



Total Solution Provider in Saw Device

SA100CX

100.0MHz IF SAW Filter
0.47 MHz Bandwidth
Revision 1: 29. Oct. 2007



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
-

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□ Electrical Characteristics

Maximum Ratings

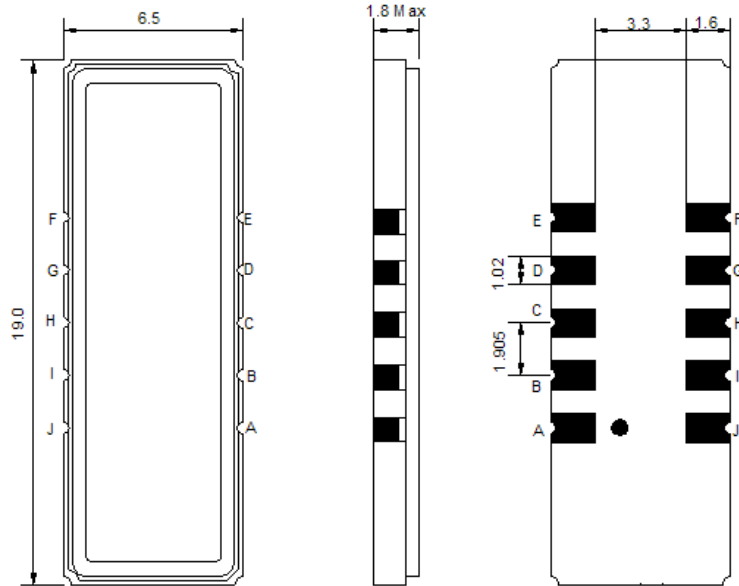
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-	80
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	X			
Length x Width	mm ²	-	19.0 x 6.5	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	99.91	100.00	100.09
Insertion Loss at Fo	dB	-	13.7	15.0
Group Delay Variation	nsec	-	250	500
Absolute Delay at Fo	usec	-	2.4	-
Phase Linearity	deg	-	3.0	6.0
Passband Ripple Variation	dB	-	0.8	1.5
Bandwidth at -1dB	MHz	0.30	0.34	-
Bandwidth at -3dB	MHz	0.47	0.55	-
Bandwidth at -40dB	MHz	-	1.38	1.45
Ultimate Rejection	dB	45	55	-
Substrate Material		-	Qz	-
Ambient Temperature	°C	-	25	-

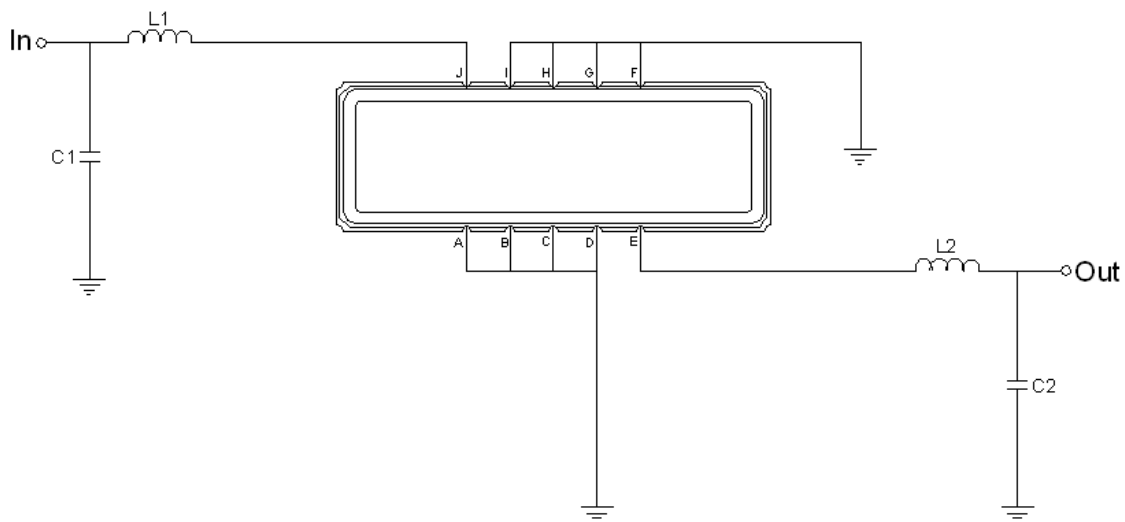
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Package Dimensions



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

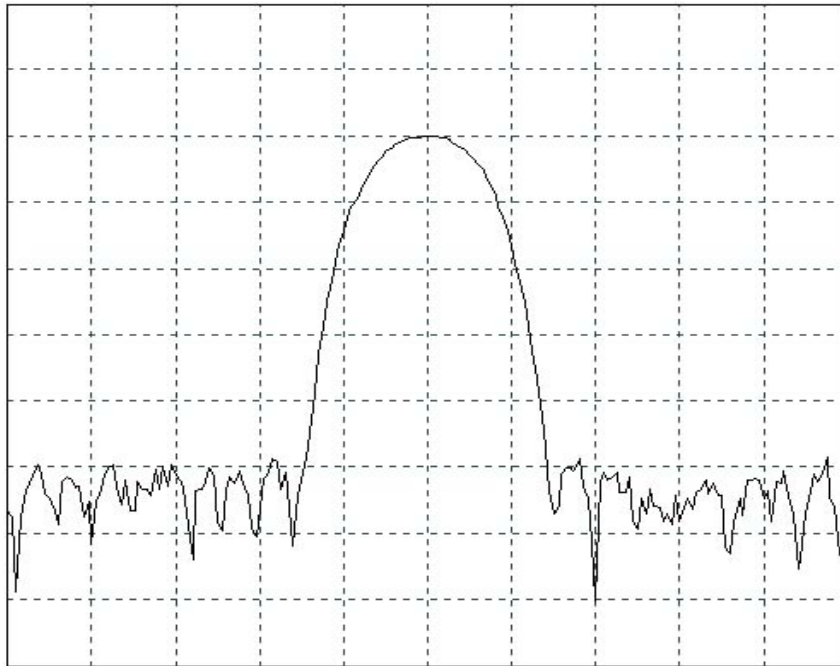
Testing Environment



Test Fixture & Values	
Input	L1 = 162 nH , C1 = 18 pF
Output	L2 = 132 nH , C2 = 39 pF
Source/Load Impedance	50 Ω

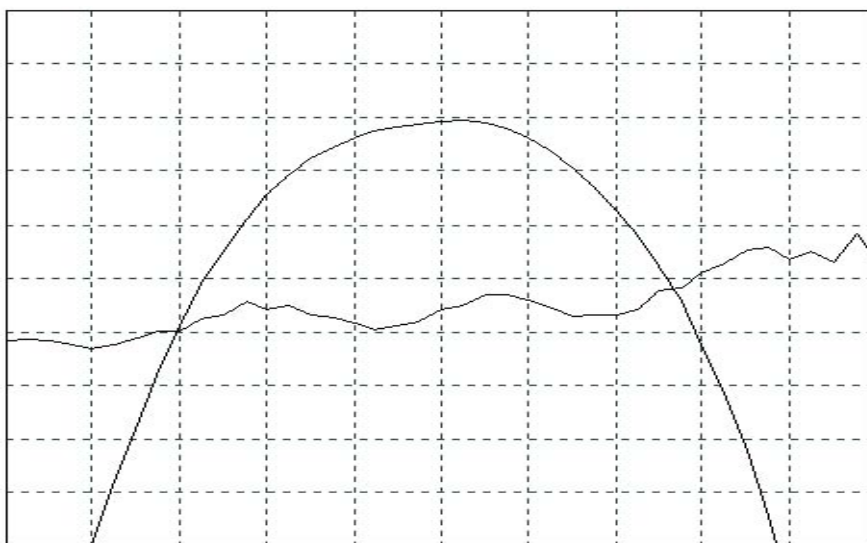
□ Frequency Characteristics

Frequency Response



Horizontal : 0.5 MHz/Div

Vertical : 10 dB/Div



Horizontal : 0.1MHz/Div

Vertical : 1 dB/Div

Vertical : 100 ns/Div