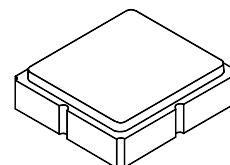


SF2171E

**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)
- Moisture Sensitivity Level: 1

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		
Group Delay Ripple, 716.5 - 721.5 MHz				25	80	ns
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_YWWS					

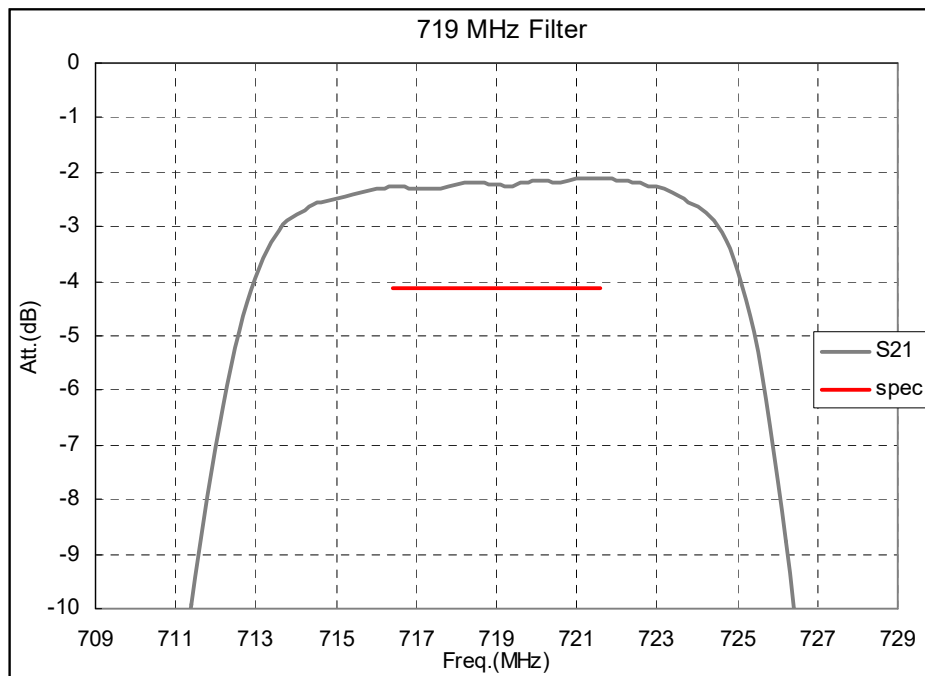
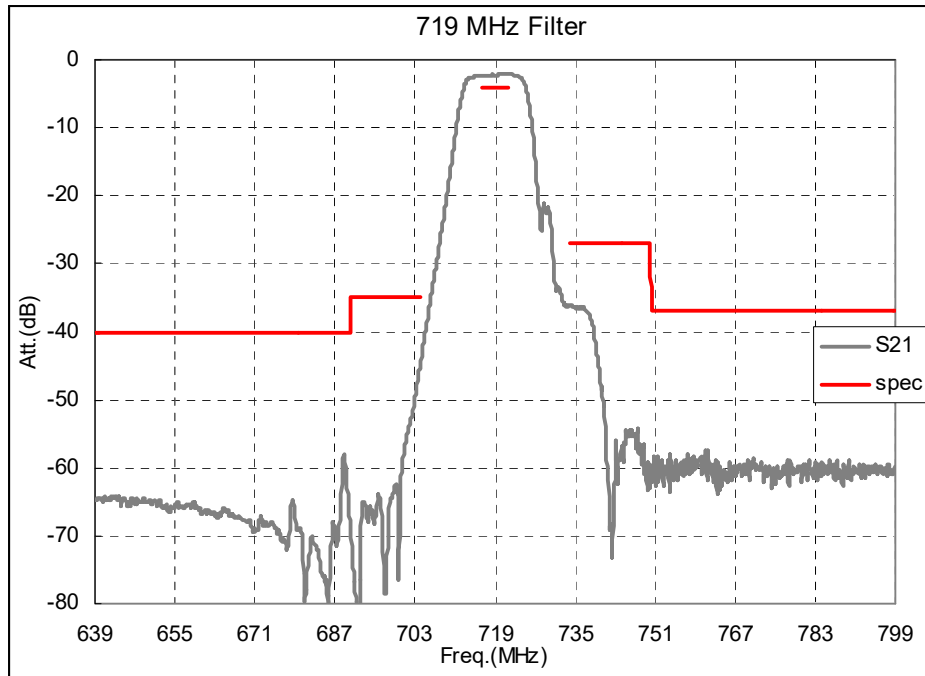
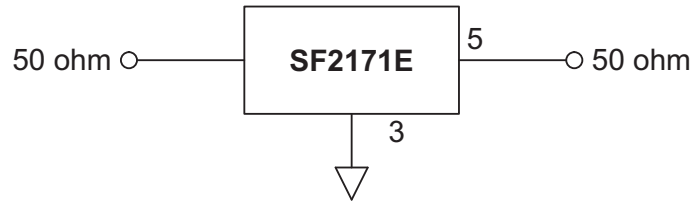


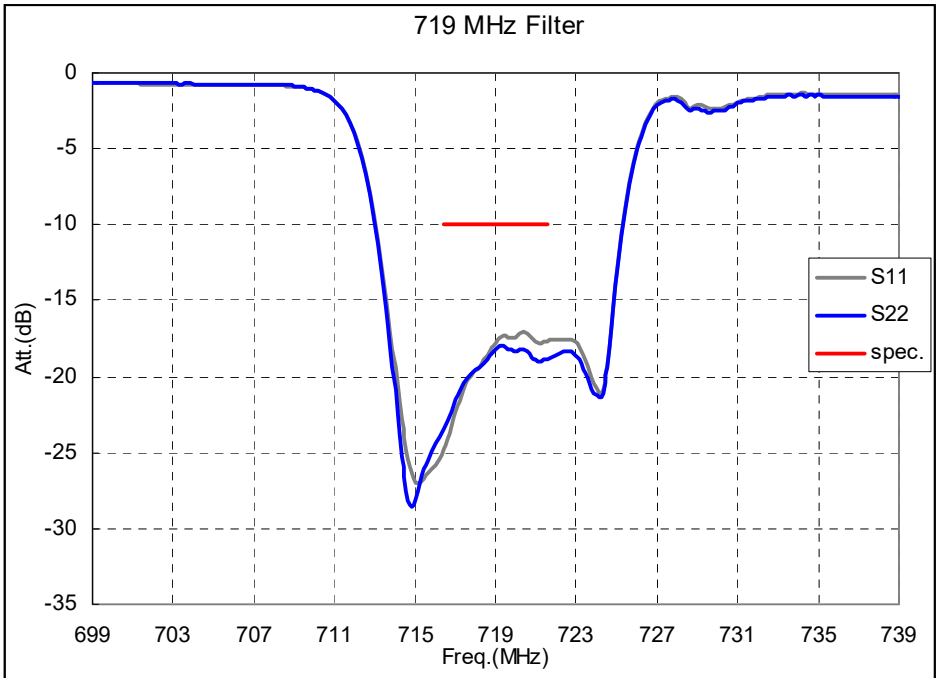
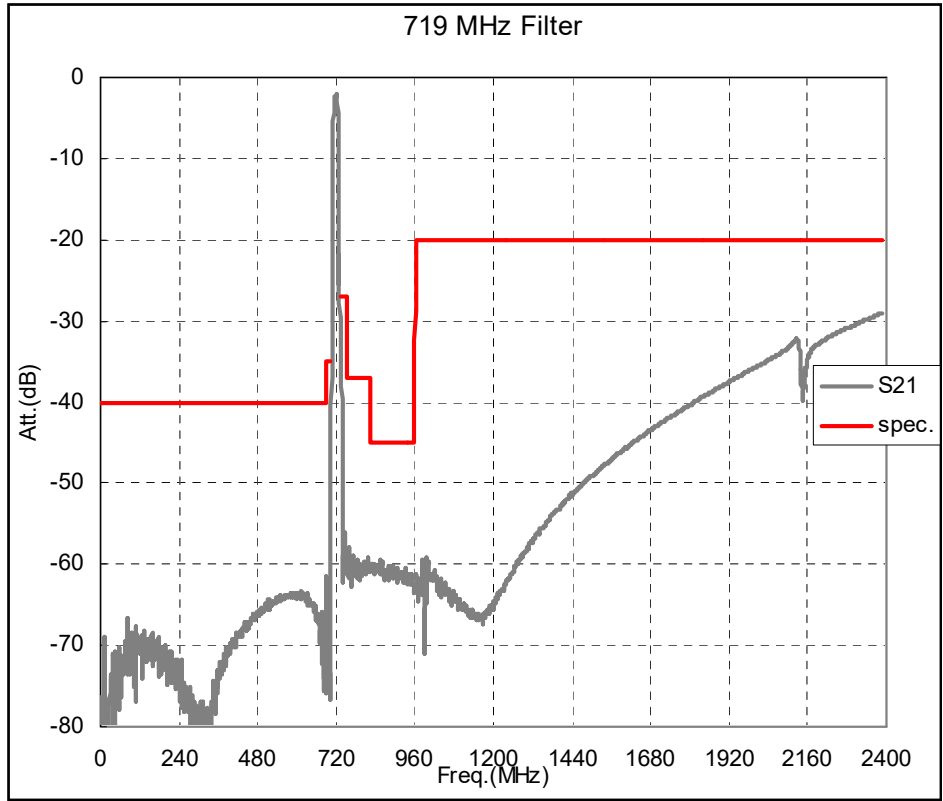
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

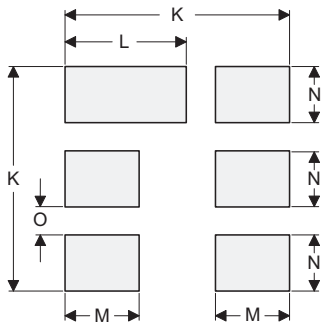
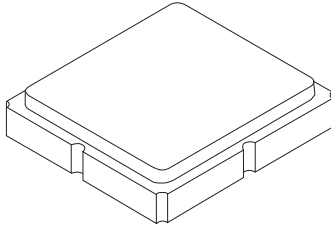
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Matching Circuit





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



PCB Footprint Top View

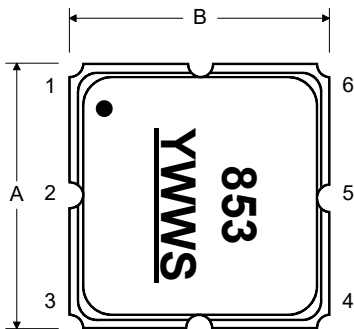
Case and PCB Footprint Dimensions

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	

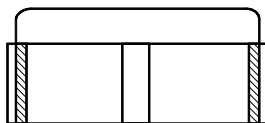
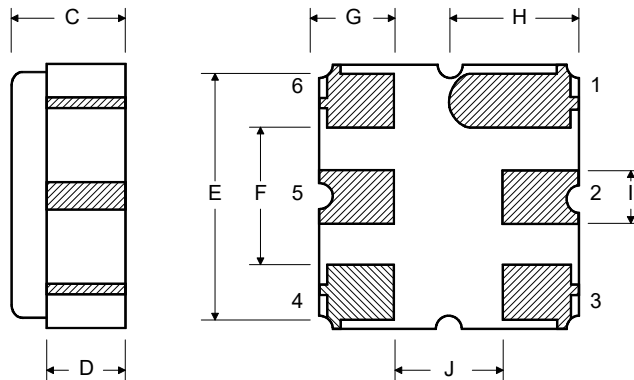
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic

TOP VIEW

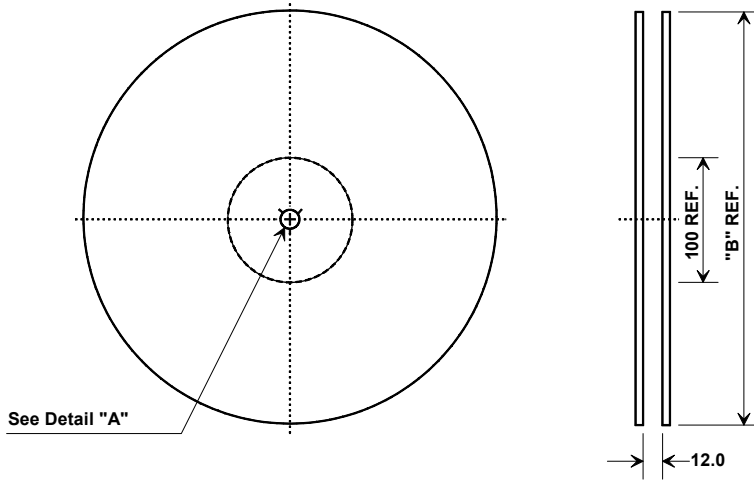


BOTTOM VIEW

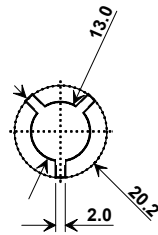


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

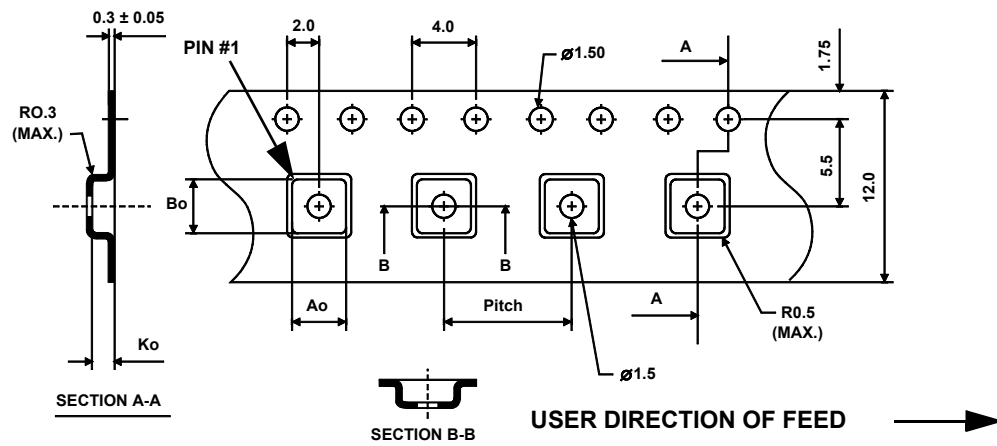


"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



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



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.

