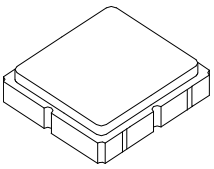
PRELIMINARY

RFM products are now Murata products.

SF2345E

2593 MHz SAW Filter

- ***Steep Roll-off SAW Filter for 2593 MHz Unlicensed Band***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM3030-6

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. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. The design, manufacturing process, and specifications of this filter are subject to change.
5. US and international patents may apply.
6. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

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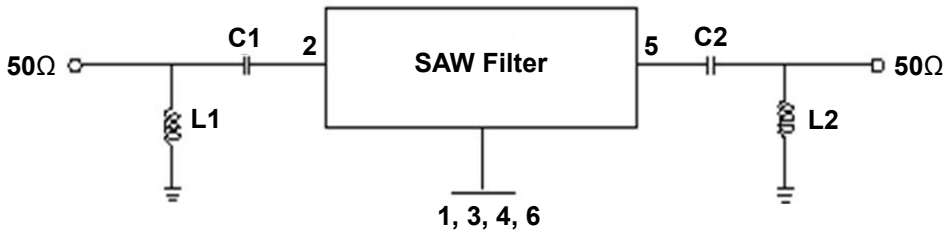
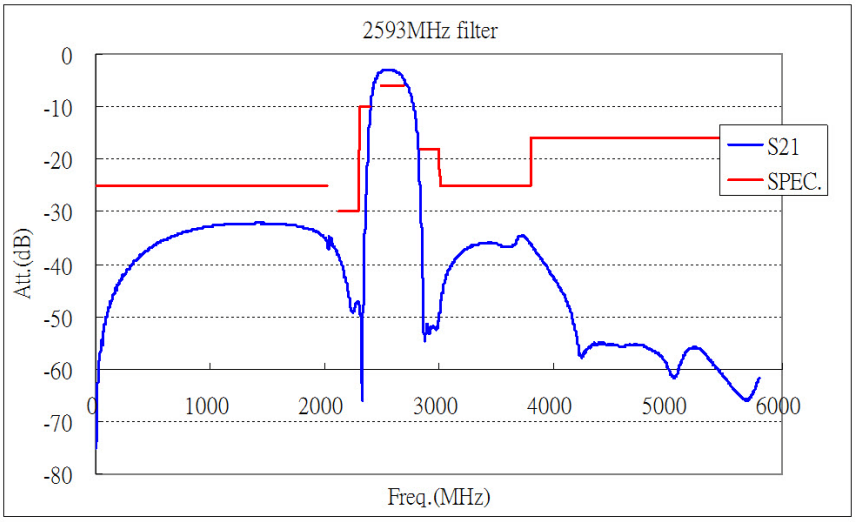
Electrical Connections

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

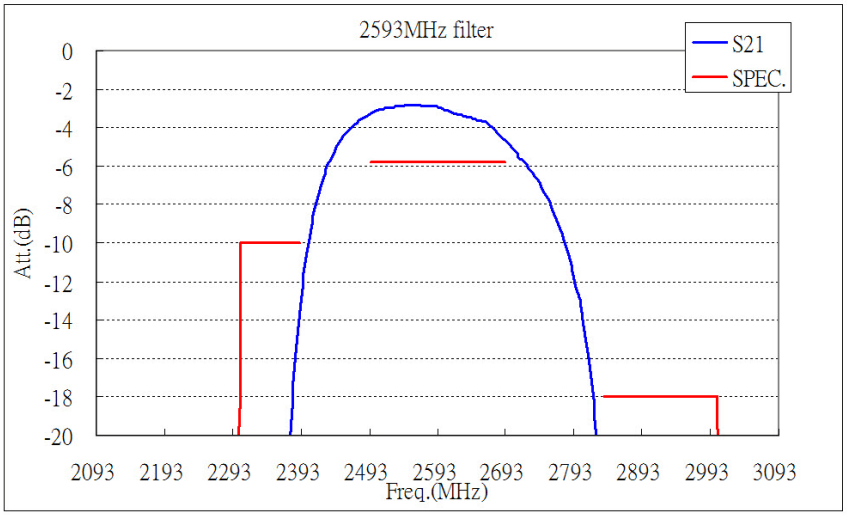


Frequency Characteristics

Wide Band Response: (span 6GHz)



Pass Band Response: (span 100MHz)



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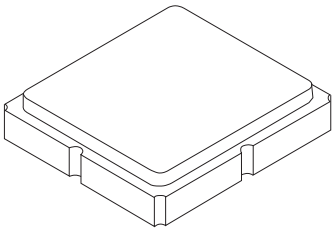
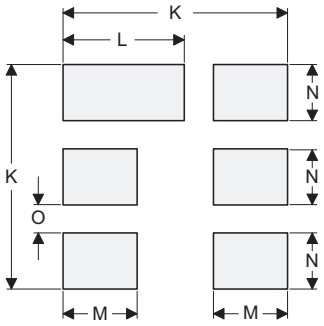
SM3030-6 Case

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





PCB Footprint Top View

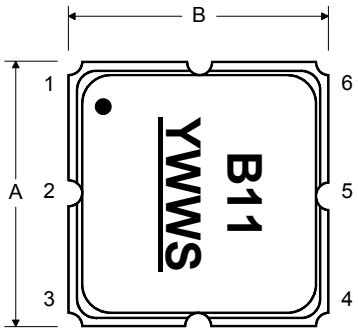
Case and PCB Footprint Dimensions

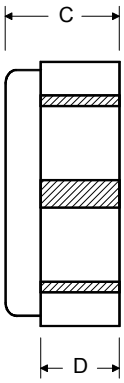
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.40	0.044	0.049	0.055
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	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

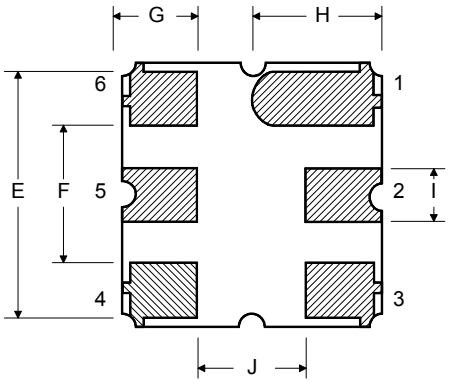
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

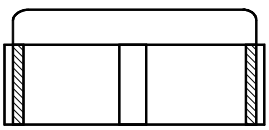
Top View





Bottom View





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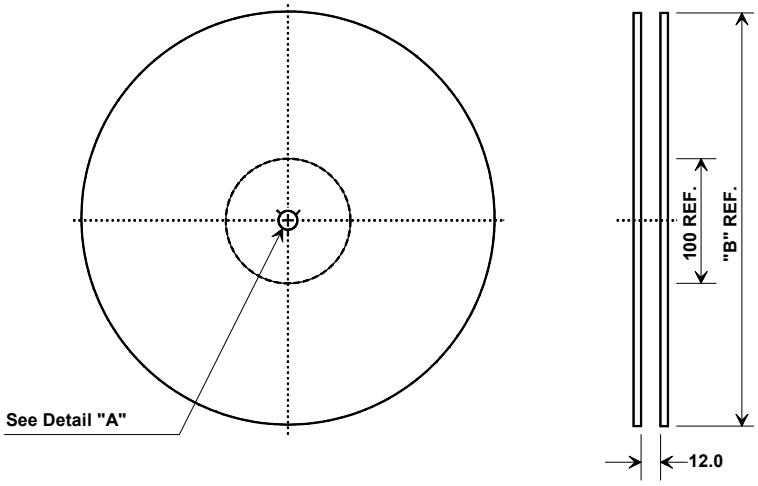
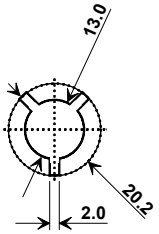
Tape and Reel Specifications

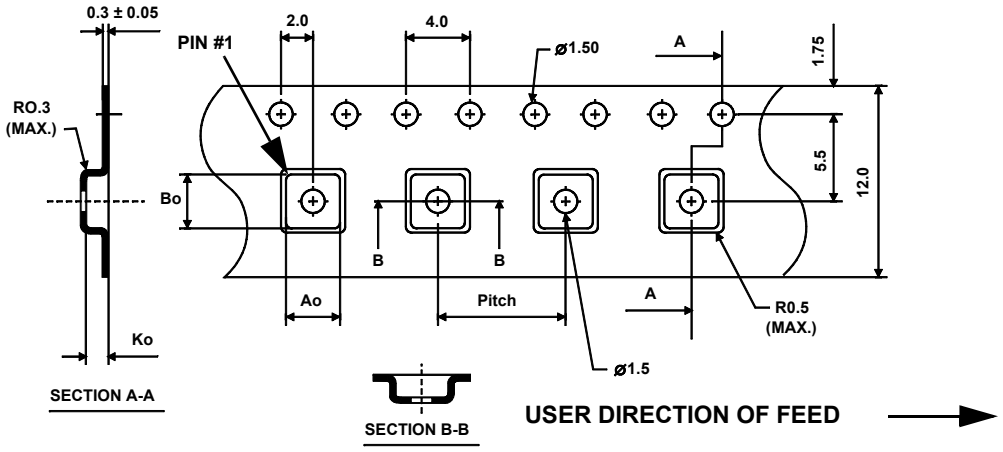




"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

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



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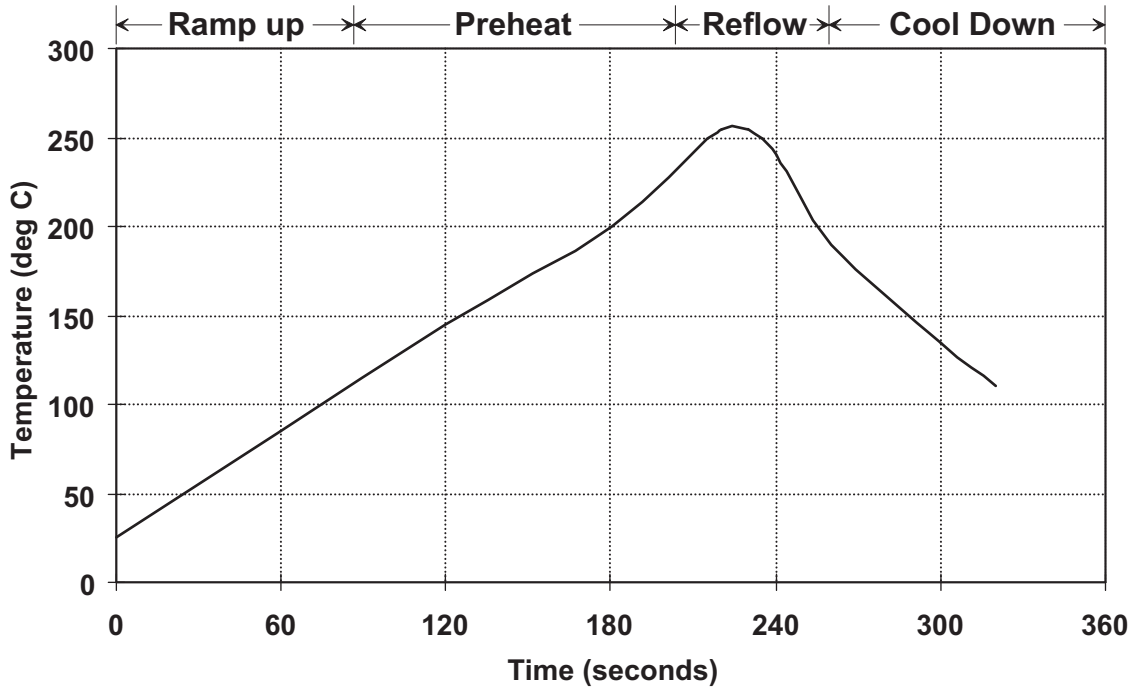
Typical Solder Reflow Profile



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