



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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B3723

SAW RF filter

869.00 MHz

Data sheet



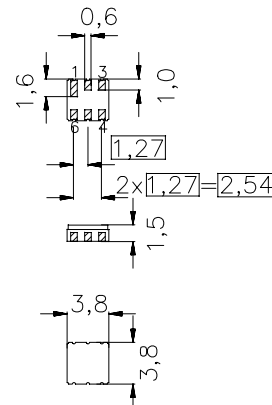
Application

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



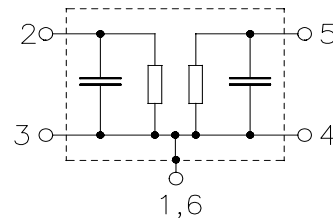
Features

- 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





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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	$\alpha_{\max}$	—	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 °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	—	869.00	—	MHz
Maximum insertion attenuation	α _{max}	—	2.5	4.0	dB
868.00 ... 870.00 MHz					
Amplitude ripple (p-p)	Δα	—	0.3	1.7	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		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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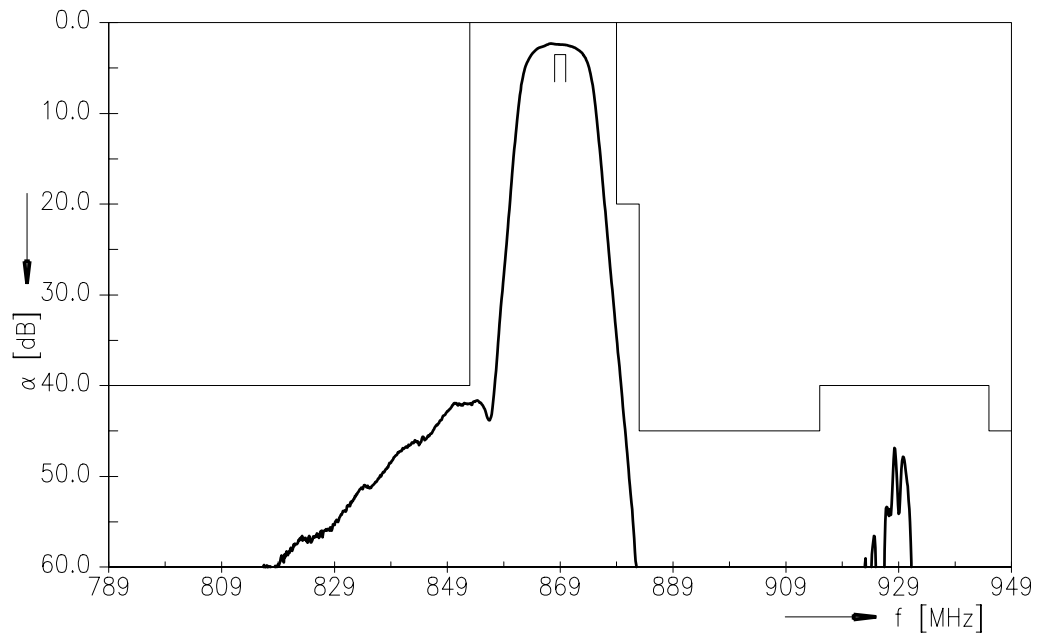
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869.00 MHz

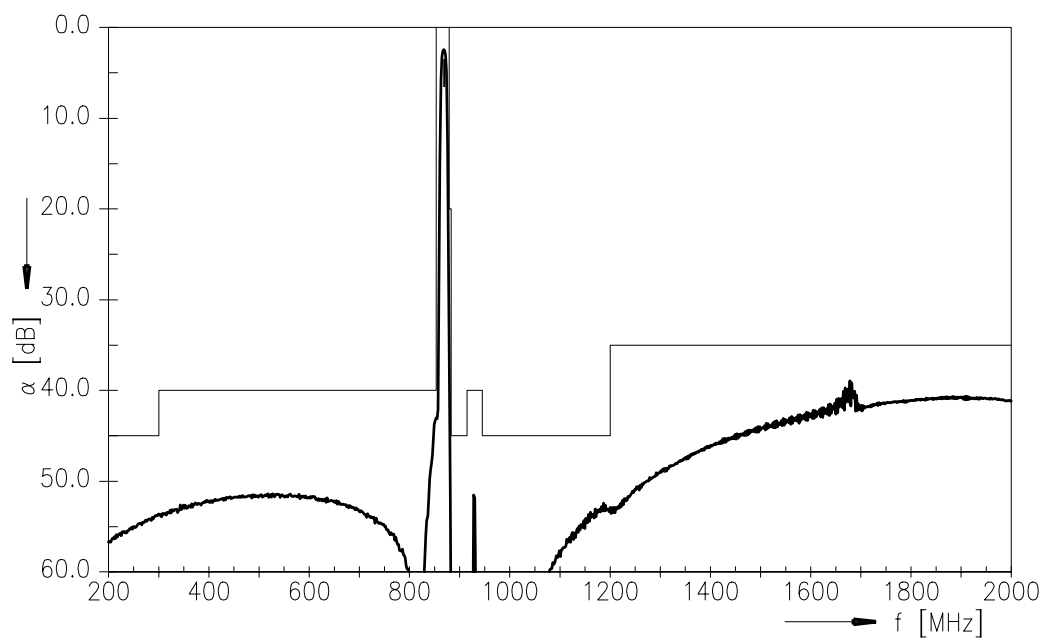
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Transfer function



Transfer function (wide band)



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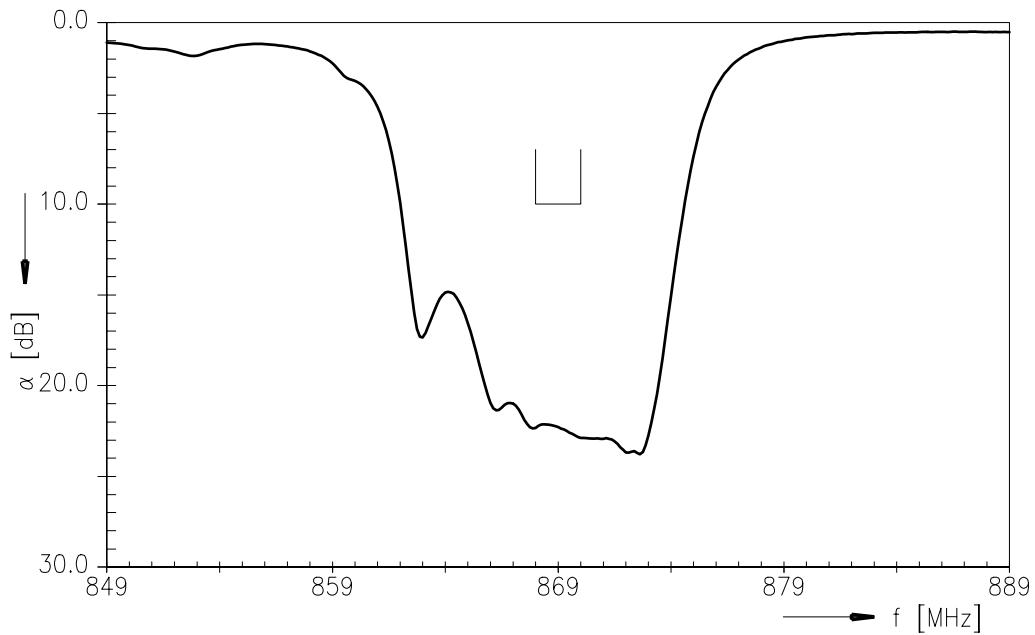
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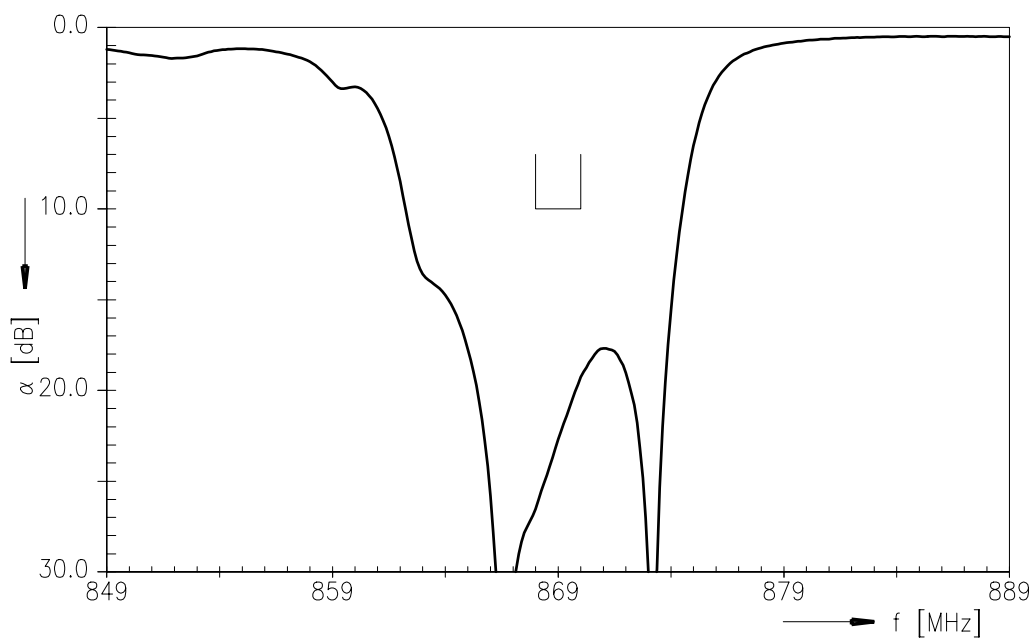
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S11



S22



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Data sheet

**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 maxi- mum concentration values for certain hazardous substances in electrical and electronic equipment."

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