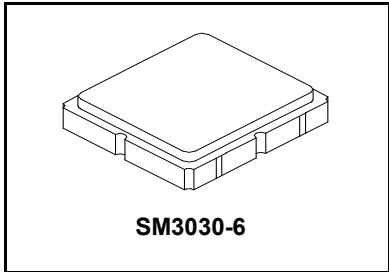


**SF2412E**

**925 MHz  
SAW Filter**



- Surface Mount 3.0 x 3.0 mm Package
- Complies with Directive 2002/95/EC (RoHS)



**Absolute Maximum Ratings**

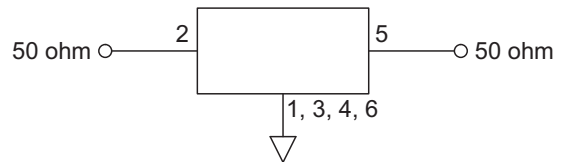
Rating	Value	Units
Input Power Level	18	dBm
DC Voltage on any Non-ground Terminal	5	V
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$	1		925		MHz
Insertion Loss 922 to 928 MHz	IL			2.6	3.8	dB
Amplitude Ripple 922 to 928 MHz				0.7	2.0	
Insertion Loss, (920 to 930 MHz)	IL			3.2	4.6	
Amplitude Ripple, (920 to 930 MHz)				0.7	2.0	
Attenuation, Referenced from 0 dB:						dB
775 to 835 MHz			40	46		
835 to 895 MHz			36	45		
945 to 960 MHz			24	34		
970 to 992 MHz			36	46		
992 to 1075 MHz			38	44		
Source Impedance $Z_S$				50		$\Omega$
Load Impedance $Z_L$				50		
Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	7V, YWWS					

**Electrical Connections**

Connection	Terminals
Input	2
Output	5
Case Ground	All others



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

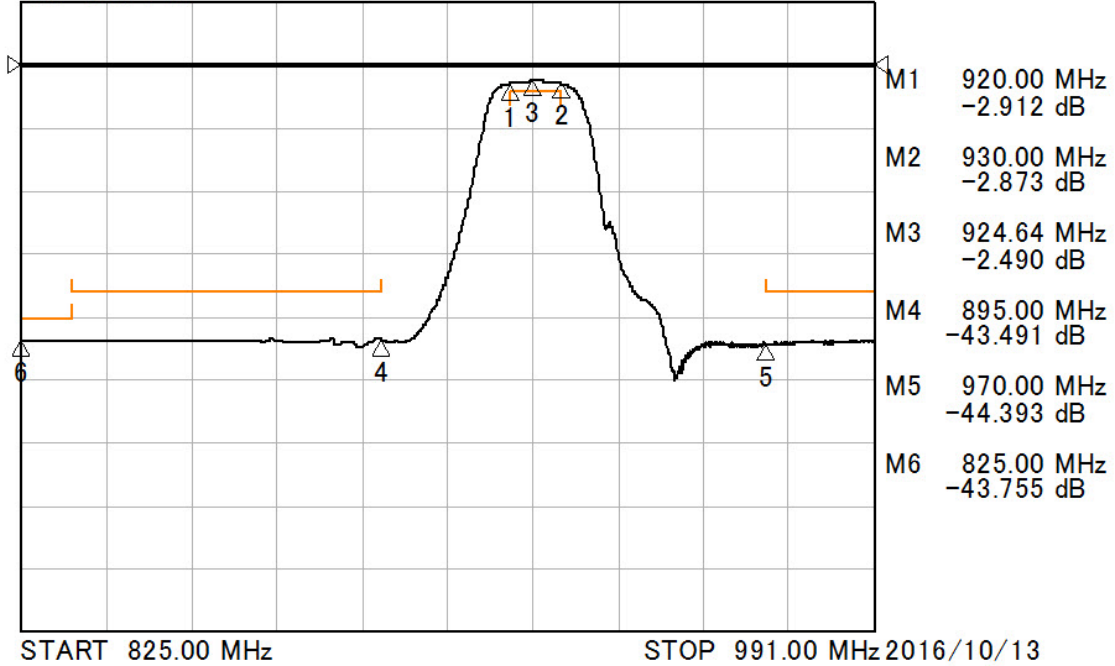
**NOTES:**

1. No matching network required for operation at 50 $\Omega$ .
2. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50  $\Omega$  and measured with 50  $\Omega$  network analyzer.
3. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_c$ .
4. 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.
5. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
6. The design, manufacturing process, and specifications of this filter are subject to change.
7. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
8. US and international patents may apply.
9. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

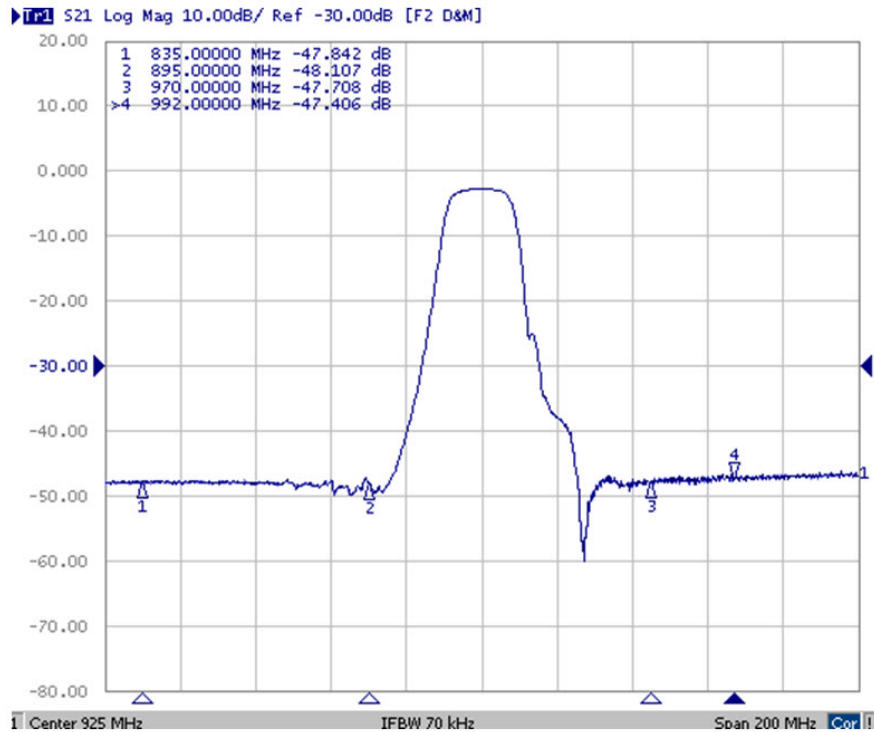
# Transfer Function

Format: LogMag REF: 0dB

S21 10dB/div

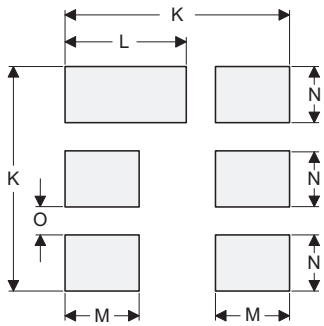
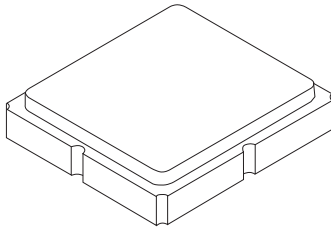


# Wideband



# SM3030-6 Case

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



PCB Footprint Top View

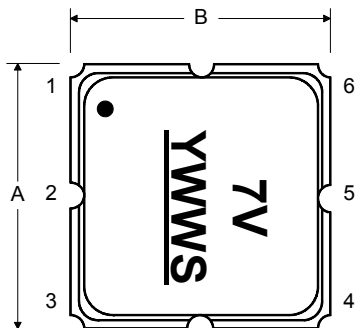
### Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	-	3.00	-	-	0.118	-
B	-	3.00	-	-	0.118	-
C	-	-	1.40	-	-	0.054
D	-	-	1.00	-	-	0.039
E	-	2.80	-	-	0.110	-
F	-	1.60	-	-	0.063	-
G	-	0.85	-	-	0.033	-
H	-	1.50	-	-	0.059	-
I	-	0.60	-	-	0.024	-
J	-	1.30	-	-	0.051	-
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	-

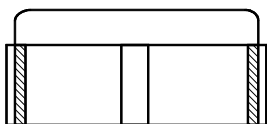
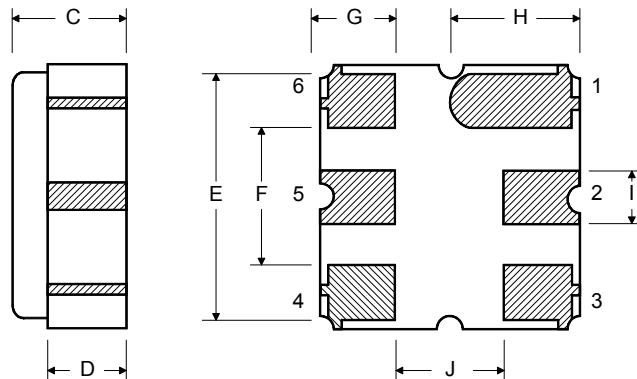
### Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel
Lid Plating	2.0 to 3.0 $\mu\text{m}$ Nickel
Body	$\text{Al}_2\text{O}_3$ Ceramic
Pb Free	

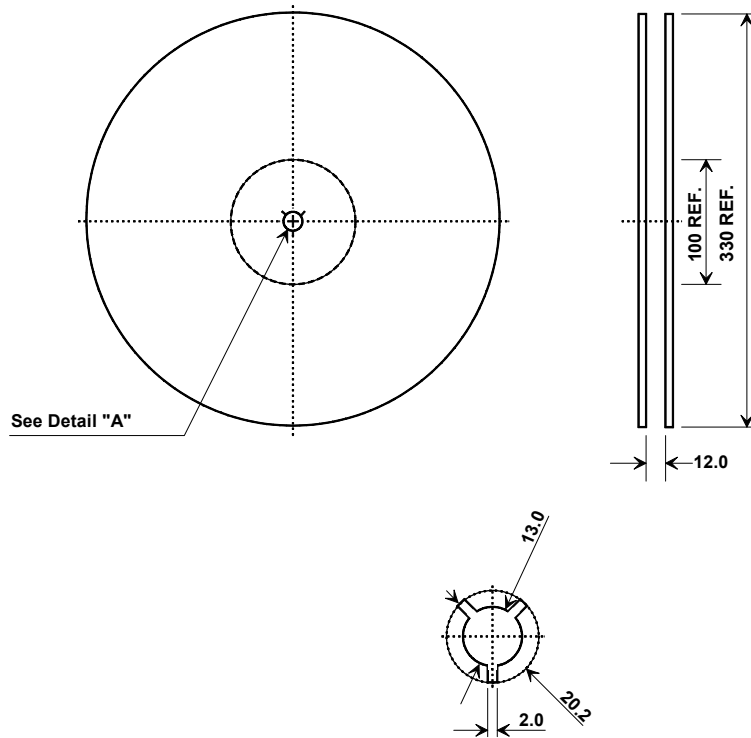
### TOP VIEW



### BOTTOM VIEW



## Tape and Reel Specifications



### 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

