



## **SAW Components**

### **SAW filter**

Short range devices

<b>Series/type:</b>	<b>B3716</b>
<b>Ordering code:</b>	<b>B39871B3716U410</b>
<b>Date:</b>	<b>September 21, 2009</b>
<b>Version:</b>	<b>2.2</b>



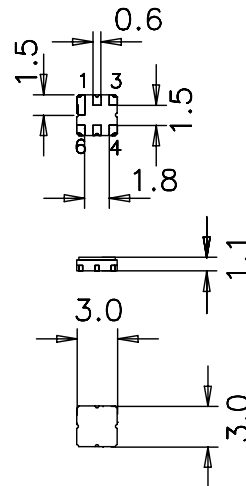
**Application**

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



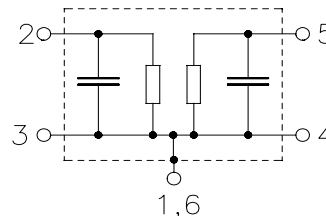
**Features**

- 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





SAW Components

B3716

SAW filter

869.00 MHz

Data sheet



**Characteristics**

Reference temperature:  $T = 25\text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	869.00	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2.5	3.0	dB
	868.00 ... 870.00 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.3	0.7	dB
	868.00 ... 870.00 MHz				
<b>Attenuation</b>	$\alpha$				
	10.00 ... 838.00 MHz	40	43	—	dB
	838.00 ... 856.40 MHz	24	32	—	dB
	856.40 ... 858.50 MHz	20	26	—	dB
	880.00 ... 883.00 MHz	23	32	—	dB
	883.00 ... 893.00 MHz	29	32	—	dB
	893.00 ... 1200.00 MHz	45	48	—	dB
	1200.00 ... 2000.00 MHz	31	35	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-30	—	ppm/K



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<b>SAW filter</b>	<b>869.00 MHz</b>

Data sheet



**Characteristics**

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

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	869.00	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2.5	3.9	dB
868.00 ... 870.00 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.6	1.6	dB
868.00 ... 870.00 MHz					
<b>Attenuation</b>	$\alpha$				
10.00 ... 838.00 MHz		40	43	—	dB
838.00 ... 856.40 MHz		24	32	—	dB
856.40 ... 858.50 MHz		14	26	—	dB
880.00 ... 883.00 MHz		10	32	—	dB
883.00 ... 893.00 MHz		29	32	—	dB
893.00 ... 1200.00 MHz		45	48	—	dB
1200.00 ... 2000.00 MHz		31	35	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-30	—	ppm/K

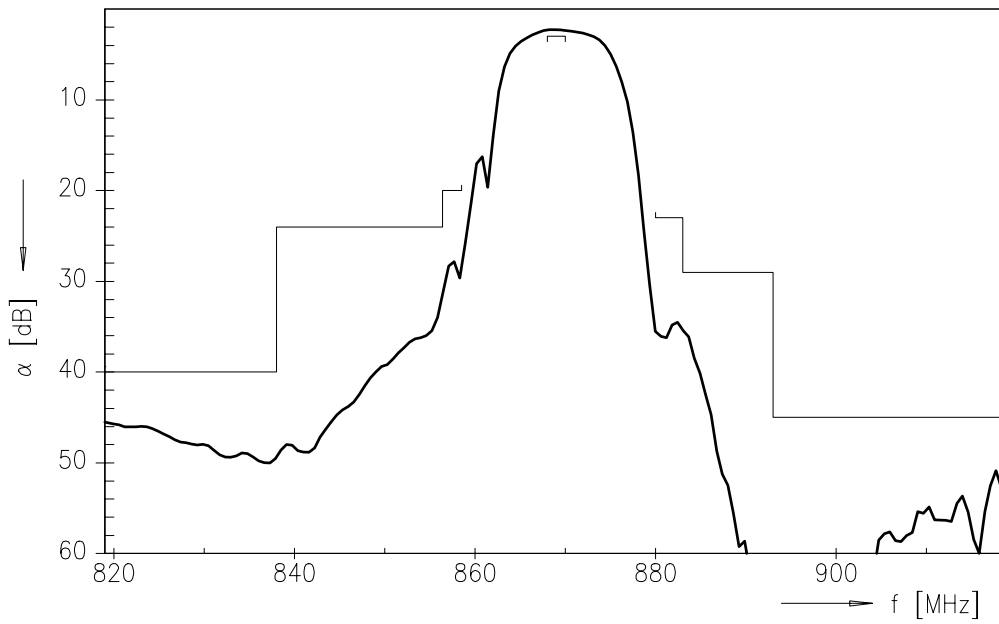
**Maximum ratings**

Operable temperature range	T	-45/+125	°C	
Storage temperature range	T <sub>stg</sub>	-45/+125	°C	
DC voltage	V <sub>DC</sub>	5	V	
Source power	P <sub>S</sub>	13	dBm	source impedance 50 Ω
Source power 868 MHz to 870 MHz	P <sub>S</sub>	18	dBm	duty cycle 1:10, -40 °C to +85 °C

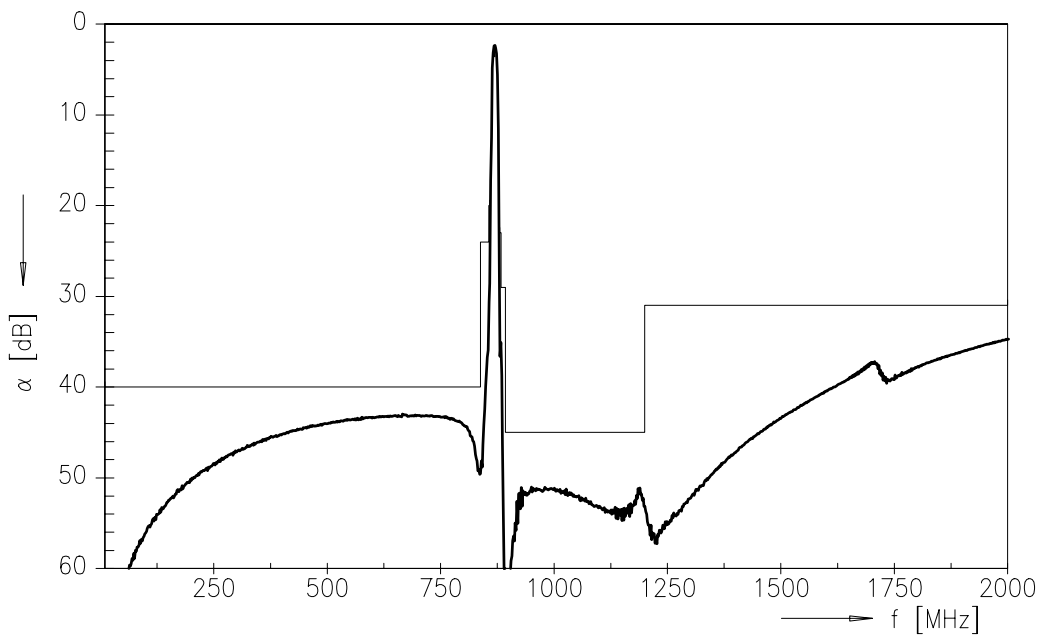
Please read *cautions and warnings and important notes* at the end of this document.



Transfer function



Transfer function (wideband)





<b>SAW Components</b>	<b>B3716</b>
<b>SAW filter</b>	<b>869.00 MHz</b>
Data sheet	

## References

<b>Type</b>	B3716
<b>Ordering code</b>	B39871B3716U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B3716_SB.s2p B3716_WB.s2p
<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."

For further information please contact your local EPCOS sales office or visit our webpage at [www.epcos.com](http://www.epcos.com).

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