



SAW Components

Data Sheet X 6865 D

Data Sheet

A large, stylized, 3D-rendered graphic of the word "EPCOS" in a light gray, sans-serif font. The letters are slightly tilted and appear to be floating or emerging from a dark, textured background that resembles a globe or a complex circuit board. The overall effect is a high-tech, modern aesthetic.



SAW Components

X 6865 D

Bandpass Filter

36,125 MHz

Data Sheet

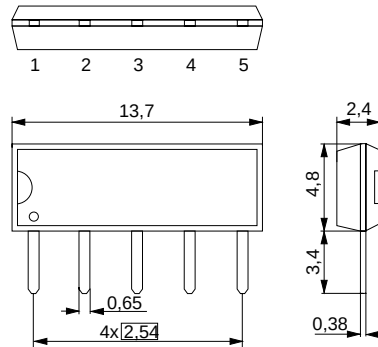
Duroplast package **SIP5D**

Features

- 3 dB bandwidth: 6,0 MHz
- Standard IC package

Terminals

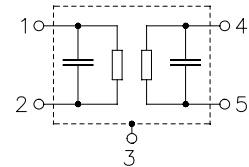
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 g

Pin configuration

- 1 Input
- 2 Input - ground
- 3 Chip carrier - ground
- 4 Output
- 5 Output



Type	Ordering code	Marking and package according to	Packing according to
X 6865 D	B39361-X6865-N201	C61157-A1-A21	F61074-V8049-Z000

Maximum ratings

Operable temperature range	T_A	-25/+65	°C	
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals



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Characteristics

Reference temperature: $T_A = 25\text{ °C}$
Terminating source impedance: $Z_S = 50\ \Omega$
Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Center frequency	f_C	—	36,125	—	MHz
(center between 3 dB points)					
Insertion attenuation	α				
Reference level for the following data	36,13 MHz	16,1	17,6	19,1	dB
Pass bandwidth					
$\alpha_{\text{rel}} \leq 3\text{ dB}$	$B_{3\text{dB}}$	5,8	6,0	6,2	MHz
$\alpha_{\text{rel}} \leq 30\text{ dB}$	$B_{30\text{dB}}$	7,4	7,6	7,8	MHz
Relative attenuation	α_{rel}				
	33,59 MHz	-1,1	0,1	1,3	dB
	38,65 MHz	-0,8	0,4	1,6	dB
	33,12 MHz	1,3	2,5	3,7	dB
	39,12 MHz	1,9	3,1	4,3	dB
Lower sidelobe	25,00 ... 32,12 MHz	38,0	44,0	—	dB
Upper sidelobe	40,12 ... 41,42 MHz	36,0	40,0	—	dB
	41,42 ... 45,00 MHz	38,0	45,0	—	dB
Reflected wave signal suppression					
1,3 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 36,13 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 36,13 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
33,12 ... 39,12 MHz		—	40	—	ns
Impedance at 36,13 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	2,2 $\parallel$ 15,3	—	k Ω $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,4 $\parallel$ 5,6	—	k Ω $\parallel$ pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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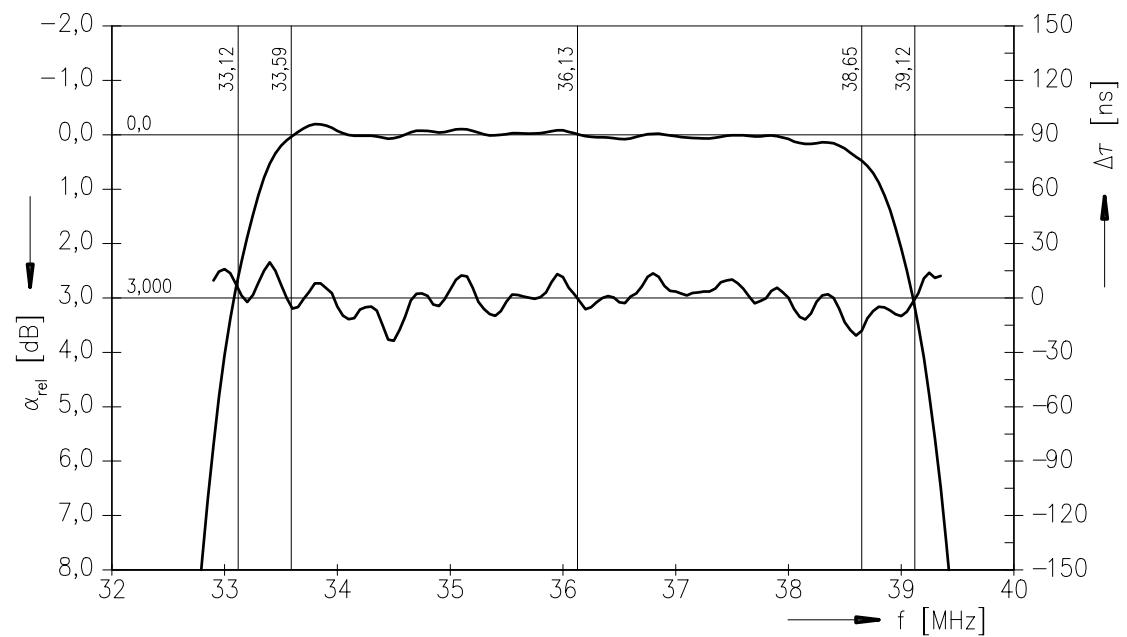
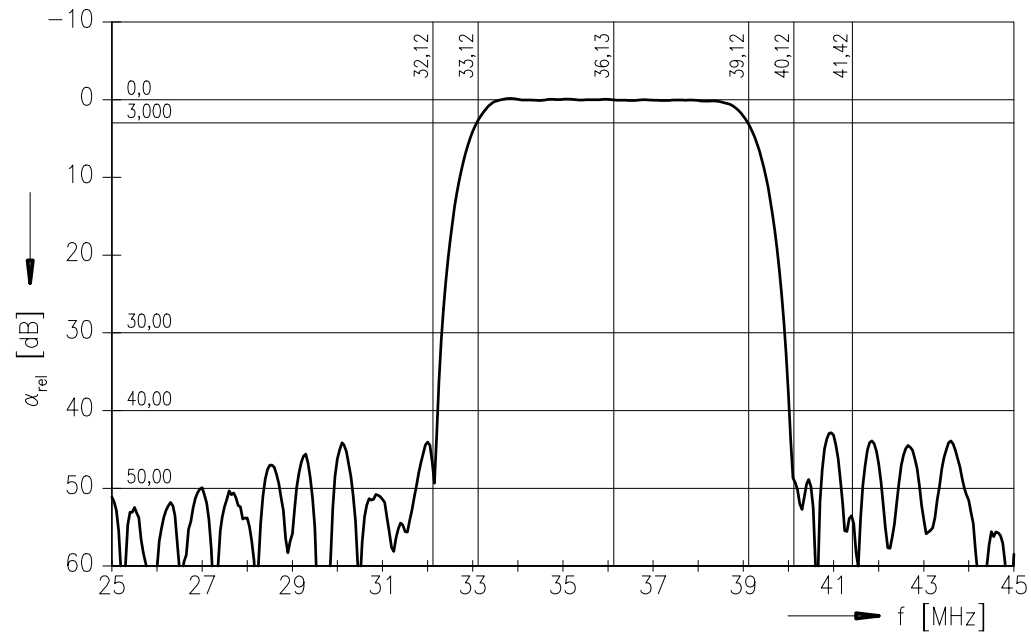
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Frequency response





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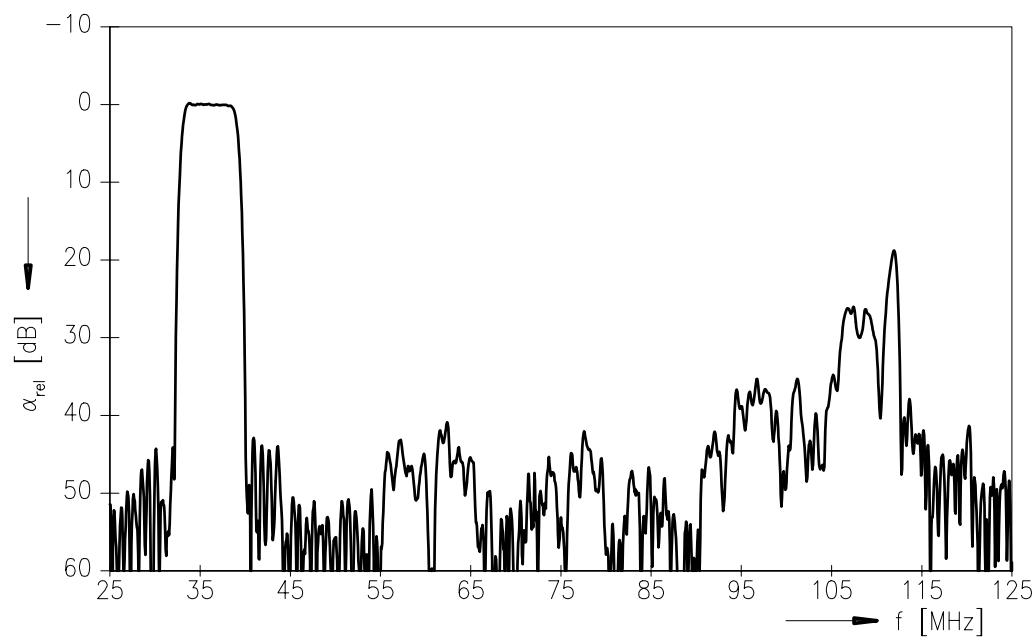
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Bandpass Filter

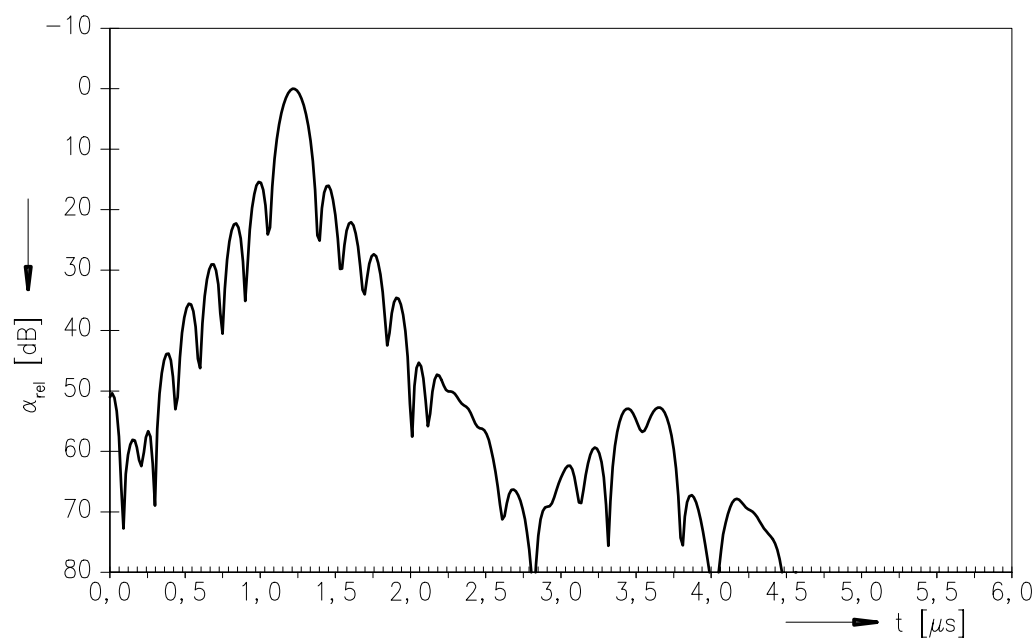
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Frequency response



Time domain response





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW CE MM PD

P.O. Box 80 17 09, 81617 Munich, GERMANY

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