



SAW Components

Data Sheet X 6874 D

Data Sheet

An abstract, grayscale image featuring a globe with a grid pattern. Overlaid on the globe is the word "EPCOS" in a large, white, sans-serif font, which is slightly tilted and has a glowing effect. The background is dark and textured.



SAW Components

X 6874 D

Bandpass Filter

36,125 MHz

Data Sheet

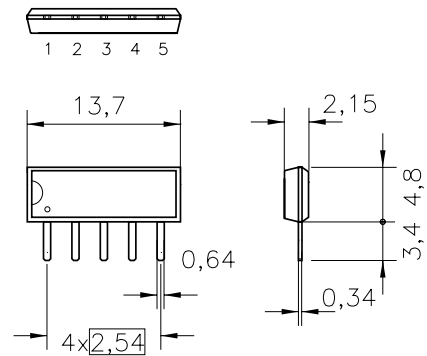
Duroplast package **SIP5D**

Features

- IF filter for digital cable TV
- Standard IC package

Terminals

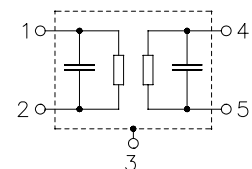
- Tinned CuFe alloy



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 6874 D	B39361-X6874-D100	C61157-A1-A18	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}	12	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: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Center frequency	f_C	36,07	36,125	36,18	MHz
(center between 3 dB points)					
Insertion attenuation	α				
Reference level for the following data	36,13 MHz	20,2	21,7	23,2	dB
Pass bandwidth					
$\alpha_{\text{rel}} \leq 1\text{ dB}$	$B_{1\text{dB}}$	—	7,5	—	MHz
$\alpha_{\text{rel}} \leq 3\text{ dB}$	$B_{3\text{dB}}$	—	8,0	—	MHz
$\alpha_{\text{rel}} \leq 30\text{ dB}$	$B_{30\text{dB}}$	—	9,5	—	MHz
Relative attenuation	α_{rel}				
	32,32 MHz	—	1,2	—	dB
	39,93 MHz	0,4	1,4	2,4	dB
	32,13 MHz	2,0	3,2	4,4	dB
	40,13 MHz	2,0	3,2	4,4	dB
	31,25 MHz	34,0	47,0	—	dB
	47,25 MHz	42,0	55,0	—	dB
Lower sidelobe	25,00 ... 29,50 MHz	38,0	45,0	—	dB
	29,50 ... 31,25 MHz	34,0	41,0	—	dB
Upper sidelobe	41,00 ... 44,00 MHz	33,0	40,0	—	dB
	44,00 ... 50,00 MHz	38,0	47,0	—	dB
Reflected wave signal suppression					
1,1 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
32,13 ... 40,13 MHz		—	40	—	ns
Impedance at 36,125 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	3,6 $\parallel$ 13,0	—	k Ω $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	2,9 $\parallel$ 3,9	—	k Ω $\parallel$ pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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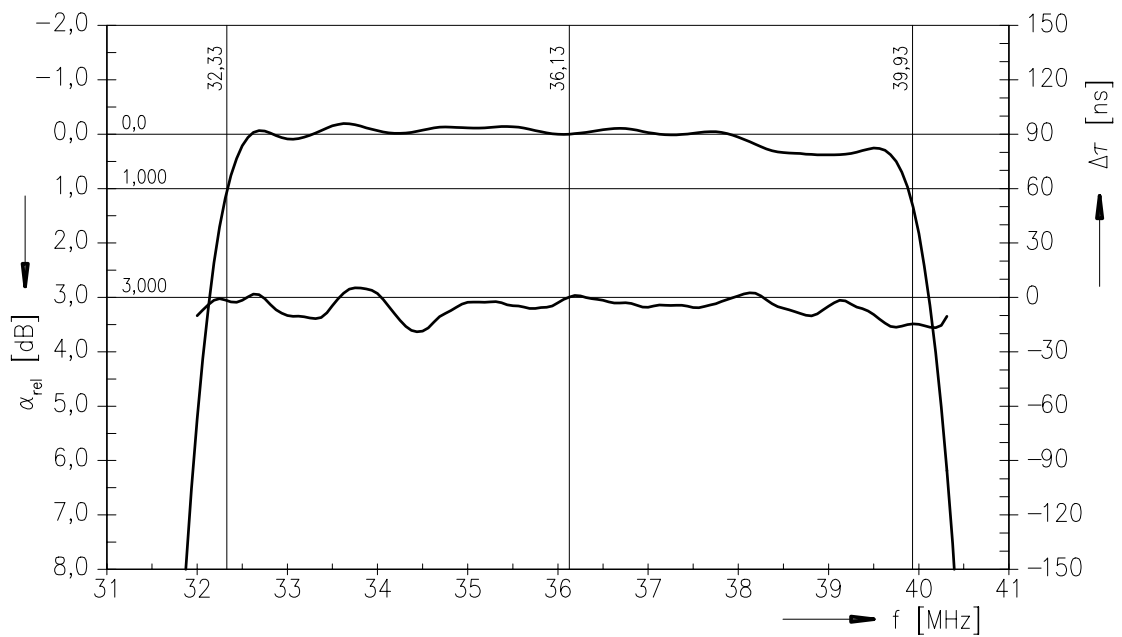
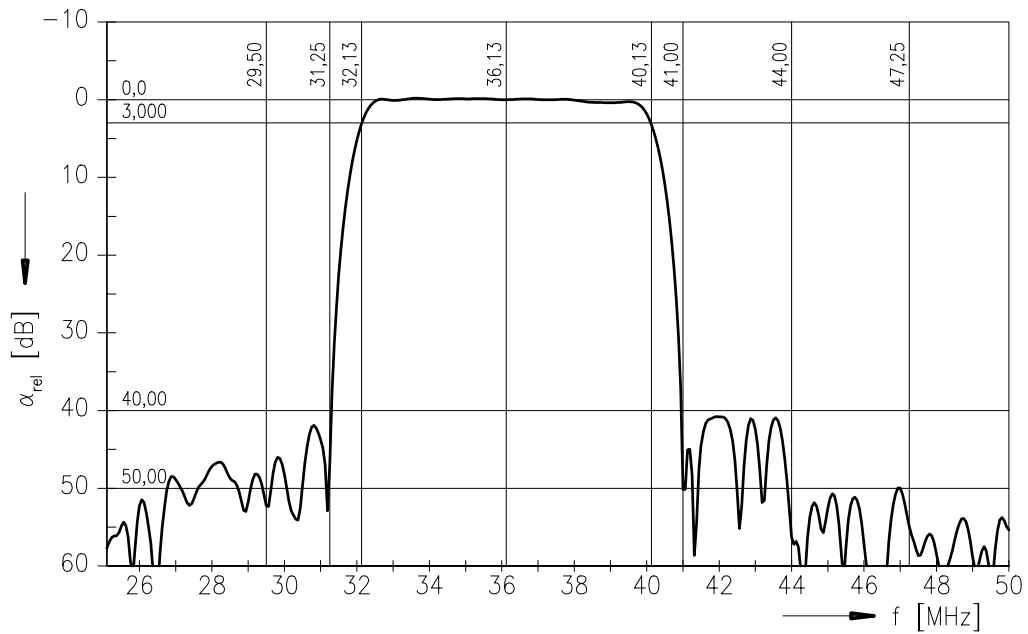
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Frequency response





SAW Components

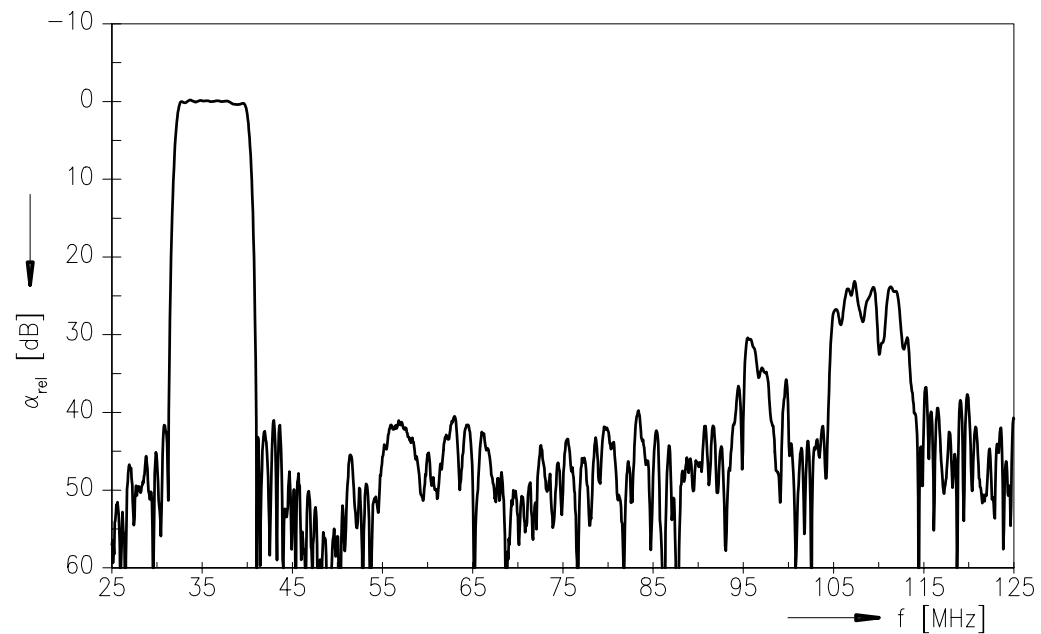
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Bandpass Filter

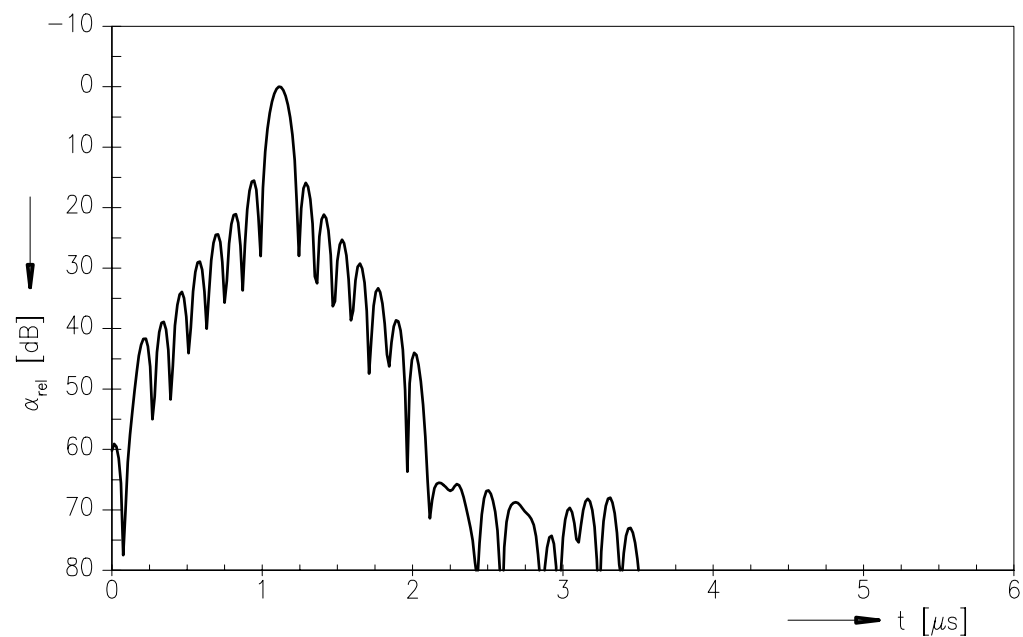
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Frequency response



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, D-81617 München

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