



# SAW Components

## SAW RF filter

Short range devices

<b>Series/type:</b>	<b>B3712</b>
<b>Ordering code:</b>	<b>B39311B3712U410</b>
<b>Date:</b>	<b>March 11, 2011</b>
<b>Version:</b>	<b>2.0</b>

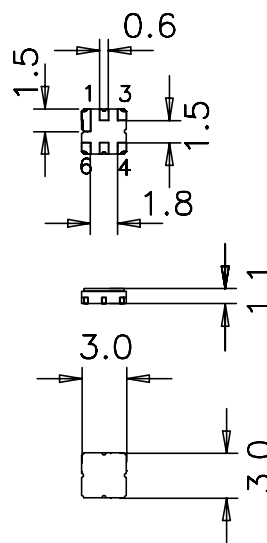
Data sheet


**Application**

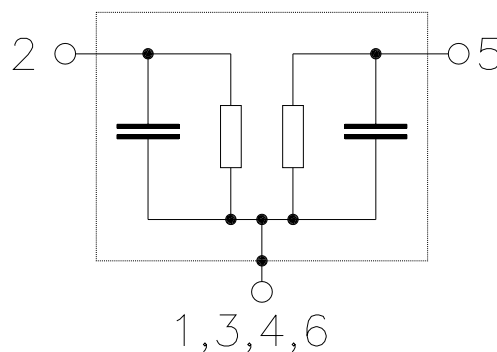
- Low-loss RF filter for remote control application
- No matching network required for operation at 50 Ω


**Features**

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Passivation layer Elpas
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**


**Pin configuration**

- 2 Input
- 5 Output
- 1,3,4,6 Ground (case)



**Data sheet**

**Characteristics**

Temperature range for specification:	T = -40 °C to +110 °C
Terminating source impedance:	Z <sub>S</sub> = 50Ω
Terminating load impedance:	Z <sub>L</sub> = 50Ω

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	f <sub>C</sub>	—	312.20	—	MHz
<b>Maximum insertion attenuation</b>	α <sub>max</sub>	—	1.8	2.9 <sup>1)</sup>	dB
311.90 ... 312.50 MHz					
<b>Amplitude ripple (p-p)</b>		—	0.5	1.7 <sup>2)</sup>	dB
311.90 ... 312.50 MHz					
<b>Relative attenuation (relative to α<sub>min</sub>)</b>	α <sub>rel</sub>				
270.00 ... 286.00 MHz		55	60	—	dB
290.20 ... 291.10 MHz		53	58	—	dB
301.20 ... 301.80 MHz		48	53	—	dB
322.60 ... 323.20 MHz		24	31	—	dB
333.30 ... 334.20 MHz		36	41	—	dB
354.70 ... 355.90 MHz		50	55	—	dB
<b>Temperature coefficient of frequency</b>	TC <sub>f</sub>	—	-30	—	ppm/K

1) T = -40°C to +85°C : 2.5 dB

2) T = -40°C to +85°C : 1.3 dB

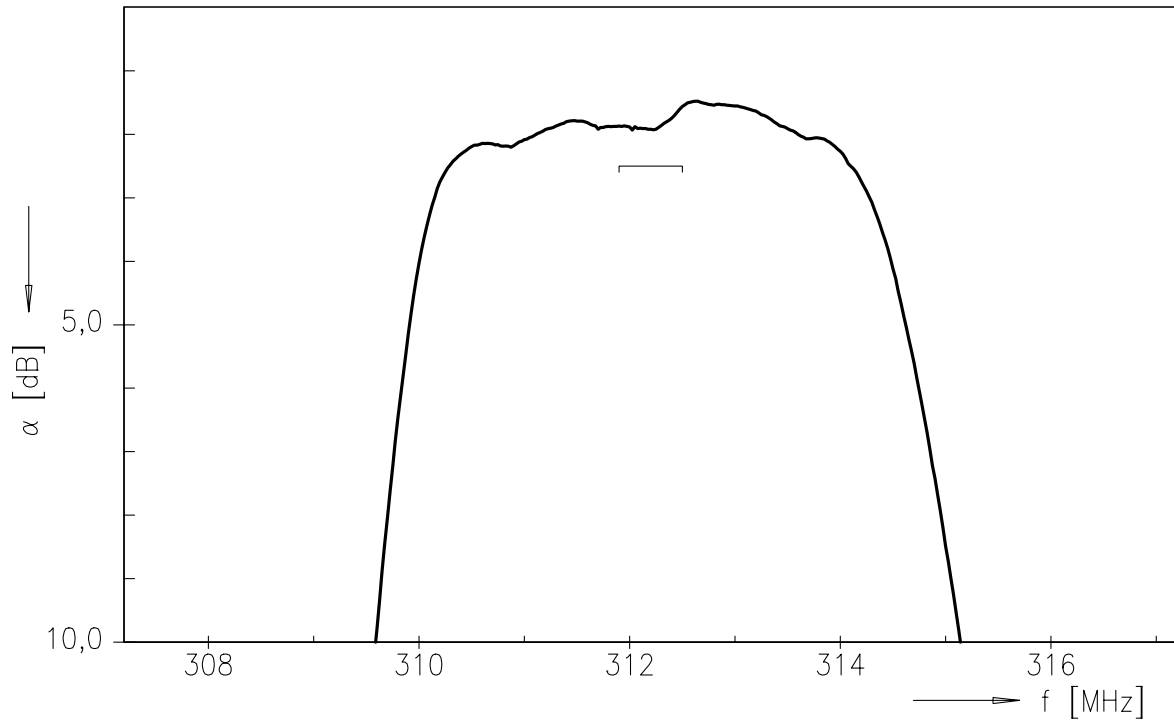
**Maximum ratings**

Operable temperature range	T	-45/+125	°C	
Storage temperature range	T <sub>stg</sub>	-45/+125	°C	
DC voltage	V <sub>DC</sub>	6	V	
Source power	P <sub>S</sub>	10	dBm	source impedance 50 Ω

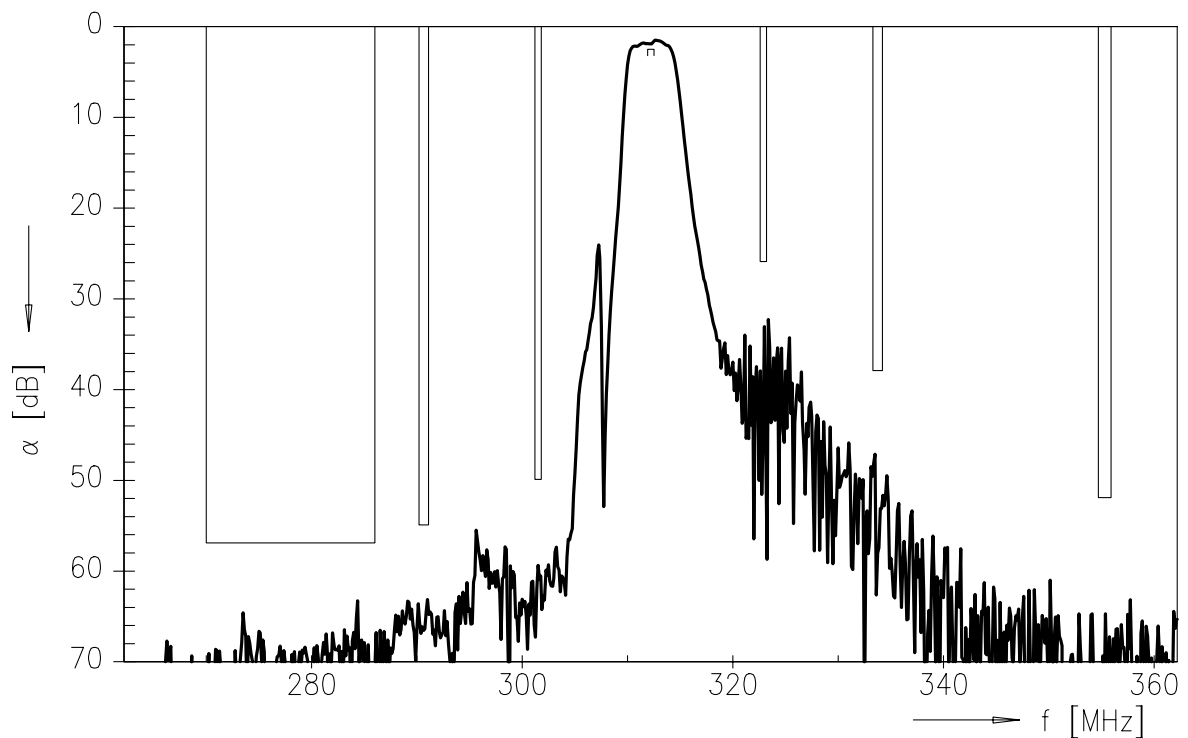
Data sheet



Transfer function



Transfer function (wideband)



**References**

<b>Type</b>	B3712
<b>Ordering code</b>	B39311B3712U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B3712_NB.s2p, B3712_WB.s2p see file header for port/pin assignment table
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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."
<b>Moldability</b>	Before using in overmolding environment, please contact your EPCOS sales office.
<b>Matching coils</b>	See Inductor pdf-catalog <a href="http://www.tdk.co.jp/tefe02/coil.htm#aname1">http://www.tdk.co.jp/tefe02/coil.htm#aname1</a> and Data Library for circuit simulation <a href="http://www.tdk.co.jp/etvcl/index.htm">http://www.tdk.co.jp/etvcl/index.htm</a>

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