

SM3030-6

- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

RoHS
Compliant

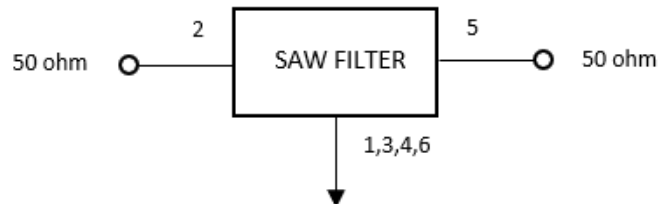
Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	+20	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-20 to +70	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Moisture Sensitivity Level	1	MSL
Minimum Soldering Profile, 5 Cycles Maximum	265°C for 10 seconds	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			611.0		MHz
Insertion Loss @611 MHz 608 - 614 MHz				2.5	3.0	dB
				3.0	3.5	
Amplitude Ripple 608 - 614 MHz	p-p			0.5	1.0	dB
Group Delay Ripple 608 - 614 MHz	GDR			12	35	ns
				12	45	
Attenuation, reference to 0 dB						dB
DC to 593 MHz			40.0	45.0		
628 to 700 MHz			43.0	47.0		
700 to 1120 MHz			40.0	43.0		
1120 to 2000 MHz			35.0	40.0		
1120 to 2000 MHz			32.0	40.0		
2000 to 3000 MHz			30.0	34.0		
2000 to 3000 MHz			27.0	34.0		
Temperature Coefficient of Frequency				-36		Ppm/°C
Case Style	SMD 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	D1, <u>YWWS</u>					
Nominal Impedance	50Ω					

Measurement Circuit



Note: Matching not needed for 50 ohm input and output impedances.

Electrical Connections

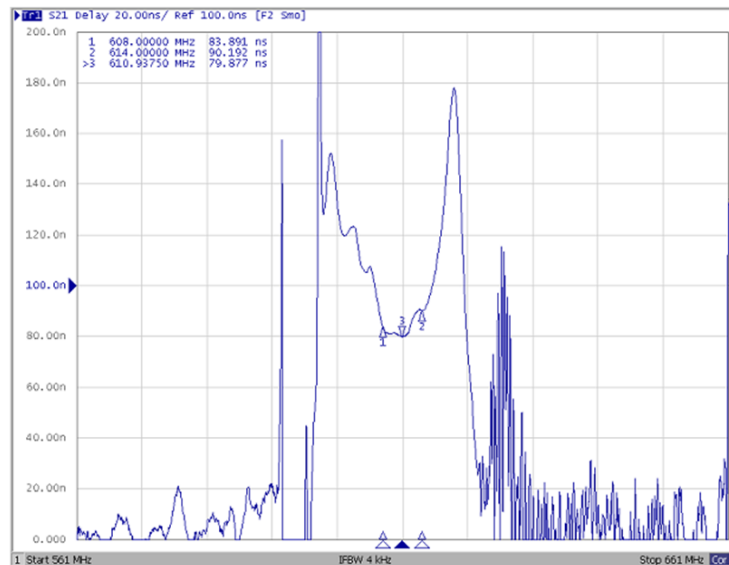
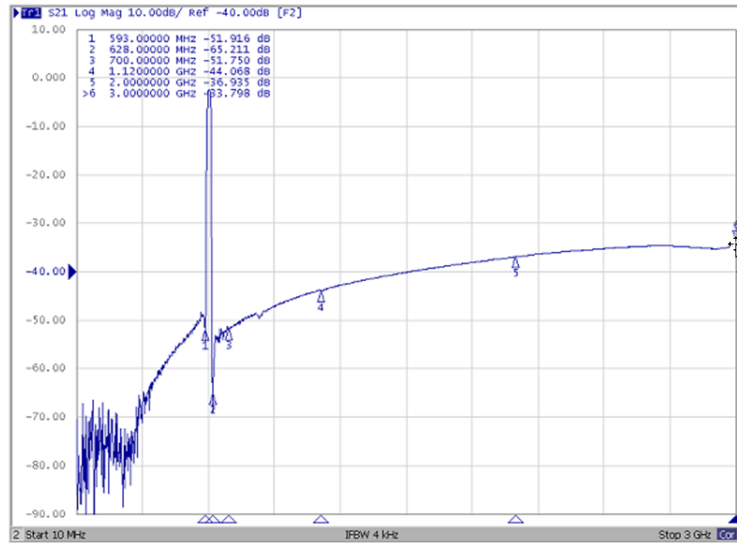
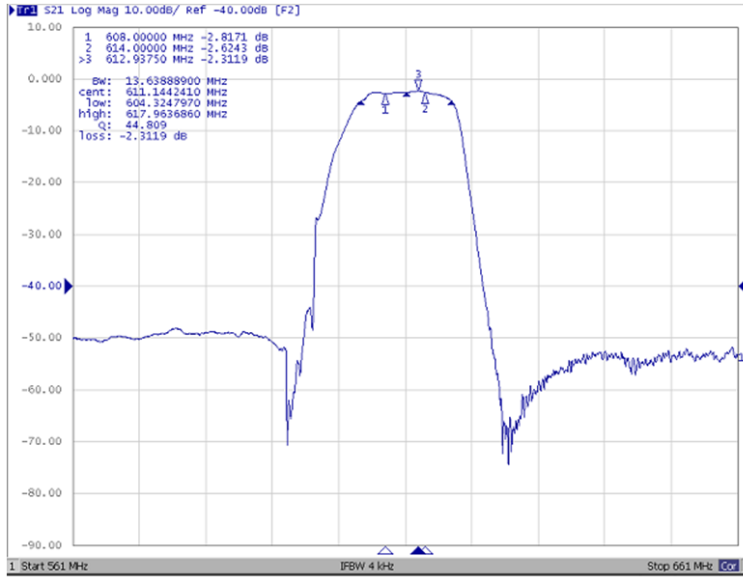
Connection	Terminals
Input	2
Output	5
Ground	All Others

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

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

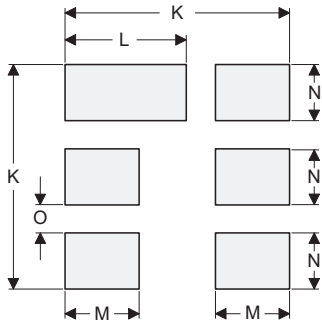
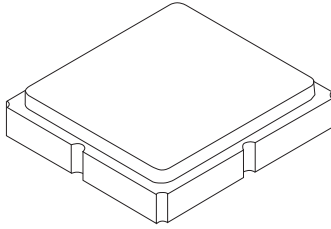
Frequency Characteristics:



SM3030-6 Ceramic 6-Terminal Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

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	-
P	0.15	0.30	0.45	0.005	0.011	0.017
Q	0.07	0.20	0.36	0.002	0.007	0.014
R	0.62	0.7	0.78	0.024	0.027	0.030



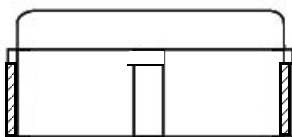
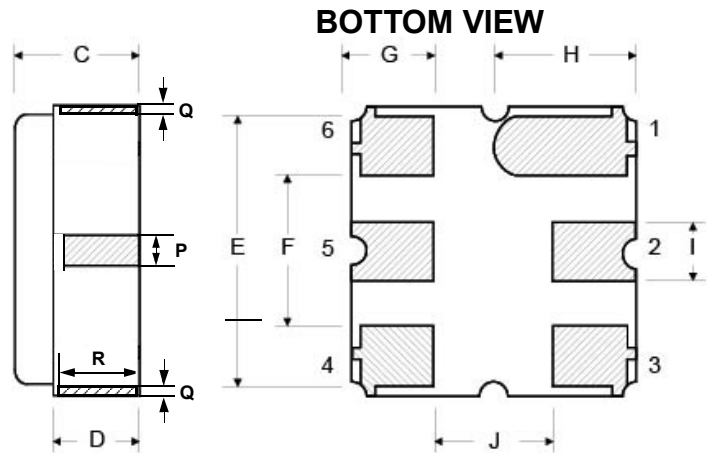
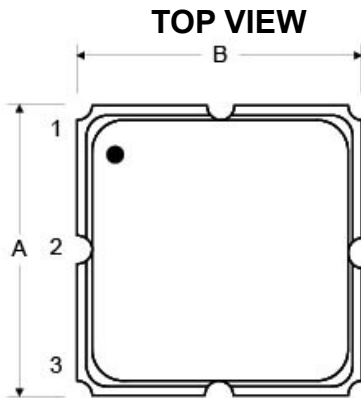
PCB Footprint Top View

Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O ₃ Ceramic
Pb Free	

Electrical Connections

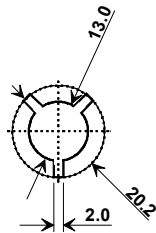
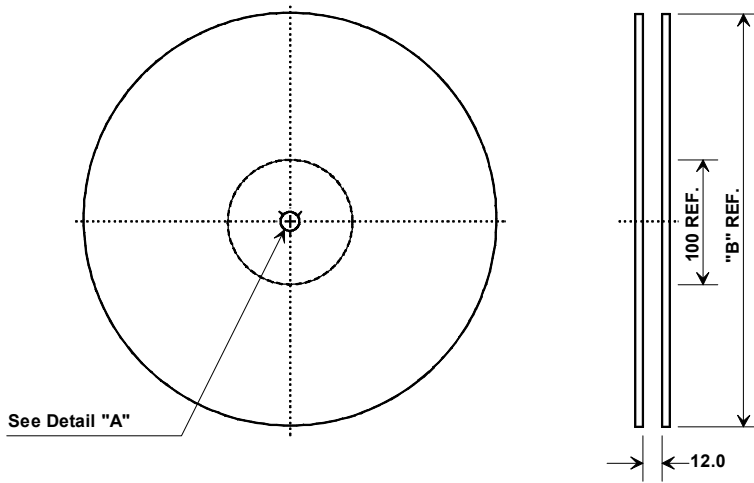
Connection	Terminals
Input	2
Output	5
Case Ground	All others



Tape and Reel Specifications

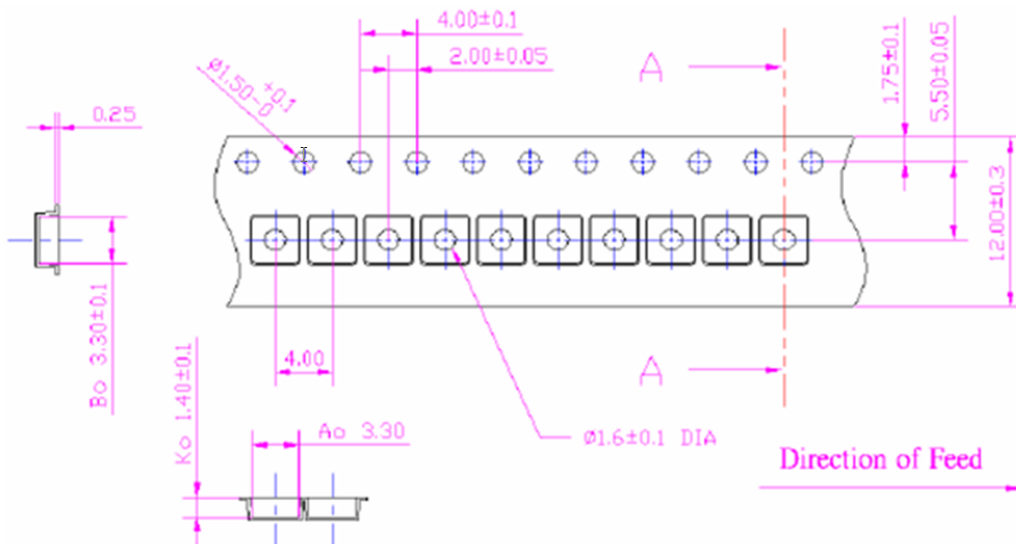
Tape and Reel Standard per ANSI/EIA-481

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



COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.30 mm
Bo	3.30 mm
Ko	1.40 mm
Pitch	4.00 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.

