



SAW Components

SAW RF filter

Short range devices

Series/type:	B3905
Ordering code:	B39321B3905U510
Date:	February 05, 2010
Version:	2.0



SAW Components

B3905

SAW RF filter

315.00 MHz

Data sheet



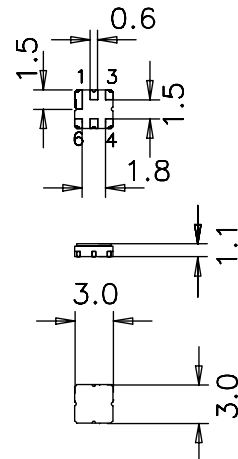
Application

- Low-loss RF filter for Short range devices
- Impedance transformation from 50 Ω to 200 Ω
- Unbalanced to balanced operation
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 1.0 MHz



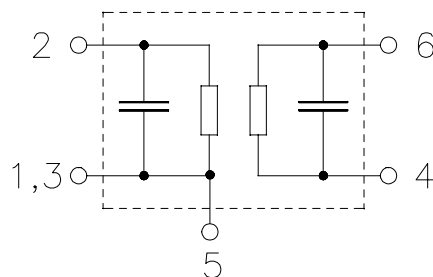
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input unbalanced
- 4,6 Output balanced
- 1,3,5 Case ground (to be grounded)





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Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
Terminating source impedance: $Z_S = 50\ \Omega$
Terminating load impedance: $Z_L = 200\ \Omega$ (balanced)

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	315.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
314.5 ... 315.5 MHz		—	1.3	1.7	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
314.5 ... 315.5 MHz		—	0.3	0.8	dB
VSWR					
Input 314.5 ... 315.5 MHz		—	1.2	1.6	
Output 314.5 ... 315.5 MHz		—	1.2	1.6	
Attenuation	α				
10.0 ... 225.0 MHz		55	60	—	dB
225.0 ... 285.0 MHz		50	55	—	dB
285.0 ... 305.0 MHz		30	35	—	dB
330.0 ... 350.0 MHz		20	25	—	dB
350.0 ... 450.0 MHz		45	50	—	dB
450.0 ... 1000.0 MHz		55	60	—	dB

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**Maximum ratings**

Operable temperature range	T	−45/+125	°C	source 50Ω, load 200Ω cw
Storage temperature range	T _{stg}	−45/+125	°C	
DC voltage	V _{DC}	6	V	
Input power	P _{IN}	10	dBm	



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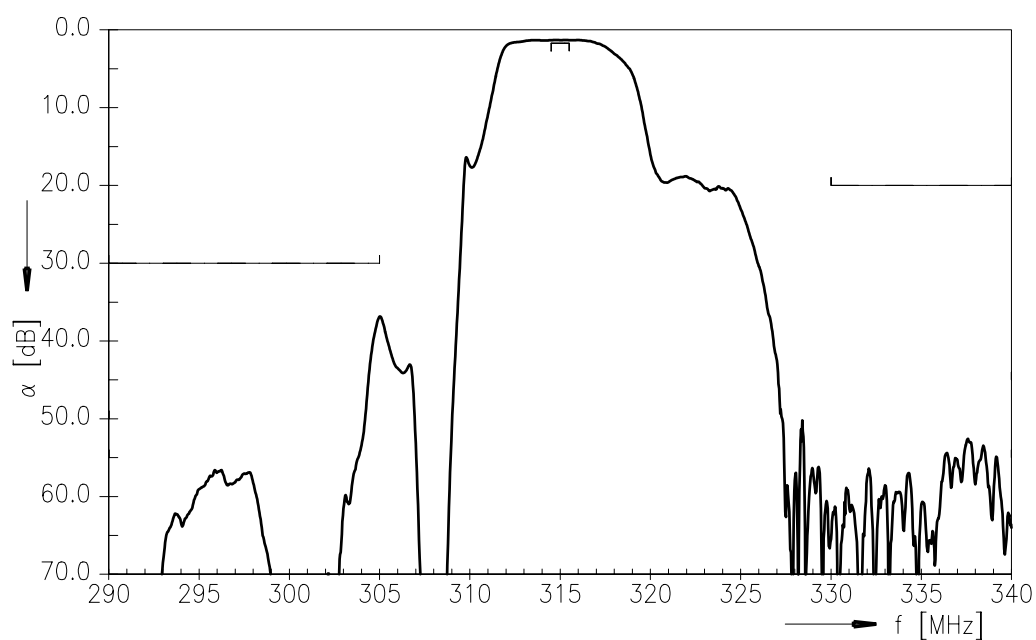
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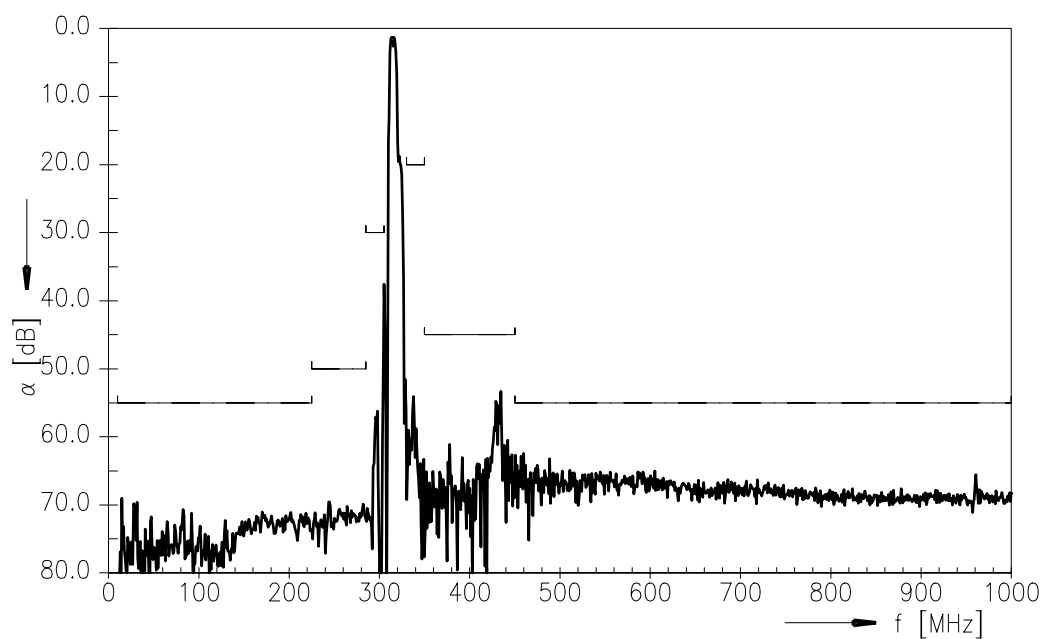
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SMD

Frequency response



Frequency response (wideband)



Please read *cautions and warnings* and *important notes* at the end of this document.

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**References**

Type	B3905
Ordering code	B39321B3905U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B3905_NB.s3p B3905_WB.s3p See file header for port/pin assignment table.
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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Please read *cautions and warnings and important notes* at the end of this document.

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