



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SAW Components

Data Sheet B3666

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles the top of the EPCOS logo triangle. The background is dark and textured, with a faint map of the world visible.



SAW Components

B3666

Low-Loss Filter

82,20 MHz

Data Sheet

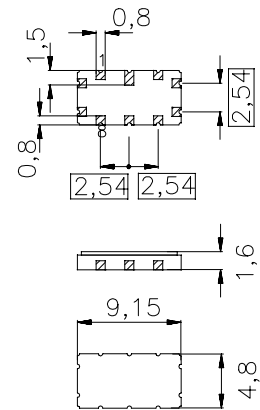
Ceramic SMD package QCC10B

Features

- Low-loss IF filter
- Ceramic SMD package
- Balanced or unbalanced operation possible
- Low insertion attenuation, high selectivity

Terminals

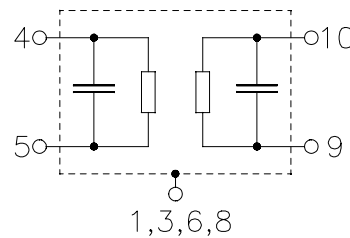
- Gold-plated



Dimensions in mm, approx. weight 0,23 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3666	B39820-B3666-Z710	C61157-A7-A49	F61064-V8035-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30/+ 80	°C
Storage temperature range	T_{stg}	- 40/+ 85	°C
DC voltage	V_{DC}	0	V
Source power	P_s	10	dBm


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Characteristics

Reference temperature: $T = -10 \dots +80 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$ unbalanced and matching network
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$ unbalanced and matching network

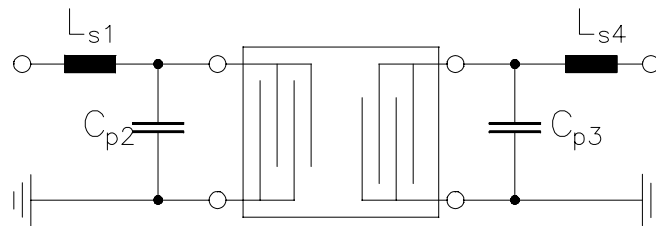
		min.	typ.	max.	
Nominal frequency	f_N	—	82,2	—	MHz
Minimum insertion loss	α_{\min}	—	3,7	5,0	dB
3dB bandwidth		30	50	—	kHz
Amplitude variation (p-p) $f_N - 15 \text{ kHz} \dots f_N + 15 \text{ kHz}$	$\Delta\alpha$	—	0,9	3,0	dB
Amplitude ripple (peak to adjacent valley) $f_N - 15 \text{ kHz} \dots f_N + 15 \text{ kHz}$	$\Delta\alpha$	—	0,0	1,5	dB
Absolute group delay (at f_N)	τ	—	16	—	μs
Group delay ripple (p-p) $f_N - 11 \text{ kHz} \dots f_N + 11 \text{ kHz}$	$\Delta\tau$	—	1,6	10	μs
Relative attenuation (relative to α_{\min})	α_{rel}				
$f_N - 1000 \text{ kHz} \dots f_N - 925 \text{ kHz}$		40	70	—	dB
$f_N - 925 \text{ kHz} \dots f_N - 885 \text{ kHz}$		70	75	—	dB
$f_N - 885 \text{ kHz} \dots f_N - 700 \text{ kHz}$		40	70	—	dB
$f_N - 700 \text{ kHz} \dots f_N - 400 \text{ kHz}$		30	65	—	dB
$f_N - 400 \text{ kHz} \dots f_N - 120 \text{ kHz}$		40	60	—	dB
$f_N - 120 \text{ kHz} \dots f_N - 60 \text{ kHz}$		20	34	—	dB
$f_N + 60 \text{ kHz} \dots f_N + 120 \text{ kHz}$		20	29	—	dB
$f_N + 120 \text{ kHz} \dots f_N + 150 \text{ kHz}$		40	57	—	dB
$f_N + 150 \text{ kHz} \dots f_N + 400 \text{ kHz}$		30	55	—	dB
$f_N + 400 \text{ kHz} \dots f_N + 1000 \text{ kHz}$		40	55	—	dB
Intermodulation distortion Intermodulation in the composit signal by $f_N \pm 60$ kHz and $f_N \pm 120$ kHz, each of -20 dBm			—	-90	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	30	—	$^\circ\text{C}$

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



Data Sheet

Matching network (element values depend on pcb layout)



$$L_{s1} = 470 \text{ nH}$$

$$C_{p2} = 3,9 \text{ pF}$$

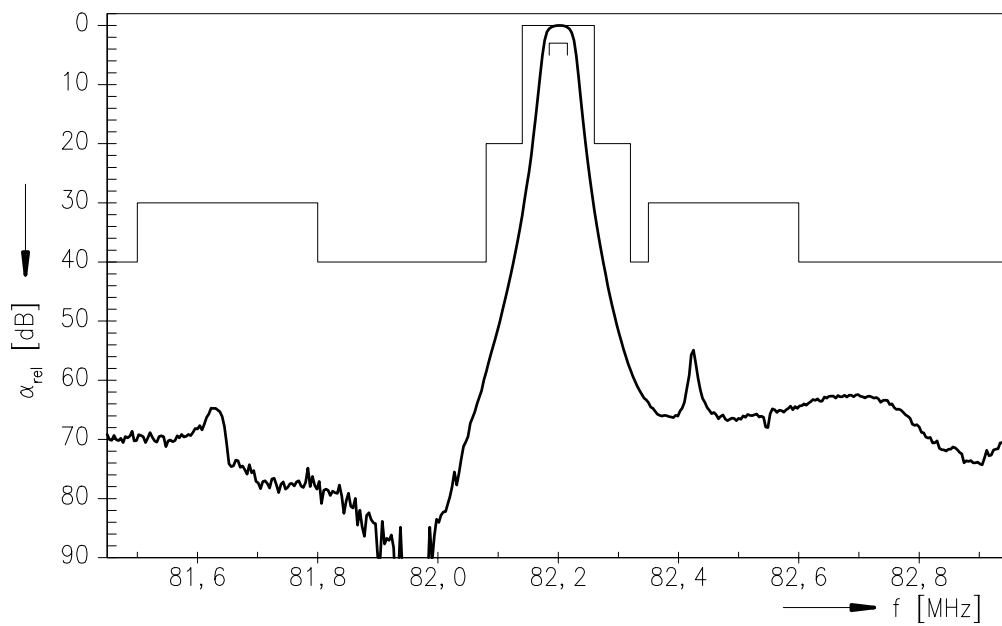
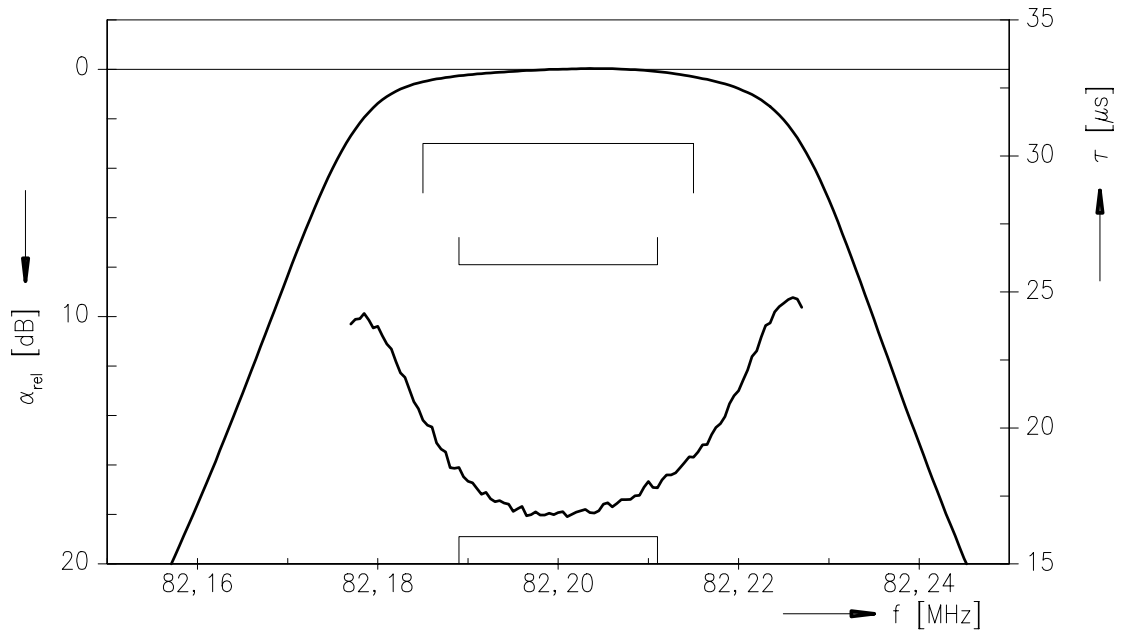
$$C_{p3} = 3,9 \text{ pF}$$

$$L_{s4} = 470 \text{ nH}$$



Data Sheet

Transfer function





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