



### Features


- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Dual In-line Package
- ◇ RoHS compliant (2002/95/EC), Pb-free

### Specifications

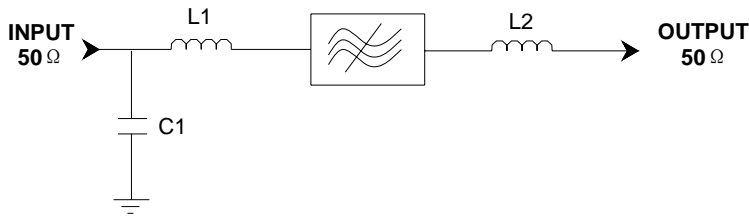
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	119.875	120	120.125
Insertion Loss	dB	-	21	24
1 dB Bandwidth	MHz	1.8	1.89	-
30 dB Bandwidth	MHz	-	2.93	3
40 dB Bandwidth	MHz	-	3.05	3.8
Passband Variation	dB	-	0.5	1
Absolute Delay	usec	-	2.78	2.8
Ultimate Rejection( $f_0 \pm 2\text{MHz}$ )	dB	50	53	-
Material Temperature coefficient	KHz/°C	0.12		
Substrate Material	-	Qz		
Ambient Temperature	°C	25		
Operating Temperature Range	°C	-40	-	+85
Storage Temperature Range	°C	-45	-	+105
DC Voltage	V	0		
Input Power	dBm	-	-	10
ESD Class	-	1A		
Package Size	DIP3512 (35.0x12.8x4.7mm3)			

#### Notes:

1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
4. This is the optimum impedance in order to achieve the performance show.

	<b>SIPAT Co., Ltd.</b> ( CETC No.26 Research Institute ) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBS12038	
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### Matching Configuration



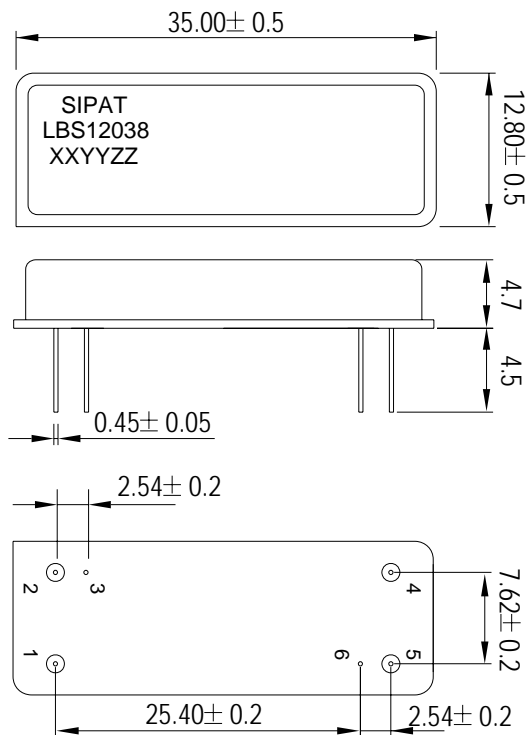
**L1=120nH L2=82nH**

**C1=56pF**

**Source/Load Impedance=50 ohm**

Notes - Component values may change depending  
on board layout.

### Package Dimension



#### Pad Configuration:

Input 1  
Output 5  
Ground All Others

#### Marking Configuration:

- 1) SIPAT: Manufacturer Name
- 2) LBS12038: Part Number
- 3) XXYY: Date(Year/month)
- 4) ZZ: Identified Code

**Package: DIP3512**

**Unit: mm**



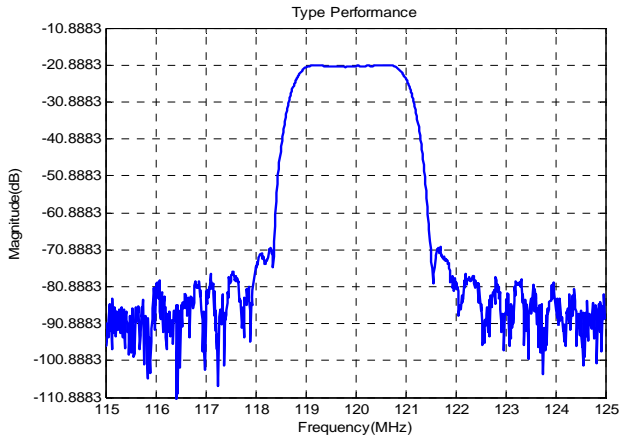
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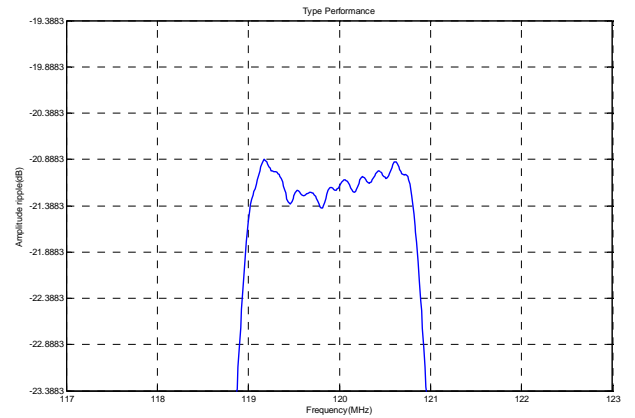
Typical Performance

Frequency Respond



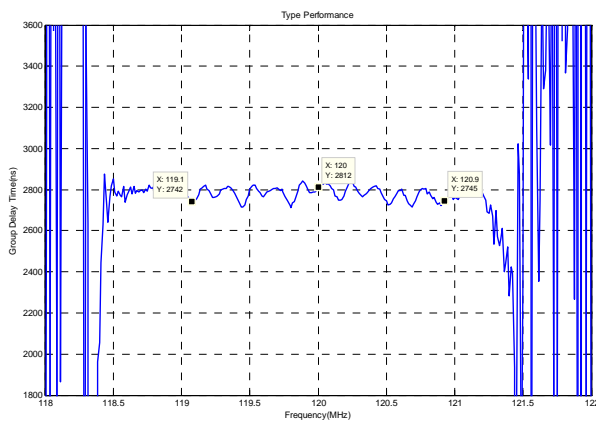
Horizontal: 1MHz/Div Vertical: 10dB/Div

Passband Respond



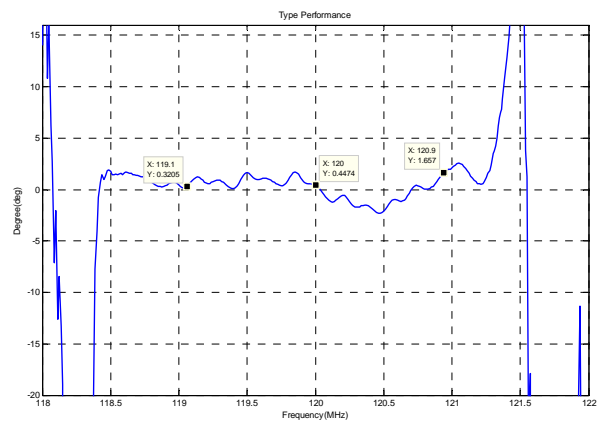
Horizontal: 1MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±0.9MHz)



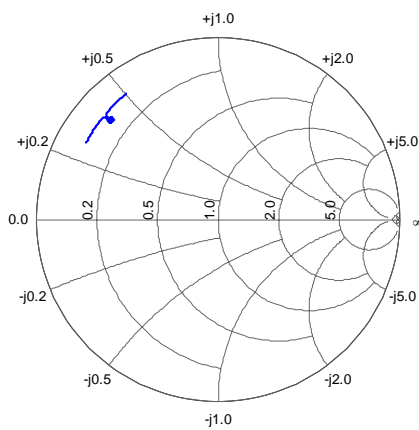
Horizontal: 0.5MHz/Div Vertical: 200ns/Div

Phase Linearity(f0±0.9MHz)

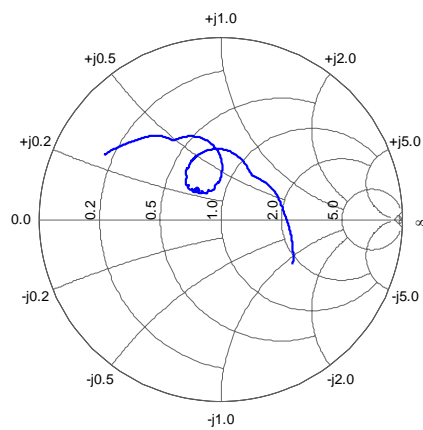


Horizontal: 0.5MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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