



# SAW Components

Data Sheet K 9653 D





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K 9653 D

IF Filter for Audio Applications

38,90 MHz

Data Sheet

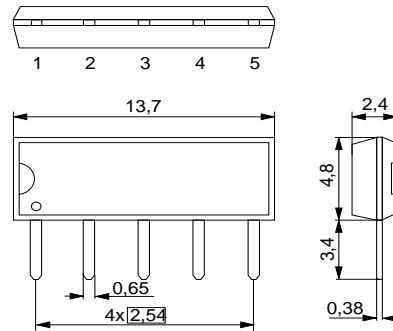
Standard

- B/G
- D/K
- I
- M/N

Duroplast package SIP5D

Features

- TV IF audio filter with two channels
- Channel 1 (B/G, I, D/K) with one pass band for sound carriers between 32,35 MHz and 33,40 MHz
- Channel 2 (M/N) with one pass band for sound carrier at 34,40 MHz
- Standard IC package



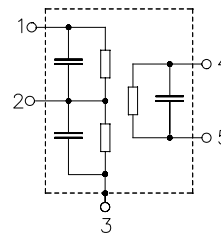
Terminals

- Tinned CuFe alloy

typ. Dimensions in mm, approx. weight 0,5 g

Pin configuration

- 1 Input
- 2 Switching Input
- 3 Input - ground / Chip carrier - ground
- 4 Output
- 5 Output



Type	Ordering code	Marking and package according to	Packing according to
K 9653 D	B39389-K9653-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 of channel 1 (switching pin 2 connected to ground)

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	33,40 MHz	14,7	16,2	17,7	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
Sound carrier	32,35 MHz	-0,8	0,2	1,2	dB
	32,40 MHz	-0,9	0,1	1,1	dB
	32,90 MHz	-1,3	-0,3	0,7	dB
Picture carrier	38,90 MHz	41,0	50,0	—	dB
Color carrier	34,47 MHz	28,0	40,0	—	dB
Adjacent picture carrier	30,90 MHz	46,0	59,0	—	dB
Adjacent sound carrier	40,40 MHz	40,0	46,0	—	dB
	40,90 MHz	41,0	48,0	—	dB
	41,40 MHz	44,0	53,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	40,0	45,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	38,0	44,0	—	dB
<b>Impedance at 33,40 MHz</b>					
	Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	—	1,2 $\parallel$ 8,8	—	k $\Omega$ $\parallel$ pF
	Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	1,0 $\parallel$ 7,1	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



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Characteristics of channel 2 (switching pin 2 connected to pin 1)

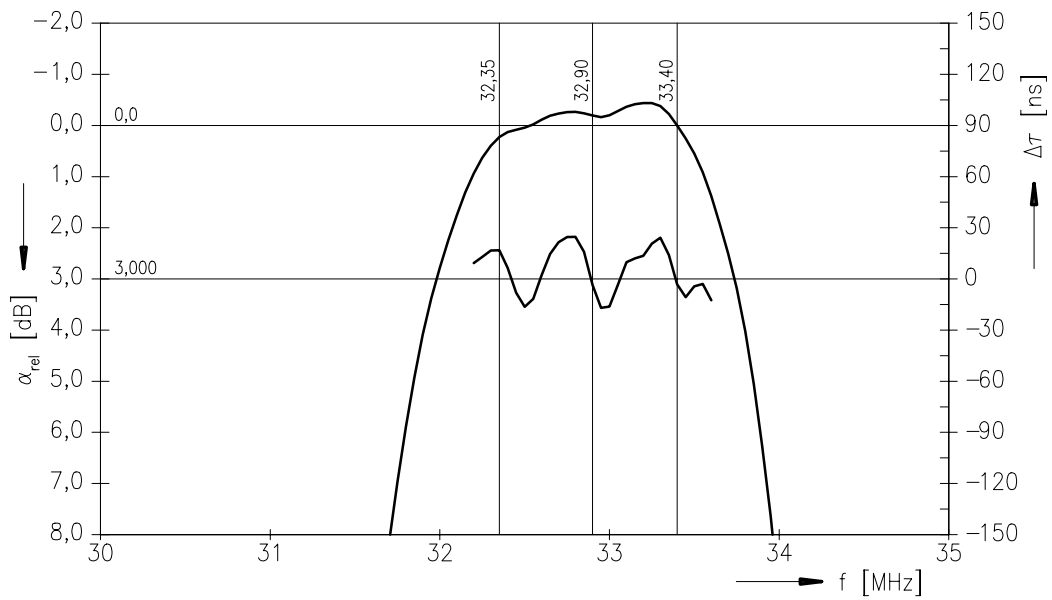
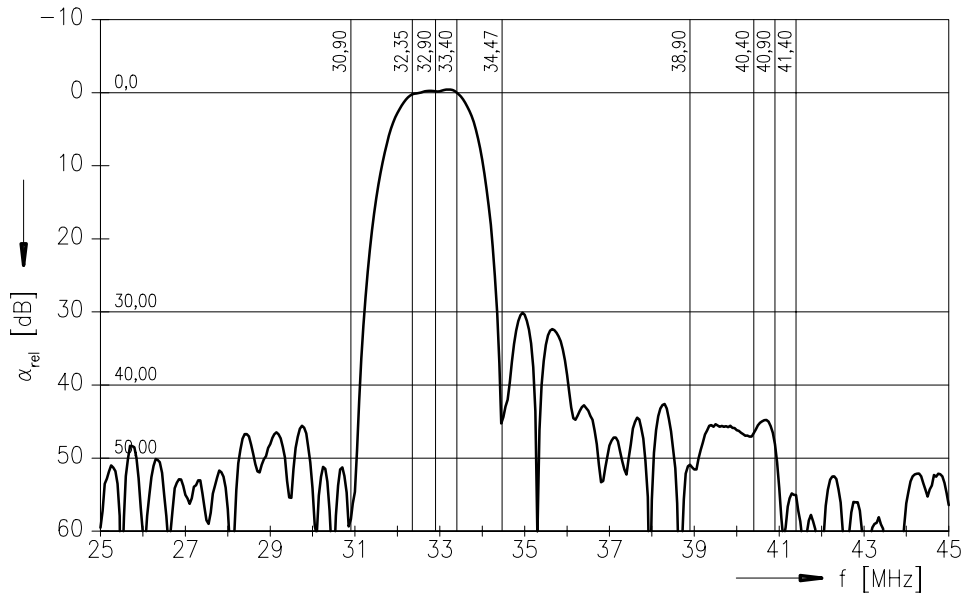
Reference temperature:  $T_A = 25\text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\text{ }\Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	34,40 MHz	12,5	14,0	15,5	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
Picture carrier	38,90 MHz	41,0	54,0	—	dB
Color carrier	35,32 MHz	25,0	34,0	—	dB
Adjacent picture carrier	32,90 MHz	33,0	48,0	—	dB
Adjacent sound carrier	40,40 MHz	41,0	50,0	—	dB
Lower sidelobe	25,00 ... 30,30 MHz	33,0	39,0	—	dB
	30,30 ... 32,90 MHz	28,0	34,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	38,0	45,0	—	dB
<b>Impedance at 34,40 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	0,6 $\parallel$ 14,9	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,3 $\parallel$ 4,9	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



Data Sheet

Frequency response of channel 1





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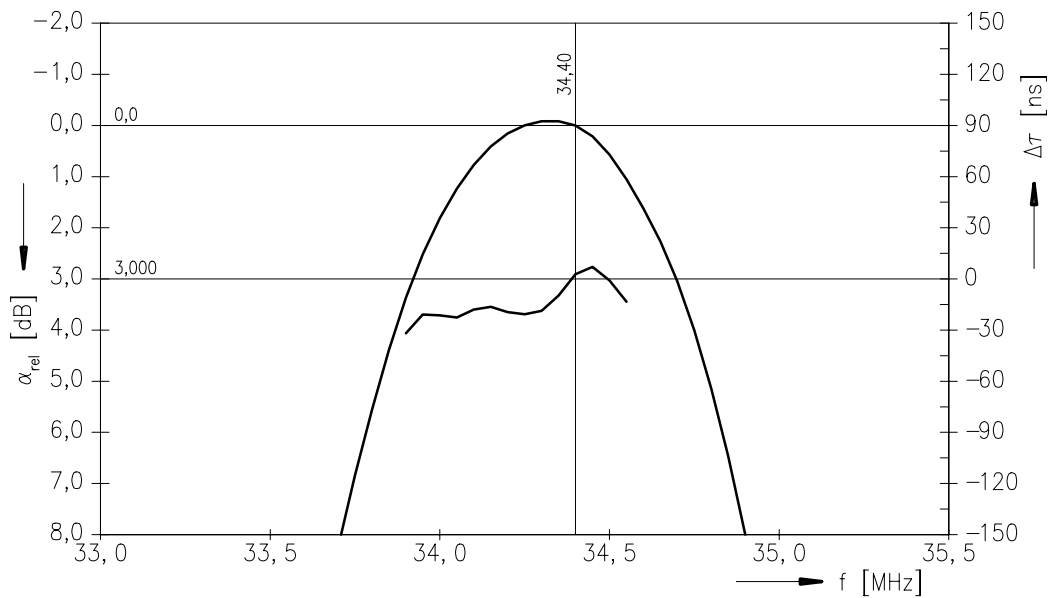
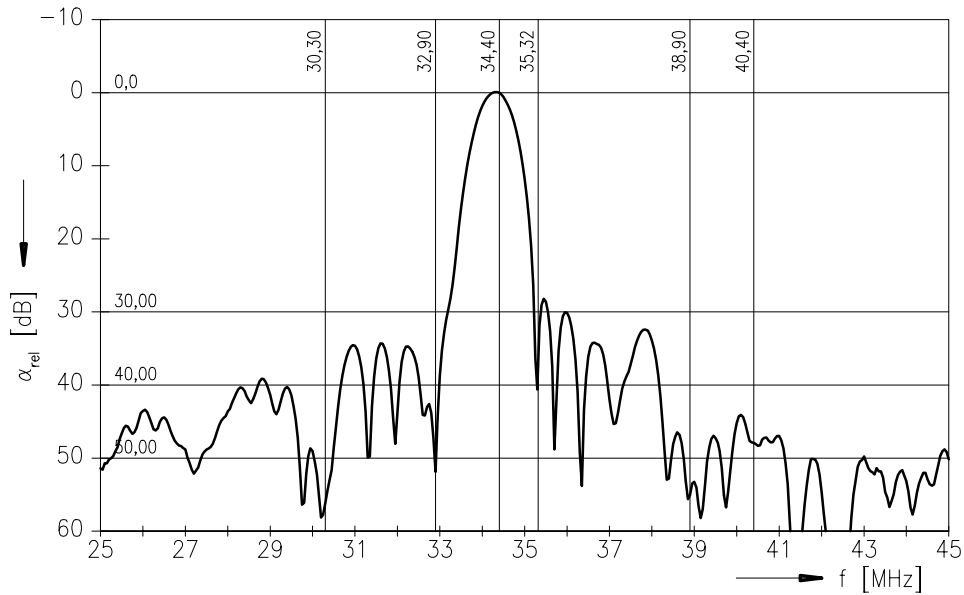
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Frequency response of channel 2





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