

SM3030-6

Complies with Directive 2002/95/EC (RoHS)



Absolute Maximum Ratings

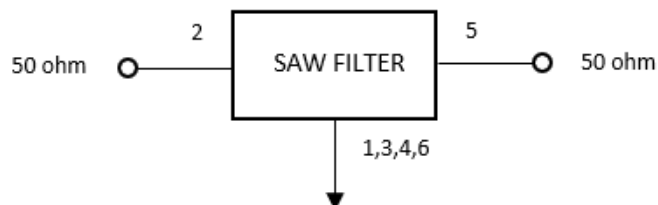
Rating	Value	Units
Input Power Level	+20	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-20 to +70	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Moisture Sensitivity Level	1	MSL
Minimum Soldering Profile, 5 Cycles 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				2.5	3.0	dB
608 - 614 MHz				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
608 - 614 MHz				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, YWWS
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

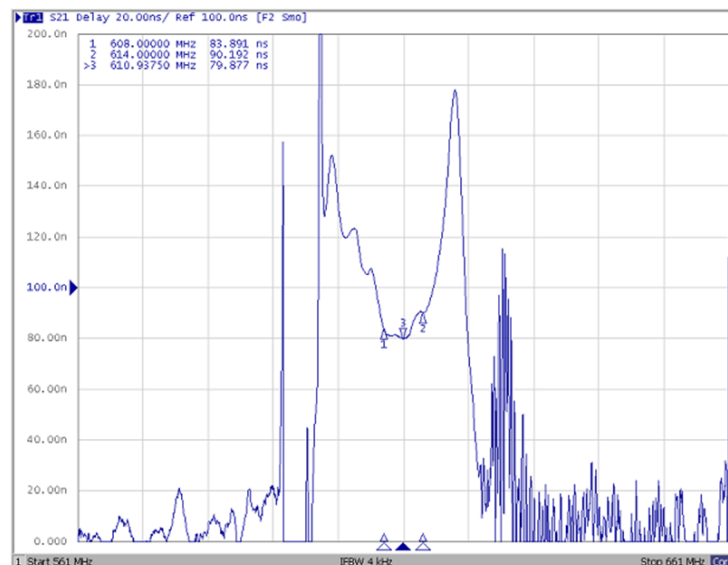
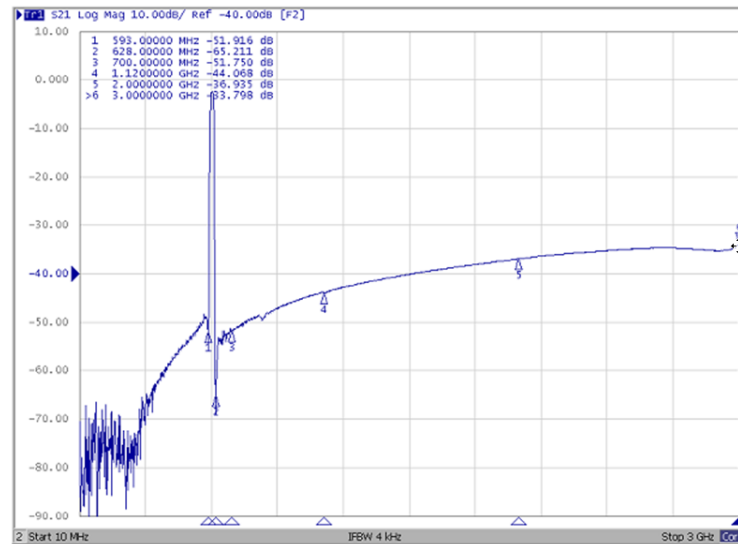
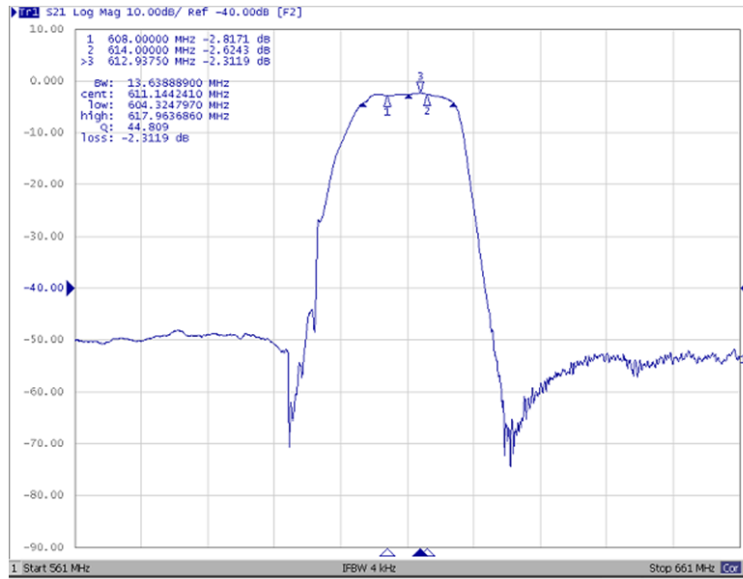


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

Frequency Characteristics:

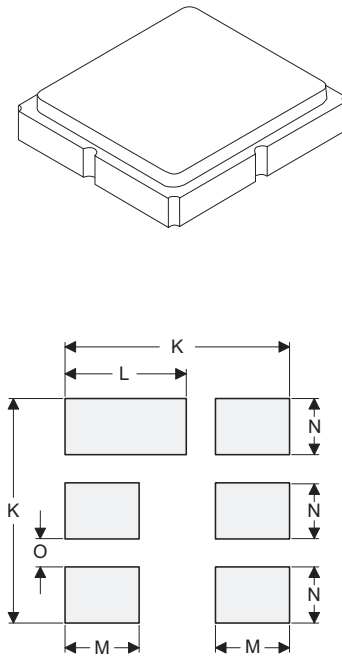


SM3030-6 Ceramic 6-Terminal Surface-Mount Case

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



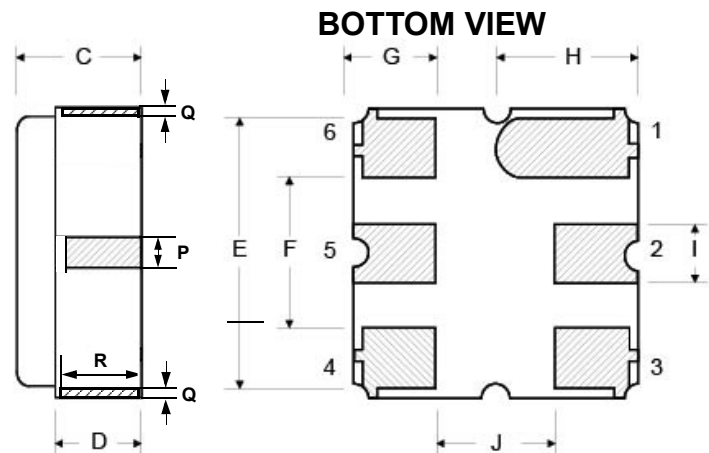
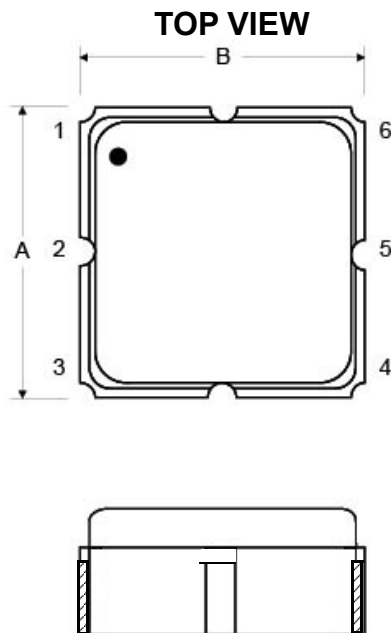
PCB Footprint Top View

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

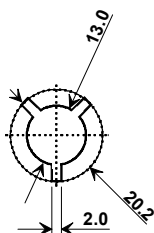
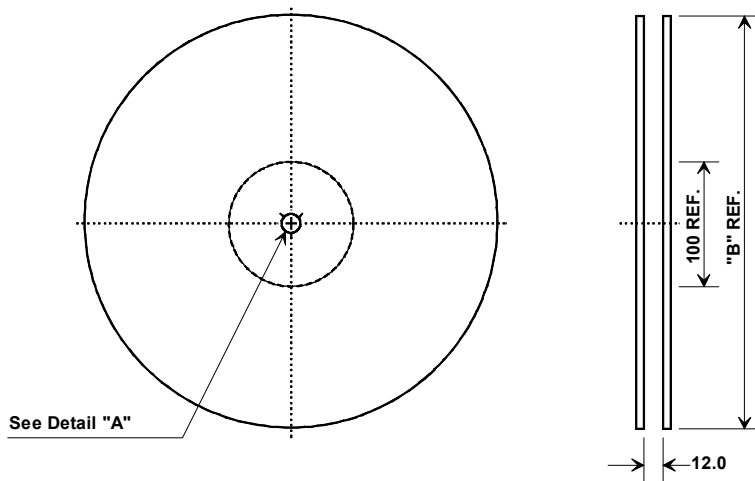
Connection	Terminals
Input	2
Output	5
Case Ground	All others



Tape and Reel Specifications

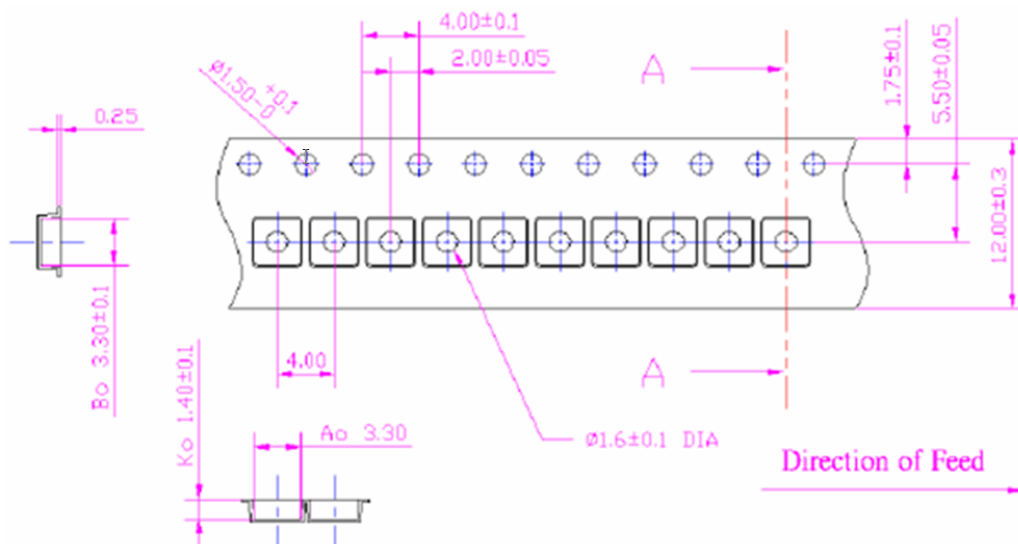
Tape and Reel Standard per ANSI/EIA-481

"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.



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[RFMi:](#)

[SF2469E-1](#)