



SAW Components

Data Sheet B3865





SAW Components

B3865

Low-Loss Filter

240,0 MHz

Data Sheet

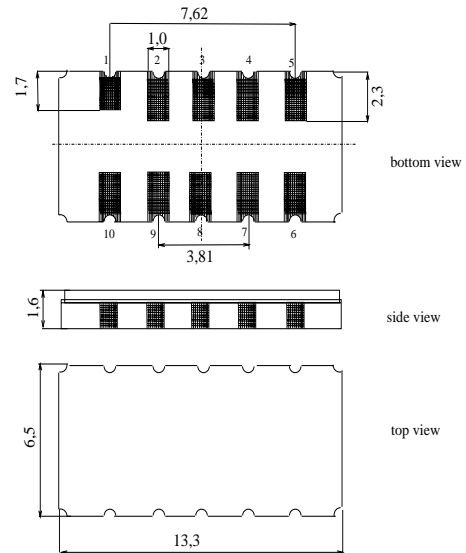
Features

- High performance IF bandpass filter
- Temperature stable
- Hermetically sealed ceramic package

Terminals

- Gold plated

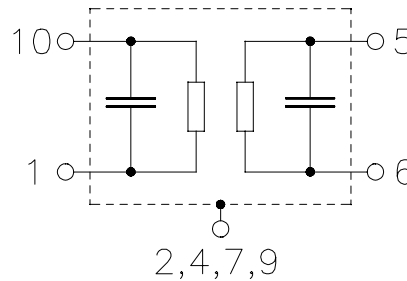
Ceramic package DCC12A



Dimensions in mm, approx. weight 0,44 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3865	B39241-B3865-H510	C61157-A7-A94	F61074-V8163-Z000

Electrostatic Sensitive Device (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	0	dBm


SAW Components
B3865
Low-Loss Filter
240,0 MHz
Data Sheet
Characteristics

Operating temperature range:	$T = -10 \dots 85^\circ\text{C}$
Terminating source impedance:	$Z_S = 50 \Omega$ and matching network
Terminating load impedance:	$Z_S = 50 \Omega$ and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	240,0	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}	12,0	14,0	16,0	dB
Passband width	$\alpha_{\text{rel}} \leq 1 \text{ dB}$ $B_{1\text{dB}}$	3,6	4,0	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$ $f_N \pm 1,8 \text{ MHz}$	—	0,8	1,1	dB
Absolute group delay (at f_N)	τ	—	1,07	2,5	μs
Group delay ripple (p-p)	$\Delta\tau$ $f_N \pm 1,7 \text{ MHz}$ $f_N \pm 1,8 \text{ MHz}$	—	150 150	200 300	ns ns
Deviation of linear phase (p-p)	$\Delta\phi$ $f_N \pm 1,8 \text{ MHz}$	—	4	6	$^\circ$
Relative attenuation (relative to α_{\min})	α_{rel}				
$f_N \pm 2,13 \text{ MHz} \dots f_N \pm 2,5 \text{ MHz}$		5	8	—	dB
$f_N \pm 2,5 \text{ MHz} \dots f_N \pm 2,93 \text{ MHz}$		13	16	—	dB
$f_N \pm 2,93 \text{ MHz} \dots f_N \pm 3,3 \text{ MHz}$		24	27	—	dB
$f_N - 5,0 \text{ MHz} \dots f_N - 3,3 \text{ MHz}$		35	38	—	dB
$f_N - 70 \text{ MHz} \dots f_N - 5,0 \text{ MHz}$		40	43	—	dB
$f_N + 3,3 \text{ MHz} \dots f_N + 3,7 \text{ MHz}$		32	35	—	dB
$f_N + 3,7 \text{ MHz} \dots f_N + 5,0 \text{ MHz}$		35	38	—	dB
$f_N + 5,0 \text{ MHz} \dots f_N + 5,4 \text{ MHz}$		38	40	—	dB
$f_N + 5,4 \text{ MHz} \dots f_N + 70 \text{ MHz}$		40	43	—	dB
Input and output return loss		12	15	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	40	—	$^\circ\text{C}$

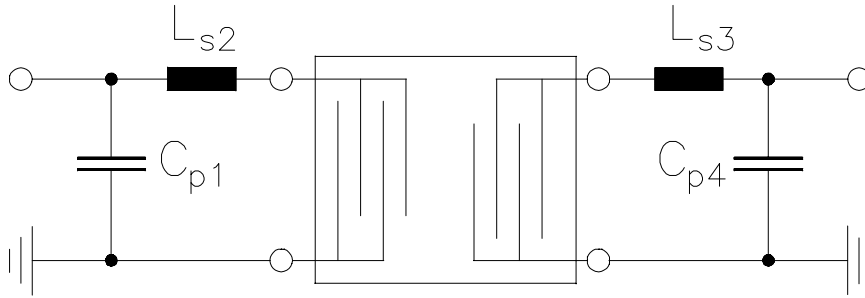
¹⁾ Temperature dependance of f_c : $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



Data Sheet

Matching network to 50 Ω

(Element values depend upon PCB layout)



$C_{p1} = 38,6 \text{ pF}$
 $L_{s2} = 42 \text{ nH}$

$L_{s3} = 39 \text{ nH}$
 $C_{p4} = 36,9 \text{ pF}$



SAW Components

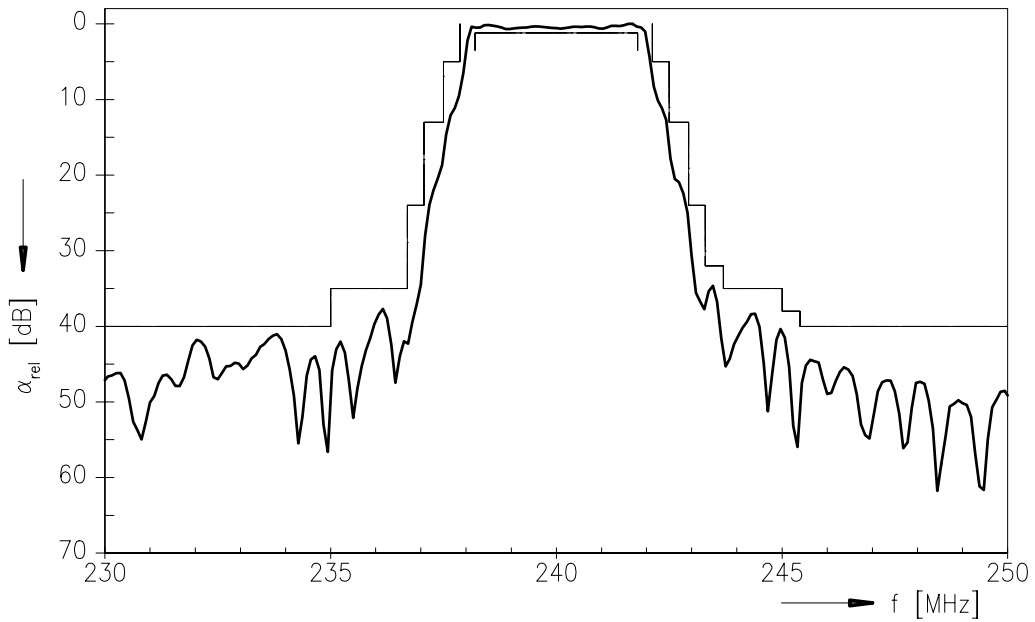
B3865

Low-Loss Filter

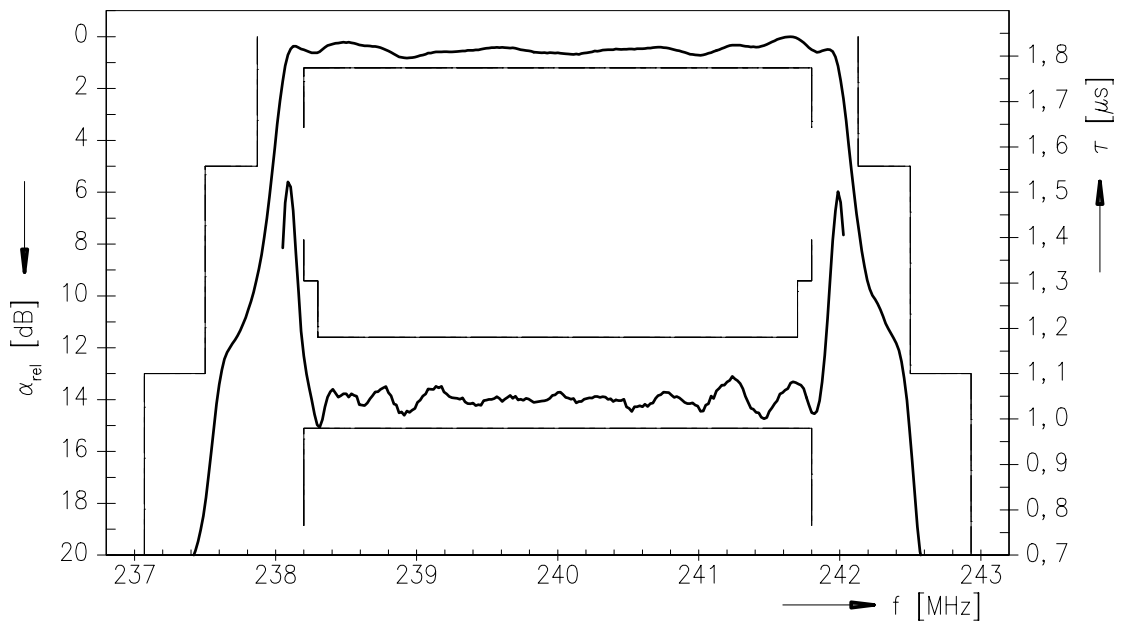
240,0 MHz

Data Sheet

Normalized frequency response



Normalized frequency response (pass band)





SAW Components

B3865

Low-Loss Filter

240,0 MHz

Data Sheet

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC IS

P.O. Box 80 17 09, D-81617 München

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

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. 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.