



SAW Components

Data Sheet X 6933 D

Data Sheet

A large, stylized graphic of a globe is shown, with the word "EPCOS" overlaid in a large, white, sans-serif font. The globe is rendered with a grid of latitude and longitude lines, and the word "EPCOS" is positioned diagonally across the lower half of the globe. The background is dark and textured, giving the impression of a globe or a satellite image.



SAW Components

X 6933 D

Bandpass Filter

57,00 MHz

Data Sheet

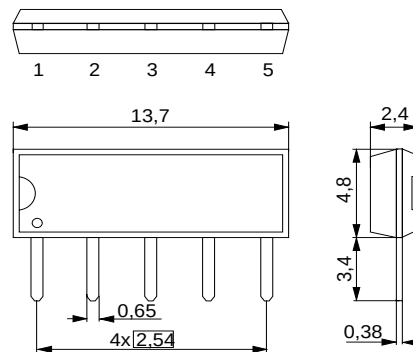
Duroplast package **SIP5D**

Features

- IF filter for digital terrestrial TV
- Constant group delay
- Optimized for cascade of two devices
- Standard IC package

Terminals

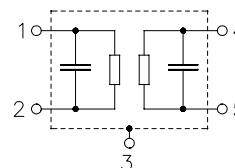
- Tinned CuFe alloy



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 6933 D	B39570-X6933-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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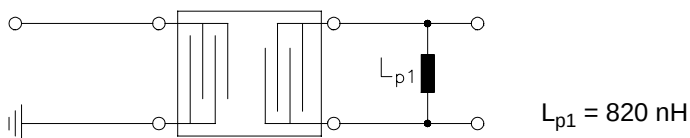
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Characteristics

Reference temperature: $T_A = 25 (45) ^\circ\text{C}$
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$ and matching network

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	57,02 (57,00) MHz	14,5	16,0	17,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
54,52 ... 59,52 (54,50 ... 59,50) MHz		—	0,5	—	dB
Relative attenuation	α_{rel}				
52,77 (52,75) MHz		40,0	46,0	—	dB
53,52 (53,50) MHz		—	27,0	—	dB
54,21 (54,19) MHz		-0,1	0,9	1,9	dB
59,83 (59,81) MHz		0,3	1,3	2,3	dB
60,27 (60,25) MHz		—	13,0	—	dB
62,40 (62,38) MHz		42,0	48,0	—	dB
64,77 (64,75) MHz		43,0	49,0	—	dB
Lower sidelobe					
45,02 ... 50,02 (45,00 ... 50,00) MHz		39,0	45,0	—	dB
50,02 ... 52,77 (50,00 ... 52,75) MHz		36,0	40,0	—	dB
Upper sidelobe					
62,40 ... 70,02 (62,38 ... 70,00) MHz		38,0	45,0	—	dB
Reflected wave signal suppression					
1,5 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 57,02 MHz)		42,0	52,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
54,21 ... 59,83 (54,19 ... 59,81) MHz		—	40	—	ns
Impedance at 57,02 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,3 $\parallel$ 21,9	—	k Ω $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	4,0 $\parallel$ 6,5	—	k Ω $\parallel$ pF
Temperature coefficient of frequency	TC_f	—	-18	—	ppm/K

Matching network:





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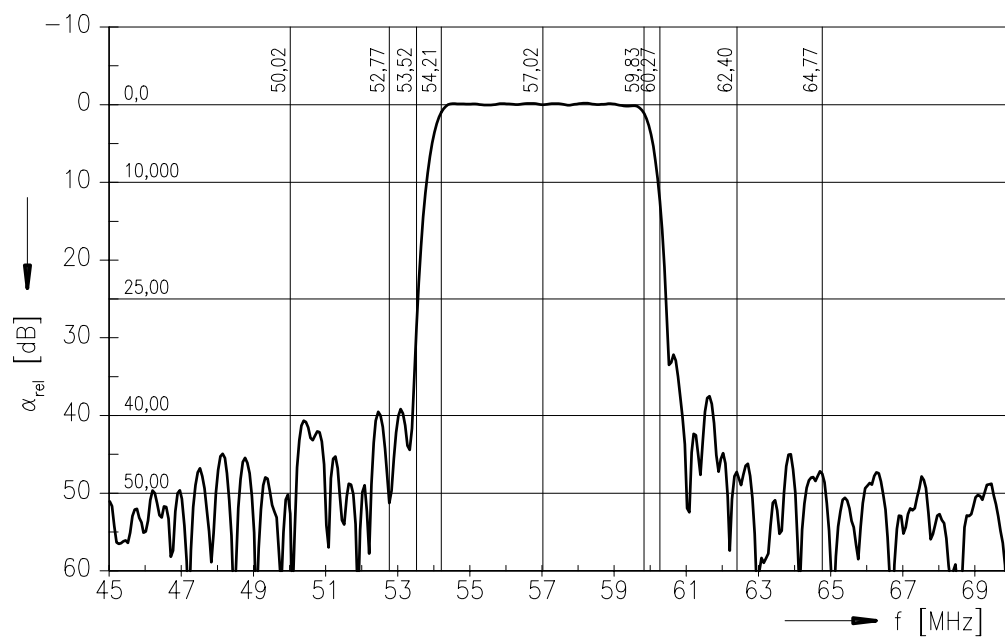
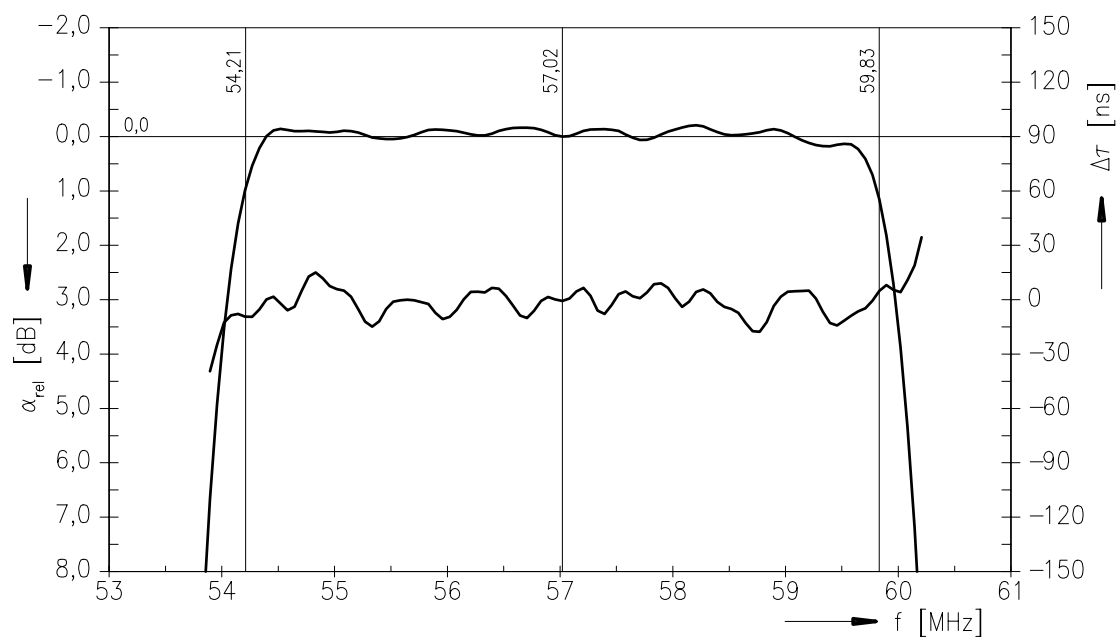
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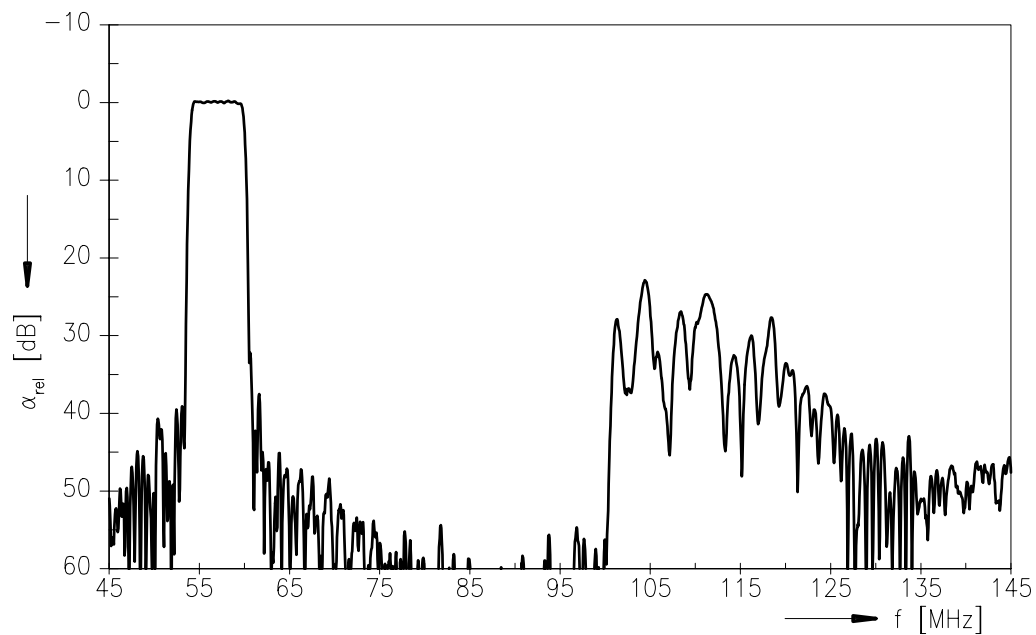
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Frequency response

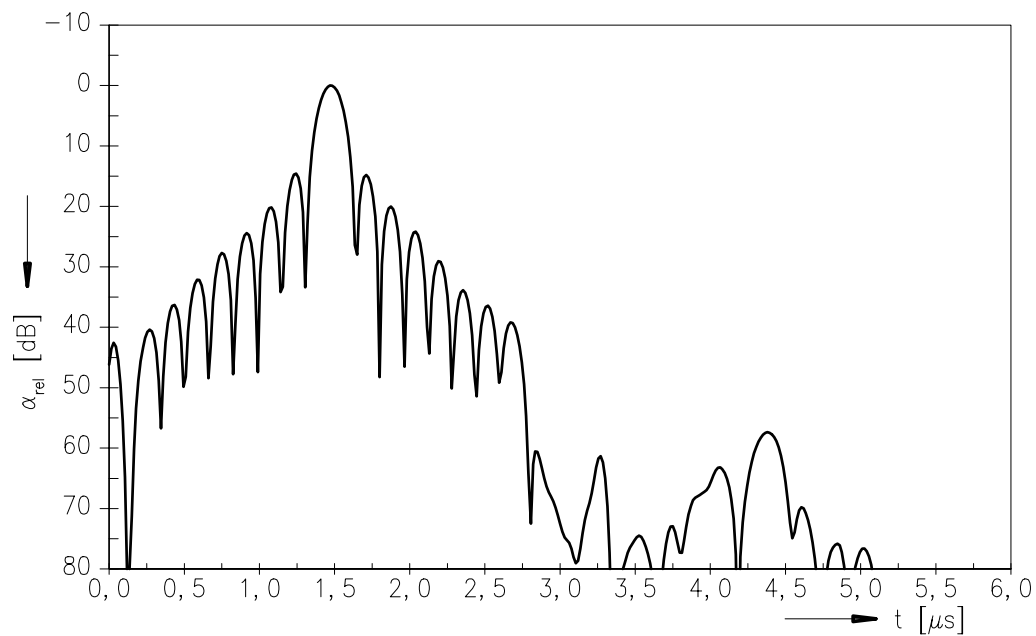


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Frequency response



Time domain response





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