



SAW Components

Preliminary Data Sheet B3845

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue glow and are positioned diagonally across the frame. In the background, there is a faint, stylized globe and some circuitry patterns, all in a dark, monochromatic color scheme.



SAW Components

B3845

Low-Loss Filter

427,25 MHz

Preliminary Data Sheet

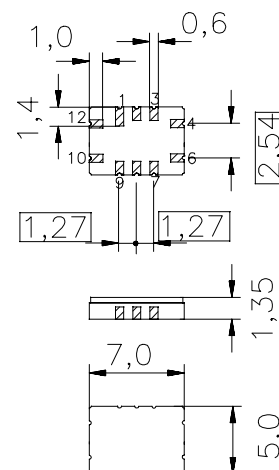
Ceramic package **QCC12B**

Features

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

Terminals

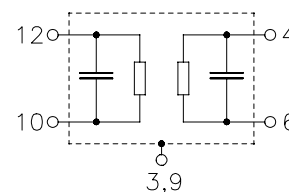
- Gold-plated



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
3, 9	Case - ground
1, 2, 7, 8	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B3845	B39421B3845Z910	C61157A0007A052	F61074V8038Z000

Electrostatic Sensitive Device (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



SAW Components

B3845

Low-Loss Filter

427,25 MHz

Preliminary Data Sheet

Characteristics

Operating temperature:

$T = -40 \dots +85 \text{ }^{\circ}\text{C}$

Terminating source impedance:

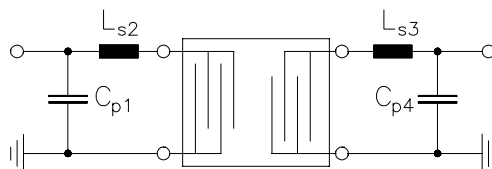
$Z_S = 75 \text{ } \Omega$ and matching network

Terminating load impedance:

$Z_L = 75 \text{ } \Omega$ and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	427,25	—	MHz
Insertion attenuation at f_N ($T=25 \text{ }^{\circ}\text{C}$)	α_N	6,0	6,5	8,0	dB
Variation of insertion att. (rel. to α_N)	α_{rel}	—	—	$\pm 0,9$	dB
Frequency response					
3 dB Lower frequency	$f_{L \text{ 3dB}}$	—	426,55	426,75	MHz
3 dB Upper frequency	$f_{U \text{ 3dB}}$	427,75	428,25	—	MHz
35 dB Lower frequency	$f_{L \text{ 35dB}}$	424,25	425,30	—	MHz
35 dB Upper frequency	$f_{U \text{ 35dB}}$	—	429,50	430,25	MHz
Amplitude ripple (peak to adjacent valley)					
$f_N \pm 100 \text{ kHz}$		—	0,3	0,5	dB
Relative attenuation					
$f_N - 200,0 \text{ MHz} \dots f_N - 10,0 \text{ MHz}$	α_{rel}	40	48	—	dB
$f_N - 10,0 \text{ MHz} \dots f_N - 3,0 \text{ MHz}$		35	42	—	dB
$f_N + 3,0 \text{ MHz} \dots f_N + 10,0 \text{ MHz}$		35	48	—	dB
$f_N + 10,0 \text{ MHz} \dots f_N + 200,0 \text{ MHz}$		40	52	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	- 0,036	—	ppm/K ²
Turnover temperature	T_0	—	25	—	$^{\circ}\text{C}$

Matching circuit:



$C_{p1} = 10\text{pF}$ ²⁾

$L_{s2} = 22\text{nH}$ ²⁾

$L_{s3} = 15\text{nH}$ ²⁾

$C_{p4} = 12\text{pF}$ 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



SAW Components

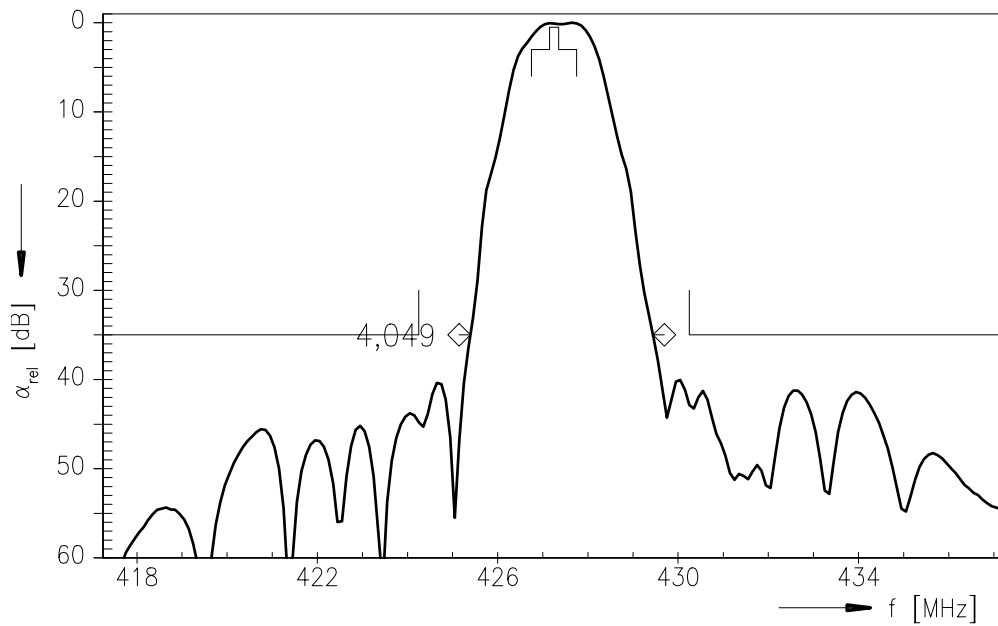
B3845

Low-Loss Filter

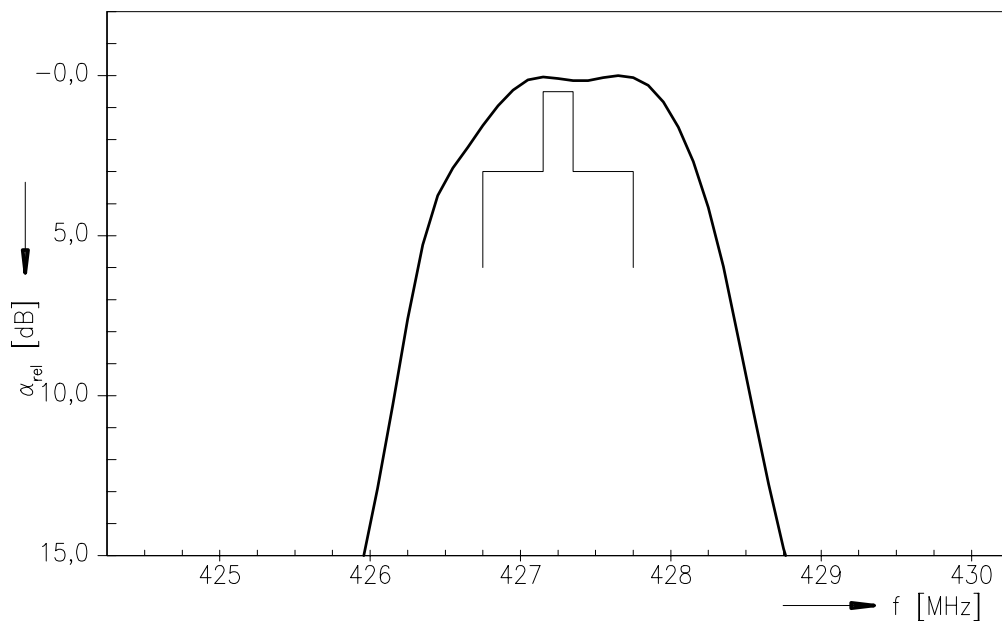
427,25 MHz

Preliminary Data Sheet

Normalized frequency response



Normalized frequency response





SAW Components

B3845

Low-Loss Filter

427,25 MHz

Preliminary Data Sheet

Published by EPCOS AG

**Surface Acoustic Wave Components Division, SAW MC IS,
P.O. Box 80 17 09, 81617 Munich, GERMANY**

© EPCOS AG 2002. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

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.