EPCOS

SAW Components

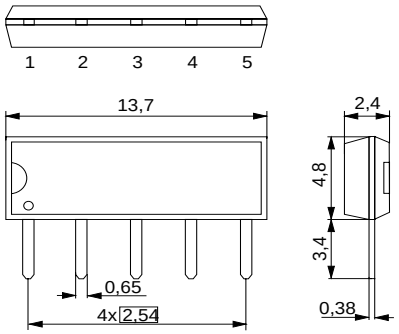
Data Sheet K 3567 D

Data Sheet

Standard

- B/G
- D/K
- I

Duroplast package **SIP5D**



Features

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression, symmetrical output
- Customized group delay predistortion
- Sound channel with pass band for sound carriers between 31,5 MHz and 32,5 MHz

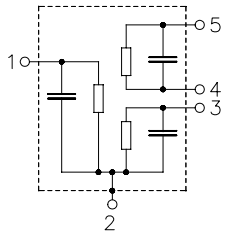
Terminals

- Tinned CuFe alloy

Dimensions in mm, approx. weight 0,5 g

Pin configuration

1	Input
2	Chip carrier - ground
3	Output - sound
4	Output - picture
5	Output - picture



Type	Ordering code	Marking and package according to	Packing according to
K 3567 D	B39380-K3567-N301	C61157-A1-A21	F61074-V8049-Z000

Maximum ratings

Operating 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 picture channel

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

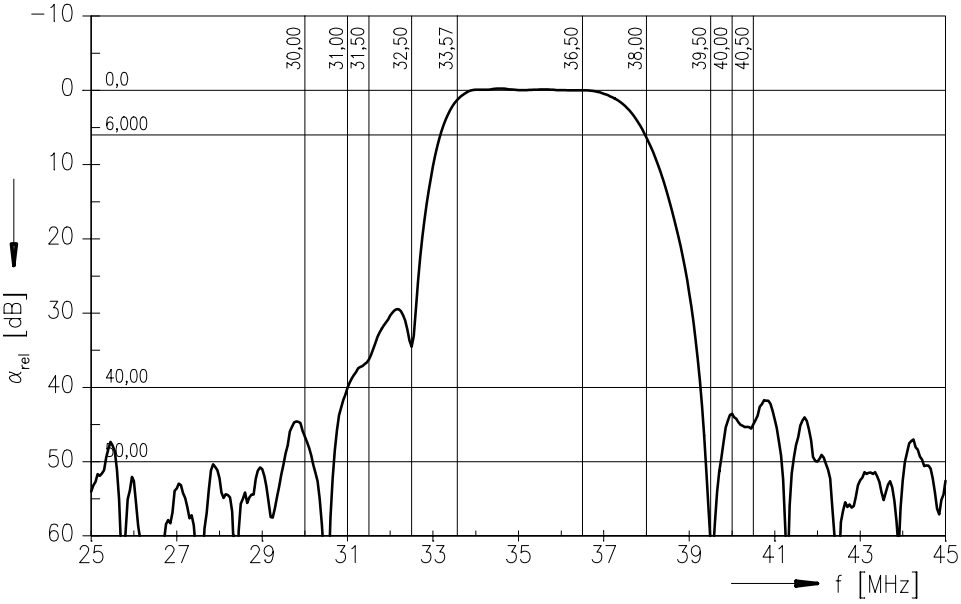
			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the following data	36,50 MHz		16,8	18,3	19,8	dB
Relative attenuation		α_{rel}				
Picture carrier	38,00 MHz		5,5	6,5	7,5	dB
Color carrier	33,57 MHz		–0,3	0,7	1,7	dB
Sound carrier	31,50 MHz		27,0	32,0	—	dB
	32,50 MHz		24,0	30,0	—	dB
Adjacent picture carrier	30,00 MHz		38,0	50,0	—	dB
	31,00 MHz		30,0	35,0	—	dB
Adjacent sound carrier	39,50 MHz		37,0	48,0	—	dB
	40,00 MHz		37,0	46,0	—	dB
Lower sidelobe	25,00 ... 30,00 MHz		38,0	46,0	—	dB
Upper sidelobe	40,00 ... 45,00 MHz		37,0	43,0	—	dB
Reflected wave signal suppression						
1,5 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 36,50 MHz)			42,0	50,0	—	dB
Feedthrough signal suppression						
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 36,50 MHz)			—	50,0	—	dB
Group delay predistortion (reference frequency 38,00 MHz)		$\Delta\tau$				
	37,20 MHz		—	30	—	ns
	36,40 MHz		—	0	—	ns
	35,20 MHz		—	–15	—	ns
	33,57 MHz		—	–35	—	ns
Impedance at 36,50 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			—	1,9 ‖18,1	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$			—	2,4 ‖ 3,9	—	kΩ || pF
Temperature coefficient of frequency		TC_f	—	–72	—	ppm/K

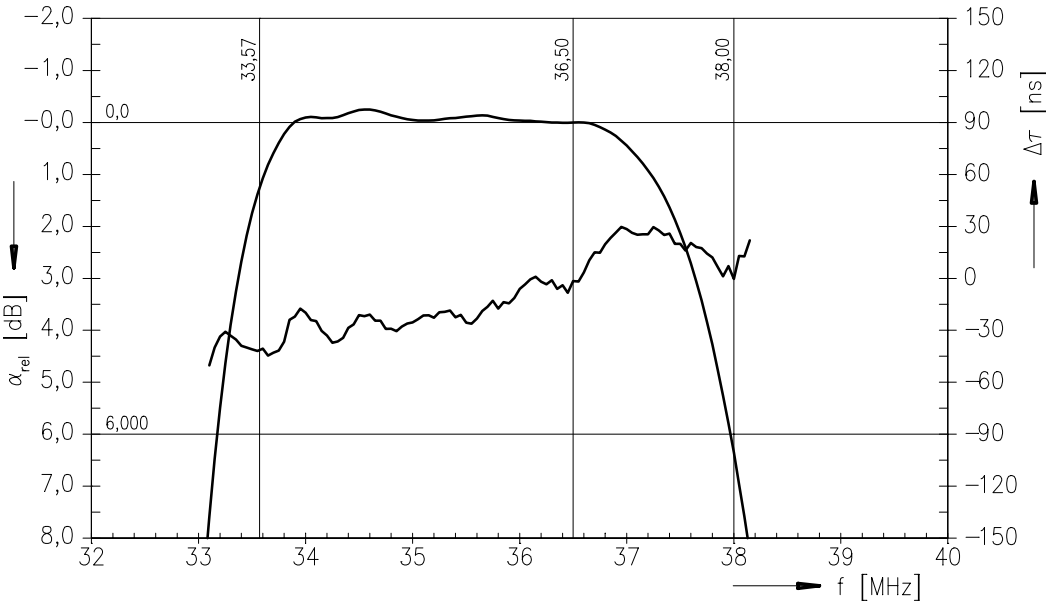
Characteristics of sound channel

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

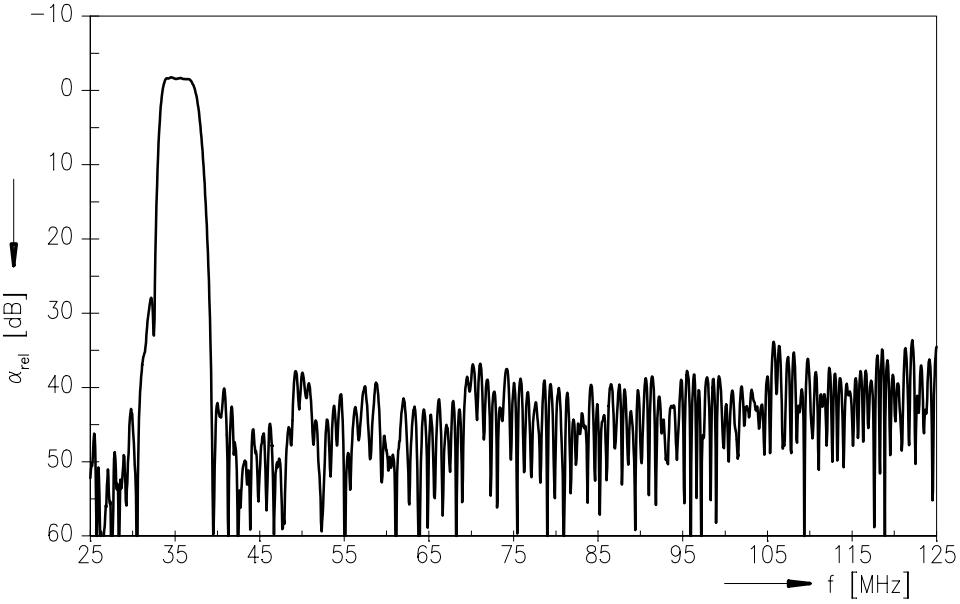
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		31,50 MHz		14,9	16,4	17,9	dB
Relative attenuation			α_{rel}				
Sound carrier		32,50 MHz		0,0	1,0	2,0	dB
Picture carrier		38,00 MHz		38,0	52,0	—	dB
Color carrier		33,57 MHz		22,0	36,0	—	dB
Adjacent picture carrier		30,00 MHz		28,0	35,0	—	dB
		31,00 MHz		—	5,1	—	dB
Adjacent sound carrier		39,50 MHz		36,0	48,0	—	dB
		40,00 MHz		36,0	50,0	—	dB
Lower sidelobe	25,00 ...	30,00 MHz		26,0	34,0	—	dB
Upper sidelobe	38,00 ...	45,00 MHz		32,0	42,0	—	dB
Impedance at 31,50 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	1,3 ‖21,3	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	3,9 ‖ 3,5	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

Frequency response of picture channel

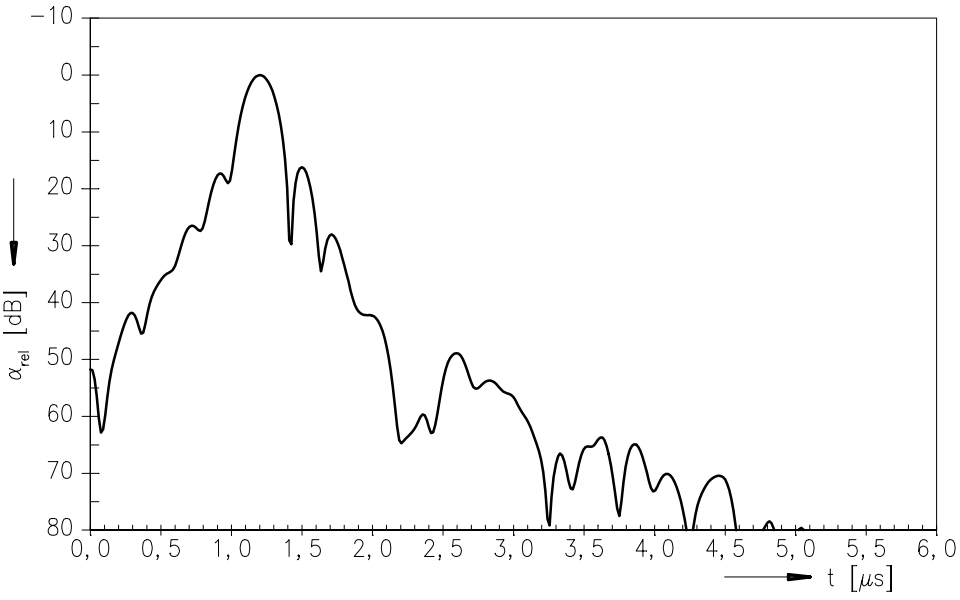




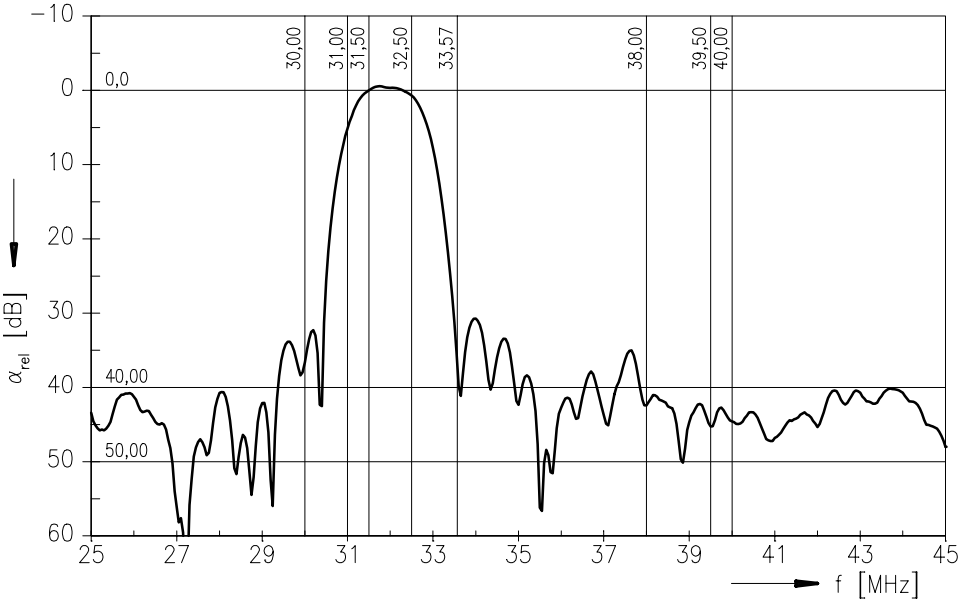
Frequency response of picture channel



Time domain response of picture channel



Frequency response of sound channel



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