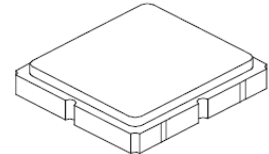


SF2345E

**2593 MHz
SAW Filter**



SM3030-6

- *Steep Roll-off SAW Filter for 2593 MHz Unlicensed Band*
- *Complies with Directive 2002/95/EC (RoHS)*
- *Moisture Sensitivity Level: 1*
- *AEC-Q200 Qualified*

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	15	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +90	°C
Soldering Profile Maximum Temperature, 5 cycles/10 s maximum	265	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			2593		MHz
-3dB Band Width			194	280		
Max Insertion Loss (incl. matching network), 2496 to 2690 MHz	IL			4.7	5.5	dB
Amplitude Ripple, 2490 to 2690 MHz				1.8	3.0	
Amplitude Ripple (contiguous 100 MHz band), 2490 to 2690 MHz				1.5	2.0	
S11 and S22 VSWR 2490 to 2960 MHz				2.8	3.0	
Group Delay Ripple (P-P) 2496 to 2690 MHz				5	20	ns
Absolute Group Delay				5	20	
Attenuation Referenced to 0 dB:						dB
0 to 2025 MHz			25	34		
2131 to 2170 MHz			30	38		
2170 to 2300 MHz			30	42		
2300 to 2370MHz			10	12		
2847 to 3000 MHz			18	20		
3000 to 3800 MHz			25	34		
3800 to 5850 MHz			25	34		
Source Impedance - L1	Z_s			50		Ω
Load Impedance - L2	Z_L			50		Ω
Temperature Coefficient	ppm/K			-93		

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization, Y=year, WW=week, S=shift, Dot=pin 1 indicator	B11, YWWS



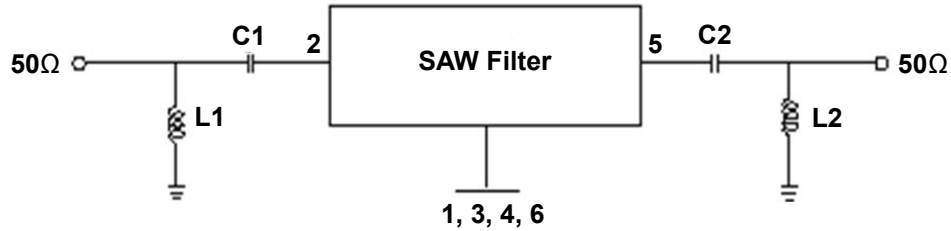
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.

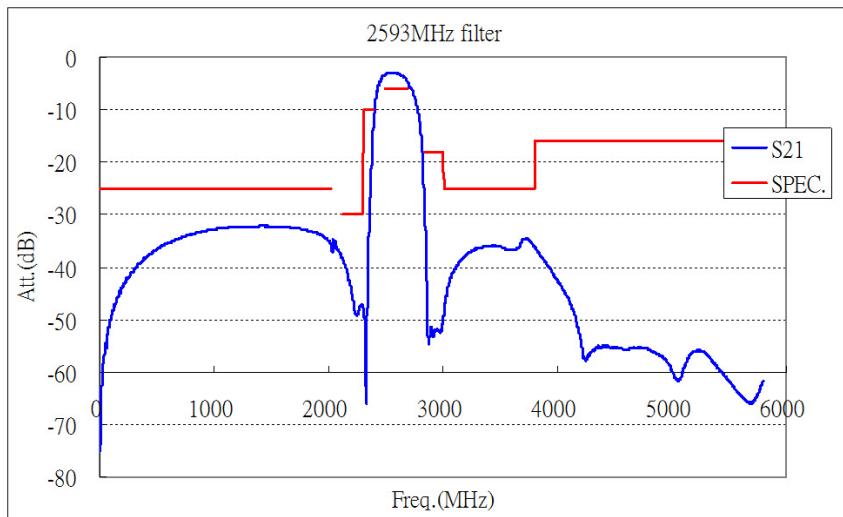
Electrical Connections

Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others

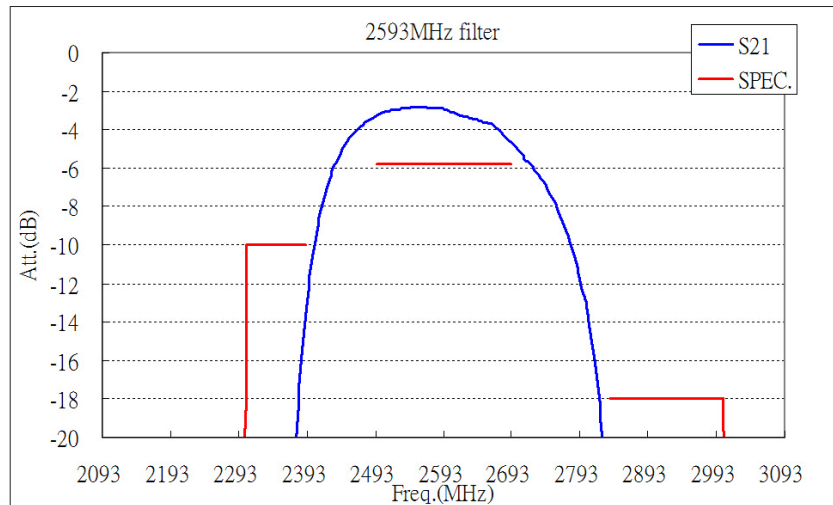


Frequency Characteristics

Wide Band Response: (span 6GHz)



Pass Band Response: (span 100MHz)



SM3030-6 Case

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



PCB Footprint Top View

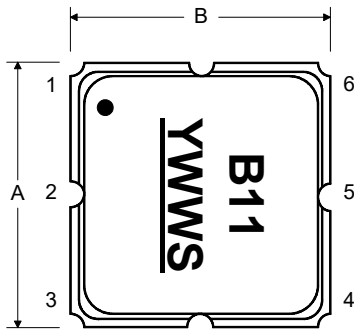
Case and PCB Footprint Dimensions

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	1.40	0.044	0.049	0.055
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	

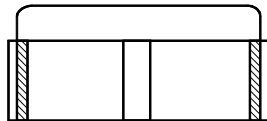
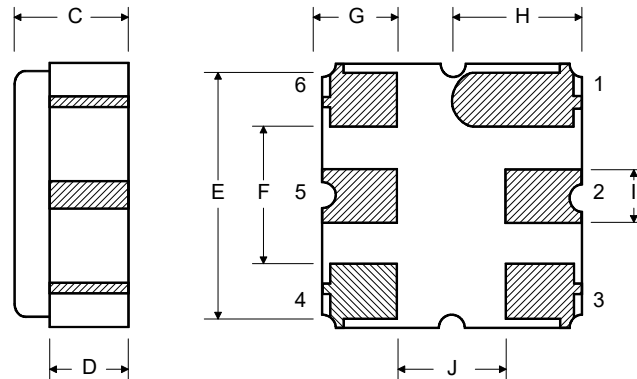
Case Materials

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

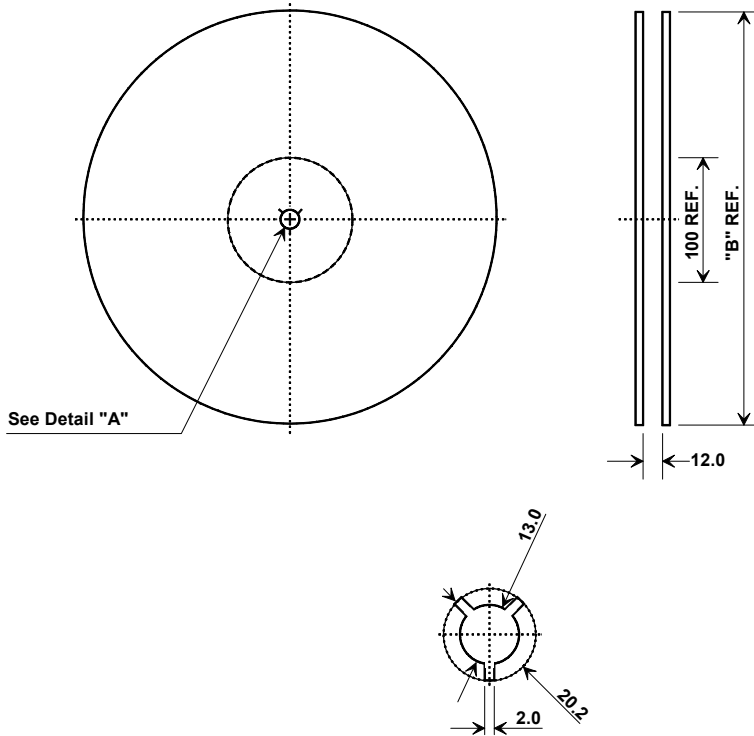


Bottom View



Tape and Reel Specifications

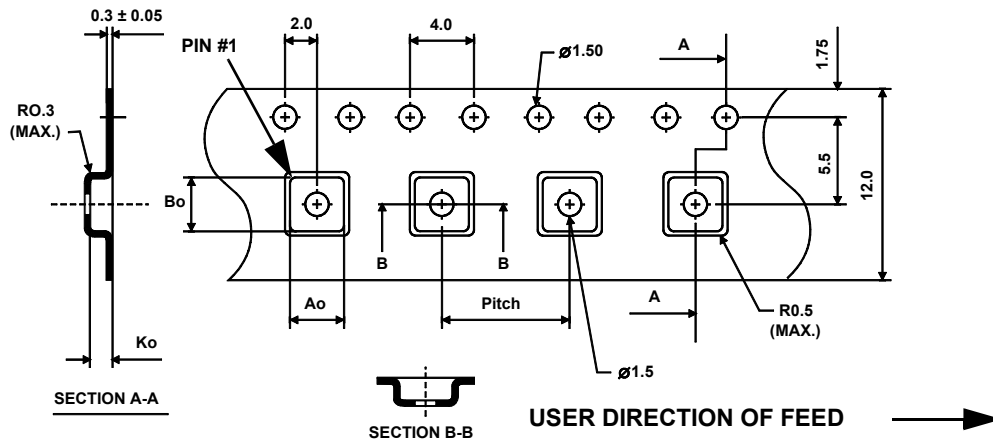
Tape and Reel Standard per ANSI/EIA-481



"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.

