SAW Components

SAW filter

Short range devices

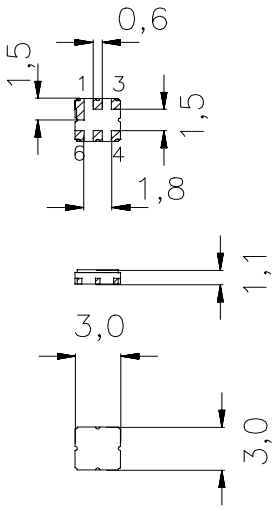
Series/type:	**B3721**
Ordering code:	**B39431B3721U410**
Date:	March 25, 2009
Version:	2.2

Application

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

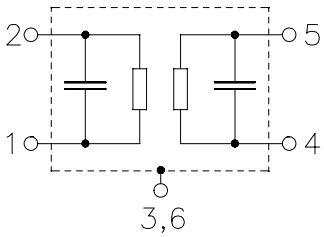
Features

- 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**lectrostatic **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	—	433.92	—	MHz
Maximum insertion attenuation	α_{max}				
433.12 ... 434.72 MHz		—	2.6	2.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
433.12 ... 434.72 MHz		—	0.4	0.8	dB
Input VSWR					
433.12 ... 434.72 MHz		—	1.8	2.0	
Output VSWR					
433.12 ... 434.72 MHz		—	1.8	2.0	
Attenuation	α				
10.00 ... 380.00 MHz		60	65	—	dB
380.00 ... 423.42 MHz		46	51	—	dB
423.42 ... 427.42 MHz		30	34	—	dB
427.42 ... 429.42 MHz		14	17	—	dB
438.42 ... 444.42 MHz		12	16	—	dB
444.42 ... 460.00 MHz		32	37	—	dB
460.00 ... 700.00 MHz		52	58	—	dB
700.00 ... 1000.00 MHz		48	51	—	dB

Characteristics

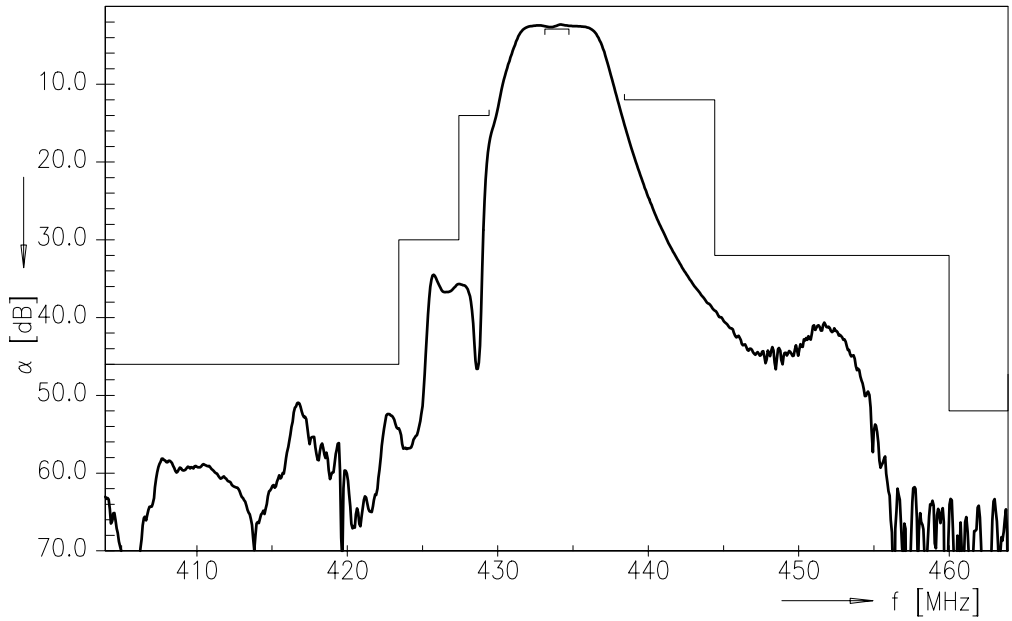
Temperature range for specification: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	433.92	—	MHz
Maximum insertion attenuation	α_{max}				
433.12 ... 434.72 MHz		—	2.6	2.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
433.12 ... 434.72 MHz		—	0.4	1.0	dB
Input VSWR					
433.12 ... 434.72 MHz		—	1.8	2.0	
Output VSWR					
433.12 ... 434.72 MHz		—	1.8	2.0	
Attenuation	α				
10.00 ... 380.00 MHz		60	65	—	dB
380.00 ... 423.42 MHz		46	51	—	dB
423.42 ... 427.42 MHz		30	34	—	dB
427.42 ... 429.42 MHz		7	17	—	dB
438.42 ... 444.42 MHz		6	16	—	dB
444.42 ... 460.00 MHz		32	37	—	dB
460.00 ... 700.00 MHz		52	58	—	dB
700.00 ... 1000.00 MHz		48	51	—	dB

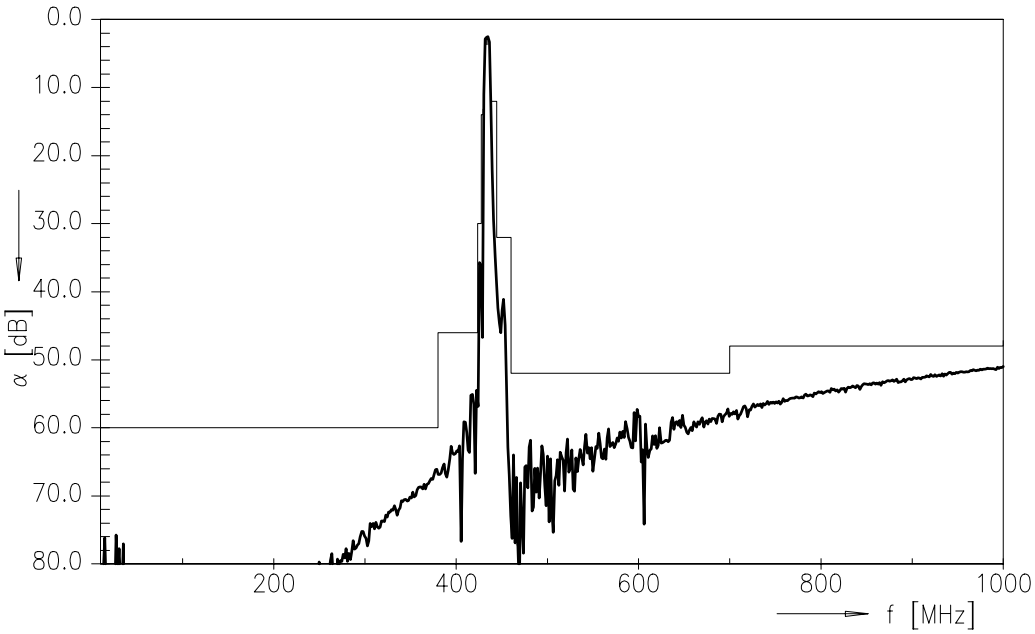
Maximum ratings

Operable temperature range	T	–45/+125	˚C	
Storage temperature range	T_{stg}	–45/+125	˚C	
DC voltage	V_{DC}	6	V	
Source power	P_S	10	dBm	source impedance 50 Ω
Source power 433.12 MHz to 434.72 MHz	P_S	13	dBm	duty cycle 1:10, –40 ˚C to +85 ˚C

Transfer function



Transfer function (wideband)



References

Type	B3721
Ordering code	
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3721_SB.s2p B3721_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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