



*Total Solution Provider in Saw Device*

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# SA120DD1

120.0 MHz IF SAW Filter  
20.25 MHz Bandwidth  
Revision 1: 29. Oct. 2007

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- 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

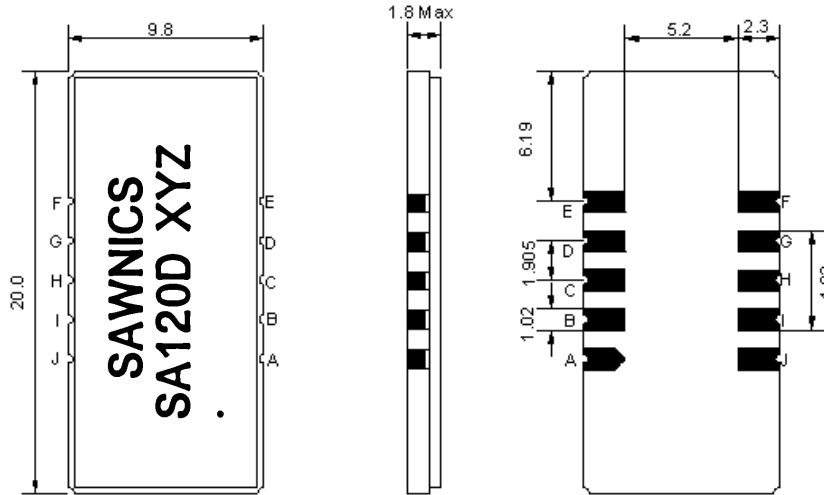
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-	80
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	D1			
Length x Width	mm <sup>2</sup>	-	20.0 x 9.8	-
Height	mm	-	-	1.8

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	120.00	120.10	120.20
Insertion Loss at Fo	dB	-	24.0	25.5
Amplitude Ripple Variation Fo ±9.75 MHz	dB <sub>p-p</sub>	-	0.55	1.0
Group Delay Variation at Fo ±9.75 MHz	nsec	-	50	100
Absolute Delay at Fo	μsec	-	2.2	-
Temperature Coefficient	ppm/°C	-	-72	-
Bandwidth at -1.0 dB	MHz	-	20.25	-
Bandwidth at -3.0 dB	MHz	20.40	20.55	-
Bandwidth at -40.0 dB	MHz	-	21.85	21.98
Lower Sidelobe	dB	50	55	-
Upper Sidelobe	dB	50	55	-

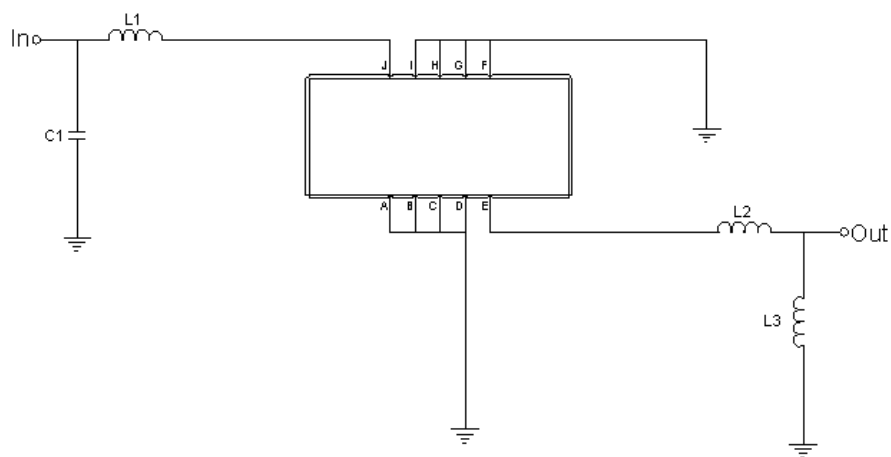
**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).  
Those impedances could be modified with different impedance values and/or structures, if necessary.

**Package Dimensions**



Pin Description	
A, B, C, D, F, G, H, I	Ground
J	Input
E	Output

**Testing Environment**



Test Fixture & Values	
Input	C1= 5 pF, L1= 56 nH
Output	L2= 5.6 nH, L3= 68 nH
Source/Load Impedance	50 Ω

## □ Frequency Characteristics

Frequency Response

