EPCOS

SAW Components

Preliminary Data Sheet B3860

Preliminary Data Sheet

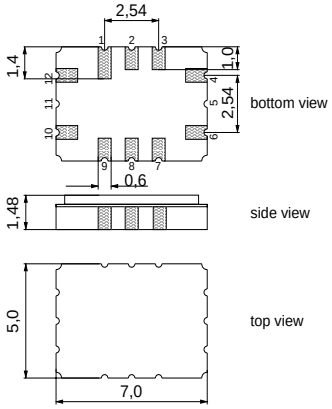
Ceramic package **QCC12C**

Features

- Low-loss filter
- Temperature stable
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

Terminals

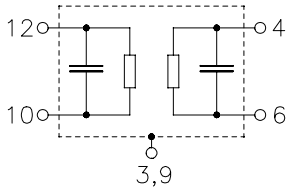
- Gold-plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

10	Input
12	Input ground or bal. input
4	Output
6	Output ground or bal. output
1, 2, 3, 7, 8, 9	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B3860	B39451B3860H310	C61157A0007A052	F61074V8038Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 45/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	source impedance 75 Ω

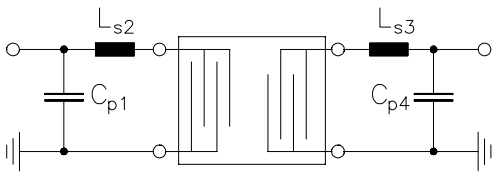
Preliminary Data Sheet

Characteristics

Operating temperature: T = -25 ... +75 ˚C
Terminating source impedance: Z_S = 75 Ω and matching network
Terminating load impedance: Z_L = 75 Ω and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	445,25	—	MHz
Insertion attenuation at f_N (T=25 ˚C)	α_N	6,5	8,5	9,5	dB
Variation of insertion att. (rel. to α_N)	α_{rel}	—	—	±0,9	dB
Frequency response					
3 dB Lower frequency	$f_{L\ 3dB}$	—	444,40	444,75	MHz
3 dB Upper frequency	$f_{U\ 3dB}$	445,75	446,40	—	MHz
35 dB Lower frequency	f_{L35dB}	442,25	442,90	—	MHz
35 dB Upper frequency	f_{U35dB}	—	448,00	448,25	MHz
Amplitude ripple (peak to adjacent valley)					
$f_N \pm 100$ kHz		—	0,3	0,5	dB
Relative attenuation	α_{rel}				
f_N - 200,0 MHz ... f_N - 10,0 MHz		40	48	—	dB
f_N - 10,0 MHz ... f_N - 3,0 MHz		35	46	—	dB
f_N + 3,0 MHz ... f_N + 10,0 MHz		35	46	—	dB
f_N + 10,0 MHz ... f_N + 200,0 MHz		40	45	—	dB
Temperature coefficient of frequency [1]	TC_f	—	– 0,036	—	ppm/K²
Turnover temperature	T_0	—	25	—	˚C

Matching circuit:

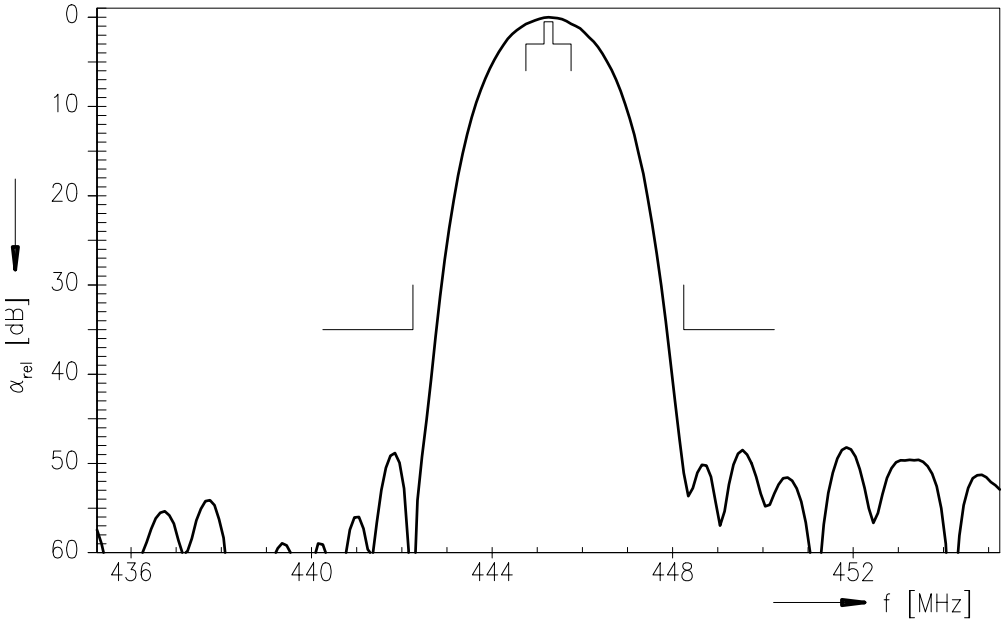


C_{p1} = 12pF [2]
L_{s2} = 18nH [2]
L_{s3} = 18nH [2]
C_{p4} = 12pF [2]

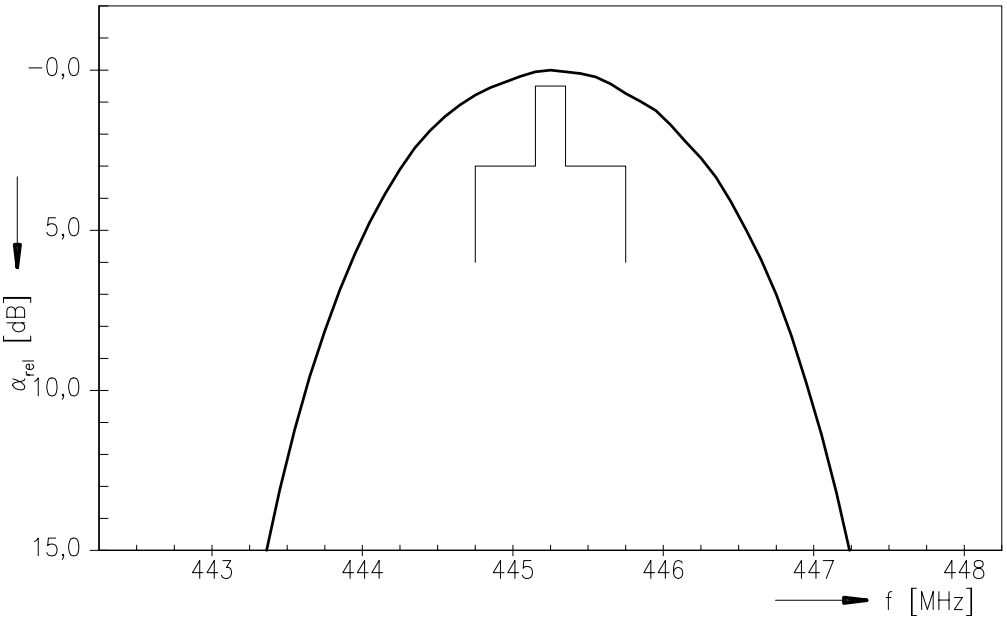
[1] Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

[2] Element values depend on PCB layout

Normalized frequency response



Normalized frequency responseq



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