SAW Components

SAW IF filter

Clean up filter

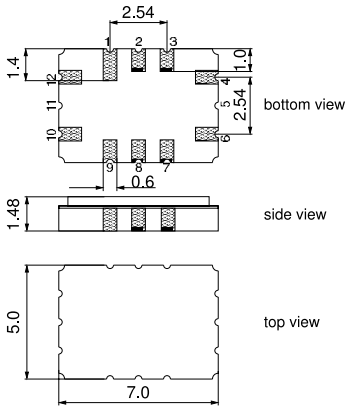
Series/type:	**B5217**
Ordering code:	**B39491B5217H310**
Date:	Sep 11, 2009
Version:	2.0

Application

- Low-loss IF filter
- VCXO clean up filter
- Temperature stable

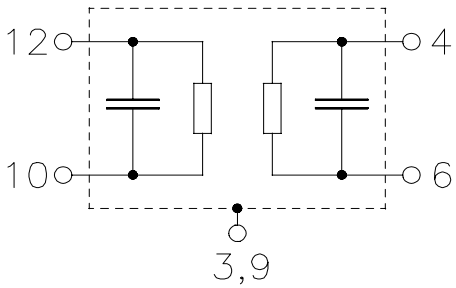
Features

- Package size 7.0 x 5.0 x 1.35 mm^3
- Package code QCC12C
- RoHS compatible
- Approx. weight 0.25 g
- Ceramic package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- Filter surface passivated



Pin configuration

■	10	Input
■	12	Input ground
■	4	Output
■	6	Output ground
■	3, 9	Case ground
■	1, 2, 7, 8	To be grounded



Data Sheet SMD

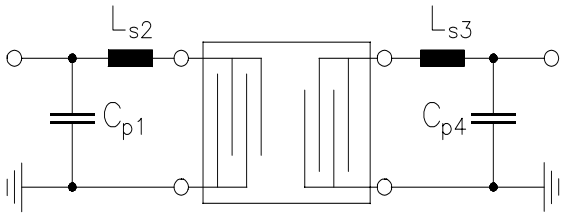
Characteristics

Operating temperature range: T = –40 to 85 ˚C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		min.	typ. @ 25	max.	
Nominal frequency	f_N	—	491.52	—	MHz
Insertion attenuation at f_N (T=25˚C)	α_n	6.0	7.0	8.0	dB
Variation of Insertion att. (rel. to α_n)	α_{rel}	—	—	±0.9	dB
Passband bandwidth α_{rel} <= 3 dB	B_{3dB}	1.0	1.67	—	MHz
Amplitude ripple (p-p) $f_N \pm 0.1$ MHz	$\Delta\alpha$	—	0.3	0.5	dB
Relative attenuation (relative to α_n)	α_{rel}				
f_N -200.00 MHz ... f_N - 10.00 MHz		40	46	—	dB
f_N -10.00 MHz ... f_N - 3.00 MHz		35	44	—	dB
f_N + 3.00 MHz ... f_N + 10.00 MHz		35	43	—	dB
f_N + 10.00 MHz ... f_N +200.00 MHz		40	48	—	dB
Temperature coefficient of frequency[1)]	TC_f	—	-0.036	—	ppm/K²
Turnover temperature	T_0	—	25	—	˚C

1) Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Matching network to 50 Ω



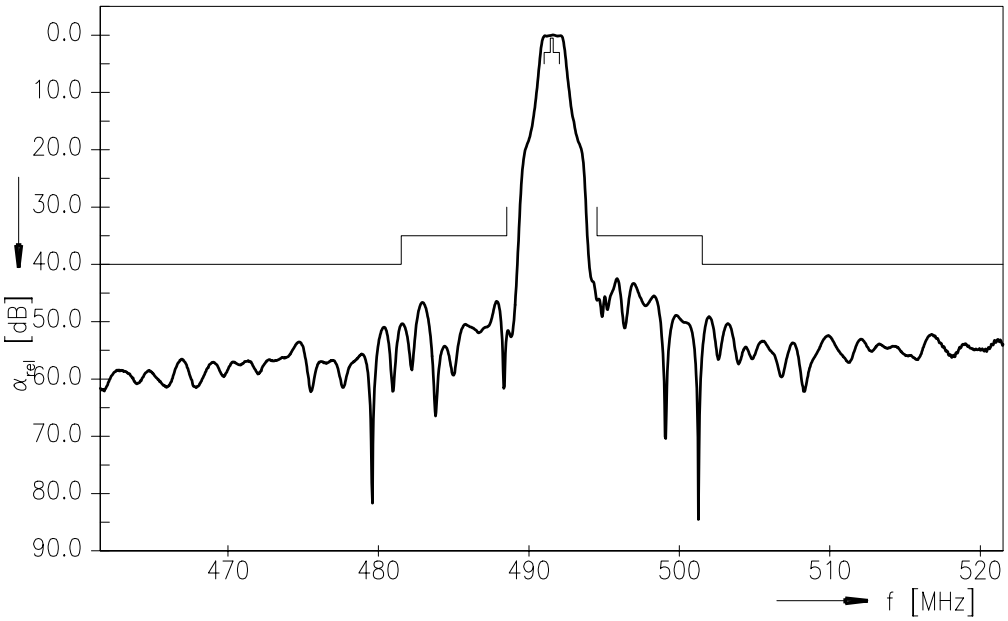
C_{p1}= 10 pF
L_{s2} = 33 nH
L_{s3} = 27 nH
C_{p4}= 10 pF

Element values depend upon board layout

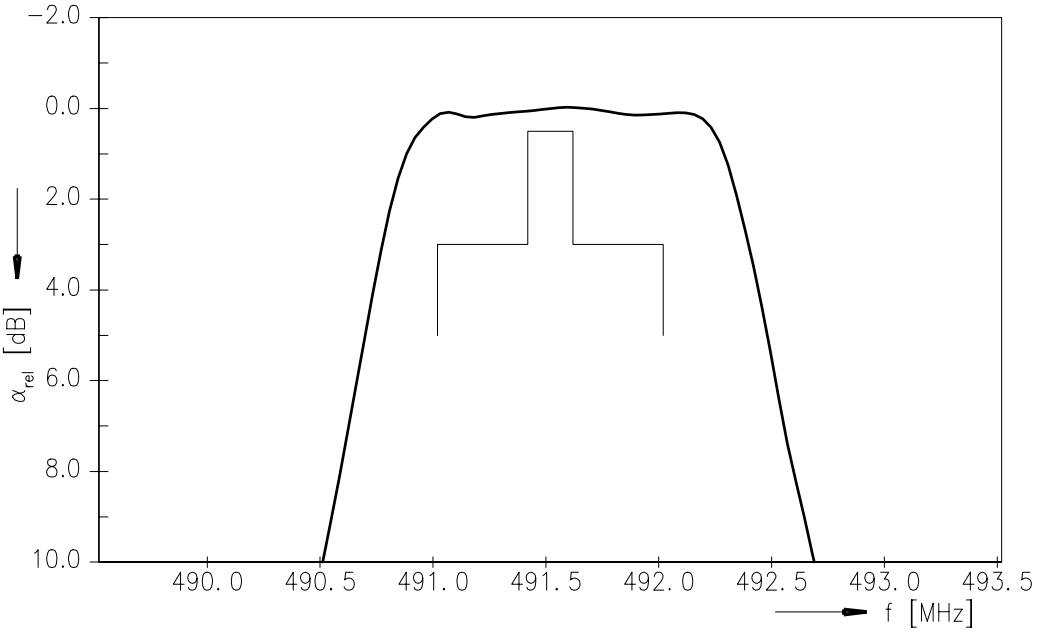
Maximum ratings

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	

Transfer function



Transfer function (Passband)



References

Type	B5217
Ordering code	B39491B5217H310
Marking and package	C61157-A7-A95
Packaging	F61074-V8170-Z000
Date codes	L_1126
S-parameters	LI62A_NB.s2p
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."

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