SAW Components

SAW filter

Short range devices

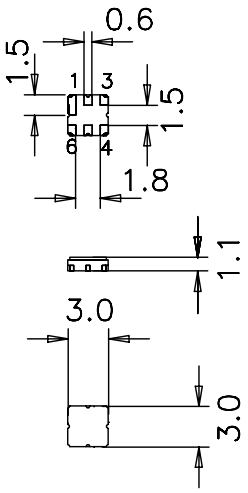
Series/type:	**B3715**
Ordering code:	**B39871B3715U410**
Date:	February 06, 2008
Version:	2.1

Application

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

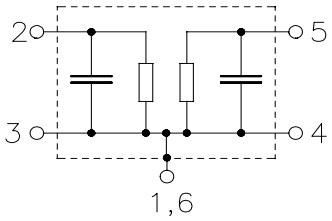
Features

- 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		—	2.4	3.1	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
868.00 ... 870.00 MHz		—	0.6	1.2	dB
Attenuation	α				
10.00 ... 845.00 MHz		37	41	—	dB
845.00 ... 851.00 MHz		32	36	—	dB
851.00 ... 858.00 MHz		20	24	—	dB
883.00 ... 892.00 MHz		35	40	—	dB
892.00 ... 1000.00 MHz		42	47	—	dB
Temperature coefficient of frequency	TC_f	—	–30	—	ppm/K

Data sheet SMD

Characteristics

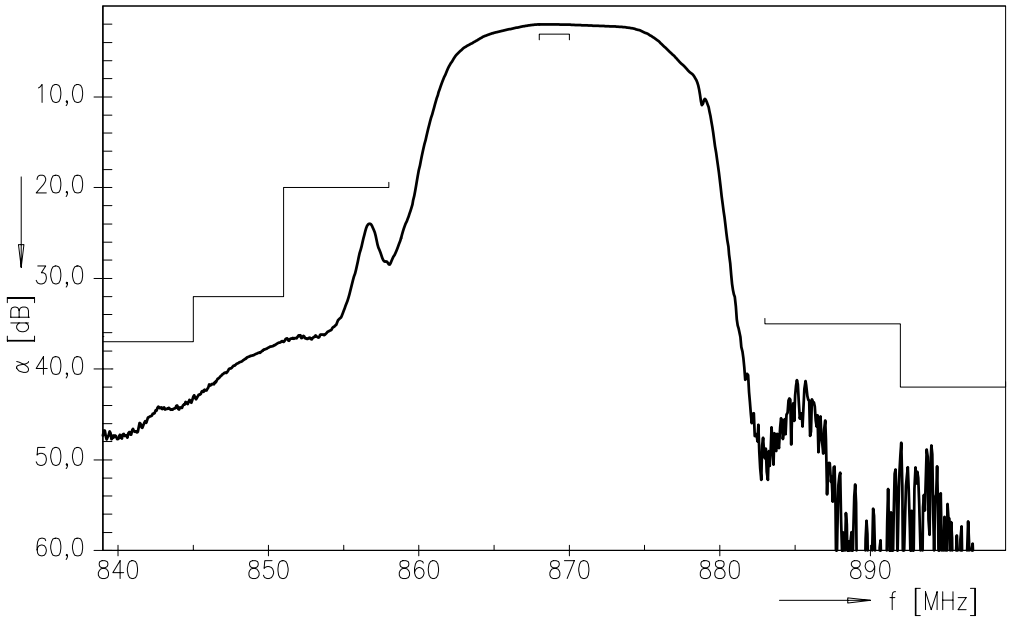
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	869.00	—	MHz
Maximum insertion attenuation	α_{max}				
868.00 ... 870.00 MHz		—	2.6	3.3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
868.00 ... 870.00 MHz		—	0.6	1.2	dB
Attenuation	α				
10.00 ... 845.00 MHz		37	41	—	dB
845.00 ... 851.00 MHz		32	36	—	dB
851.00 ... 856.80 MHz		20	24	—	dB
883.00 ... 892.00 MHz		20	35	—	dB
892.00 ... 1000.00 MHz		42	47	—	dB
Temperature coefficient of frequency	TC_f	—	–30	—	ppm/K

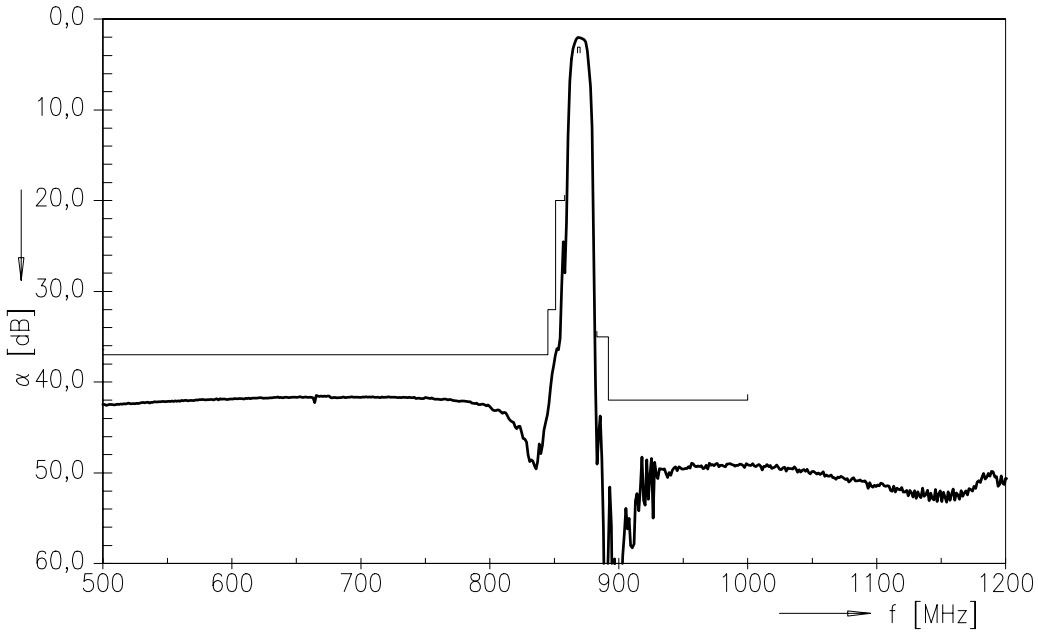
Maximum ratings

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	B3715
Ordering code	B39871B3715U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3715_SB.s2p B3715_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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