



SAW Components

Data Sheet B3666





SAW Components

B3666

Low-Loss Filter

82,20 MHz

Data Sheet

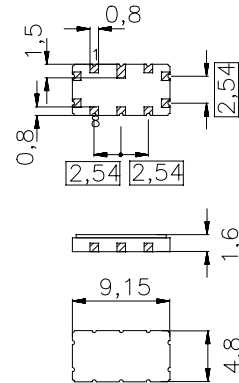
Ceramic SMD package QCC10B

Features

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

Terminals

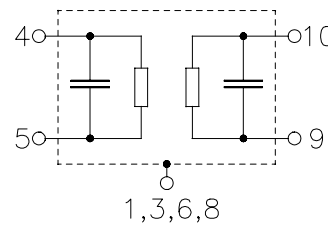
- Gold-plated



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


SAW Components
B3666
Low-Loss Filter
82,20 MHz
Data Sheet
Characteristics

Reference temperature:

$$T = -10 \dots +80 \text{ } ^\circ\text{C}$$

Terminating source impedance:

$$Z_S = 50 \text{ } \Omega \text{ unbalanced and matching network}$$

Terminating load impedance:

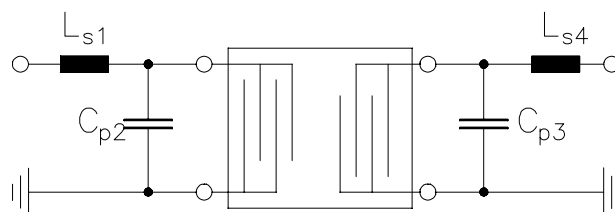
$$Z_L = 50 \text{ } \Omega \text{ unbalanced and matching network}$$

		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)



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

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

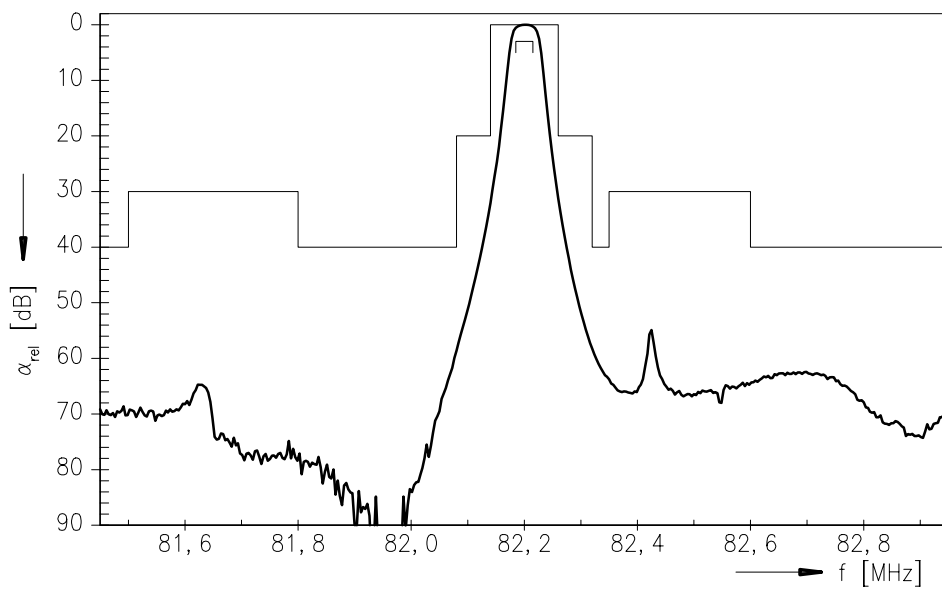
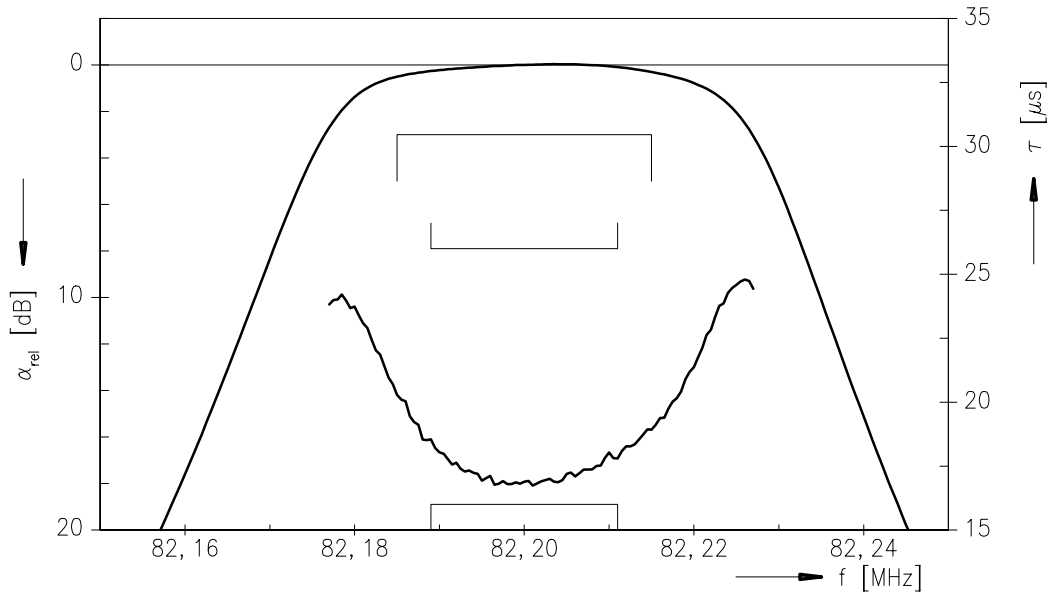
$$C_{p3} = 3,9 \text{ pF}$$

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



Data Sheet

Transfer function





SAW Components

B3666

Low-Loss Filter

82,20 MHz

Data Sheet

Published by EPCOS AG
Surface Acoustic Wave Components Division, OFW E NK
P.O. Box 80 17 09, D-81617 München

© EPCOS AG 1999. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.