



SAW Components

SAW RF filter

Short range devices

Series/type:	B3725
Ordering code:	B39871B3725U410
Date:	August 18, 2011
Version:	2.2

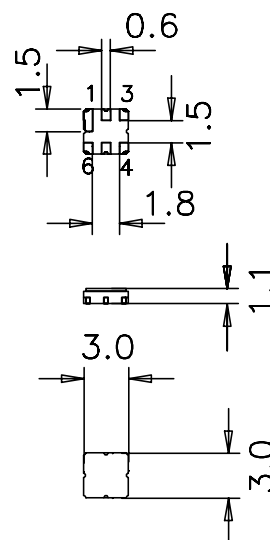
Application

- Low-loss RF filter for remote control receivers
- Unbalanced to unbalanced operation
- No matching network required for operation at 50 Ω
- Low amplitude ripple
- Usable passband 2 MHz



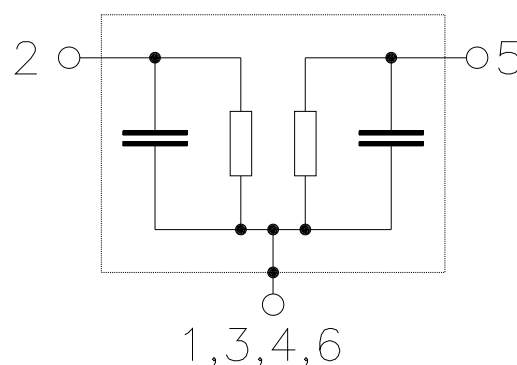
Features

- Package size 3 x 3 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Passivation layer Elpas
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Ground



Data sheet

Characteristics

Temperature range for specification: $T = -20\text{ °C to }+70\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	869.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
868.0 ... 870.0 MHz		—	2.5	3.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
868.0 ... 870.0 MHz		—	0.3	1.3	dB
Return loss (input / output)					
868.0 ... 870.0 MHz		10	20	—	dB
Attenuation	α				
10.0 ... 300.0 MHz		45	50	—	dB
300.0 ... 845.0 MHz		40	45	—	dB
845.0 ... 853.0 MHz		38	41	—	dB
879.0 ... 883.0 MHz		20	30	—	dB
883.0 ... 915.0 MHz		45	55	—	dB
915.0 ... 945.0 MHz		40	45	—	dB
945.0 ... 1200.0 MHz		45	55	—	dB
1200.0 ... 2000.0 MHz		35	40	—	dB

Data sheet

Characteristics

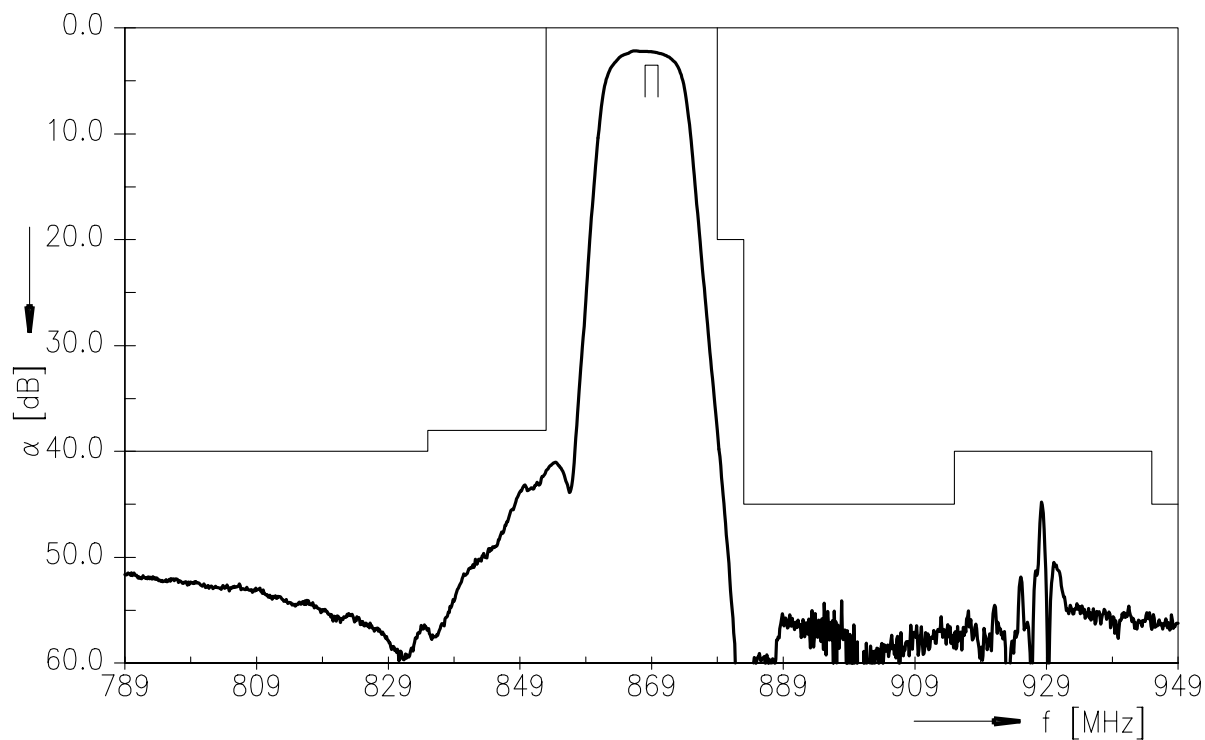
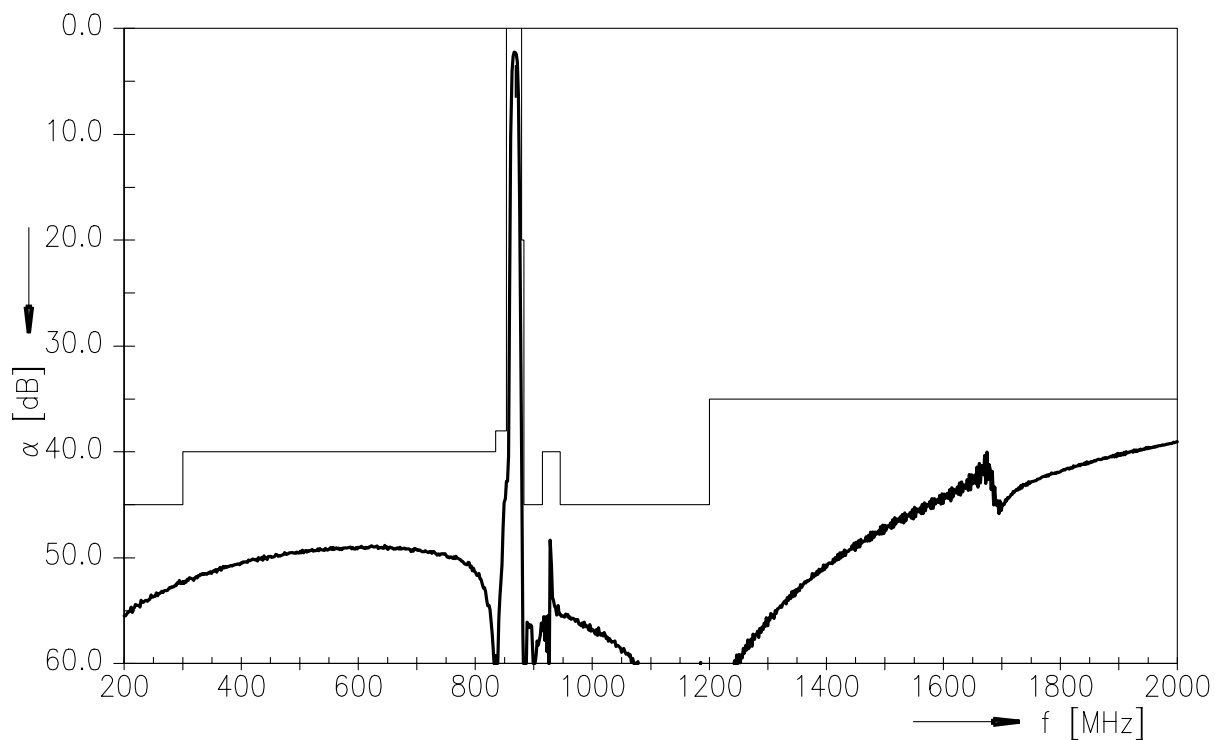
Temperature range for specification:	T	=	−40 °C to +85 °C
Terminating source impedance:	Z _S	=	50 Ω
Terminating load impedance:	Z _L	=	50 Ω

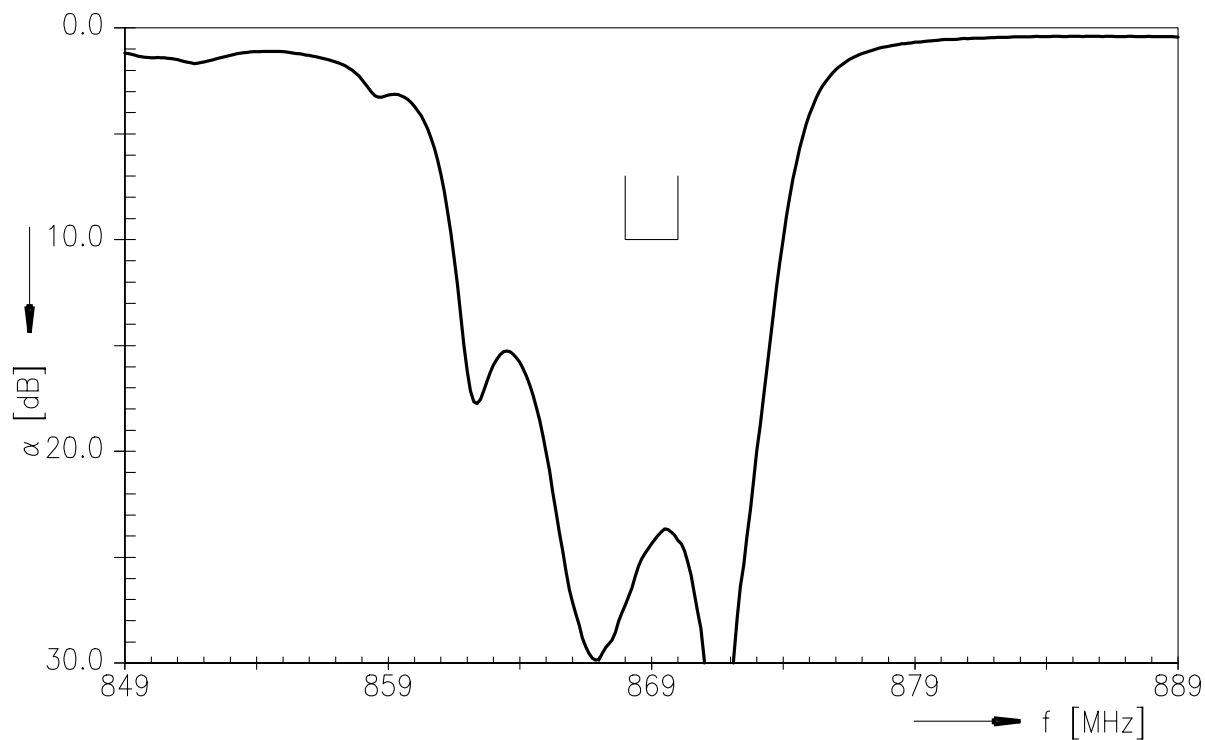
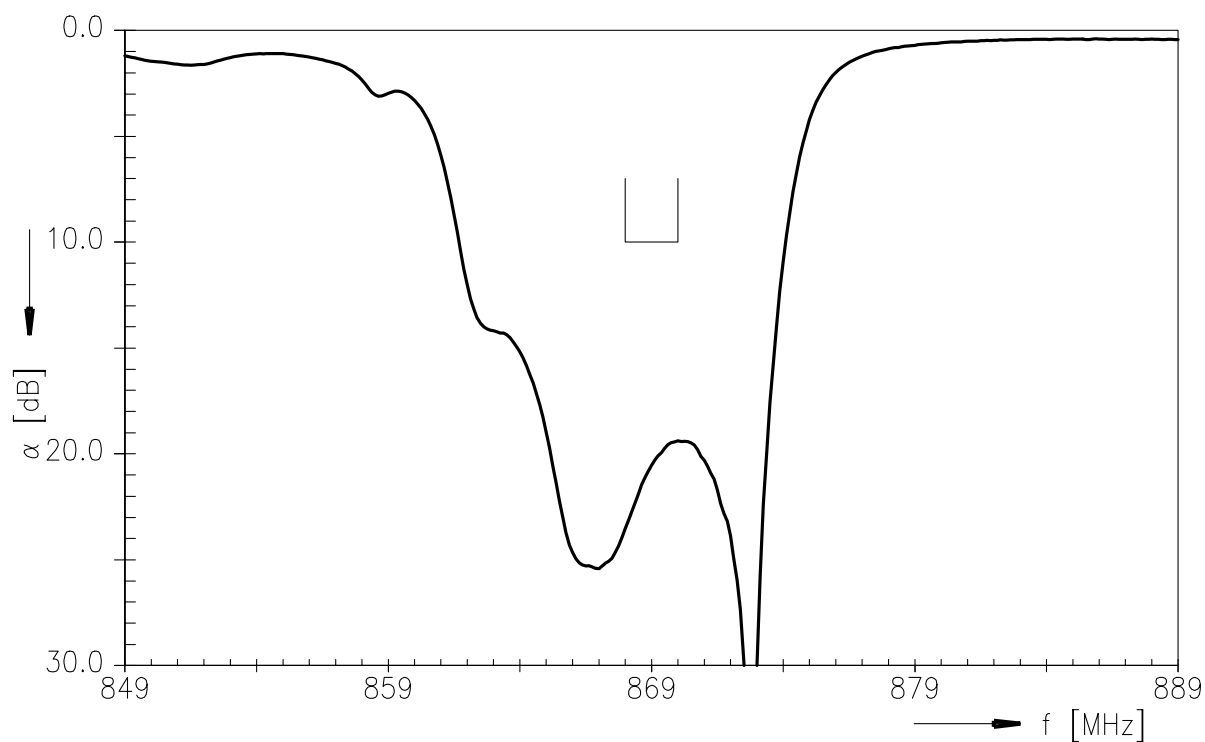
		min.	typ. @ 25 °C	max.	
Center frequency	f _C	—	869.0	—	MHz
Maximum insertion attenuation	α _{max}				
868.0 ... 870.0 MHz		—	2.5	4.0	dB
Amplitude ripple (p-p)	Δα				
868.0 ... 870.0 MHz		—	0.3	1.7	dB
Return loss (input / output)					
868.0 ... 870.0 MHz		10	20	—	dB
Attenuation	α				
10.0 ... 300.0 MHz		45	50	—	dB
300.0 ... 845.0 MHz		40	45	—	dB
845.0 ... 853.0 MHz		38	41	—	dB
879.0 ... 883.0 MHz		15	30	—	dB
883.0 ... 915.0 MHz		45	55	—	dB
915.0 ... 945.0 MHz		40	45	—	dB
945.0 ... 1200.0 MHz		45	55	—	dB
1200.0 ... 2000.0 MHz		35	40	—	dB

Maximum ratings

Operable temperature range	T	−45/+125	°C	
Storage temperature range	T _{stg}	−45/+125	°C	
DC voltage	V _{DC}	0	V	
Source power	P _s	13	dBm	source impedance 50 Ω
Source power	P _s	18	dBm	duty cycle 1:10,
868 MHz to 870 MHz				−40 °C to +85 °C

Data sheet

Transfer function

Transfer function (wide band)


Input return loss

Output return loss


References

Type	B3725
Ordering code	B39871B3725U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3725_NB.s2p, B3725_WB.s2p see file header for port/pin assignment table
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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm

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