



SAW Components

Data Sheet K 3959 D

Data Sheet

EPCOS



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IF Filter for Video Applications

38,90 MHz

Data Sheet

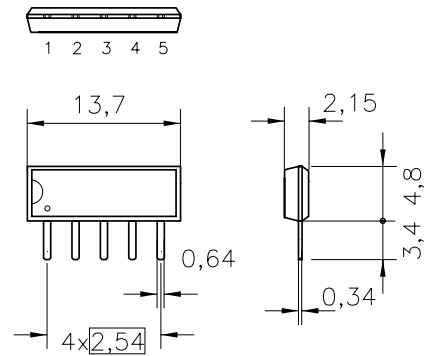
Standard

Duroplast package **SIP5D**

- B/G
- D/K
- I

Features

- TV IF filter with Nyquist slope and sound suppression
- Reduced group delay predistortion as compared with standard B/G half
- Suitable for CENELEC EN 55020
- Standard IC package



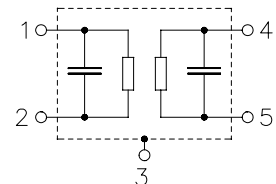
Terminals

Dimensions in mm, approx. weight 0,5 g

- Tinned CuFe alloy

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
K 3959 D	B39389-K3959-D100	C61157-A1-A18	F61074-V8049-Z000

Maximum ratings

Operable temperature range	T_A	-25/+80	°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:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation α					
Reference level for the following data	37,40 MHz	12,9	14,4	15,9	dB
Relative attenuation α_{rel}					
Picture carrier	38,90 MHz	5,1	6,1	7,1	dB
Color carrier	34,47 MHz	0,1	1,1	2,1	dB
Sound carrier	32,40 MHz	50,0	60,0	—	dB
	32,90 MHz	40,0	47,0	—	dB
	33,40 MHz	32,0	45,0	—	dB
Adjacent picture carrier	30,90 MHz	48,0	60,0	—	dB
	31,90 MHz	41,0	47,0	—	dB
	31,40 MHz	—	51,0	—	dB
Adjacent sound carrier	40,15 MHz	—	47,0	—	dB
	40,40 MHz	44,0	52,0	—	dB
	40,90 MHz	41,0	47,0	—	dB
	41,40 MHz	43,0	51,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	45,0	52,0	—	dB
Upper sidelobe	41,40 ... 45,00 MHz	43,0	48,0	—	dB
Reflected wave signal suppression					
1,3 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB
Group delay predistortion $\Delta\tau$					
(reference frequency 38,90 MHz)					
	36,90 MHz	—	-50	—	ns
	34,47 MHz	—	20	—	ns
Impedance at 37,40 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,3 \parallel 19,8	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,6 \parallel 4,7	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f					
		—	-72	—	ppm/K



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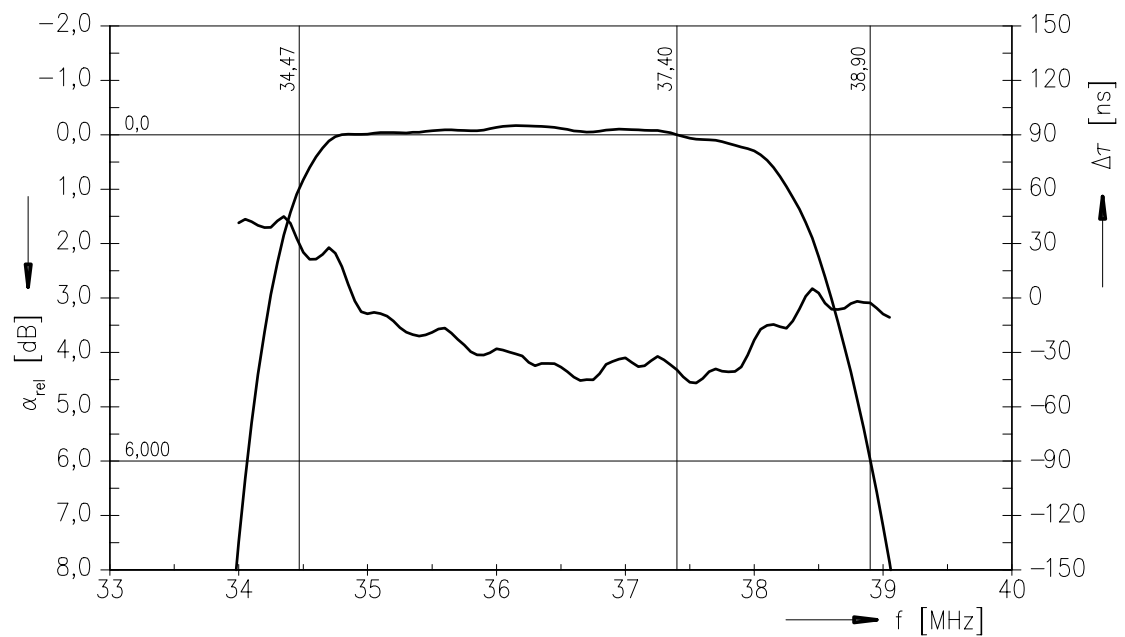
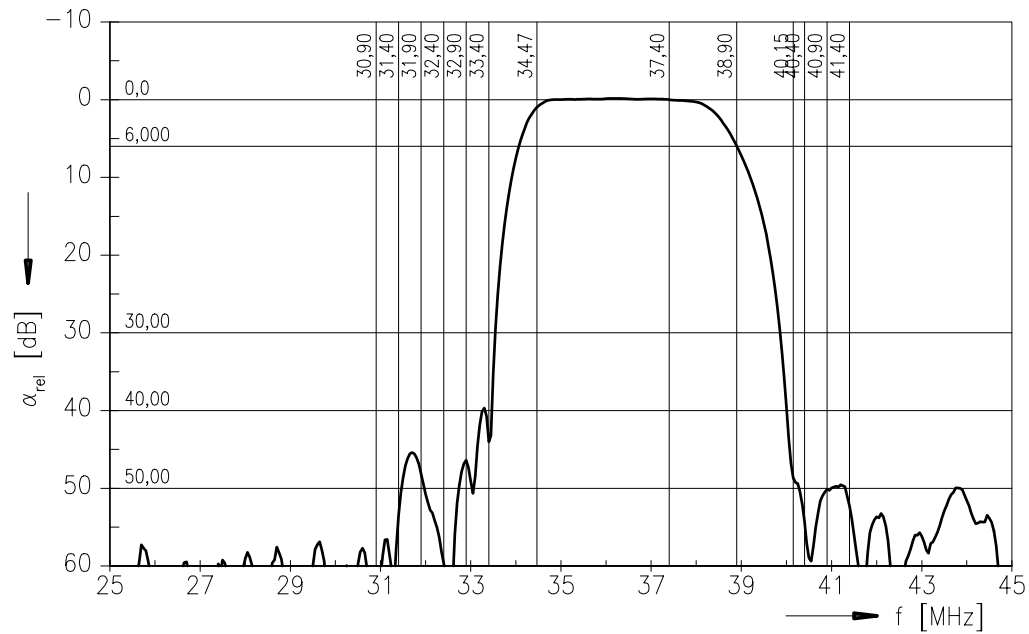
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Frequency response





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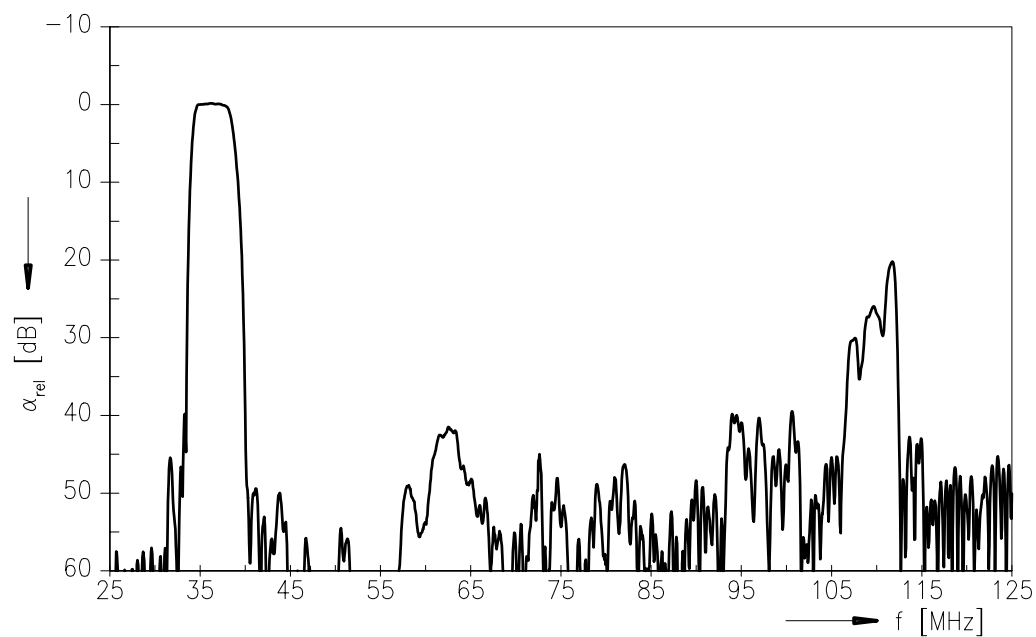
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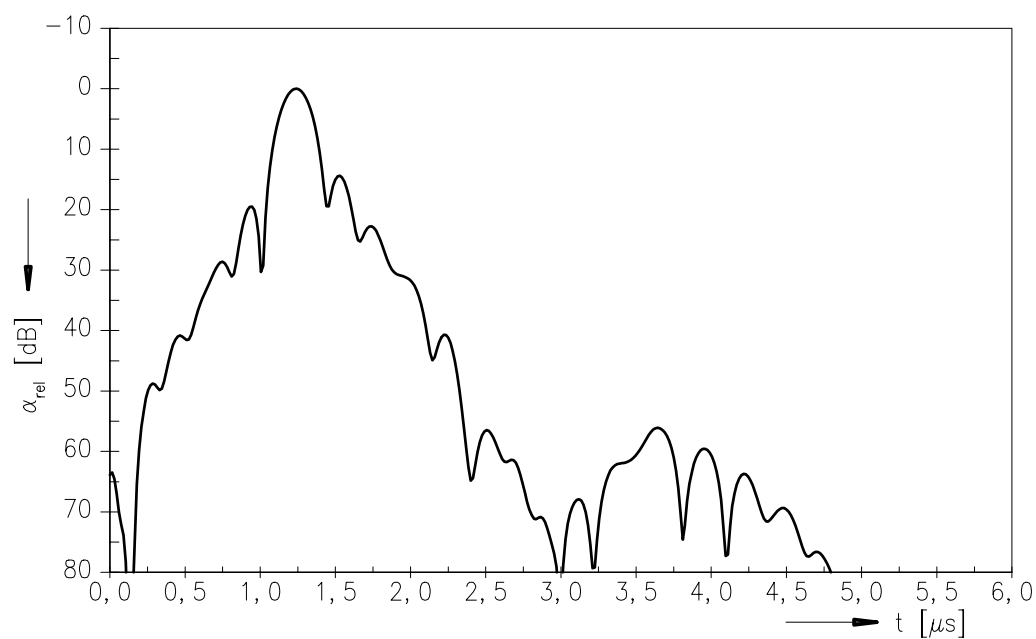
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Frequency response



Time domain response





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