



# SAW Components

Data Sheet K 9663 D

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid of latitude and longitude lines. Overlaid on the globe is a large, stylized, 3D-effect word "EPCOS" in a light gray color. The word is tilted and appears to be floating or attached to the globe's surface. The overall image has a dark, moody background with some light flares and a sense of depth.

EPCOS



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## IF Filter for Audio Applications

38,90 MHz

### Data Sheet

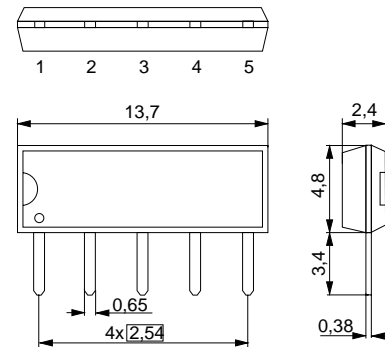
#### Standard

- B/G
- D/K
- I
- L

Duroplast package **SIP5D**

#### Features

- TV IF audio filter with two channels
- Channel 1 (D/K, I, L) with one pass band for sound carriers between 32,35 MHz and 33,05 MHz
- Channel 2 (B/G) with one pass band for sound carriers at 33,40 MHz and 33,05 MHz
- Standard IC package



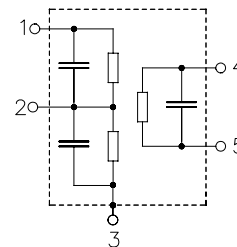
#### Terminals

- Tinned CuFe alloy

Dimensions in mm, approx. weight 0,5 g

#### Pin configuration

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



Type	Ordering code	Marking and package according to	Packing according to
K 9663 D	B39389-K9663-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:  $T_A = 25\text{ }^{\circ}\text{C}$   
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	32,35 MHz	10,9	12,4	13,9	dB
<b>Relative attenuation</b> $\alpha_{\text{rel}}$					
Sound carrier	32,40 MHz	—	0,0	—	dB
	32,90 MHz	—	-0,2	—	dB
	31,95 MHz	0,1	1,1	2,1	dB
	33,05 MHz	-1,3	-0,3	0,7	dB
	33,30 MHz	-0,8	0,2	1,2	dB
Picture carrier	38,90 MHz	40,0	46,0	—	dB
Color carrier	34,47 MHz	26,0	32,0	—	dB
Adjacent picture carrier	30,90 MHz	32,0	39,0	—	dB
Adjacent sound carrier	40,35 MHz	43,0	52,0	—	dB
	40,90 MHz	46,0	58,0	—	dB
	41,05 MHz	46,0	58,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	32,0	38,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	38,0	46,0	—	dB
<b>Impedance</b> at 32,35 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	0,6 $\parallel$ 17,9	—	k $\Omega$ $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	2,2 $\parallel$ 5,2	—	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:  $T_A = 25\text{ °C}$   
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	33,05 MHz	10,8	12,3	13,8	dB
<b>Relative attenuation</b> $\alpha_{rel}$					
Sound carrier	33,40 MHz	0,1	1,1	2,1	dB
Picture carrier	38,90 MHz	44,0	54,0	—	dB
Color carrier	34,47 MHz	32,0	42,0	—	dB
Adjacent picture carrier	30,90 MHz	40,0	48,0	—	dB
	31,90 MHz	26,0	30,0	—	dB
Adjacent sound carrier	40,40 MHz	42,0	52,0	—	dB
	41,40 MHz	42,0	60,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	38,0	46,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	40,0	50,0	—	dB
<b>Impedance at 33,05 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	0,5 $\parallel$ 22,2	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,2 $\parallel$ 4,6	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b> $TC_f$		—	-72	—	ppm/K



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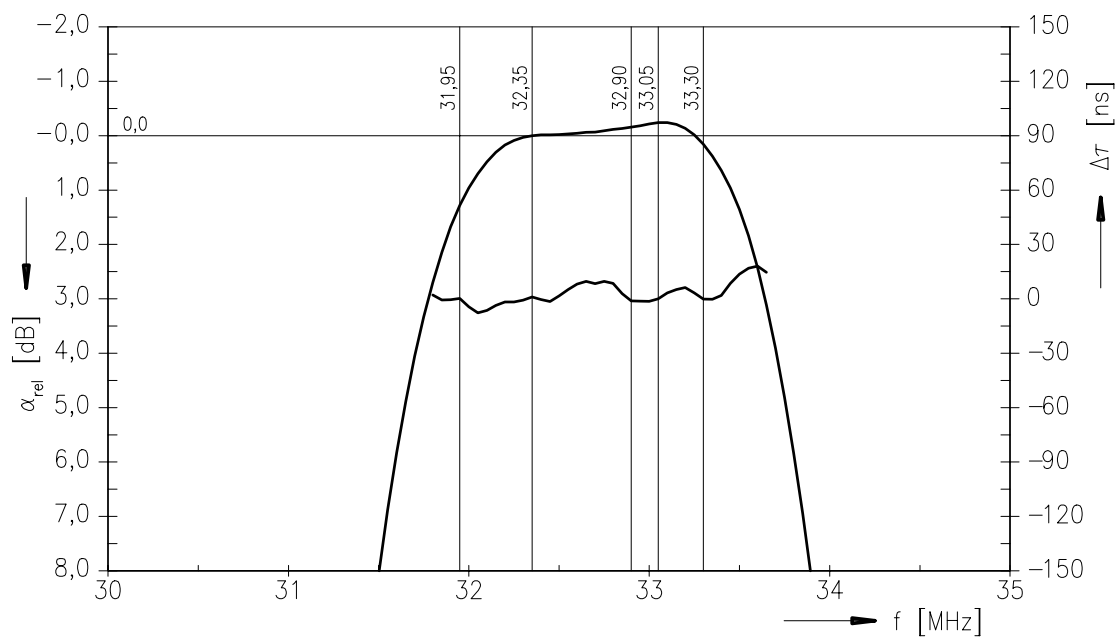
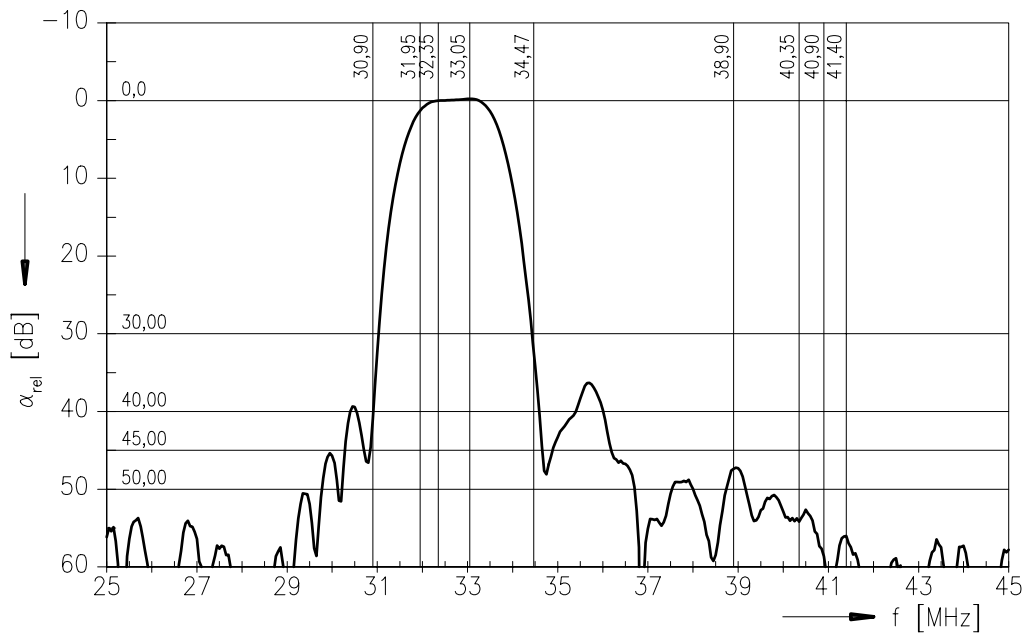
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Frequency response of channel 1





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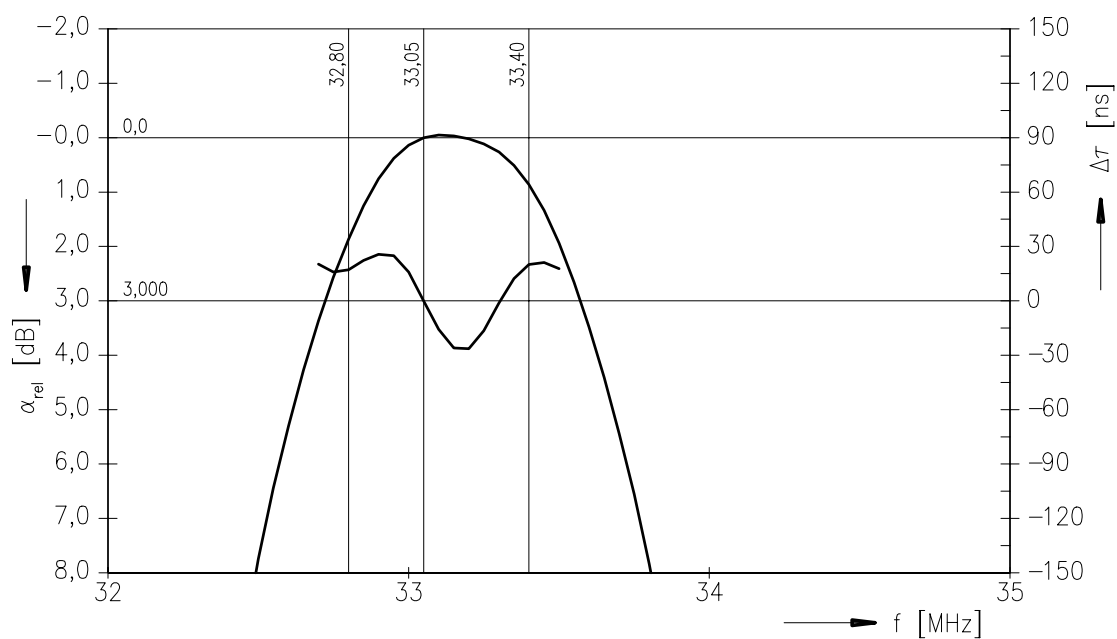
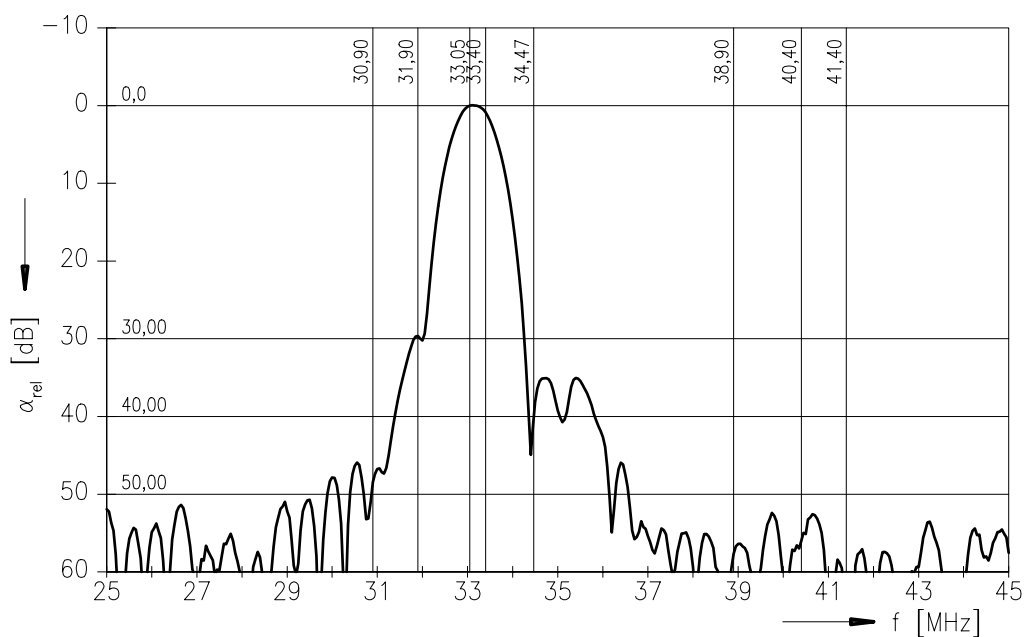
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Frequency response of channel 2





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