EPCOS

SAW Components

Data Sheet B3607

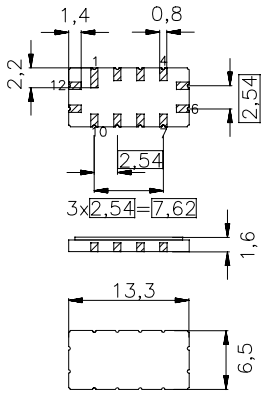
Ceramic package **QCC12**

Features

- High performance IF bandpass filter
- Constant group delay
- Hermetically sealed ceramic package

Terminals

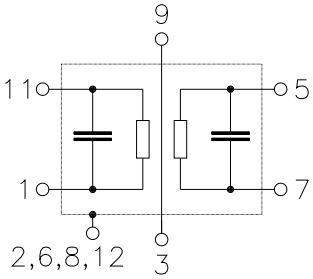
- Gold plated



Dimensions in mm, approx. weight 0,4 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3607	B39141-B3607-Z510	C61157-A7-A55	F61074-V8163-Z000

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

Maximum ratings

Operable temperature range	T	– 40/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	source impedance 50 Ω

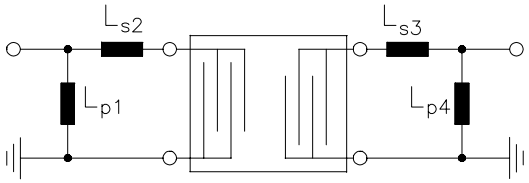
Characteristics

Operating temperature: T = 25 ˚C
Terminating source impedance: Z_S = 50 Ω and matching circuit
Terminating load impedance: Z_L = 50 Ω and matching circuit
Group delay aperture 200 kHz

		min.	typ.	max.	
Center frequency (Center between 6dB points)	f_C	139,75	140,00	140,25	MHz
Insertion attenuation at f_C	α_C	—	6,0	7,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
137,50 ... 142,50 MHz		—	0,7	1,0	dB
Phase ripple (p-p)	$\Delta\varphi$				
137,50 ... 142,50 MHz		—	5	10	°
Pass bandwidth					
$\alpha_{rel} \leq$ 1 dB	B_{1dB}	5,8	6,1	—	MHz
$\alpha_{rel} \leq$ 3 dB	B_{3dB}	6,9	7,1	—	MHz
$\alpha_{rel} \leq$ 40 dB	B_{40dB}	—	10,5	11,1	MHz
Relative attenuation (relative to α_C)	α_{rel}				
100,00 ... 134,00 MHz		40	47	—	dB
146,00 ... 180,00 MHz		40	46	—	dB
Group delay at f_C	τ_C	—	1,35	—	µs
Group delay ripple (p-p)	$\Delta\tau$				
137,50 ... 142,50 MHz		—	80	150	ns
Temperature coefficient of frequency	TC_f	—	– 87	—	ppm/K

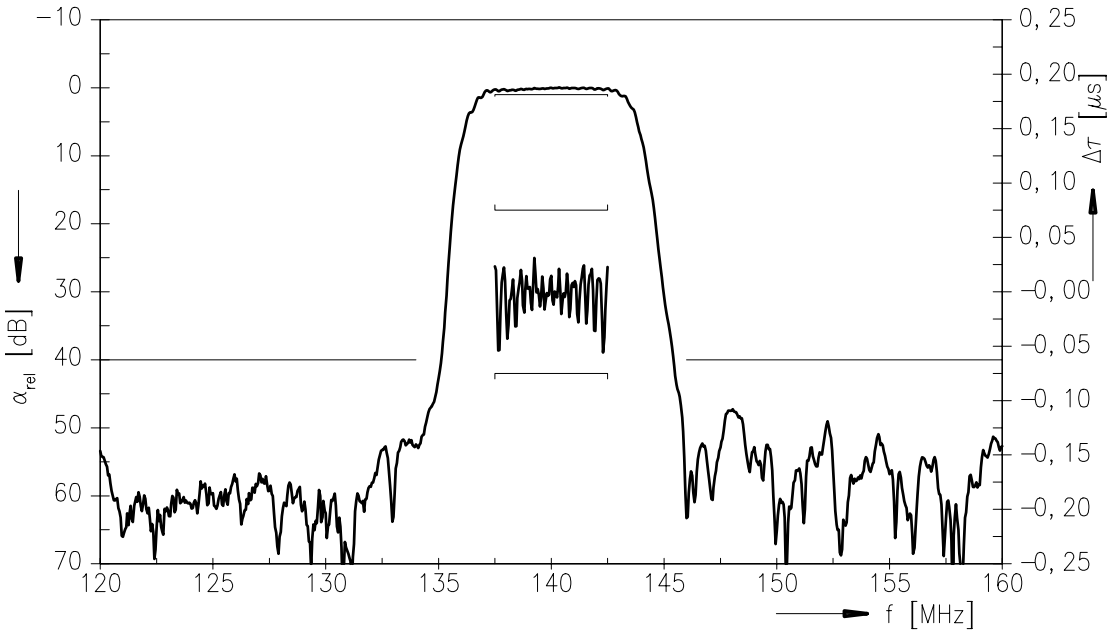
Matching circuit:

Note: Component values depend upon PCB layout

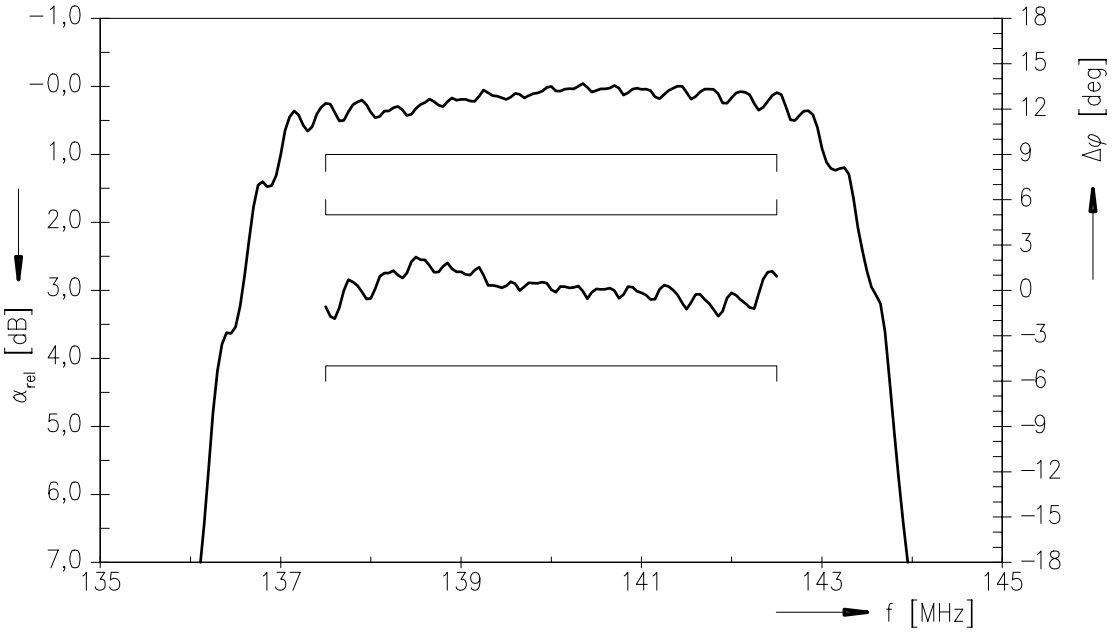


L_{P1} = 47 nH
L_{S2} = 27 nH
L_{S3} = 39 nH
L_{P4} = 68 nH

Normalized frequency response



Normalized frequency response



Attachment

1) Pyroelectric pulse amplitude < 50 mV.

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