



SAW Components

SAW IF filter

BWA

Series/type:	B5092
Ordering code:	B39141B5092Z510
Date:	Aug 17, 2009
Version:	2.1



SAW Components

B5092

SAW IF filter

140.00 MHz

Datasheet



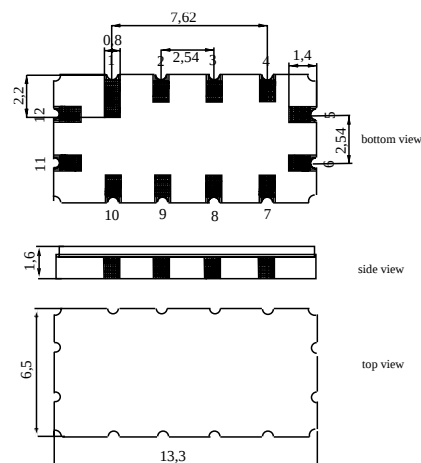
Application

- Low-loss IF filter



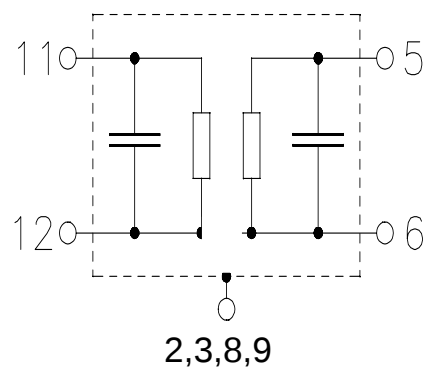
Features

- Package size 13.3x6.5x1.6 mm³
- Package code QCC12
- RoHS compatible
- Approx. weight 0.4 g
- Ceramic package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Filter surface passivated



Pin configuration

- 11 Input
- 12 Input return
- 5 Output
- 6 Output return
- 2, 3, 8, 9 Case ground
- 1, 4, 7, 10 To be grounded





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Characteristics

Operating temperature range:	$T = -35 \text{ to } 75 \text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50 \Omega \text{ and matching network}$
Terminating load impedance:	$Z_L = 50 \Omega \text{ and matching network}$

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	140.0	—	MHz
Minimum insertion attenuation (including matching network)	$\alpha_{\min}$	—	11.0	12.0	dB
Passband bandwidth					
$\alpha_{\text{rel}} \leq 1 \text{ dB}$	$B_{1\text{dB}}$	—	1.84	—	MHz
$\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	1.9	2.07	2.2	MHz
$\alpha_{\text{rel}} \leq 40 \text{ dB}$	$B_{40\text{dB}}$	—	3.36	3.9	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 0.5 \text{ MHz}$		—	0.7	1	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 0.5 \text{ MHz}$		—	140	200	ns
Absolute group delay at f_N	τ	—	1.5	—	μs
Relative attenuation (relative to $\alpha_{\min}$)	α_{rel}				
10.00 MHz ... 137.50 MHz		40	45	—	dB
142.50 MHz ... 250 MHz		40	45	—	dB
Triple Transit Suppression		35	45	—	dB
Temperature coefficient of frequency	TC_f	—	-18	—	ppm/K

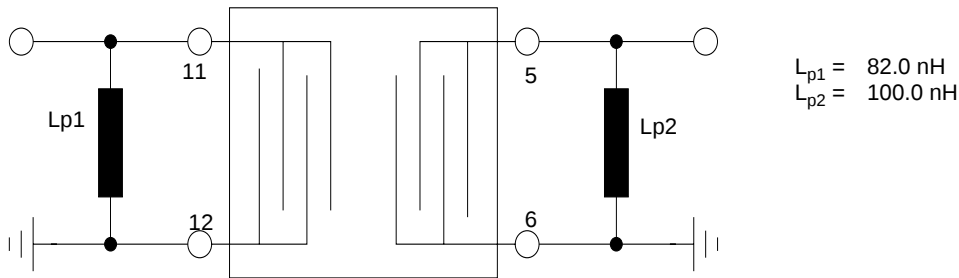


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Matching network to 50 Ω



Element values depend upon board layout

Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
Input power	P _{IN}	10	dBm	



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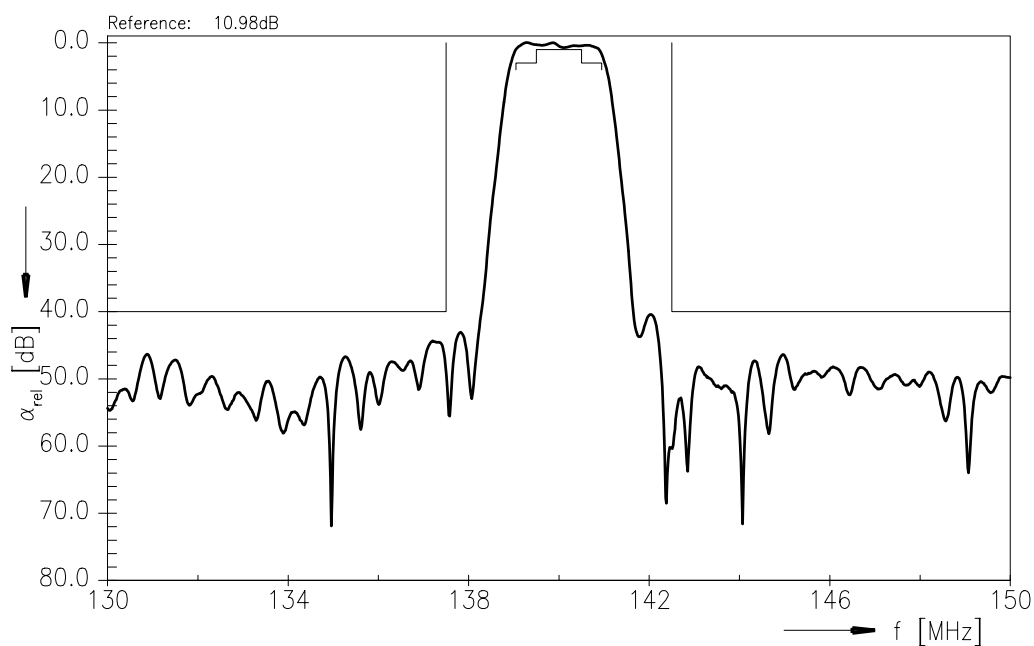
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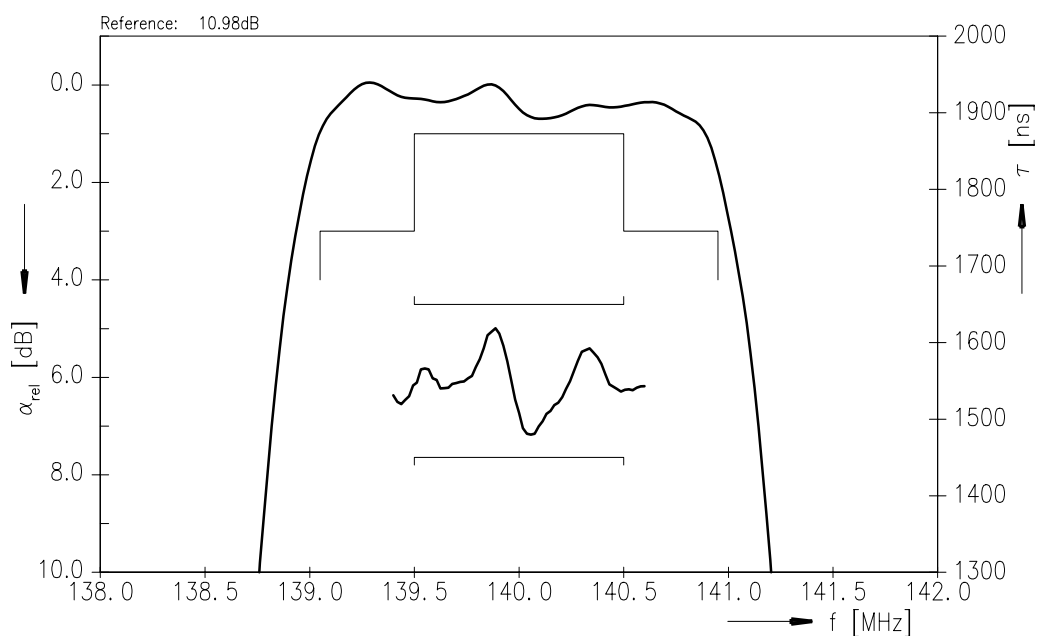
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Transfer function (wideband measurement)



Transfer function (Passband)





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References

Type	B5092
Ordering code	B39141B5092Z510
Marking and package	C61157-A7-A55
Packaging	F61074-V8163-Z000
Date codes	L_1126
S-parameters	
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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