



SAW Components

Data Sheet L 9654 M





SAW Components

L 9654 M

IF Filter for Audio Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

Plastic package **SIP5K**

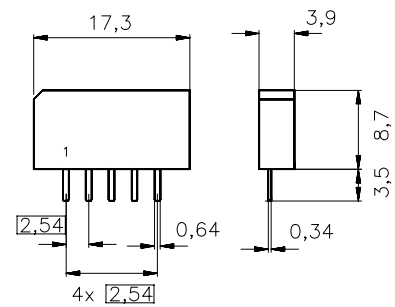
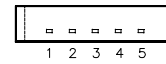
- L/L'

Features

- TV IF audio filter with two channels
- Channel 1 with pass band for sound carriers at 40,40 MHz (L') and 39,75 MHz (L'-NICAM)
- Channel 2 with pass band for sound carriers at 32,40 MHz (L) and 33,05 MHz (L-NICAM)

Terminals

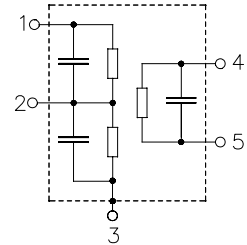
- Tinned CuFe alloy



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 9654 M	B39389-L9654-M100	C61157-A1-A15	F61074-V8067-Z000

Maximum ratings

Operable temperature range	T_A	-25/+65	°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



Data Sheet

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.	
Insertion attenuation	α				
Reference level for the following data	40,40 MHz	17,4	18,9	20,4	dB
Relative attenuation	α_{rel}				
	39,75 MHz	-1,7	-0,7	0,3	dB
	38,40 MHz	36,0	56,0	—	dB
Picture carrier	33,90 MHz	38,0	54,0	—	dB
Adjacent picture carrier	41,90 MHz	32,0	37,0	—	dB
Adjacent sound carrier	32,40 MHz	36,0	51,0	—	dB
Lower sidelobe	25,00 ... 32,40 MHz	32,0	38,0	—	dB
Upper sidelobe	41,90 ... 45,00 MHz	30,0	35,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$	—	50	—	ns
Impedance at 40,40 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,1 \parallel 10,7	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	0,5 \parallel 10,3	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



Data Sheet

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

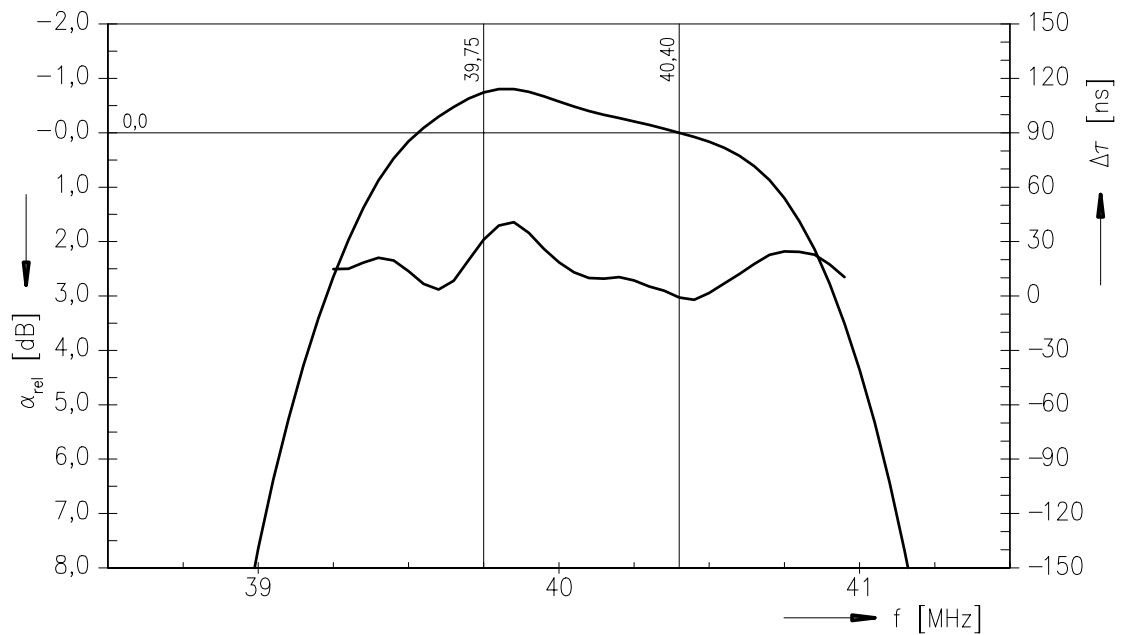
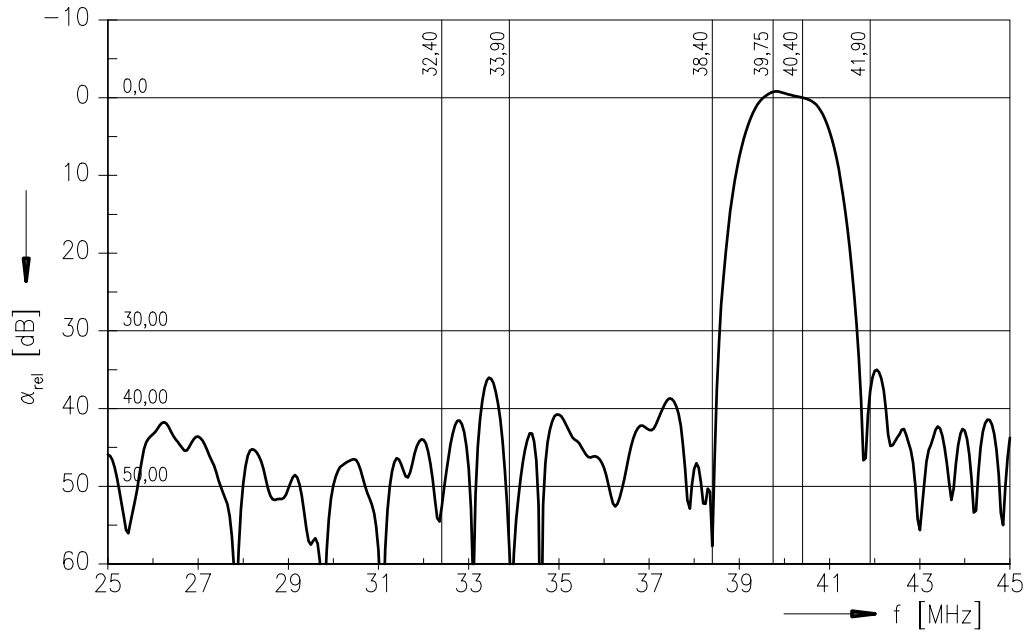
Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation					
	α				
Reference level for the following data	32,40 MHz	16,5	18,0	19,5	dB
Relative attenuation					
	α_{rel}				
	33,05 MHz	-0,7	0,3	1,3	dB
	34,40 MHz	30,0	50,0	—	dB
Picture carrier	38,90 MHz	40,0	55,0	—	dB
Adjacent picture carrier	30,90 MHz	44,0	54,0	—	dB
Adjacent sound carrier	40,40 MHz	35,0	46,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	32,0	38,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	32,0	38,0	—	dB
Group delay ripple (p-p)					
	$\Delta\tau$	—	50	—	ns
Impedance at 32,40 MHz					
Input:	$Z_{IN} = R_{IN} \parallel C_{IN}$	—	1,4 \parallel 15,4	—	k Ω \parallel pF
Output:	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	0,6 \parallel 14,1	—	k Ω \parallel pF
Temperature coefficient of frequency					
	TC_f	—	-72	—	ppm/K



Data Sheet

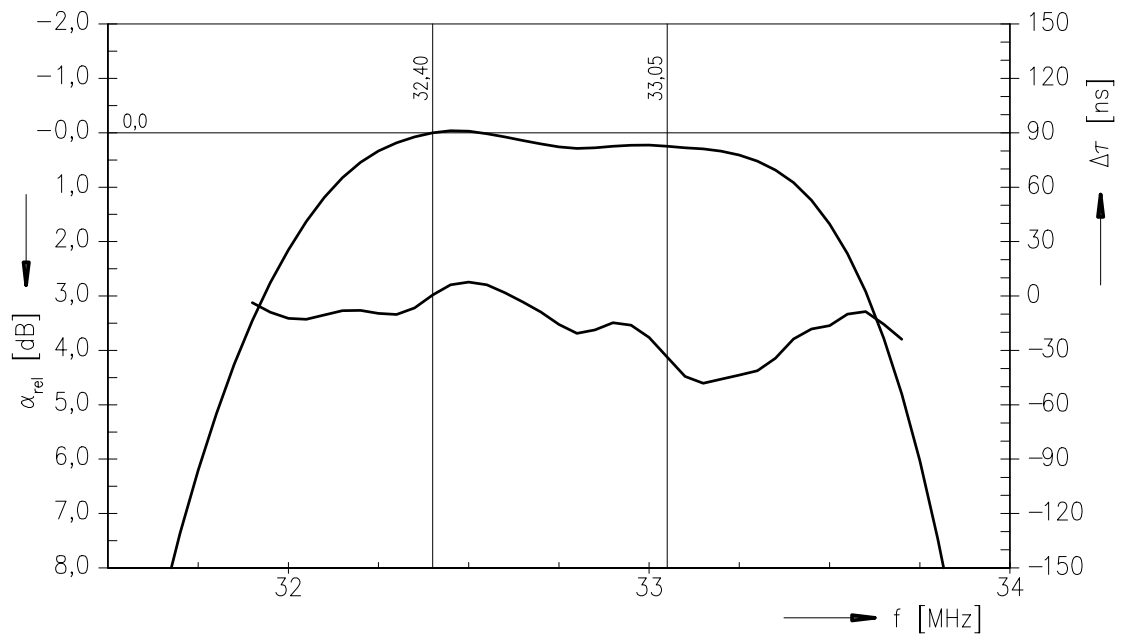
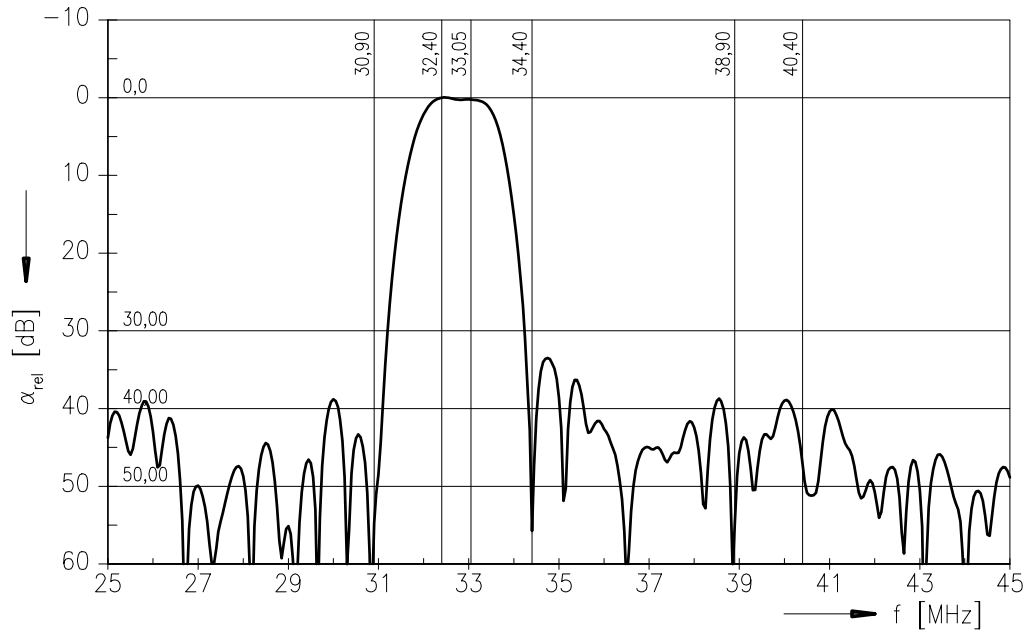
Frequency response of channel 1





Data Sheet

Frequency response of channel 2





SAW Components

L 9654 M

IF Filter for Audio Applications

33,90 MHz and 38,90 MHz

Data Sheet

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW CE MM PD

P.O. Box 80 17 09, D-81617 München

© EPCOS AG 2001. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.