



SAW Components

Data Sheet X6872D





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X6872D

Bandpass Filter

36,125 MHz

Data Sheet

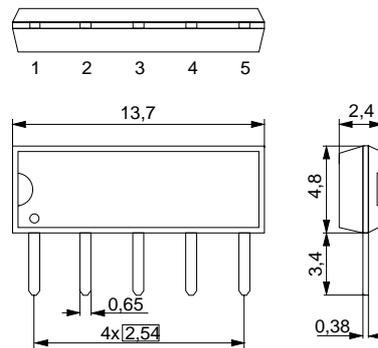
Duroplast package **SIP5D**

Features

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

Terminals

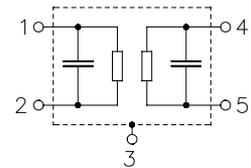
- Tinned CuFe alloy



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: $T_A = 25\text{ °C}$
 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 10 dB points)					
Insertion attenuation	α				
Reference level for the following data	36,13 MHz	18,5	20,0	21,5	dB
Pass bandwidth					
$\alpha_{rel} \leq 3\text{ dB}$	B_{3dB}	—	6,9	—	MHz
$\alpha_{rel} \leq 30\text{ dB}$	B_{30dB}	—	8,5	—	MHz
Relative attenuation	α_{rel}				
	33,08 MHz	—	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 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 36,13 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μ s ... 1,2 μ s before main pulse (test pulse 250 ns, carrier frequency 36,13 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
	32,63 ... 39,63 MHz	—	40	—	ns
Impedance at 36,13 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	3,4 \parallel 13,3	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,2 \parallel 4,3	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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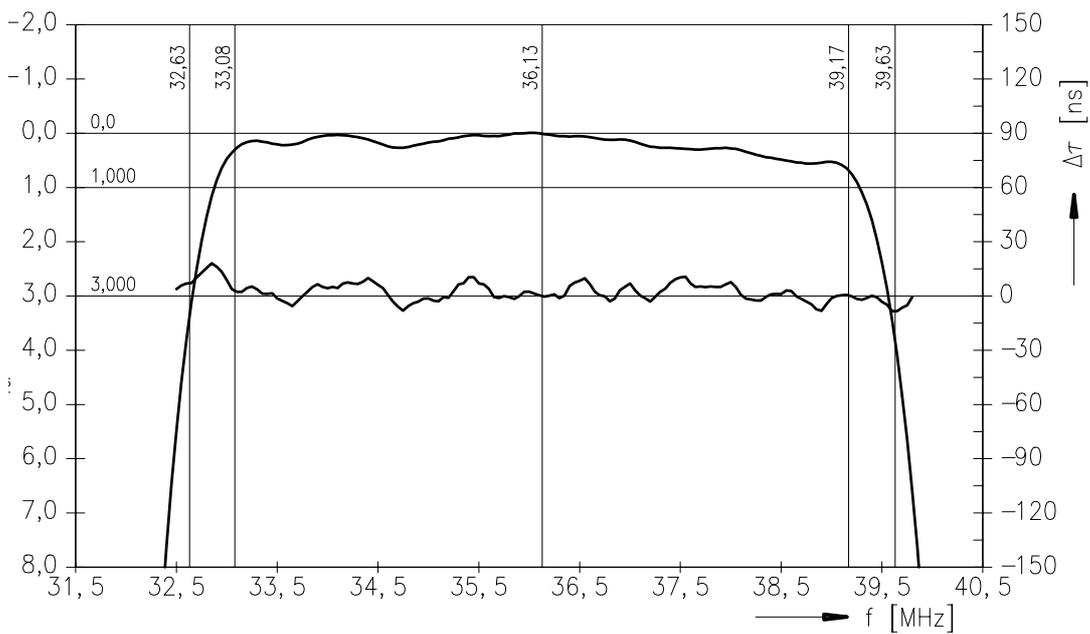
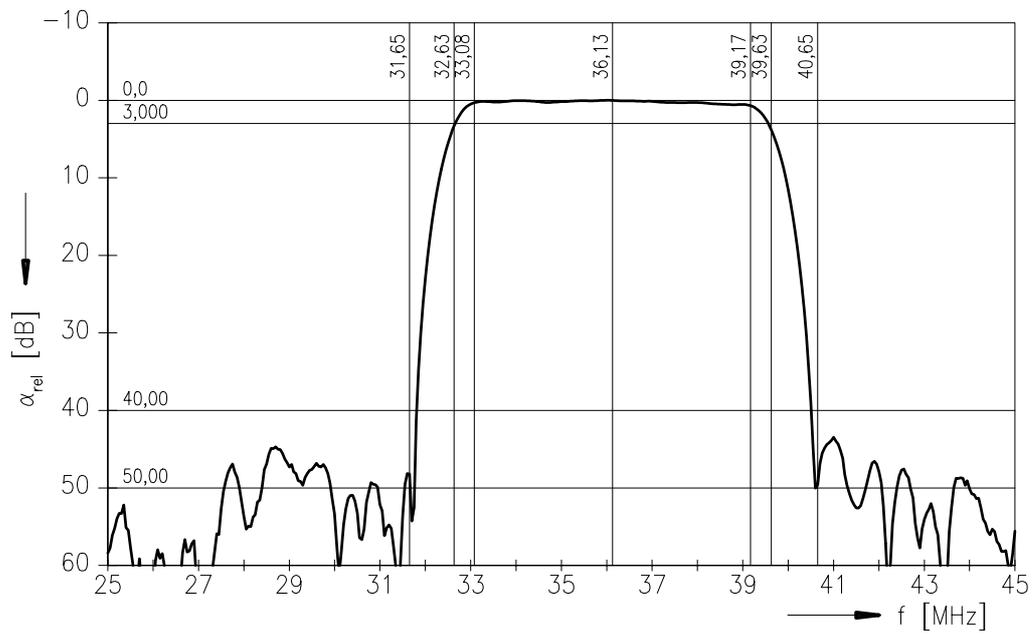
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Frequency response





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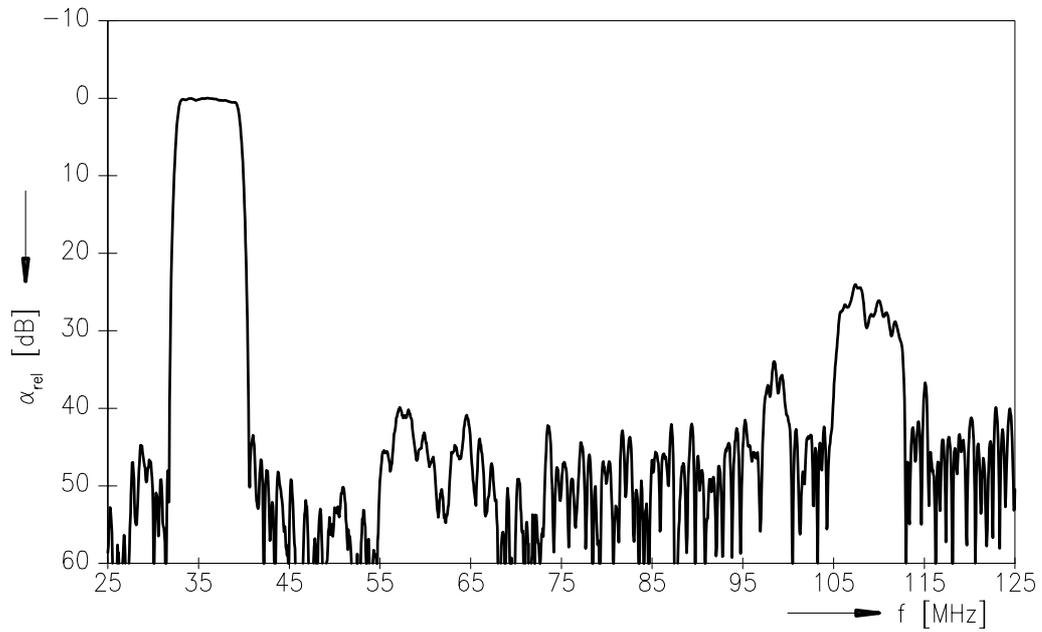
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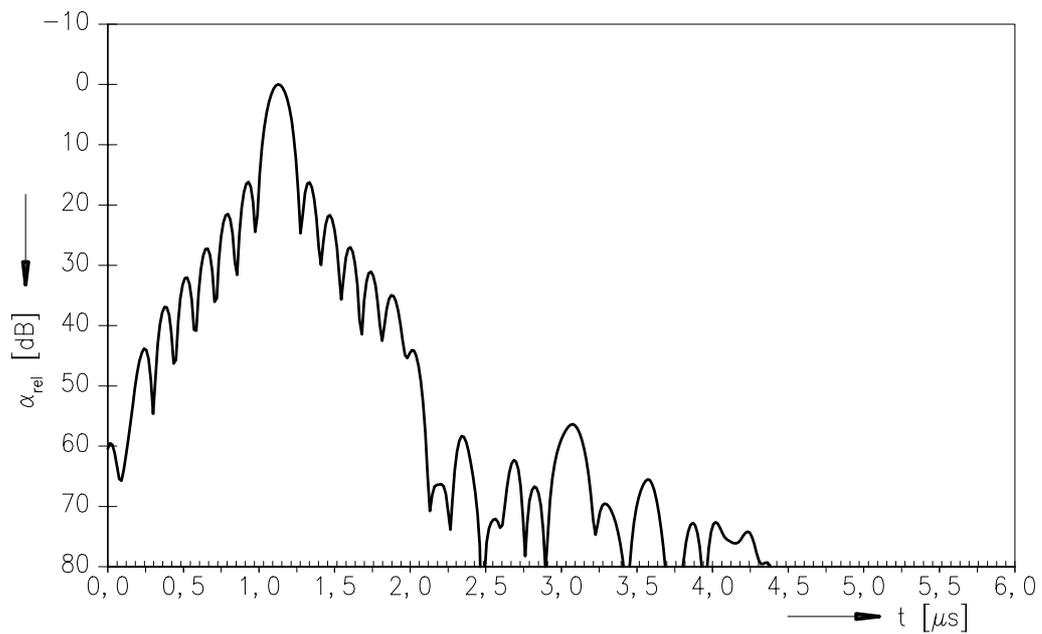
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Frequency response



Time domain response





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