SAW Components

SAW filter

Short range devices

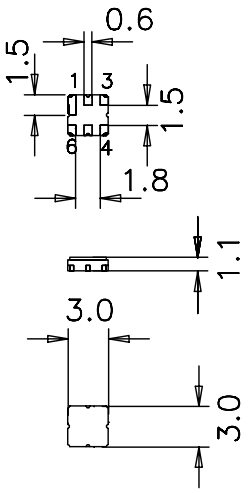
Series/type:	**B3716**
Ordering code:	**B39871B3716U410**
Date:	November 23, 2007
Version:	2.1

Application

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

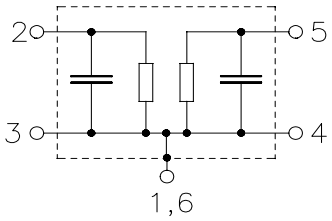
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Passivation layer Elpas
- AEC-Q200 qualified component family
- **E**lectrostactic **S**ensitive **D**evice (**ESD**)



Pin configuration

■	2	Input
■	5	Output
■	1,3,4,6	Ground



Data sheet SMD

Characteristics

Reference temperature: T = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	869.00	—	MHz
Maximum insertion attenuation	α_{max}				
868.00 ... 870.00 MHz		—	2.5	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
868.00 ... 870.00 MHz		—	0.3	0.7	dB
Attenuation	α				
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
Temperature coefficient of frequency	TC_f	—	-30	—	ppm/K

Data sheet SMD

Characteristics

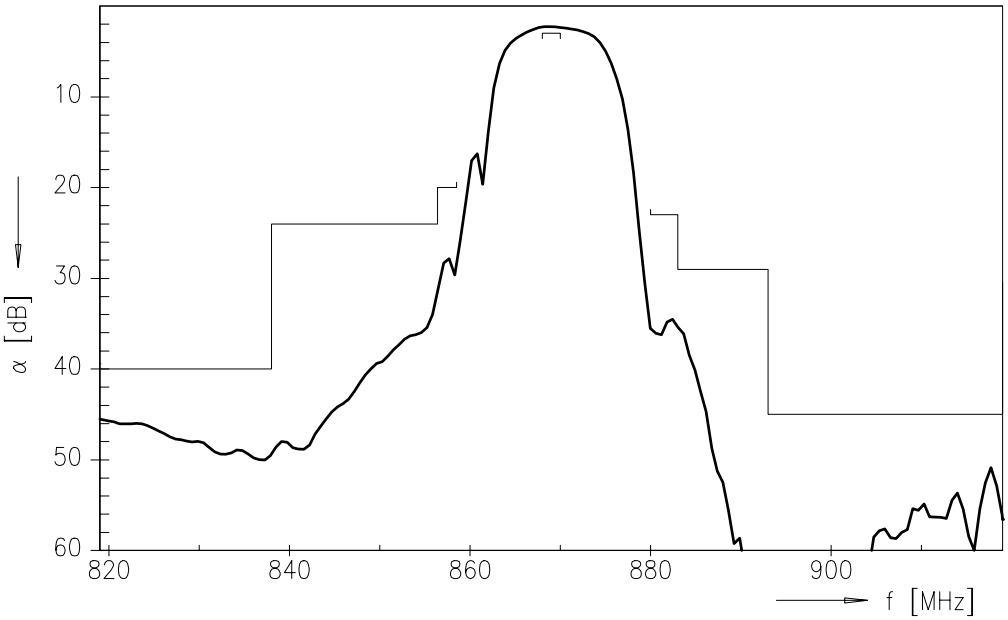
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	869.00	—	MHz
Maximum insertion attenuation	α_{max}				
868.00 ... 870.00 MHz		—	2.5	3.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
868.00 ... 870.00 MHz		—	0.6	1.6	dB
Attenuation	α				
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
Temperature coefficient of frequency	TC_f	—	-30	—	ppm/K

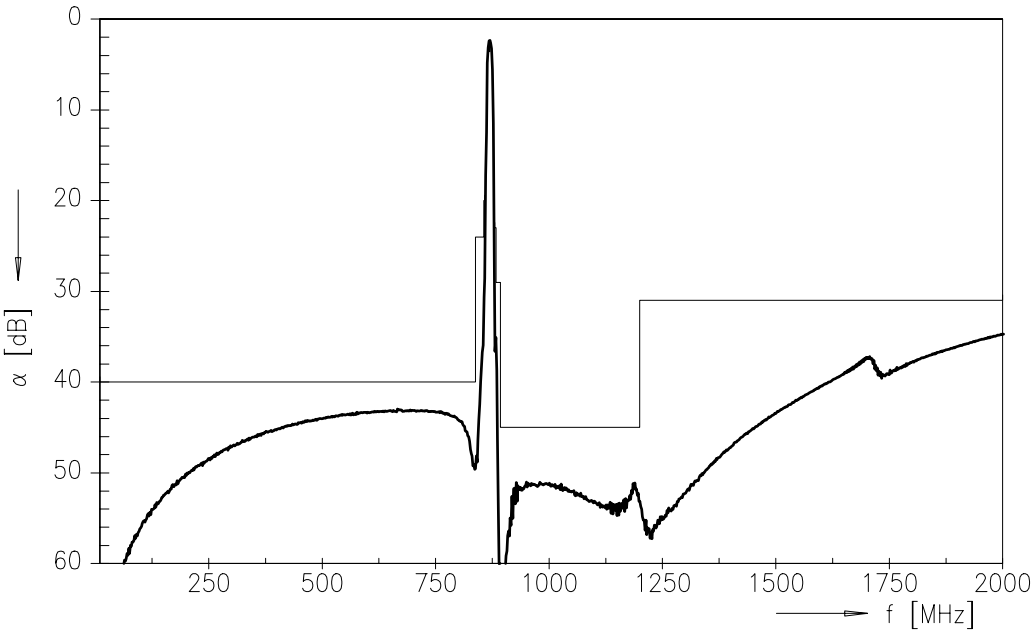
Maximum ratings

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 Ω
Source power 868 MHz to 870 MHz	P_S	18	dBm	duty cycle 1:10, –40 ˚C to +85 ˚C

Transfer function



Transfer function (wideband)



References

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

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