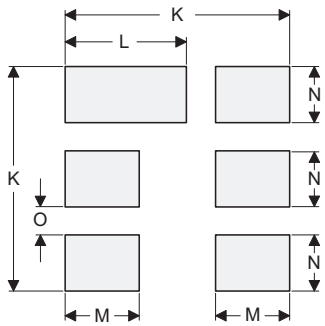
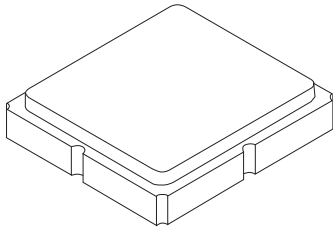
1. US and international patents may apply.
2. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

# Matching Circuit





## 6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint



**PCB Footprint Top View**

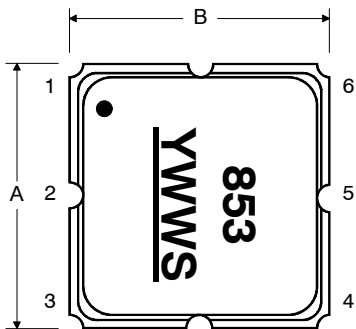
### Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	

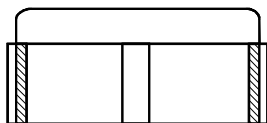
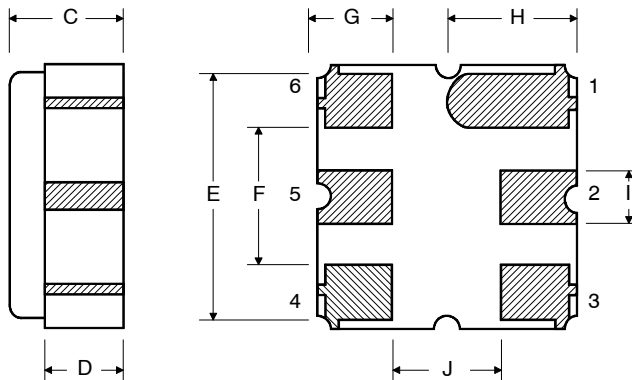
### Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel
Lid Plating	2.0 to 3.0 $\mu\text{m}$ Nickel
Body	$\text{Al}_2\text{O}_3$ Ceramic
Pb Free	

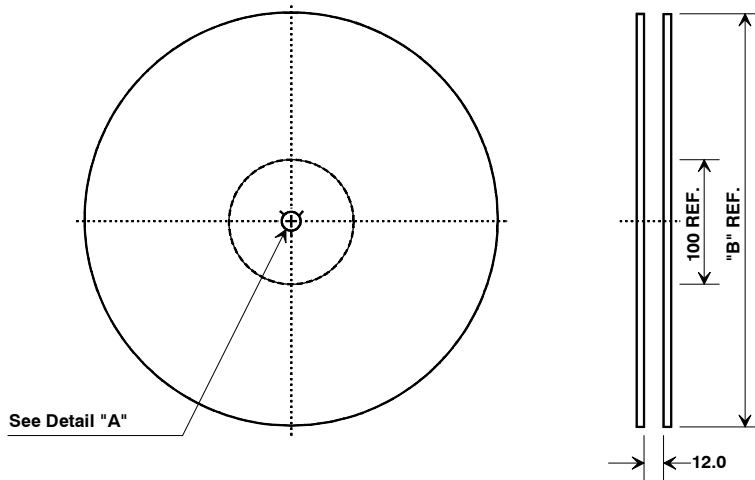
### TOP VIEW



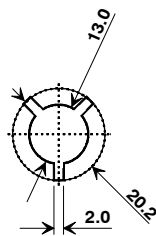
### BOTTOM VIEW



## Tape and Reel Specifications



"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



## COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.35 mm
Bo	3.35 mm
Ko	1.40 mm
Pitch	8.0 mm
W	12.0 mm

