



## **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>



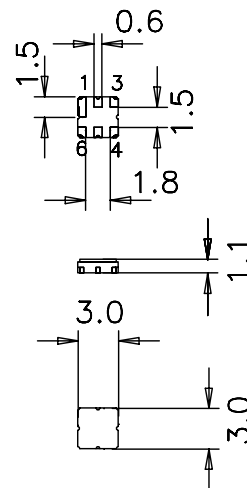
**Application**

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



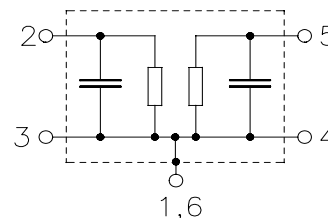
**Features**

- 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





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**B3716**

**SAW filter**

**869.00 MHz**

Data sheet



**Characteristics**

Reference temperature:  $T = 25\text{ °C}$   
 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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**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

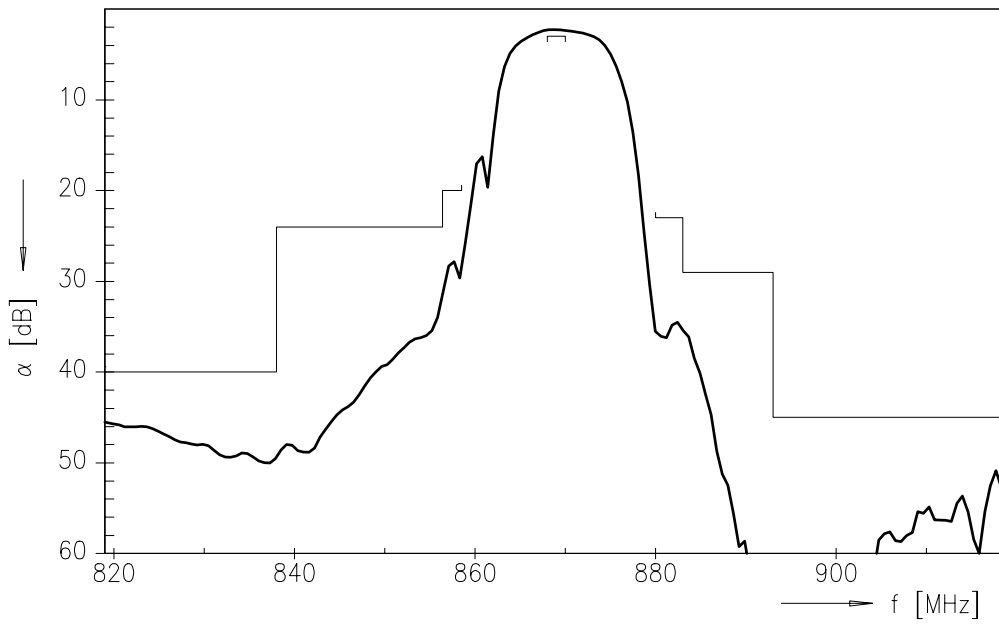
**Maximum ratings**

Operable temperature range	T	-45/+125	°C	
Storage temperature range	$T_{stg}$	-45/+125	°C	
DC voltage	$V_{DC}$	5	V	
Source power	$P_S$	13	dBm	source impedance 50 $\Omega$
Source power 868 MHz to 870 MHz	$P_S$	18	dBm	duty cycle 1:10, -40 °C to +85 °C

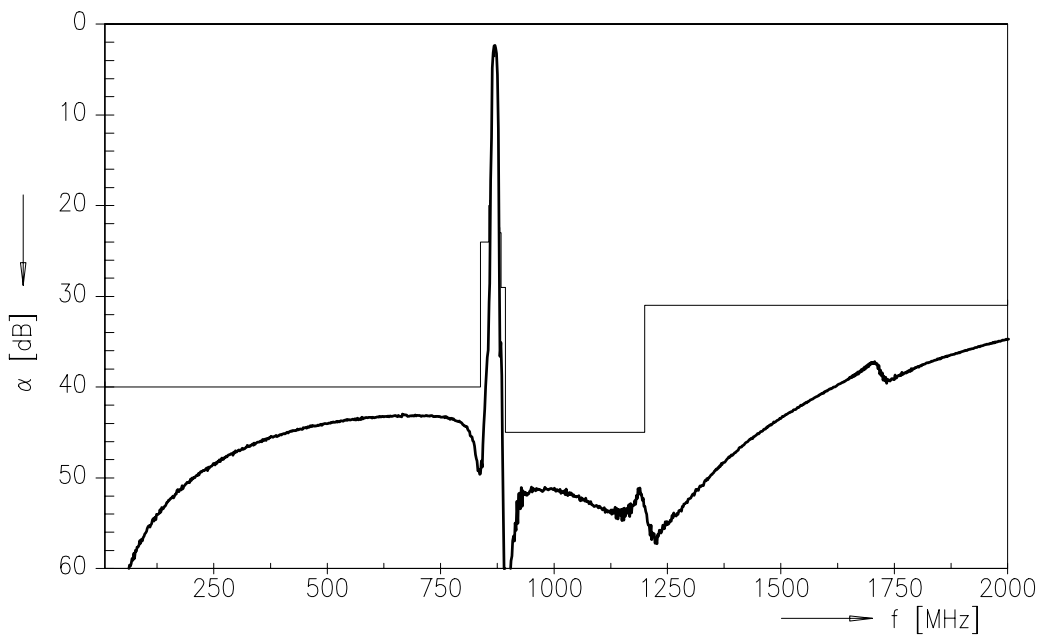
Please read *cautions and warnings and important notes* at the end of this document.



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."

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



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