



SAW Components

Data Sheet X6872D





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X6872D

Bandpass Filter

36,125 MHz

Data Sheet

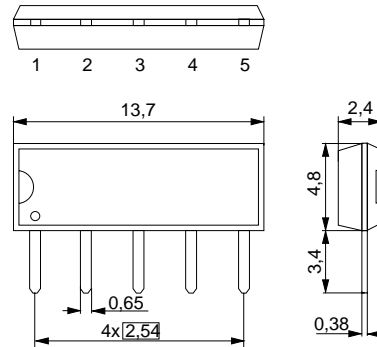
Duroplast package **SIP5D**

Features

- IF filter for digital TV
- 3 dB bandwidth: 7,0 MHz
- Standard IC package

Terminals

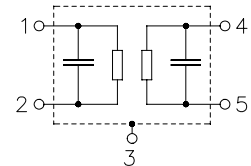
- Tinned CuFe alloy



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 6872 D	B39361-X6872-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: $T_A = 25\text{ }^\circ\text{C}$
 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 (center between 10 dB points)	f_C	—	36,125	—	MHz
Insertion attenuation Reference level for the following data	α 36,13 MHz	18,5	20,0	21,5	dB
Pass bandwidth $\alpha_{\text{rel}} \leq 3\ \text{dB}$	$B_{3\text{dB}}$	—	6,9	—	MHz
$\alpha_{\text{rel}} \leq 30\ \text{dB}$	$B_{30\text{dB}}$	—	8,5	—	MHz
Relative attenuation 33,08 MHz	α_{rel}	—	0,5	—	dB
39,17 MHz		—	0,6	—	dB
32,63 MHz		—	3,6	—	dB
39,63 MHz		—	3,8	—	dB
Lower sidelobe 25,00 ... 31,65 MHz		38,0	46,0	—	
Upper sidelobe 40,65 ... 45,00 MHz		37,0	42,0	—	
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) 32,63 ... 39,63 MHz	$\Delta\tau$	—	40	—	ns
Impedance at 36,13 MHz Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$ Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	3,4 13,3 2,2 4,3	—	k Ω pF k Ω pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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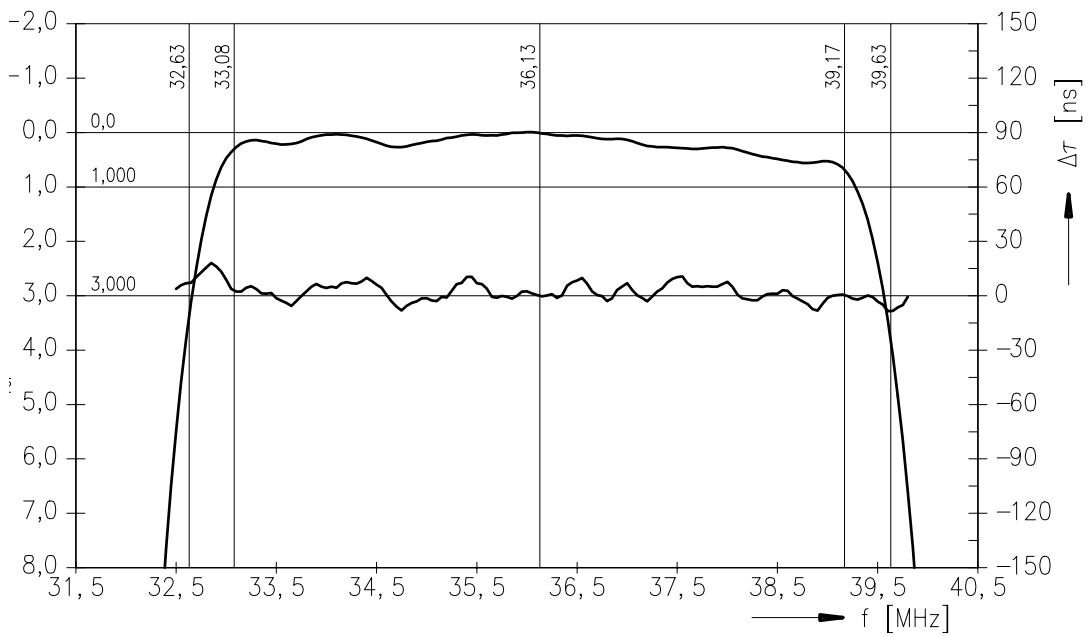
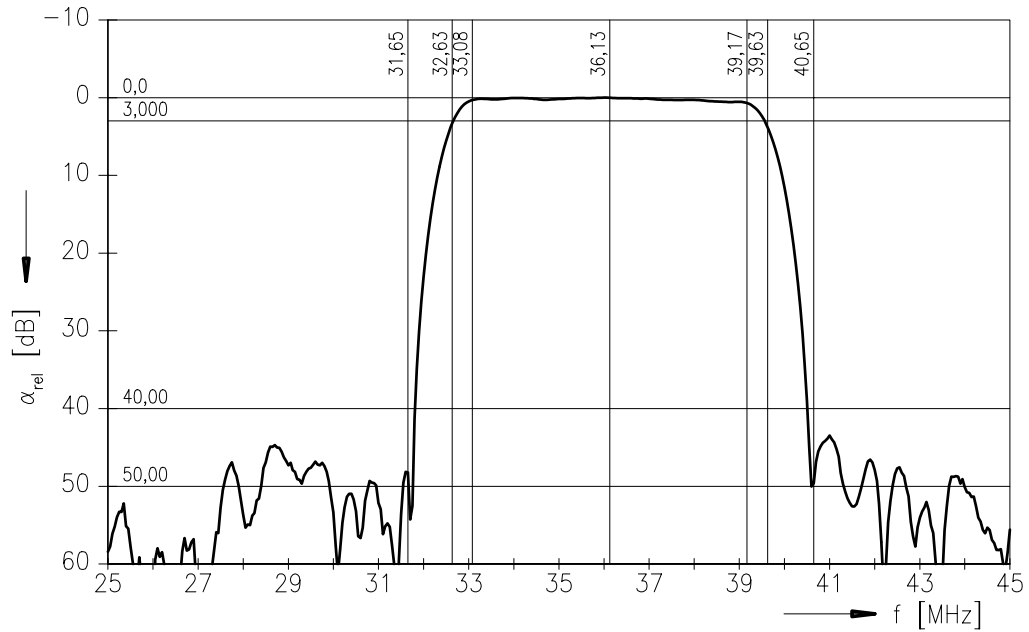
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Frequency response





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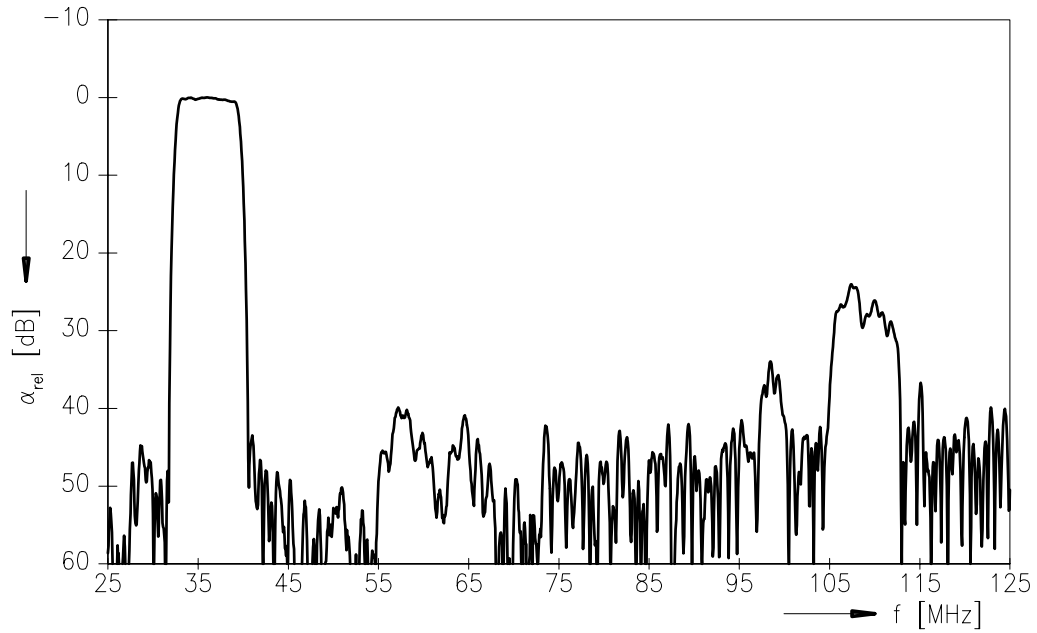
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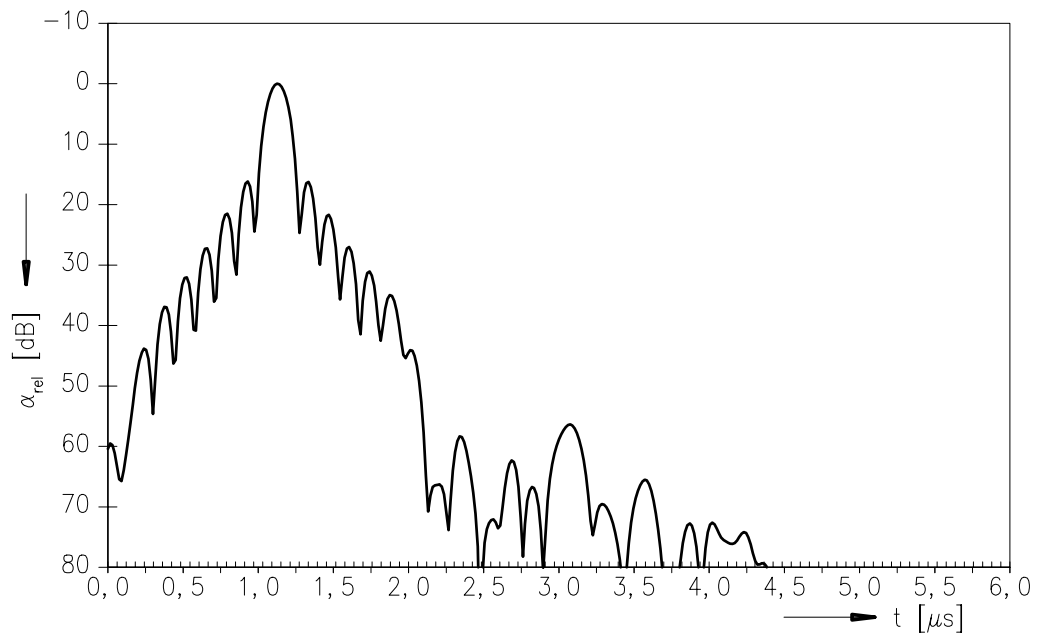
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Frequency response



Time domain response





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