SAW multimedia filters

Series/Type: K7257D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39389K7257N201		2011-01-14	2011-09-30	2012-09-30

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

Data Sheet

Standard

- B/G
- L/L'
- M/N

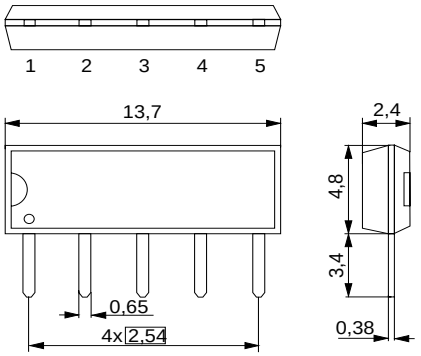
Features

- TV IF filter switchable from B/G,L/L' mode to M/N mode
- B/G, L/L' mode with Nyquist slope and sound suppression
- Highly reduced group delay predistortion as compared to standard B/G, half
- M/N mode with Nyquist slope and sound suppression
- Constant group delay
- Standard IC package

Terminals

- Tinned CuFe alloy

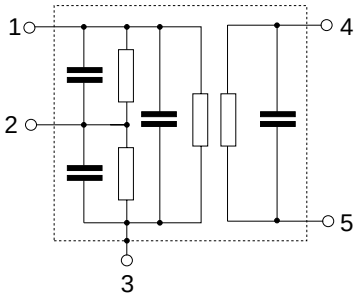
Duroplast package **SIP5D**



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 7257 D	B39389-K7257-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

Characteristics in B/G, L/L' mode (switching input pin 2 connected to ground)

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

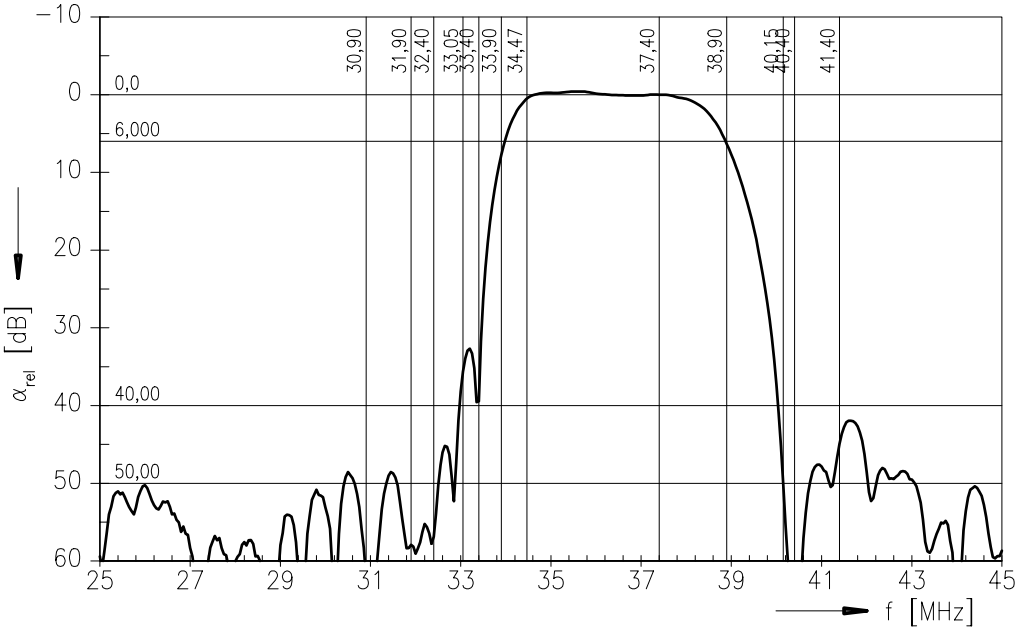
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		37,40 MHz		15,1	16,6	18,1	dB
Relative attenuation			α_{rel}				
Picture carrier		38,90 MHz		5,1	6,1	7,1	dB
Picture carrier		33,90 MHz		—	7,8	—	dB
Color carrier		34,47 MHz		-0,5	0,5	1,5	dB
Sound carrier		33,40 MHz		29,0	39,0	—	dB
		33,45 MHz		23,0	32,0	—	dB
NICAM sound carrier		33,05 MHz		—	35,0	—	dB
Adjacent picture carrier		30,90 MHz		47,0	57,0	—	dB
		31,90 MHz		48,0	57,0	—	dB
		32,40 MHz		48,0	60,0	—	dB
		40,15 MHz		41,0	52,0	—	dB
Adjacent sound carrier		40,40 MHz		45,0	56,0	—	dB
		41,40 MHz		40,0	46,0	—	dB
Lower sidelobe	25,00 ...	31,90 MHz		42,0	47,0	—	dB
Upper sidelobe	40,40 ...	45,00 MHz		37,0	42,0	—	dB
Reflected wave signal suppression							
1,2 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				42,0	52,0	—	dB
Feedthrough signal suppression							
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				—	56,0	—	dB
Group delay predistortion			$\Delta\tau$				ns
(reference frequency 38,90 MHz)							
		36,90 MHz		—	–50	—	ns
		34,47 MHz		—	50	—	ns
Impedance at 37,40 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	1,2 ‖17,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	1,9 ‖ 4,5	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

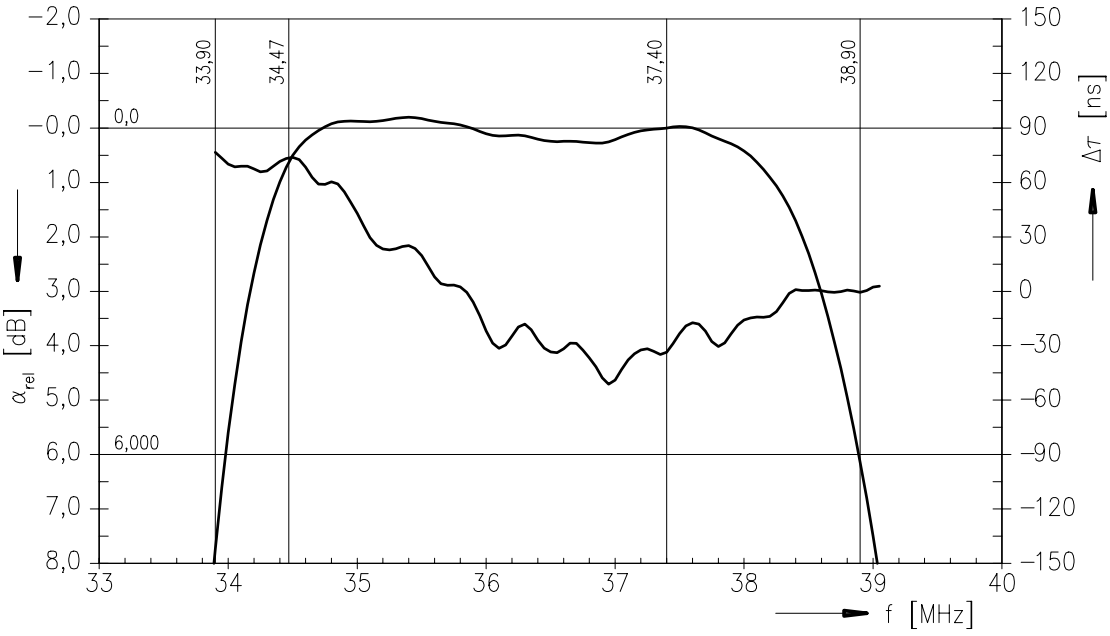
Characteristics in M/N mode (switching input pin 2 connected to pin 1)

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

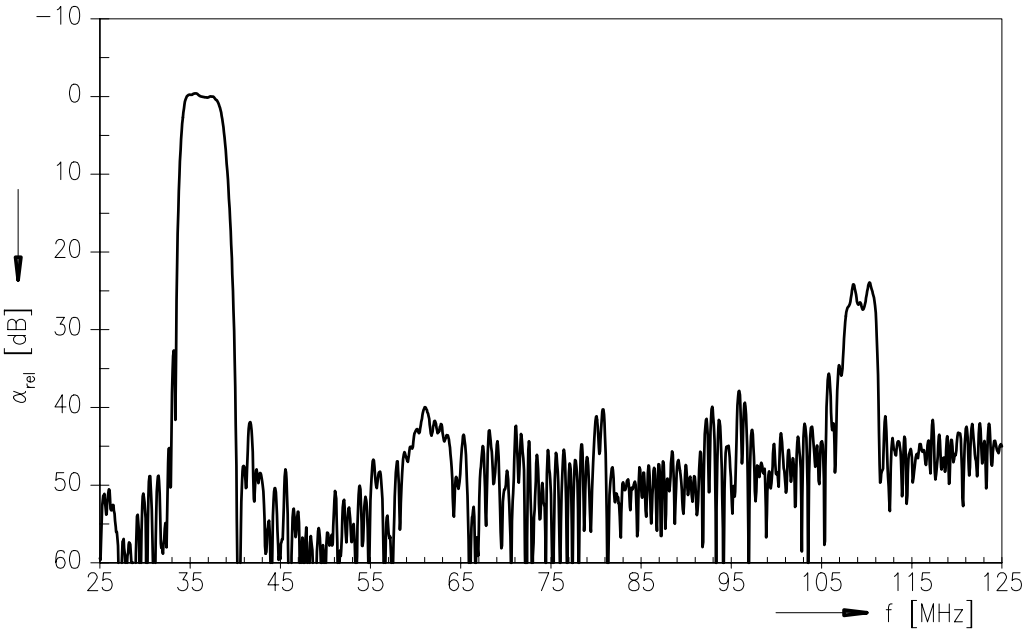
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data	37,40	MHz		14,8	16,3	17,8	dB
Relative attenuation			α_{rel}				
Picture carrier	38,90	MHz		5,2	6,2	7,2	dB
Color carrier	35,32	MHz		1,5	2,5	3,5	
Sound carrier	34,40	MHz		29,0	36,0	—	dB
Adjacent picture carrier	32,90	MHz		42,0	55,0	—	dB
Adjacent sound carrier	40,40	MHz		42,0	56,0	—	dB
Lower sidelobe	25,00 ... 32,90	MHz		38,0	46,0	—	dB
Upper sidelobe	40,40 ... 45,00	MHz		34,0	39,0	—	dB
Reflected wave signal suppression							
1,2 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				42,0	52,0	—	dB
Feedthrough signal suppression							
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				—	50,0	—	dB
Group delay ripple (p-p)			$\Delta\tau$				
	35,32 ... 38,90	MHz		—	50	—	ns
Impedance at 37,40 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	1,3 ‖19,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	1,9 ‖ 4,5	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

Frequency response in B/G, L/L' mode

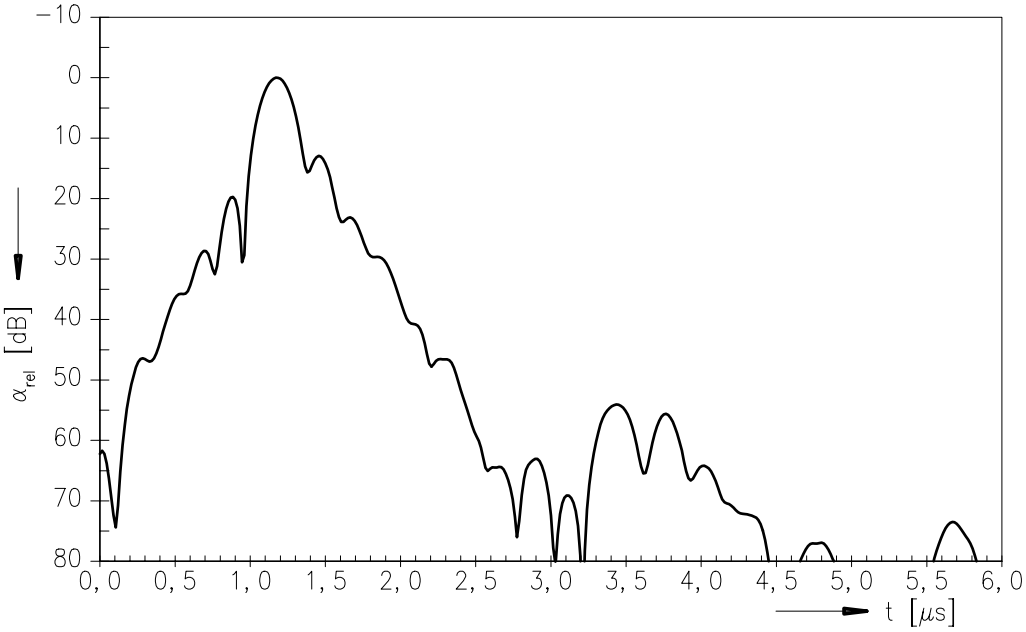




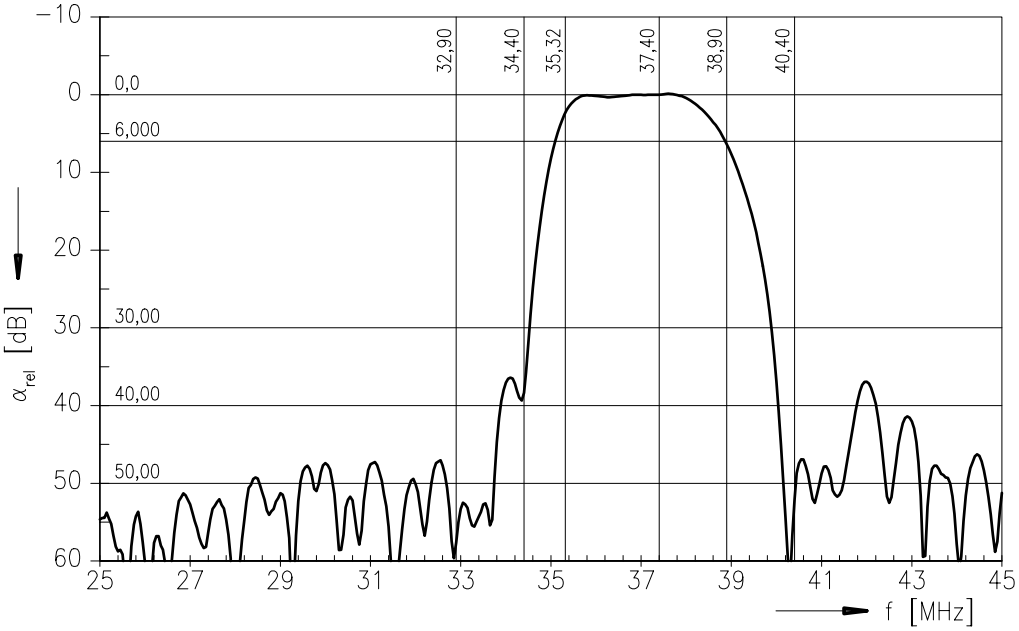
Frequency response in B/G, L/L' mode

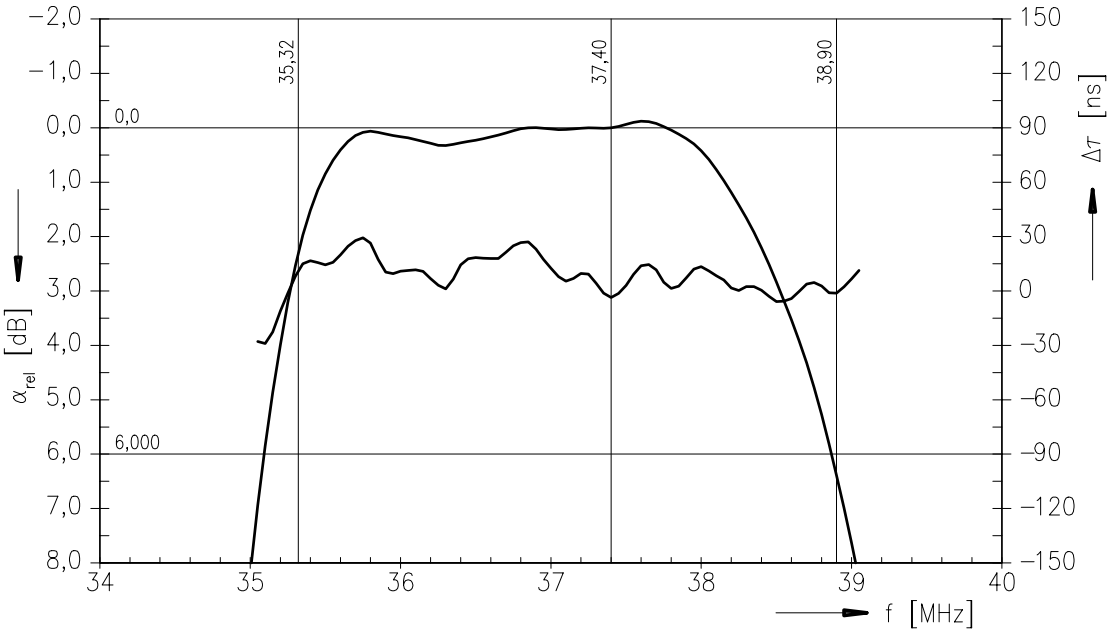


Time domain response in B/G, L/L' mode

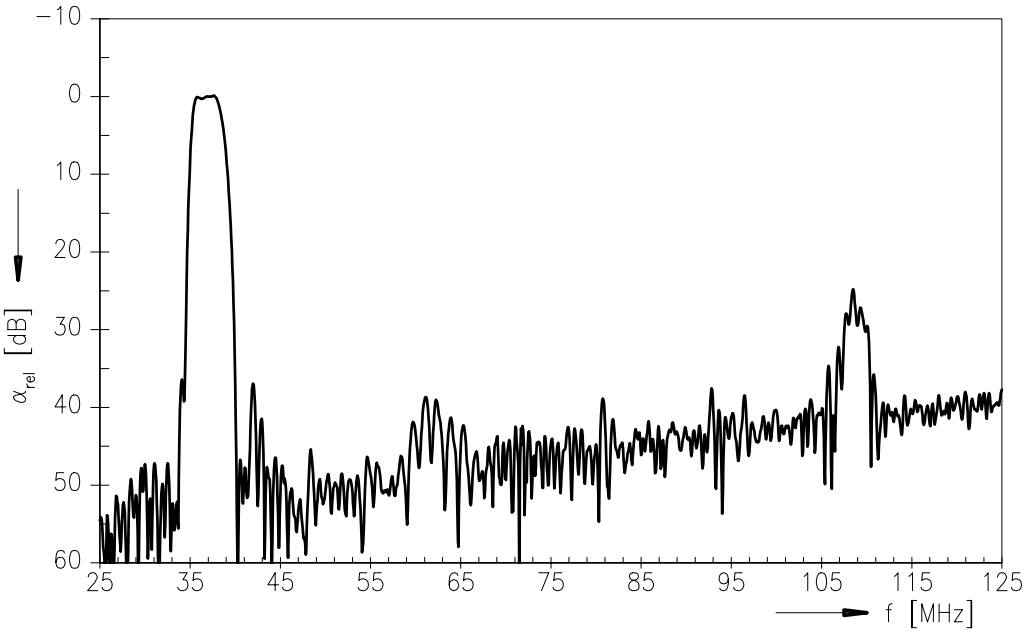


Frequency response in M/N mode

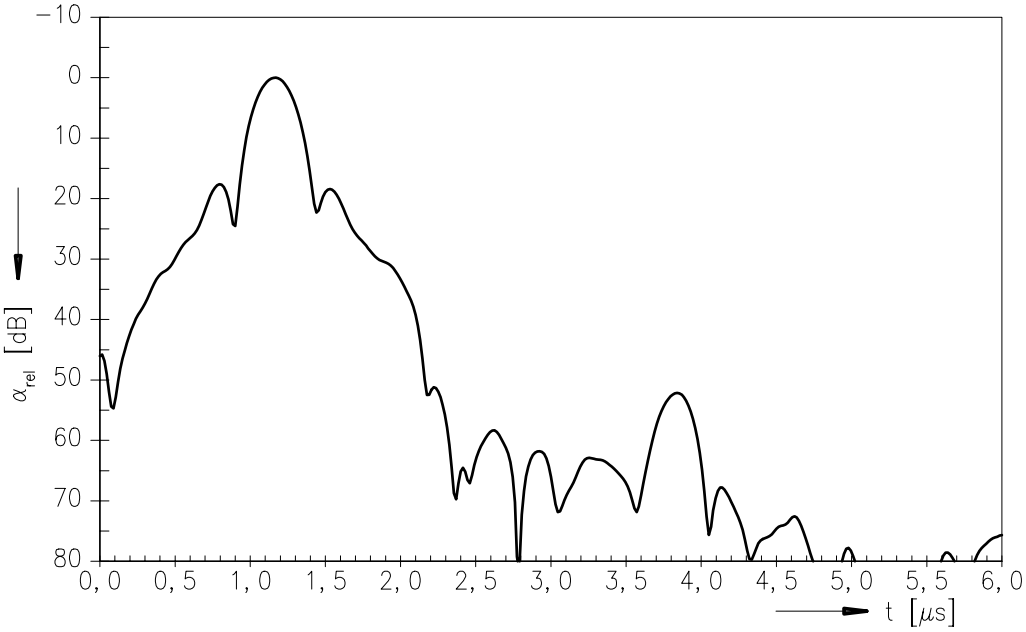




Frequency response in M/N mode



Time domain response in M/N mode



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