



# SAW Components

Data Sheet J 3961 D





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J 3961 D

## IF Filter for Video Applications

39,50 MHz

### Data Sheet

#### Standard

Duroplast package **SIP5D**

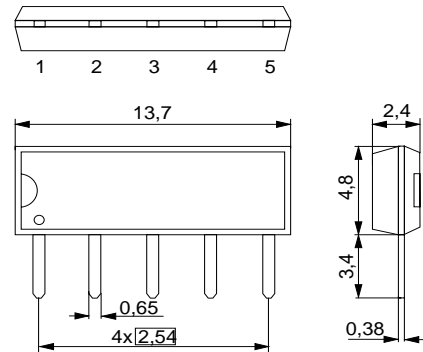
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#### Features

- TV IF filter with Nyquist slope and sound suppression
- Customized group delay predistortion
- Standard IC package

#### Terminals

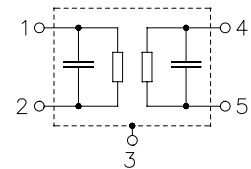
- Tinned CuFe alloy



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
J 3961 D	B39395-J3961-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.	
<b>Insertion attenuation</b> $\alpha$					
Reference level for the following data	38,00 MHz	12,0	13,5	15,0	dB
<b>Relative attenuation</b> $\alpha_{\text{rel}}$					
Picture carrier	39,50 MHz	5,0	6,0	7,0	dB
Color carrier	35,07 MHz	- 0,2	0,8	1,8	dB
Sound carrier	33,50 MHz	39,0	48,0	—	dB
	32,95 MHz	46,0	55,0	—	dB
Adjacent picture carrier	31,50 MHz	45,0	57,0	—	dB
	31,00 MHz	45,0	52,0	—	dB
	32,00 MHz	46,0	55,0	—	dB
Adjacent sound carrier	41,50 MHz	44,0	55,0	—	dB
	40,95 MHz	44,0	54,0	—	dB
Lower sidelobe	25,00 ... 31,50 MHz	42,0	50,0	—	dB
Upper sidelobe	41,50 ... 45,00 MHz	39,0	45,0	—	dB
<b>Reflected wave signal suppression</b>					
1,3 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 38,00 MHz)		42,0	54,0	—	dB
<b>Feedthrough signal suppression</b>					
1,3 $\mu$ s ... 1,2 $\mu$ s before main pulse (test pulse 250 ns, carrier frequency 38,00 MHz)		50,0	56,0	—	dB
<b>Group delay predistortion</b> $\Delta\tau$ (reference frequency 39,50 MHz)					
	36,50 MHz	—	-10	—	ns
	35,07 MHz	—	-95	—	ns
<b>Impedance at 38,00 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,4  17,1	—	k $\Omega$    pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,7   4,5	—	k $\Omega$    pF
<b>Temperature coefficient of frequency</b> $TC_f$					
		—	-72	—	ppm/K



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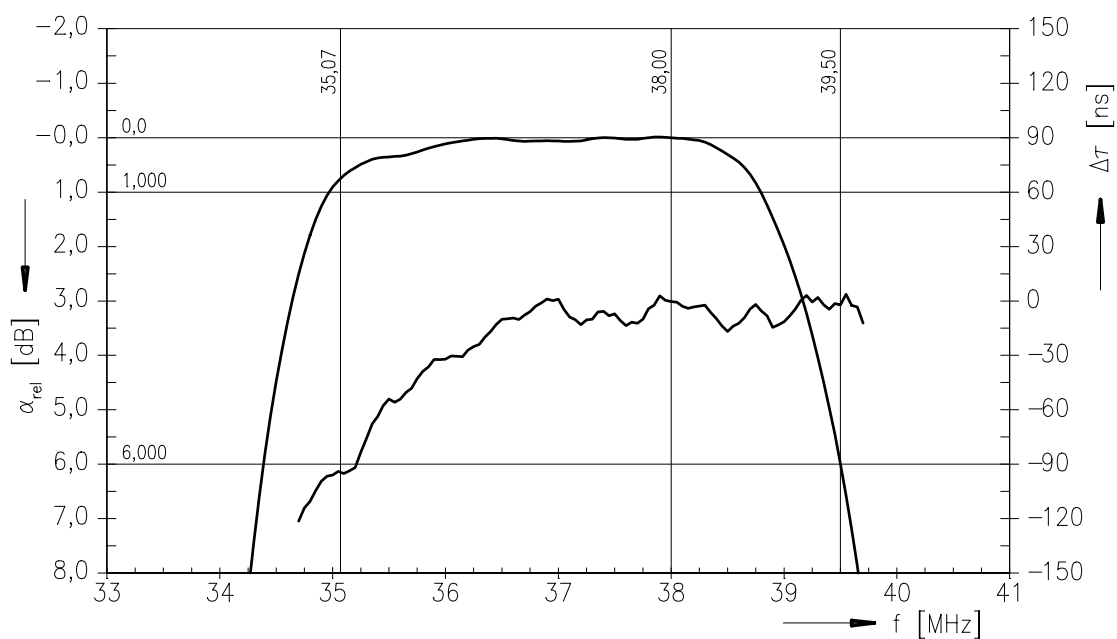
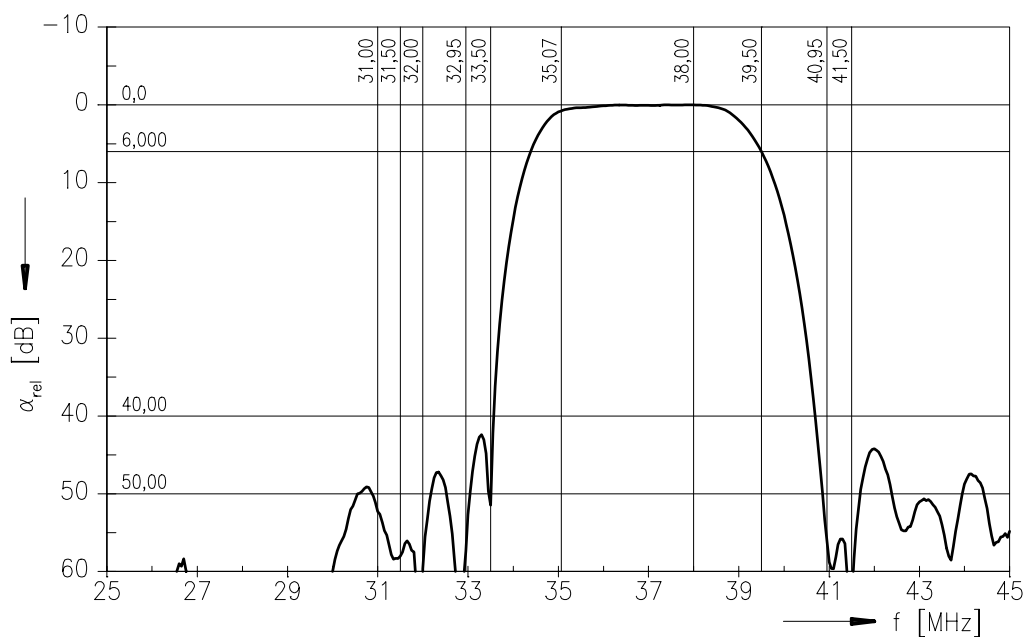
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Frequency response





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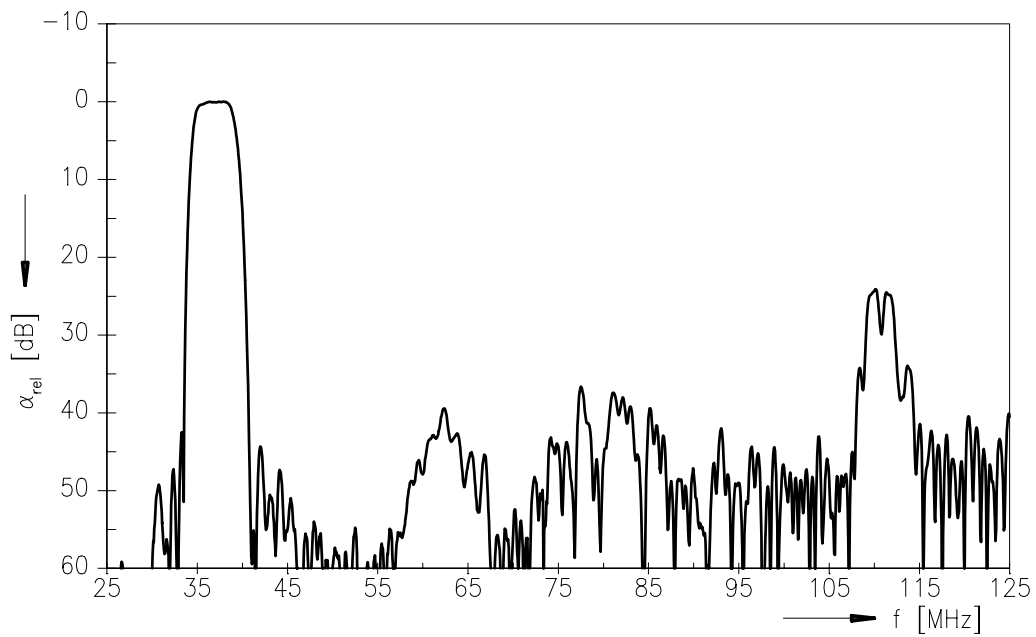
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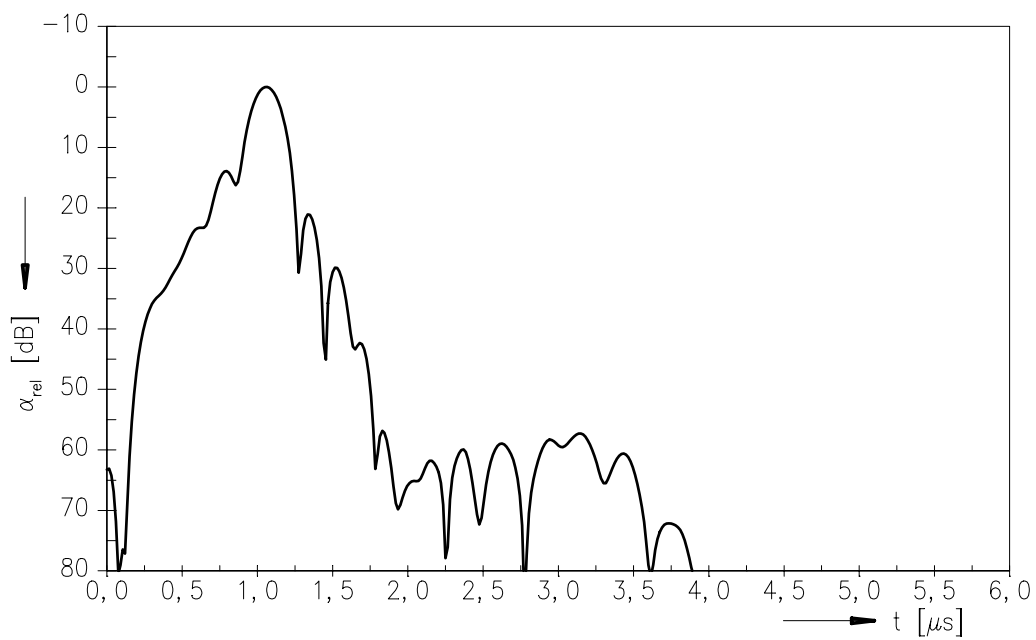
39,50 MHz

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Frequency response



Time domain response





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