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SAW Components

Data Sheet K 9650 M

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The word "EPCOS" is written in a bold, sans-serif font, with the letters appearing to be part of a curved, metallic-looking structure. The background is dark and textured, suggesting a circuit board or a similar technical surface.



SAW Components

K 9650 M

IF Filter for Audio Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

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

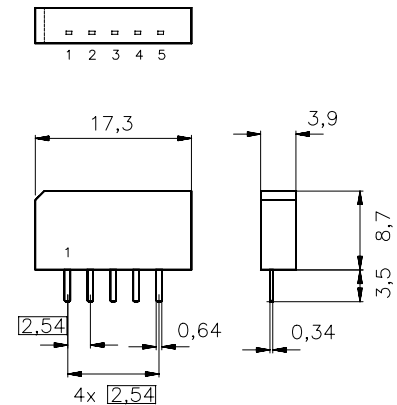
Features

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

Terminals

- Tinned CuFe alloy

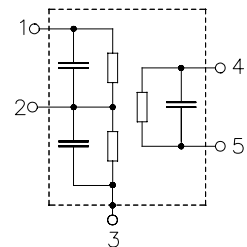
Plastic package **SIP5K**



Dimensions in mm, approx. weight 1,0 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 9650 M	B39389-K9650-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}	5	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	12,4	13,9	15,4	dB
Relative attenuation					
	α_{rel}				
Picture carrier	33,90 MHz	40,0	49,0	—	dB
	38,40 MHz	40,0	50,0	—	dB
Adjacent picture carrier	41,90 MHz	36,0	46,0	—	dB
Adjacent sound carrier	32,40 MHz	38,0	45,0	—	dB
Lower sidelobe	25,00 ... 38,40 MHz	37,0	44,0	—	dB
Upper sidelobe	41,90 ... 45,00 MHz	34,0	40,0	—	dB
Impedance at 40,40 MHz					
Input:	$Z_{IN} = R_{IN} \parallel C_{IN}$	—	0,8 \parallel 9,1	—	k Ω \parallel pF
Output:	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	2,2 \parallel 5,4	—	k Ω \parallel pF
Temperature coefficient of frequency					
	TC_f	—	-72	—	ppm/K



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Data Sheet

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

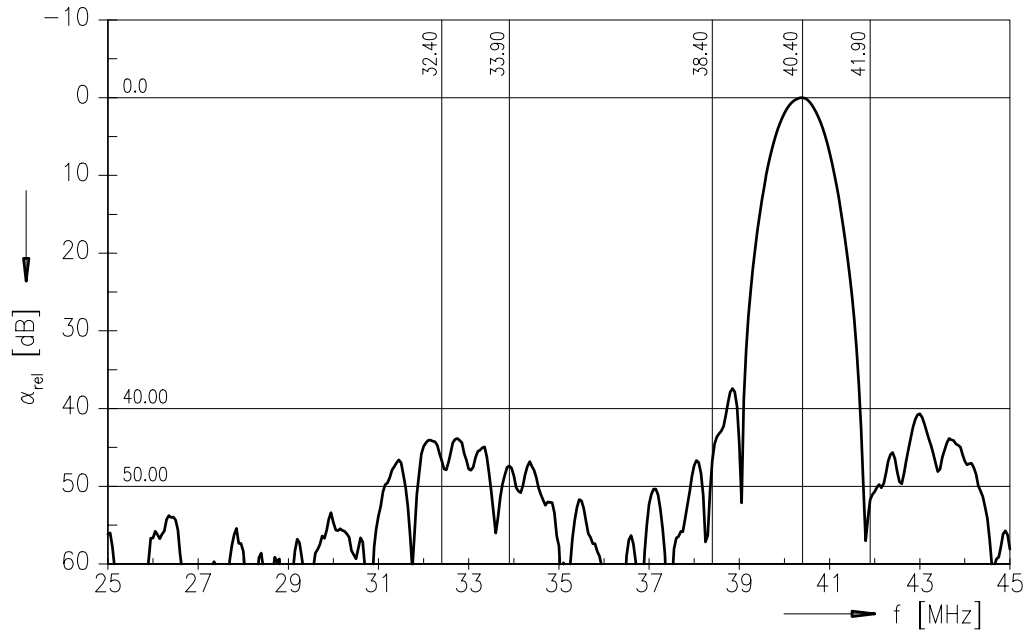
Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation					
	α				
Reference level for the following data	33,40 MHz	13,8	15,3	16,8	dB
Relative attenuation					
	α_{rel}				
Sound carrier	33,05 MHz	-1,4	-0,4	0,6	dB
	32,90 MHz	-1,1	-0,1	0,9	dB
	32,40 MHz	-1,1	-0,1	0,9	dB
Picture carrier	38,90 MHz	38,0	49,0	—	dB
Color carrier	34,47 MHz	30,0	40,0	—	dB
Adjacent picture carrier	30,90 MHz	32,0	41,0	—	dB
Adjacent sound carrier	40,40 MHz	35,0	41,0	—	dB
	40,90 MHz	36,0	45,0	—	dB
	41,40 MHz	35,0	41,0	—	dB
Lower sidelobe	25,00 ... 30,50 MHz	38,0	46,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	32,0	38,0	—	dB
Impedance at 33,40 MHz					
Input:	$Z_{IN} = R_{IN} \parallel C_{IN}$	—	1,0 13,5	—	k Ω pF
Output:	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	2,7 5,8	—	k Ω pF
Temperature coefficient of frequency					
	TC_f	—	-72	—	ppm/K



Data Sheet

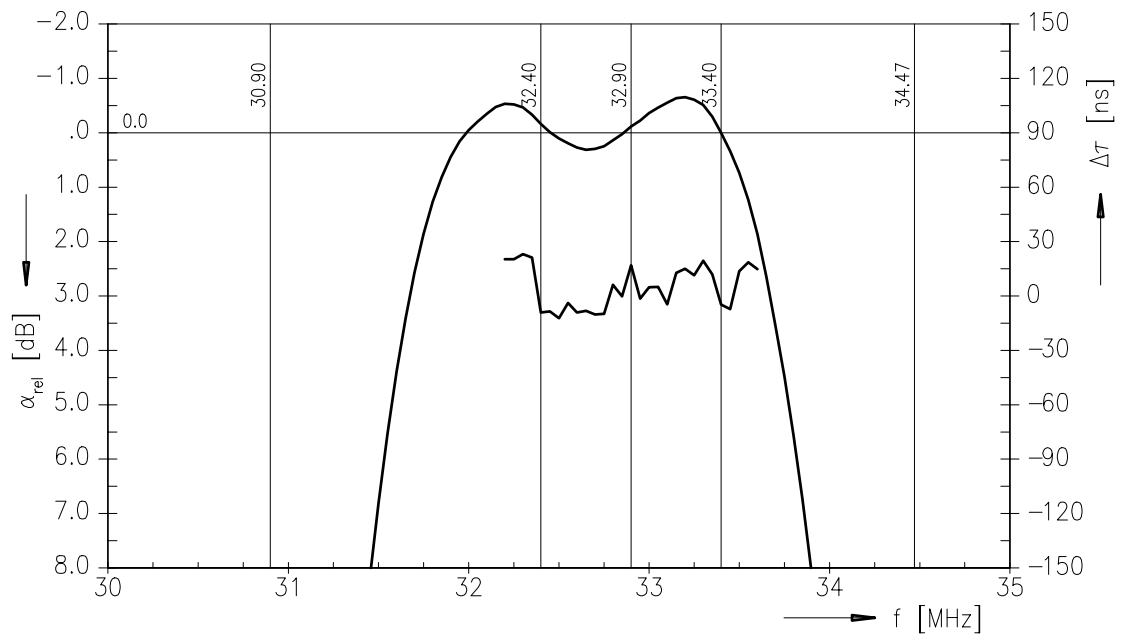
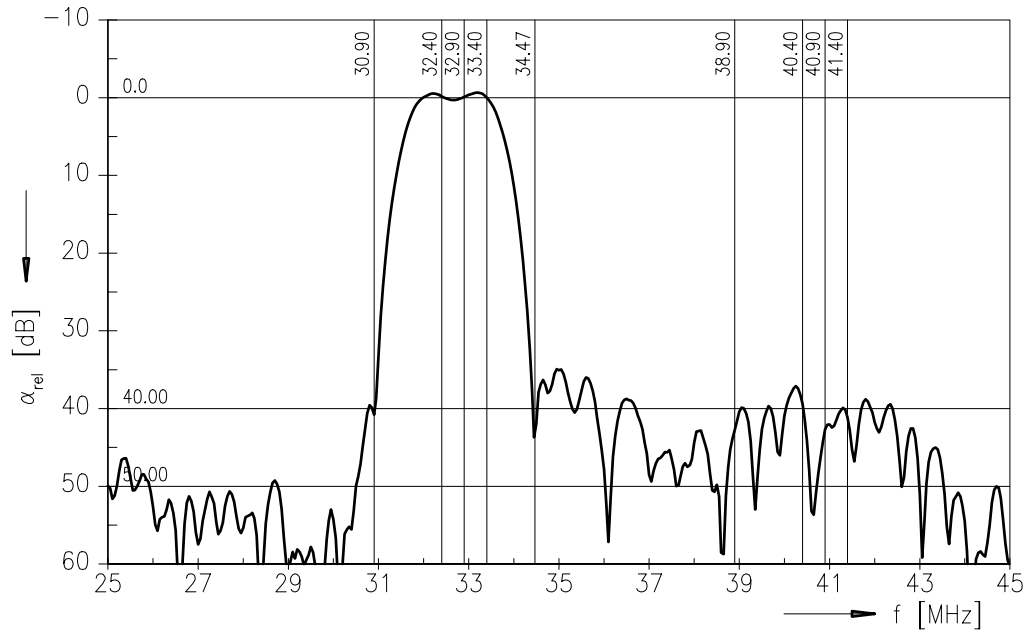
Frequency response of channel 1





Data Sheet

Frequency response of channel 2





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