



SAW Components

SAW RF filter

Short range devices

Series/type:	B3725
Ordering code:	B39871B3725U410
Date:	January 19, 2009
Version:	2.0



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869.0 MHz

Data sheet

SMD

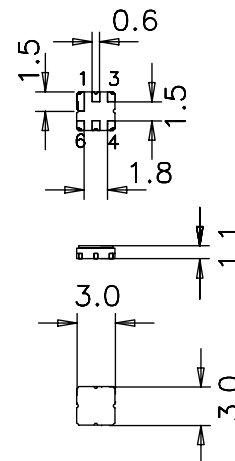
Application

- 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



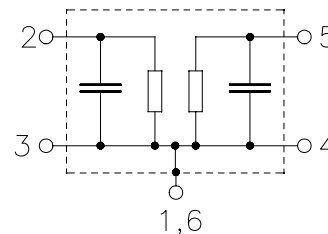
Features

- 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
- Filter surface passivated
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

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



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



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Characteristics

Temperature range for specification: T = -20 °C to +70 °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	3.5	dB
Amplitude ripple (p-p)	Δα				
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



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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.	
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)	$\Delta\alpha$				
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

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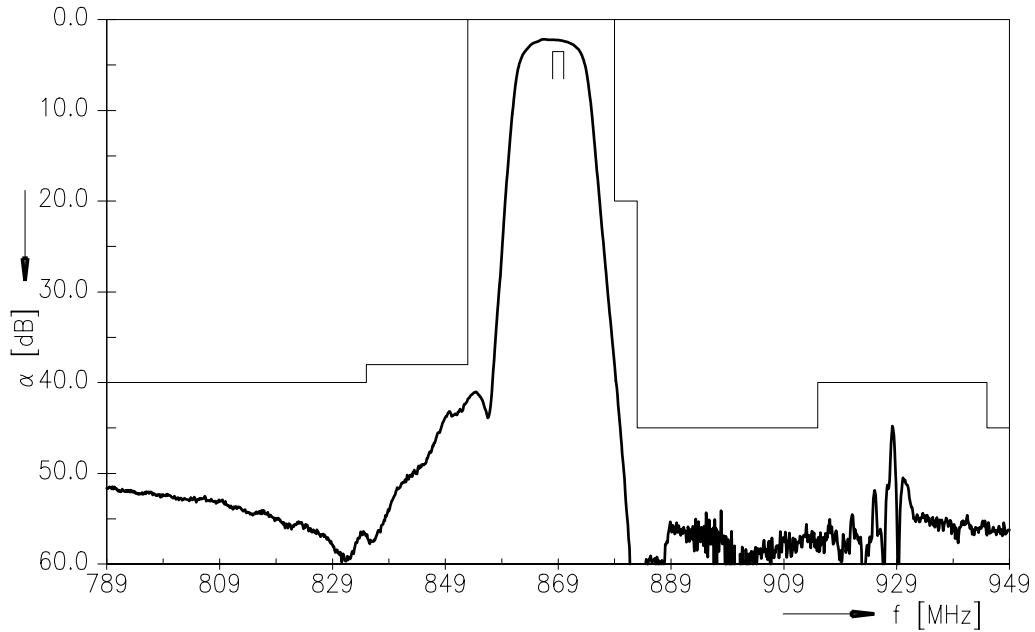
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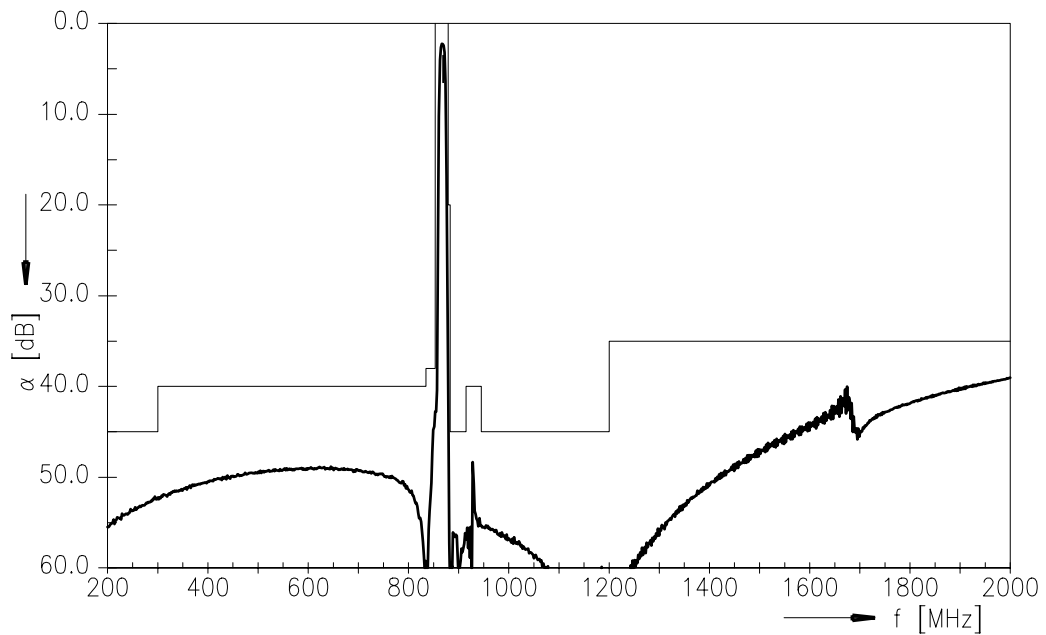
Data sheet



Transfer function



Transfer function (wide band)



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



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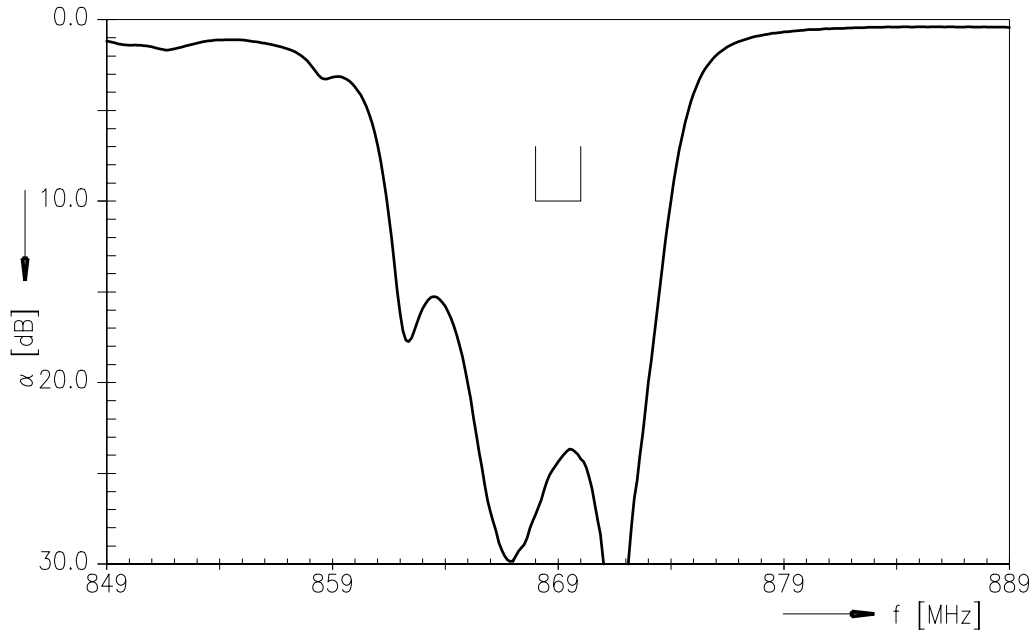
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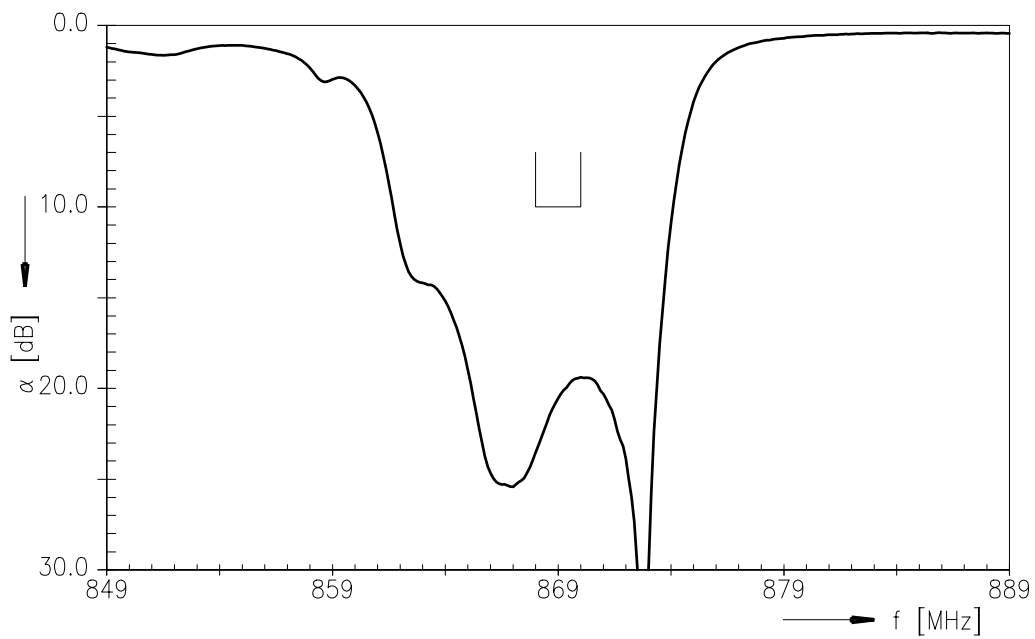
Data sheet



Input return loss



Output return loss



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References

Type	B3725
Ordering code	B39871B3725U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	LT97B_NB.s2p LT97B_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."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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