



SAW Components

Data Sheet L 9653 M

Data Sheet

EPCOS



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IF Filter for Audio Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

Plastic package **SIP5K**

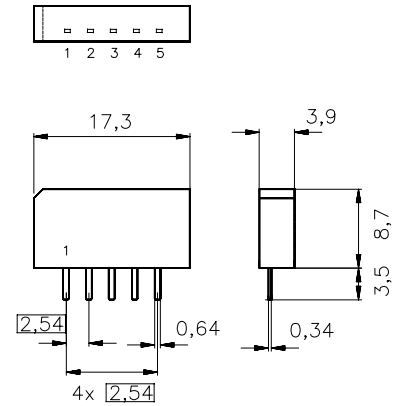
■ L/L'

Features

- TV IF audio filter with two channels
- Channel 1 (L') with pass band for sound carrier at 40,40 MHz
- Channel 2 (L) with pass band for sound carrier at 32,40 MHz

Terminals

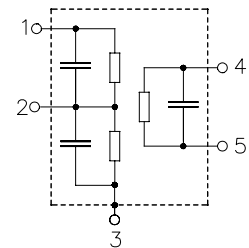
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 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
L 9653 M	B39389-L9653-M100	C61157-A1-A15	F61074-V8067-Z000

Maximum ratings

Operating temperature range	T_A	- 25/+ 65	°C	between any terminals between any terminals
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	5	V	
AC voltage	V_{pp}	10	V	



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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.	
Insertion attenuation α					
Reference level for the following data	40,40 MHz	12,5	14,0	15,5	dB
Relative attenuation α_{rel}					
Picture carrier	33,90 MHz	42,0	52,0	—	dB
	38,40 MHz	40,0	45,0	—	dB
Adjacent picture carrier	41,90 MHz	34,0	38,0	—	dB
Adjacent sound carrier	32,40 MHz	39,0	55,0	—	dB
Lower sidelobe	25,00 ... 33,90 MHz	35,0	41,0	—	dB
Upper sidelobe	41,90 ... 45,00 MHz	32,0	37,0	—	dB
Impedance at 40,40 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	0,4 $\parallel$ 12,2	—	k Ω $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	0,5 $\parallel$ 10,3	—	k Ω $\parallel$ pF
Temperature coefficient of frequency TC_f		—	-72	—	ppm/K



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

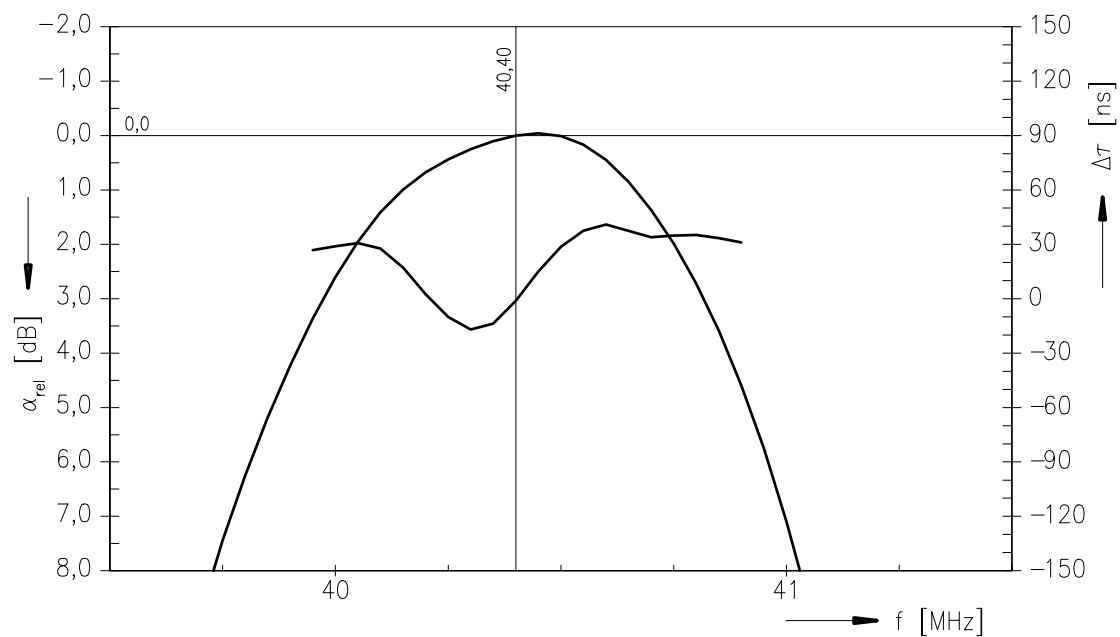
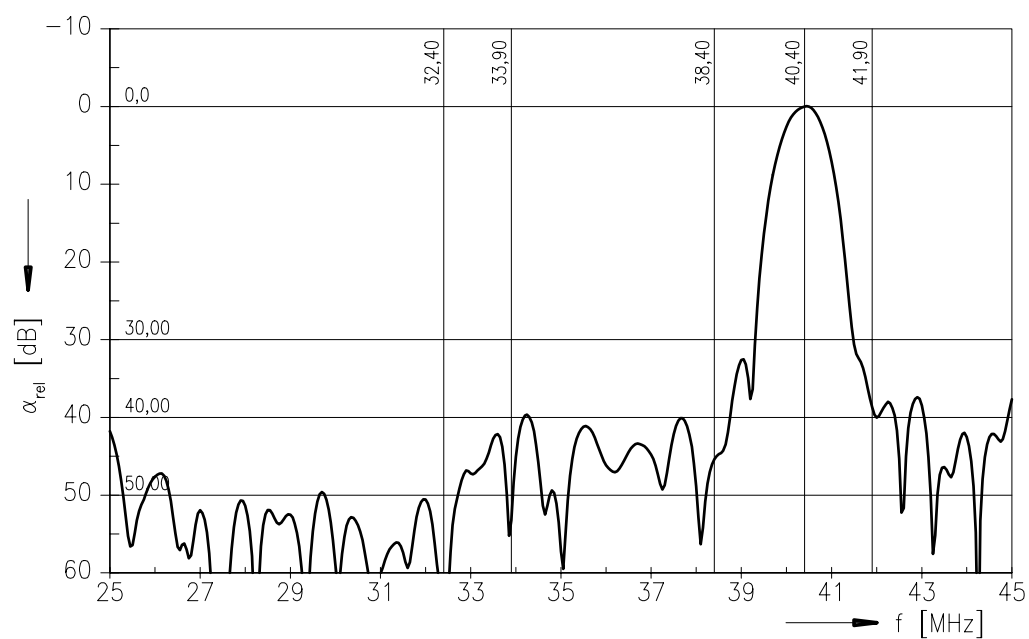
Reference temperature: $T_A = 25\text{ °C}$
Terminating source impedance: $Z_S = 50\text{ }\Omega$
Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation α					
Reference level for the following data	32,40 MHz	12,2	13,7	15,2	dB
Relative attenuation α_{rel}					
Picture carrier	38,90 MHz	45,0	61,0	—	dB
	34,40 MHz	33,0	37,0	—	dB
Adjacent picture carrier	30,90 MHz	46,0	58,0	—	dB
Adjacent sound carrier	40,40 MHz	37,0	47,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	36,0	42,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	35,0	41,0	—	dB
Impedance at 32,40 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	0,7 $\parallel$ 16,0	—	k Ω $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	0,7 $\parallel$ 13,9	—	k Ω $\parallel$ pF
Temperature coefficient of frequency TC_f		—	-72	—	ppm/K



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Frequency response of channel 1





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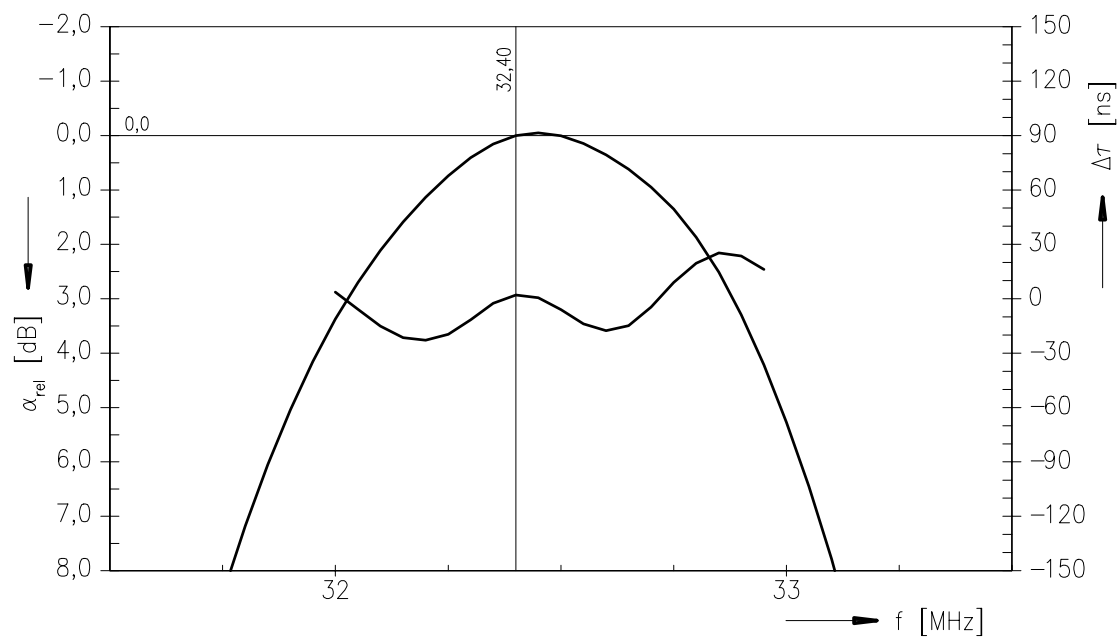
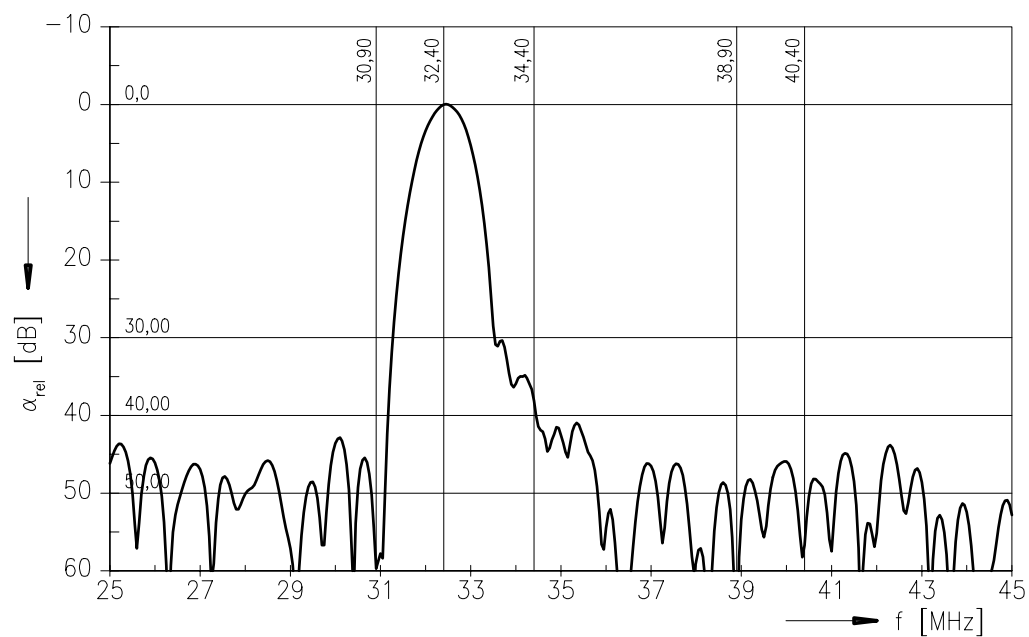
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Frequency response of channel 2





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Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW CE MM PD
P.O. Box 80 17 09, D-81617 München

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