



SAW Components

SAW RF filter

Short range devices

Series/type:	B3723
Ordering code:	B39871B3723Z610
Date:	August 05, 2008
Version:	2.0



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869.00 MHz

Data sheet

SMD

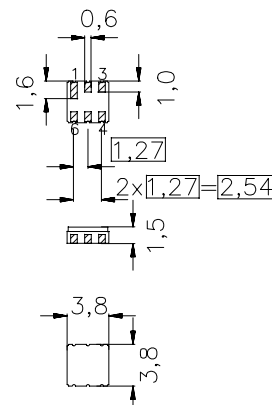
Application

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



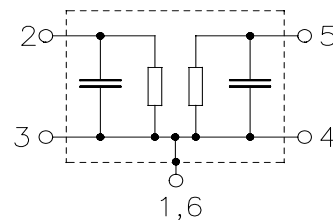
Features

- Package size 3.8 x 3.8 x 1.5 mm³
- Package code DCC6
- RoHS compatible
- Approximate weight 0.07 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Passivation layer Elpas
- AEC-Q200 qualified component family
- **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 (reduced operating temperature range)

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	—	869.00	—	MHz
Maximum insertion attenuation	α_{max}	—	2.5	3.5	dB
868.00 ... 870.00 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.3	1.3	dB
868.00 ... 870.00 MHz					
Return loss (input / output)		10	20	—	
868.00 ... 870.00 MHz					
Attenuation	α				
10.00 ... 300.00 MHz		45	50	—	dB
300.00 ... 853.00 MHz		40	44	—	dB
879.00 ... 883.00 MHz		20	30	—	dB
883.00 ... 915.00 MHz		45	55	—	dB
915.00 ... 945.00 MHz		40	45	—	dB
945.00 ... 1200.00 MHz		45	55	—	dB
1200.00 ... 2000.00 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	—	869.00	—	MHz
Maximum insertion attenuation	α_{max}	—	2.5	4.0	dB
868.00 ... 870.00 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.3	1.7	
868.00 ... 870.00 MHz					
Return loss (input / output)		10	20	—	
868.00 ... 870.00 MHz					
Attenuation	α				
10.00 ... 300.00 MHz		45	50	—	dB
300.00 ... 853.00 MHz		40	44	—	dB
879.00 ... 883.00 MHz		15	30	—	dB
883.00 ... 915.00 MHz		45	55	—	dB
915.00 ... 945.00 MHz		40	45	—	dB
945.00 ... 1200.00 MHz		45	55	—	dB
1200.00 ... 2000.00 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

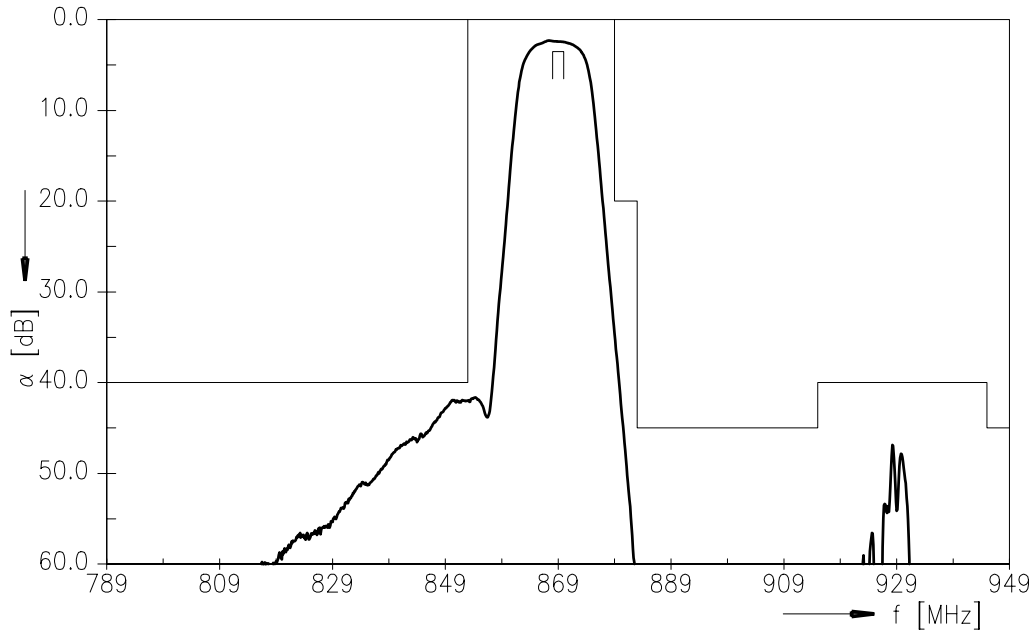
Please read *cautions and warnings and important notes* at the end of this document.



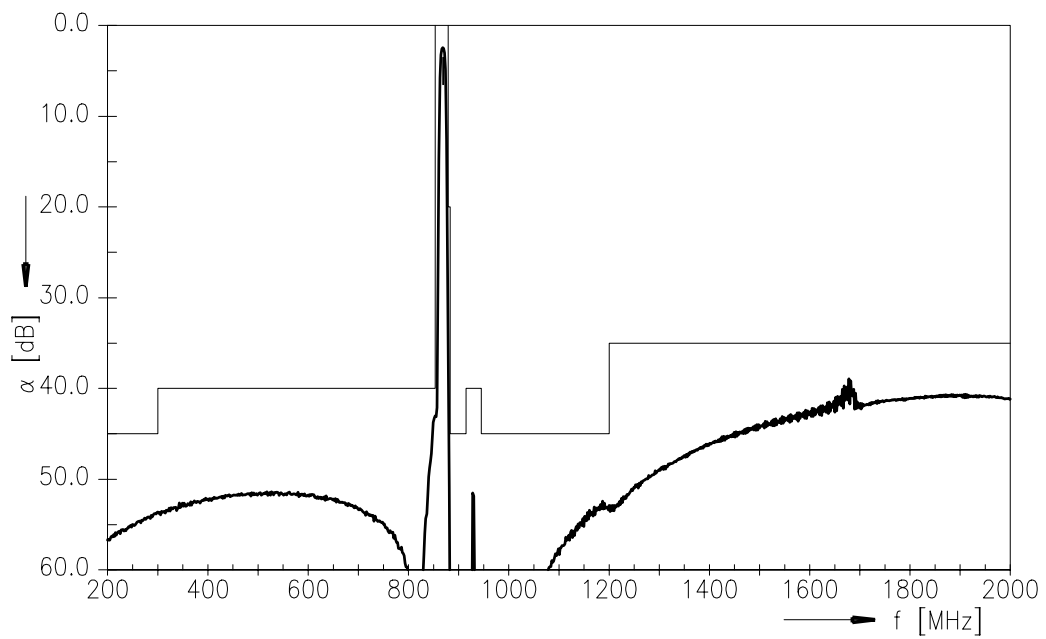
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Transfer function



Transfer function (wide band)



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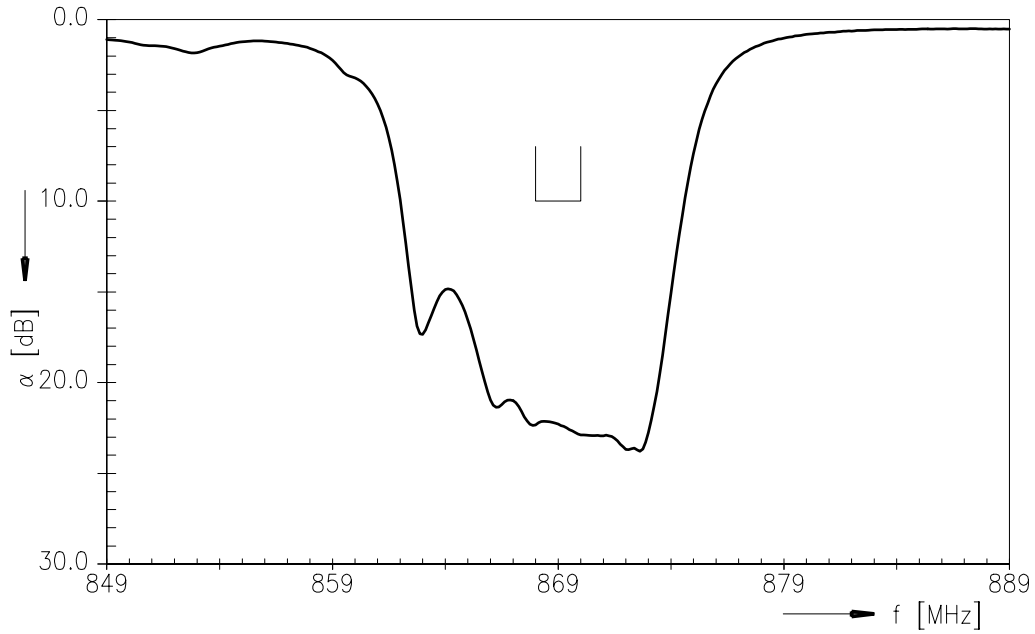
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869.00 MHz

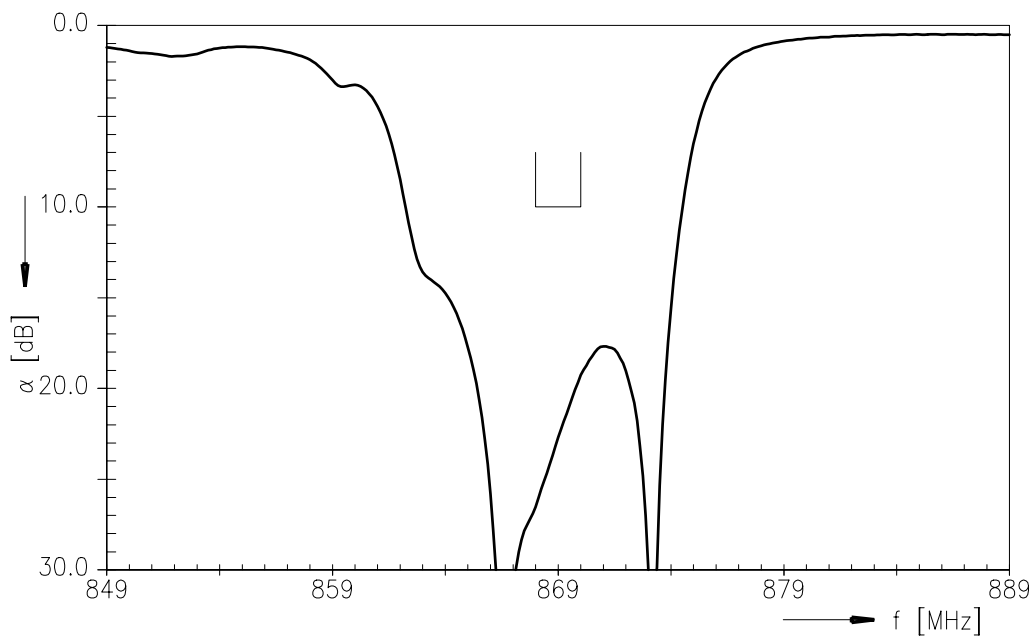
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S11



S22



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References

Type	B3723
Ordering code	B39871B3723Z610B
Marking and package	C61157-A7-A41
Packaging	F61074-V8167-Z000
Date codes	L_1126
S-parameters	B3723_NB.s2p B3723_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.

Published by EPCOS AG
Surface Acoustic Wave Components Division
P.O. Box 80 17 09, 81617 Munich, GERMANY

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

7 August 05, 2008



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