



Total Solution Provider in Saw Device

SA70RD

70.0MHz IF SAW Filter

0.3 MHz Bandwidth

Revision 1: 29. Oct. 2007



- Electrical Characteristics
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-

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Electrical Characteristics

Maximum Ratings

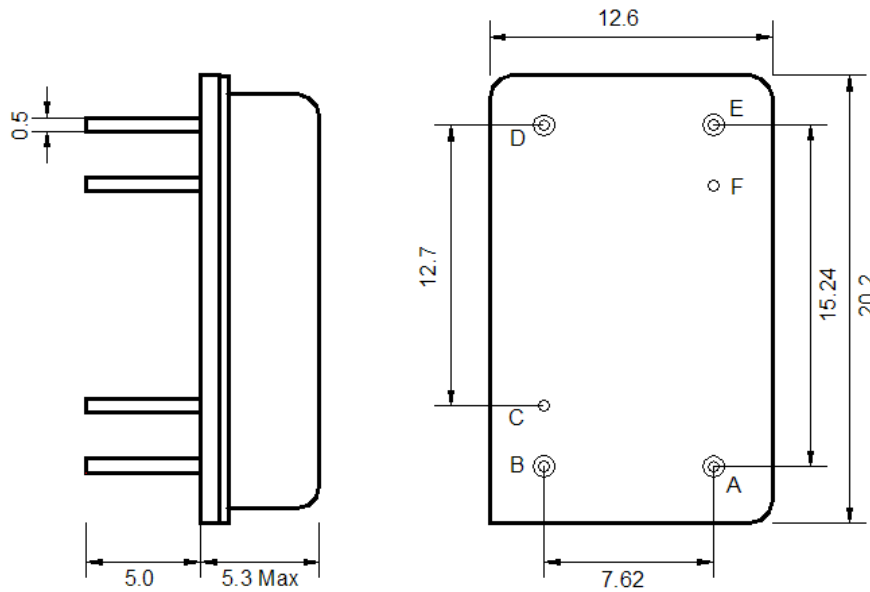
| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|-----------------|---------|-----------|---------|
| Operating Temperature Range | °C | -55 | - | 85 |
| Storage Temperature Range | °C | -55 | - | 85 |
| Maximum DC Voltage | V | - | - | 10 |
| Maximum Input Power | dBm | - | - | 10 |
| Source Impedance (single ended) ⁽¹⁾ | Ω | - | 50 | - |
| Load Impedance (single ended) ⁽¹⁾ | Ω | - | 50 | - |
| Package type & size | D | | | |
| Length x Width | mm ² | - | 20.2x12.6 | - |
| Height | mm | - | - | 5.3 |

Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|---|-------------------|---------|---------|---------|
| Center Frequency (Fo) | MHz | 69.9 | 70.0 | 70.1 |
| Insertion Loss at Fo | dB | - | 13.5 | 16.0 |
| Amplitude Ripple Variation at Fo±100KHz | dB _{p-p} | - | 1.2 | 1.5 |
| Group Delay Variation | nsec | - | 300 | 1000 |
| Absolute Delay at Fo | µsec | - | 2.63 | - |
| Temperature Coefficient | ppm/°C | - | -0.03 | - |
| Bandwidth at -1.0 dB | MHz | 0.12 | 0.18 | |
| Bandwidth at -3.0 dB | MHz | 0.20 | 0.34 | - |
| Bandwidth at -40.0 dB | MHz | - | 1.10 | 1.20 |
| Ultimate Attenuation | dB | 60 | 65 | - |
| Ultimate Rejection | dB | 45 | 50 | - |

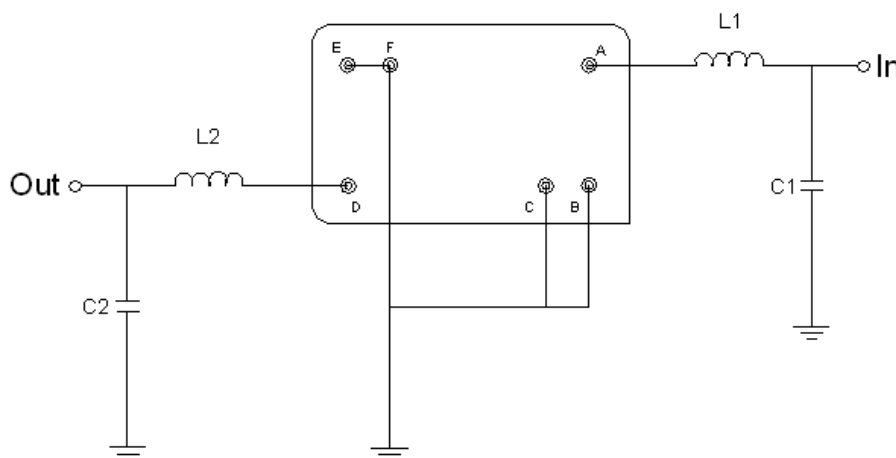
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
 Those impedances could be modified with different impedance values and/or structures, if necessary.

Package Dimensions



| Pin Description | |
|-----------------|--------|
| B, C, E, F | Ground |
| A | Input |
| D | Output |

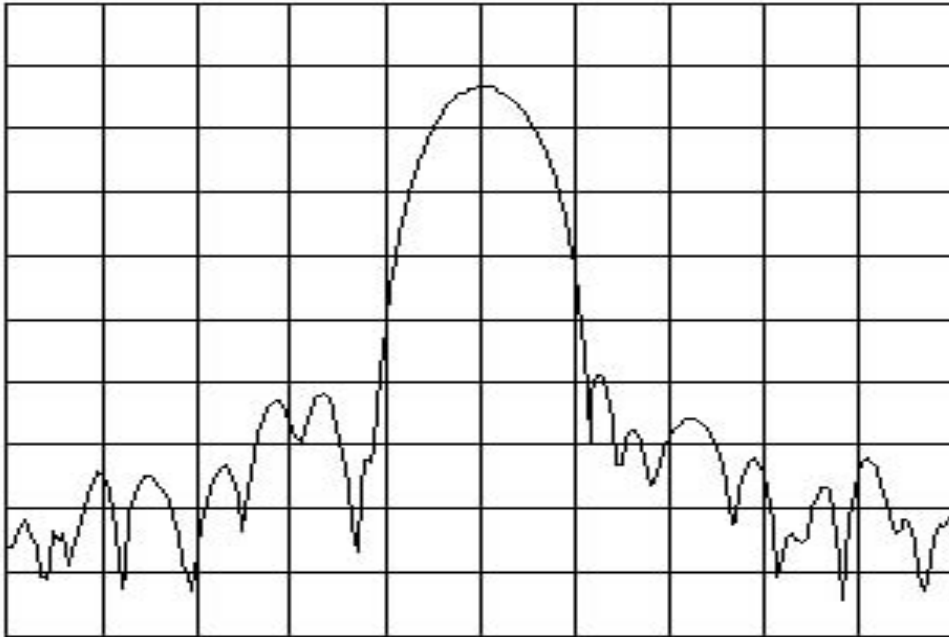
Testing Environment



| Test Fixture & Values | |
|-----------------------|-------------------------|
| Input | L1 = 180 nH , C1 = 62pF |
| Output | L2 = 180 nH , C2 = 62pF |
| Source/Load Impedance | 50 Ω |

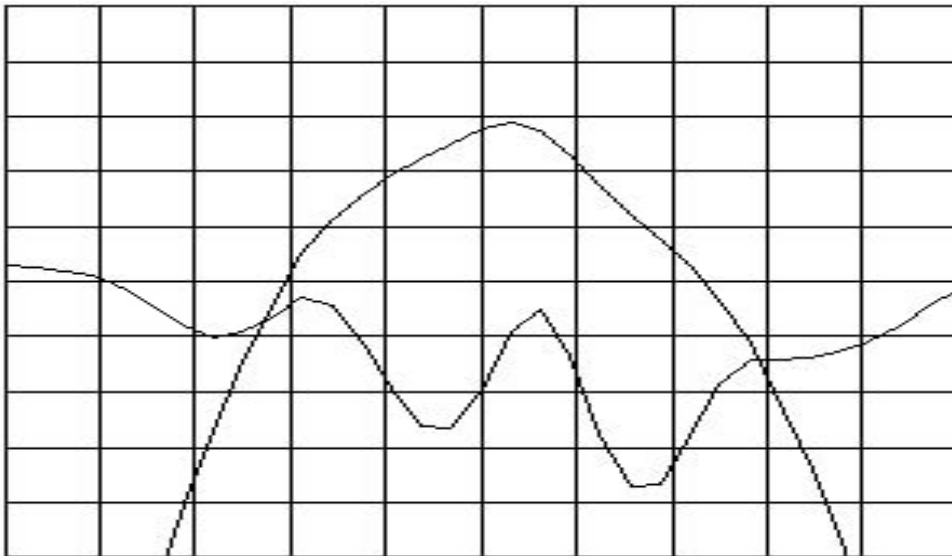
□ Frequency Characteristics

Frequency Response



Horizontal : 0.5 MHz/Div

Vertical : 10 dB/Div



Horizontal : 0.8 MHz/Div

Vertical : 1 dB/Div

Vertical : 100nsec/Div