



*Total Solution Provider in Saw Device*

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# SA70YD

70.0 MHz IF SAW Filter  
11.9 MHz Bandwidth  
Revision 1: 29. Oct. 2007



- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
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**SAWNICS Inc.**

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460 Cheonheung-ri, Seonggeo-eup, Cheonan-si, Chungcheongnam-do, 330-836 / Korea.  
Tel: +82 41 550 9372 / Fax: +82 41 550 9399 / [www.sawnics.com](http://www.sawnics.com)

## □ Electrical Characteristics

### Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-	80
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	D			
Length x Width	mm <sup>2</sup>	-	20.0 x 12.6	-
Height	mm	-	-	5.05

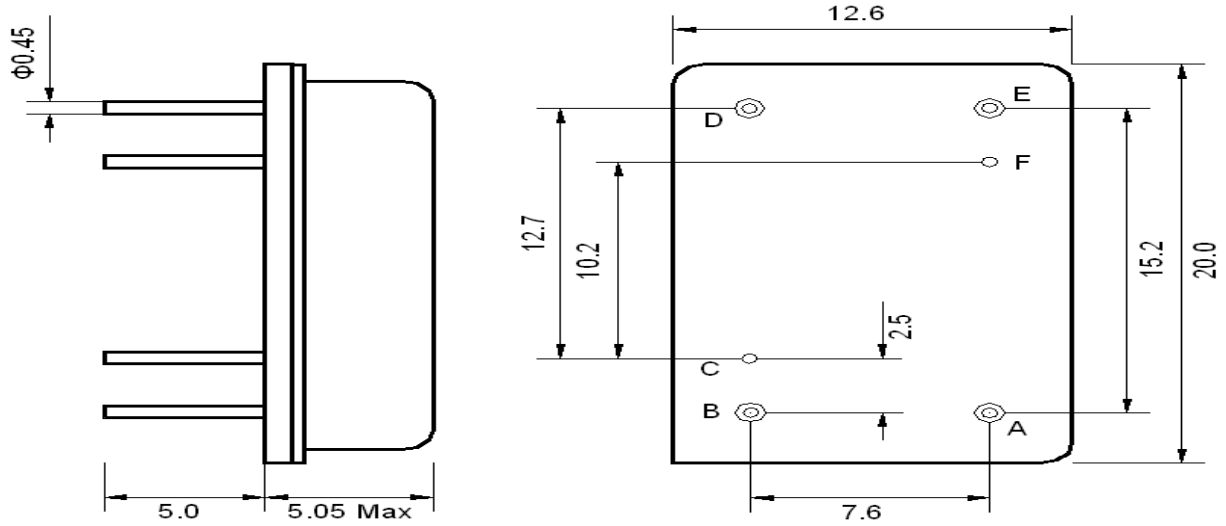
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.9	70.0	70.1
Insertion Loss at Fo	dB	-	23.0	26.0
Group Delay Variation	nsec	-	40	70
Absolute Delay at Fo	usec	-	2.28	-
Phase Linearity	deg	-	4.5	7.0
Passband Ripple Variation	dB	-	0.8	1.0
Bandwidth at -1dB	MHz	11.6	11.9	-
Bandwidth at -3dB	MHz	12.1	12.4	-
Bandwidth at -40dB	MHz	-	14.0	14.5
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-84	-

**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).

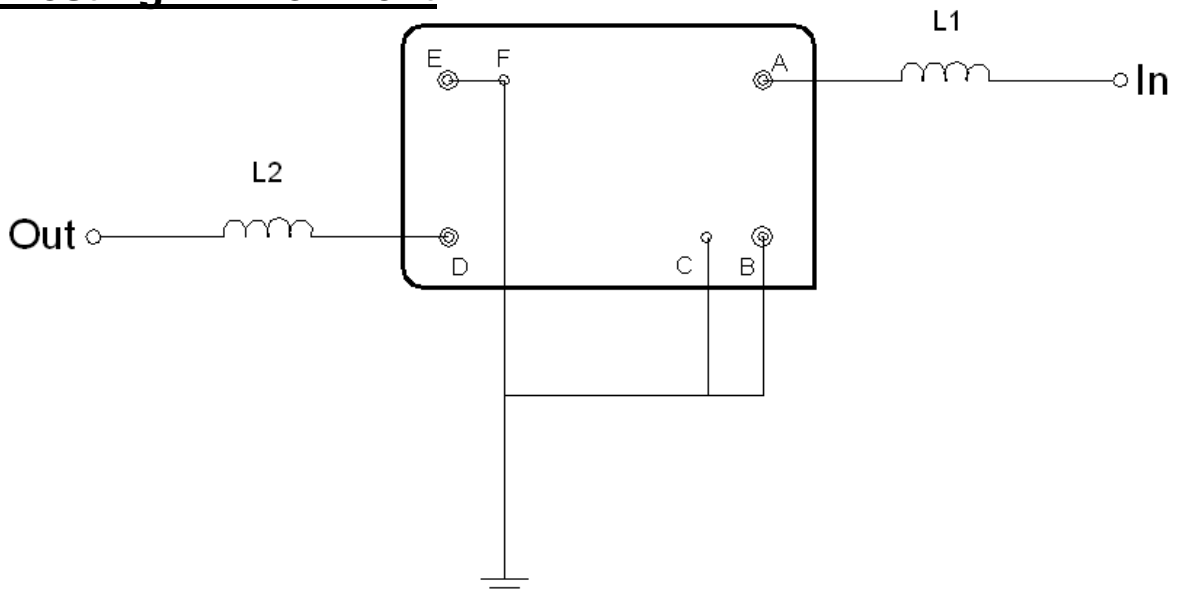
Those impedances could be modified with different impedance values and/or structures, if necessary.

**Package Dimensions**



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

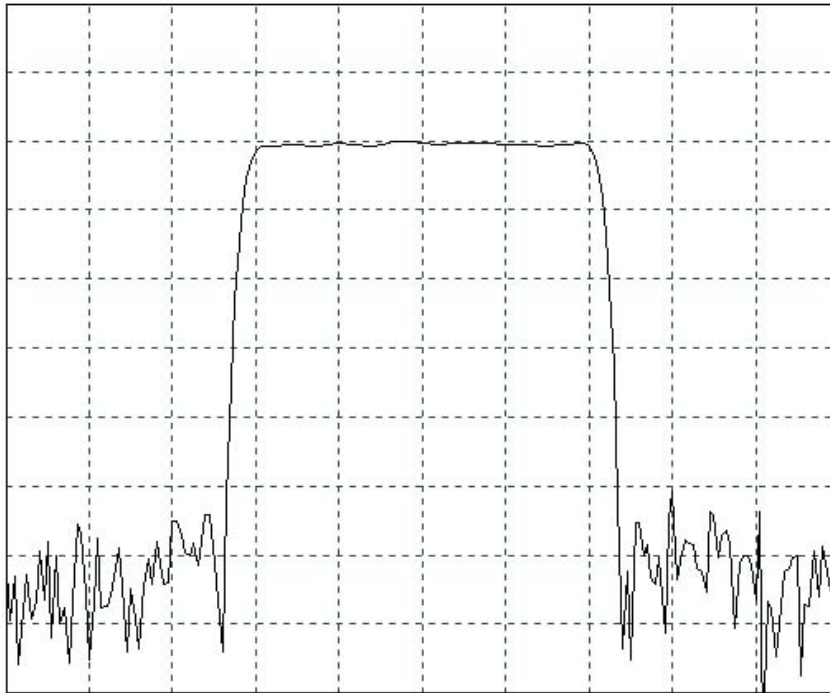
**Testing Environment**



Test Fixture & Values	
Input	L1 = 150 nH
Output	L2 = 3.3 nH
Source/Load Impedance	50 Ω

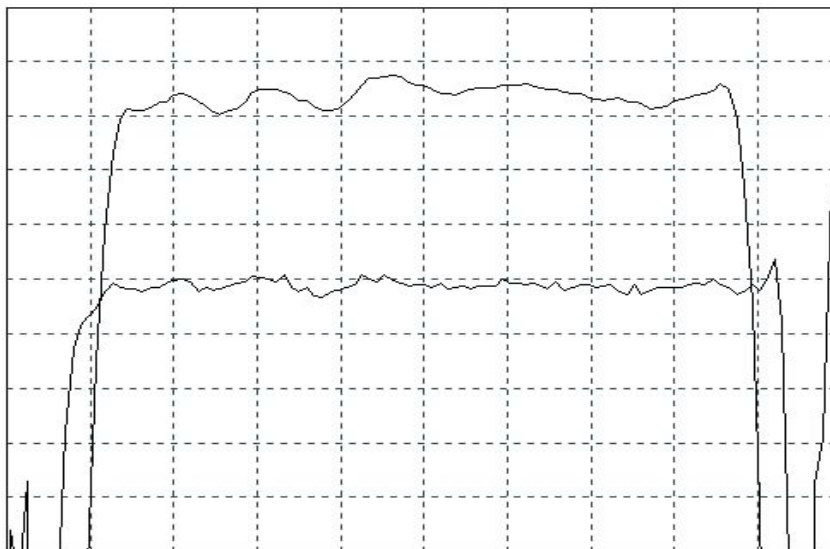
**□ Frequency Characteristics**

Frequency Response



Horizontal : 3.0 MHz/Div

Vertical : 10 dB/Div



Horizontal : 1.6 MHz/Div

Vertical : 1.0 dB/Div

Vertical : 100 ns/Div