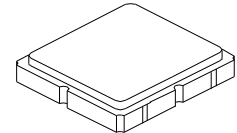


SF2345E-1

**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	16	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to + 125	°C
Specification Temperature Range	-30 to +100	°C
Storage Temperature Range in Tape and Reel	-40 to +125	°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			2594		MHz
Pass Band Width			194	293		
Max Insertion Loss, 2496 to 2690 MHz 2555 to 2655 MHz	IL max			3.69	5.0	dB
				3.7	4.5	
Amplitude Ripple, 2490 to 2690 MHz 2555 to 2655 MHz	$\Delta\alpha$			1.0	3.0	
				0.63	1.4	
Input Return Loss, 2490 to 2690 MHz 2555 to 2655 MHz			7.5	8.1		
			7.5	8.1		
Output Return Loss, 2490 to 2690 MHz 2555 to 2655 MHz			7.5	8.1		
			7.5	8.1		
Attenuation Referenced to 0 dB:						dB
10 to 1880 MHz			16	21.65		
1880 to 1920 MHz			18	22.50		
1920 to 2000 MHz			19	22.65		
2000 to 2010 MHz			20	23.65		
2010 to 2025 MHz			20	23.85		
2025 to 2300 MHz			20	23.48		
2300 to 2400 MHz			6.3	12.25		
2800 to 3000 MHz			5.5	8.85		
3000 to 3500 MHz			25	26.85		
3500 to 4000 MHz			16	24.25		
Source Impedance - L1	Z_S			50		Ω
Load Impedance - L2	Z_L			50		Ω
Temperature Coefficient	ppm/K			-80		

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization, Y=year, WW=week, S=shift, Dot=pin 1 indicator	6E, <u>Y</u> WWS

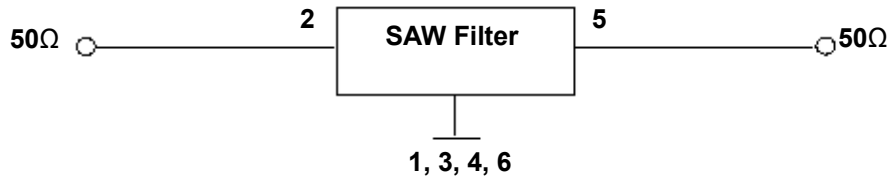
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

NOTES:

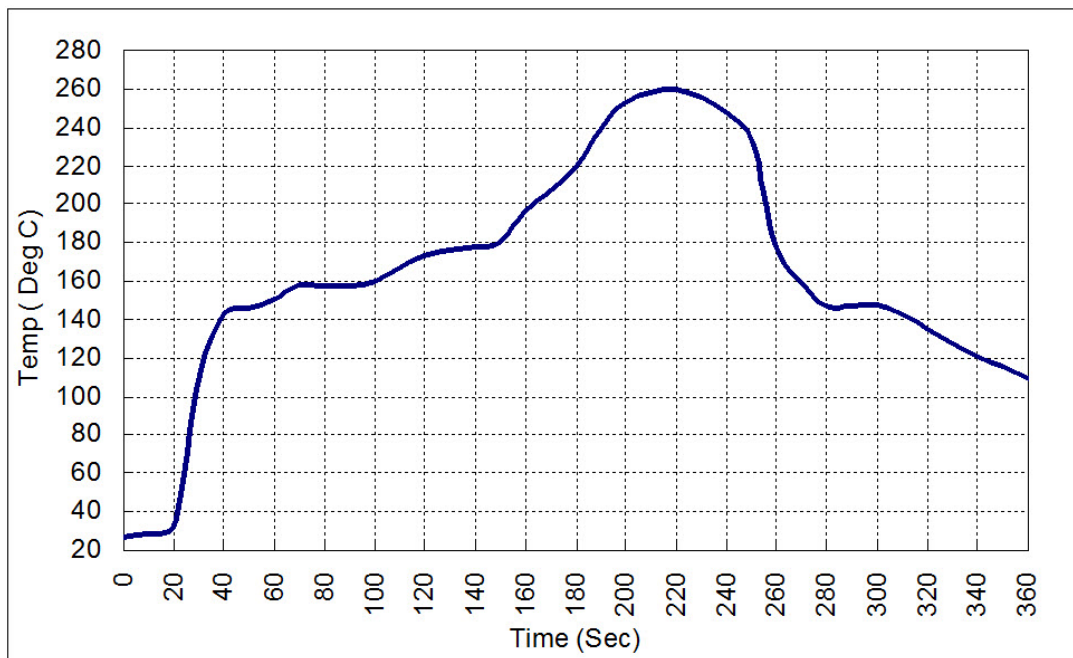
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Electrical Connections

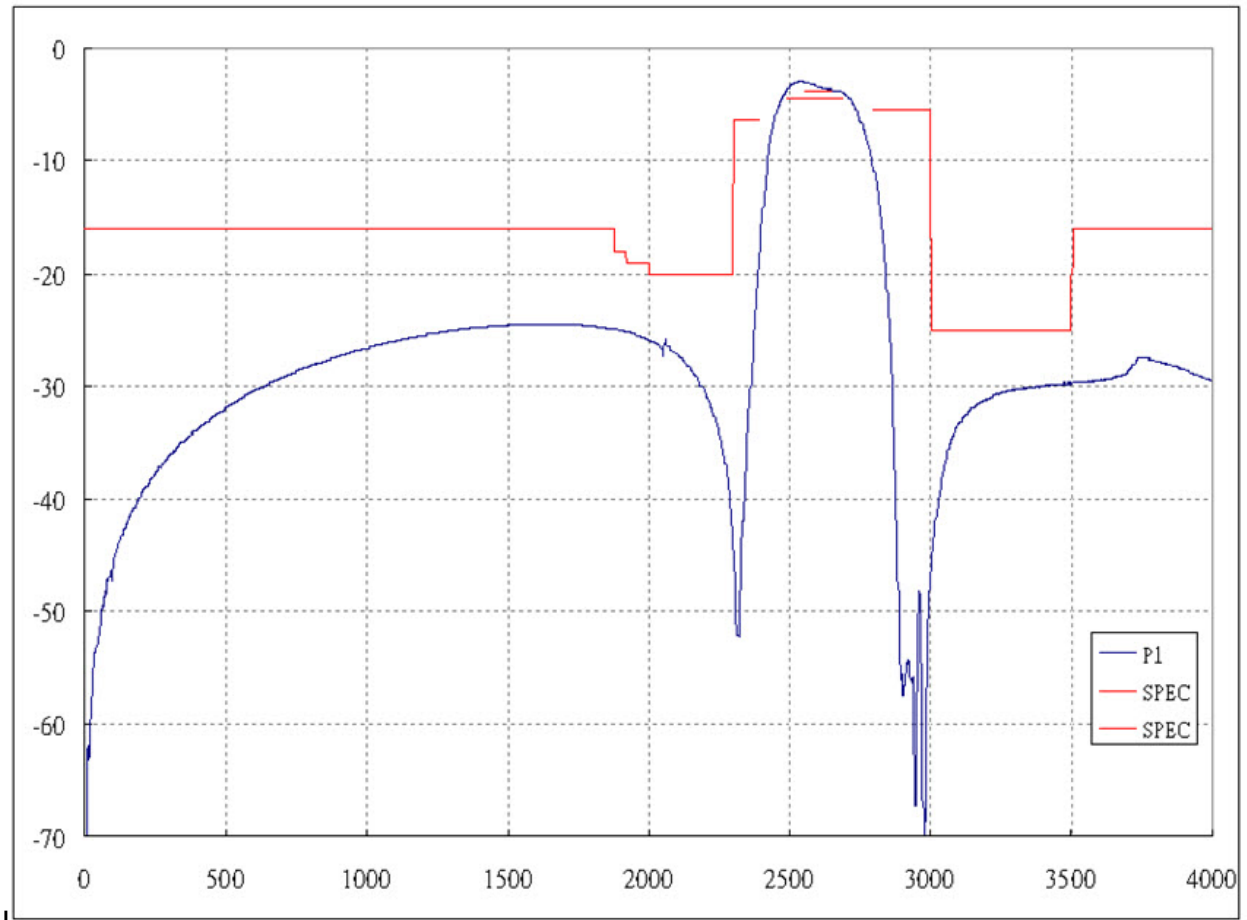
Connection	Terminals
Port 1	2
Port 2	5
Case Ground	All others



Recommended Reflow Profile

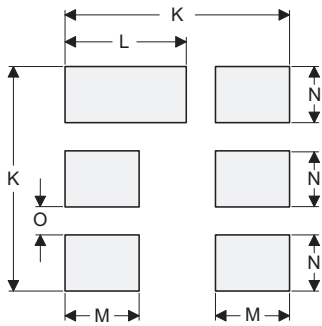
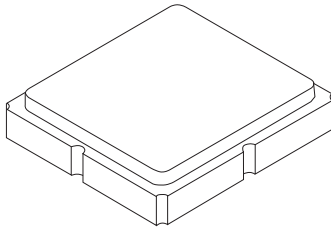


Frequency Characteristics



SM3030-6 Case

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



PCB Footprint Top View

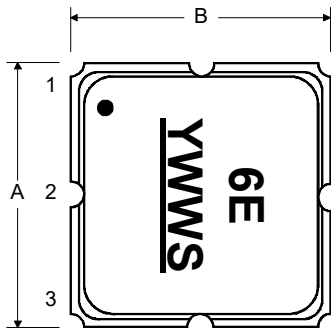
Case and PCB Footprint Dimensions

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	

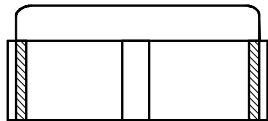
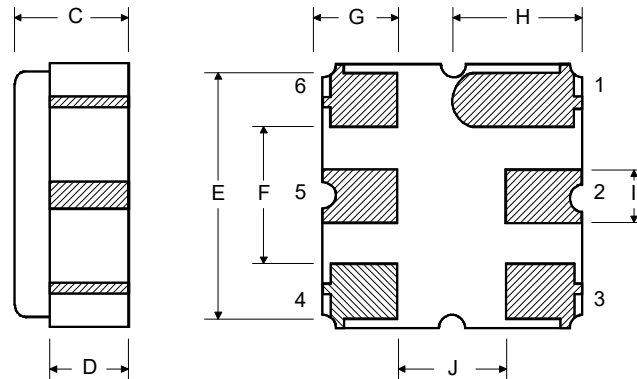
Case Materials

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

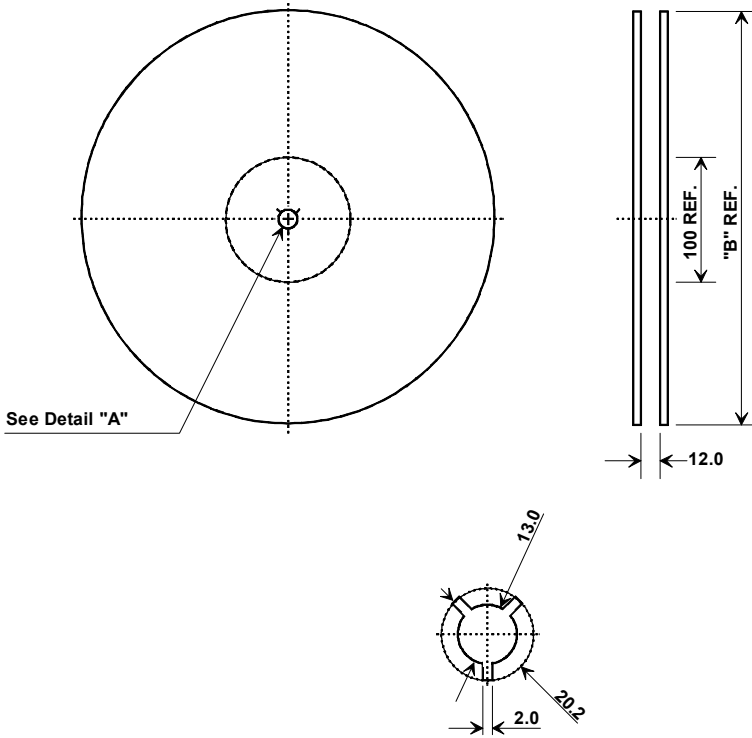


Bottom View



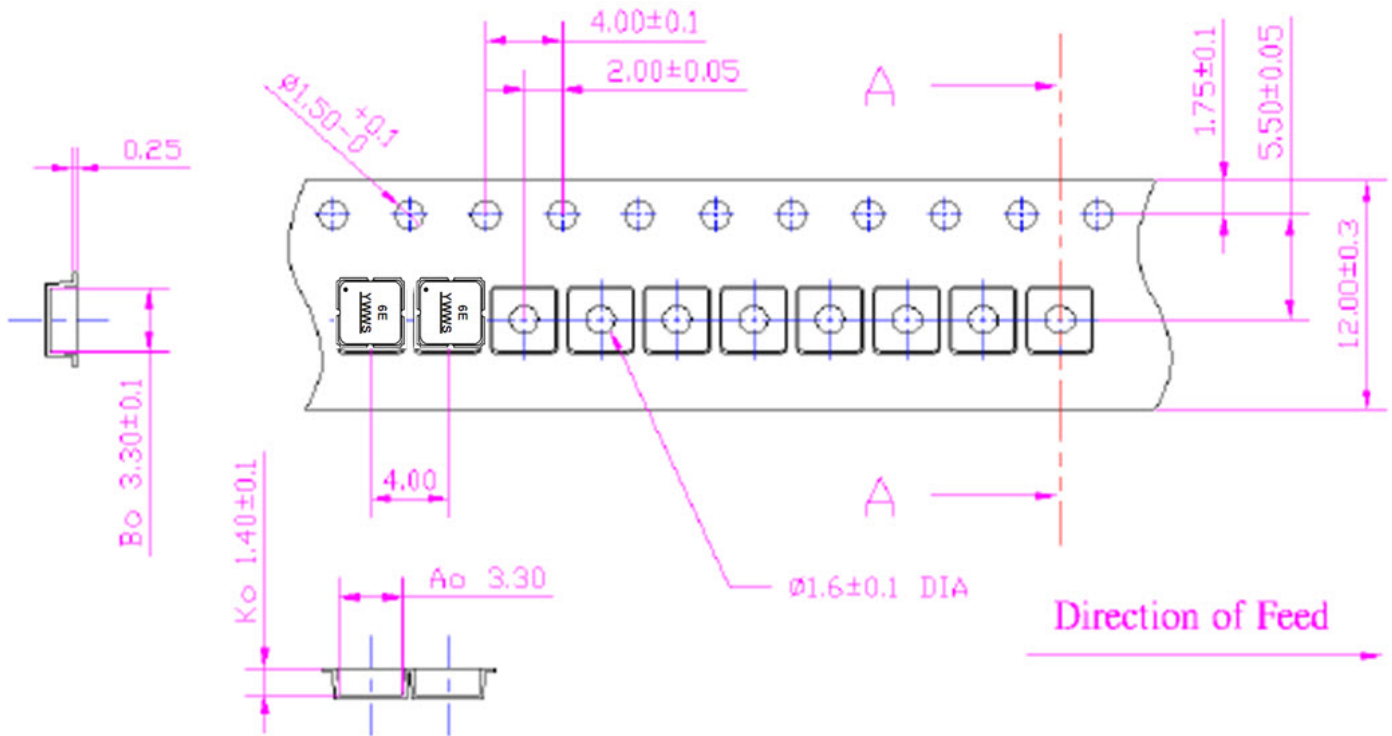
Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481



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

COMPONENT ORIENTATION and DIMENSIONS



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.

