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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









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

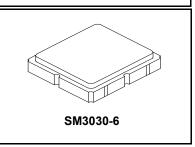


#### **Absolute Maximum Ratings**

| 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    |

## **SF2412E**

# 925 MHz **SAW Filter**



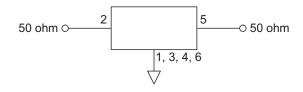
#### **Electrical Characteristics**

| Characteristic                     | Sym                                     | Notes | Min | Тур | Max | Units |
|------------------------------------|---|-------|-----|-----|-----|-------|
| Center Frequency                   | f <sub>C</sub>                          | 1     |     | 925 |     | MHz   |
| Insertion Loss 922 to 928 MHz      | IL                                      |       |     | 2.9 | 3.8 |       |
| Amplitude Ripple 922 to 928 MHz    |   |       |     | 0.7 | 2.0 | -10   |
| Insertion Loss, (920 to 930 MHz)   | IL                                      |       |     | 2.9 | 4.6 | dB    |
| Amplitude Ripple, (920 to 930 MHz) |   |       |     | 0.8 | 2.8 |       |
| Attenuation, Referenced from 0 dB: |   |       |     |     |     |       |
| 775 to 835 MHz                     |   |       | 40  | 46  |     |       |
| 835 to 895 MHz                     |   |       | 36  | 45  |     | dB    |
| 970 to 992 MHz                     |   |       | 36  | 46  |     | T UB  |
| 992 to 1075 MHz                    |   |       | 38  | 44  |     |       |
| Source Impedance Z <sub>S</sub>    |   |       |     | 50  |     | Ω     |
| Load Impedance Z <sub>L</sub>      |   |       |     | 50  |     | 5.2   |
| Casa Styla                         | SM3030.6 3.0 v 3.0 mm Nominal Footprint |       |     |     |     |       |

| '  |   |
|--|---|
| 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 |



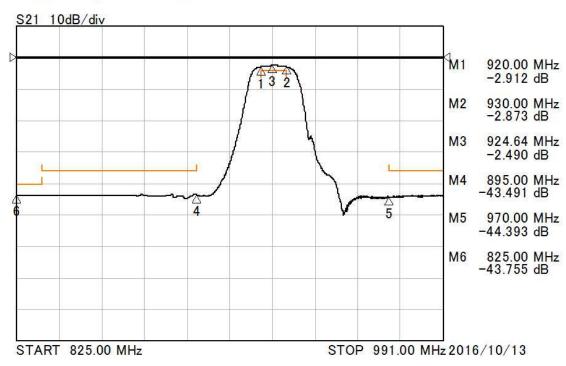
#### **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.** NOTES:

- No matching network required for operation at  $50\Omega$ .
- 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.
- Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
- 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.
- "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
- The design, manufacturing process, and specifications of this filter are subject to change.
- 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.

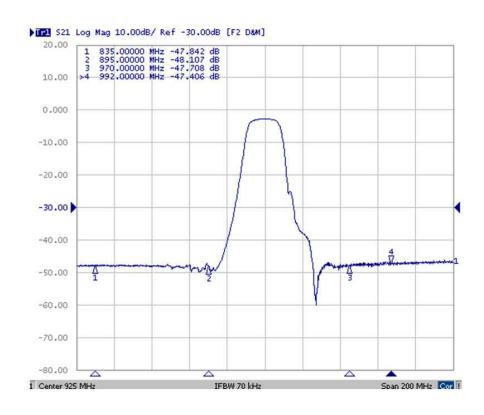
  Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

## **Transfer Function**



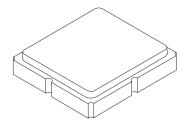


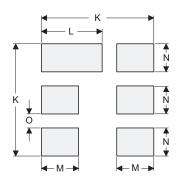
### Wideband



# **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**

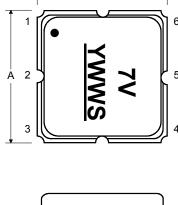
| Dimension   | mm  |      | Inches |     |       |       |
|-------------|-----|------|--------|-----|-------|-------|
| Dilliension | Min | Nom  | Max    | Min | Nom   | Max   |
| Α           | -   | 3.00 | -      | -   | 0.118 | -     |
| В           | -   | 3.00 | -      | -   | 0.118 | -     |
| С           | -   | -    | 1.40   | -   | -     | 0.054 |
| D           | -   | -    | 1.00   | -   | -     | 0.039 |
| E           | -   | 2.80 | -      | -   | 0.110 | -     |
| F           | -   | 1.60 | -      | -   | 0.063 | -     |
| G           | -   | 0.85 | -      | -   | 0.033 | -     |
| Н           | -   | 1.50 | -      | -   | 0.059 | -     |
| I           | -   | 0.60 | -      | -   | 0.024 | -     |
| J           | -   | 1.30 | -      | -   | 0.051 | -     |
| K           | -   | 3.20 | -      | -   | 0.126 | -     |
| L           | -   | 1.70 | -      | -   | 0.067 | -     |
| М           | -   | 1.05 | -      | -   | 0.041 | -     |
| N           | -   | 0.81 | -      | -   | 0.032 | -     |
| 0           | -   | 0.38 | -      | -   | 0.015 | -     |

#### **Case Materials**

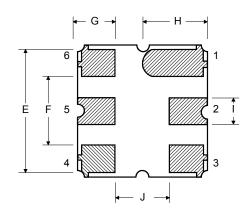
| Materials             |  |  |  |  |
|-----------------------|--|--|--|--|
| Solder Pad<br>Plating | 0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel |  |  |  |
| Lid Plating           | 2.0 to 3.0 µm Nickel                           |  |  |  |
| Body                  | Al <sub>2</sub> O <sub>3</sub> Ceramic         |  |  |  |
| Pb Free               |  |  |  |  |

#### **TOP VIEW**

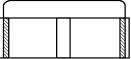
- B -



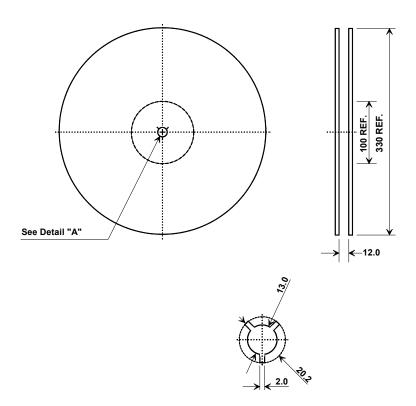
**←** D →



**BOTTOM VIEW** 



#### **Tape and Reel Specifications**



#### **COMPONENT ORIENTATION and DIMENSIONS**

| Carrier Tape Dimensions |         |  |  |  |
|-------------------------|---------|--|--|--|
| Ao                      | 3.35 mm |  |  |  |
| Во                      | 3.35 mm |  |  |  |
| Ко                      | 1.40 mm |  |  |  |
| Pitch                   | 8.0 mm  |  |  |  |
| W                       | 12.0 mm |  |  |  |

