EPCOS

# *SAW Components*

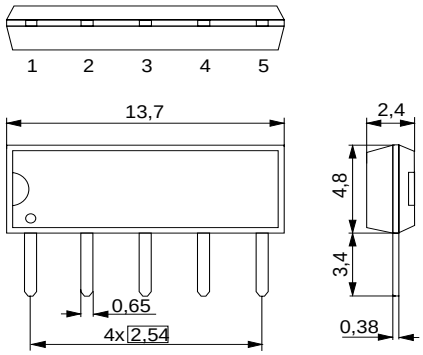
*Data Sheet  K 3567 D*

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

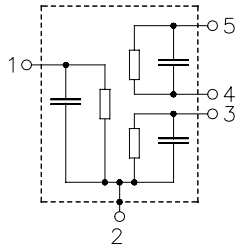
### Terminals

- 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

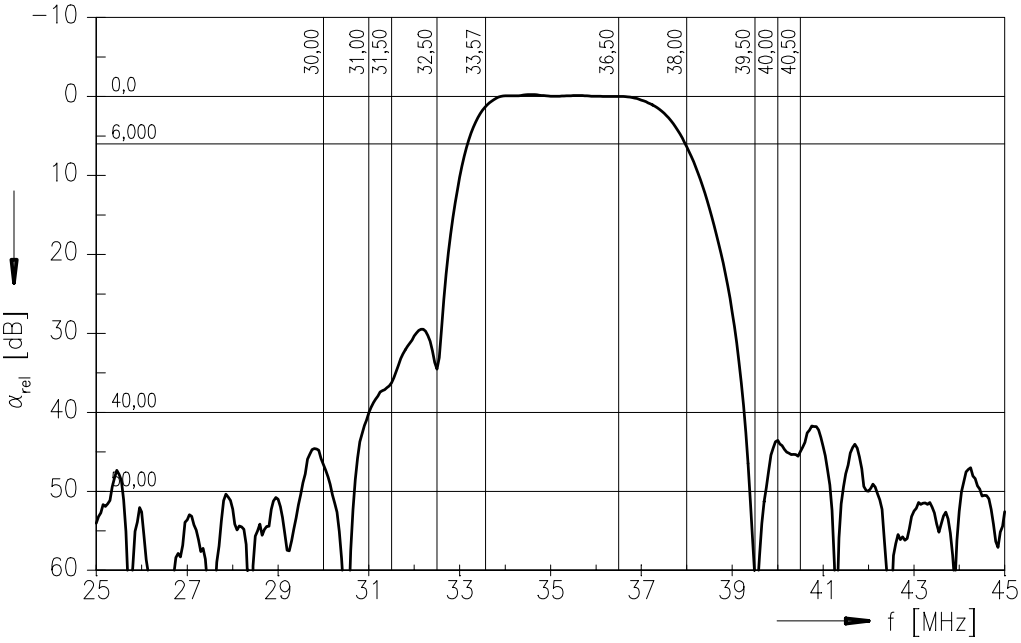
| | | | min. | typ. | max. | |
|---|---|---|---|---|---|---|
| **Insertion attenuation** | | $\alpha$ | | | | |
| Reference level for the following data | 36,50 MHz | | 16,8 | 18,3 | 19,8 | dB |
| **Relative attenuation** | | $\alpha_{rel}$ | | | | |
| Picture carrier | 38,00 MHz | | 5,5 | 6,5 | 7,5 | 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 |

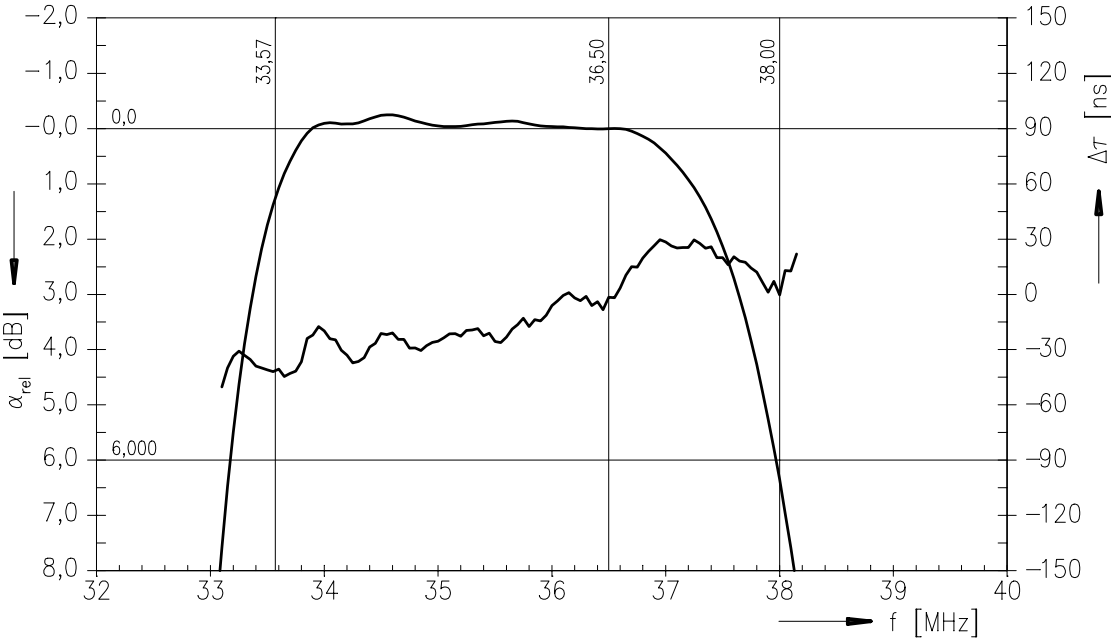
## Characteristics of sound channel

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

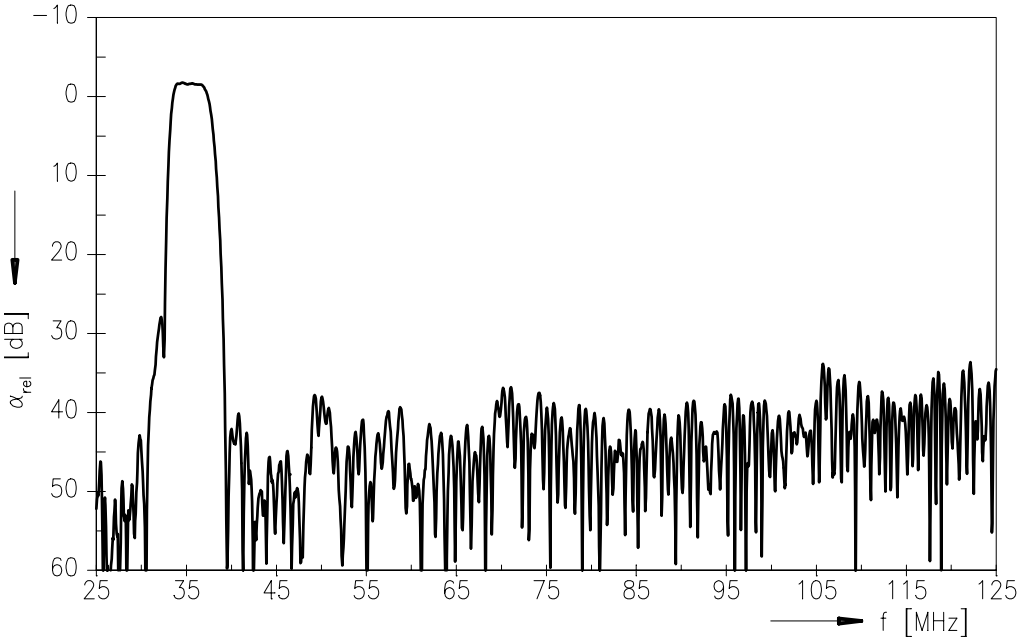
| | | | | min. | typ. | max. | |
|---|---|---|---|---|---|---|---|
| **Insertion attenuation** | | | α | | | | |
| Reference level for the following data | | 31,50 MHz | | 14,9 | 16,4 | 17,9 | dB |
| **Relative attenuation** | | | $\alpha_{rel}$ | | | | |
| Sound carrier | | 32,50 MHz | | 0,0 | 1,0 | 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**

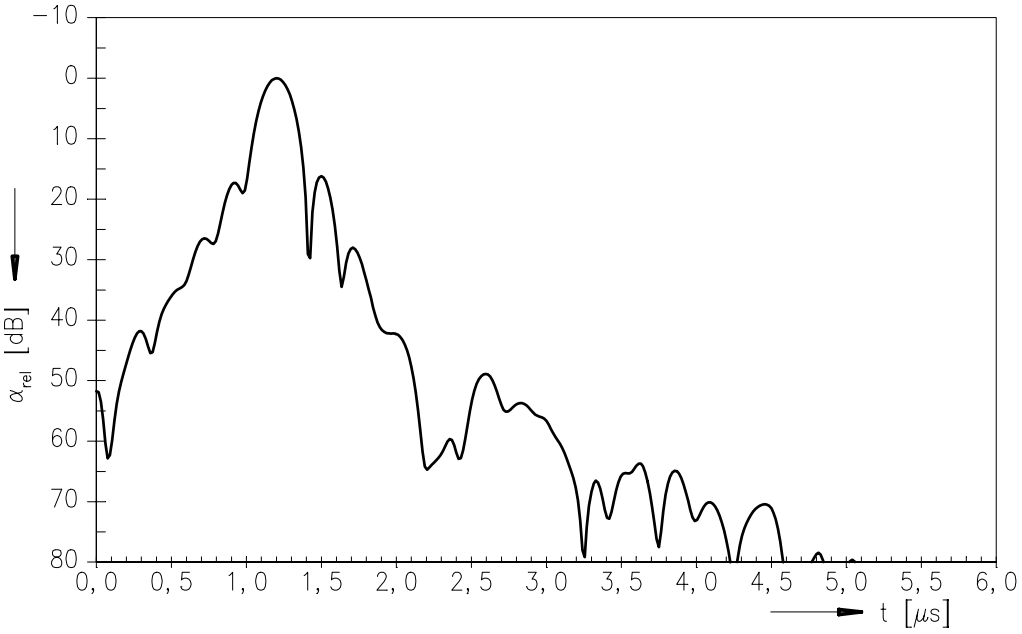


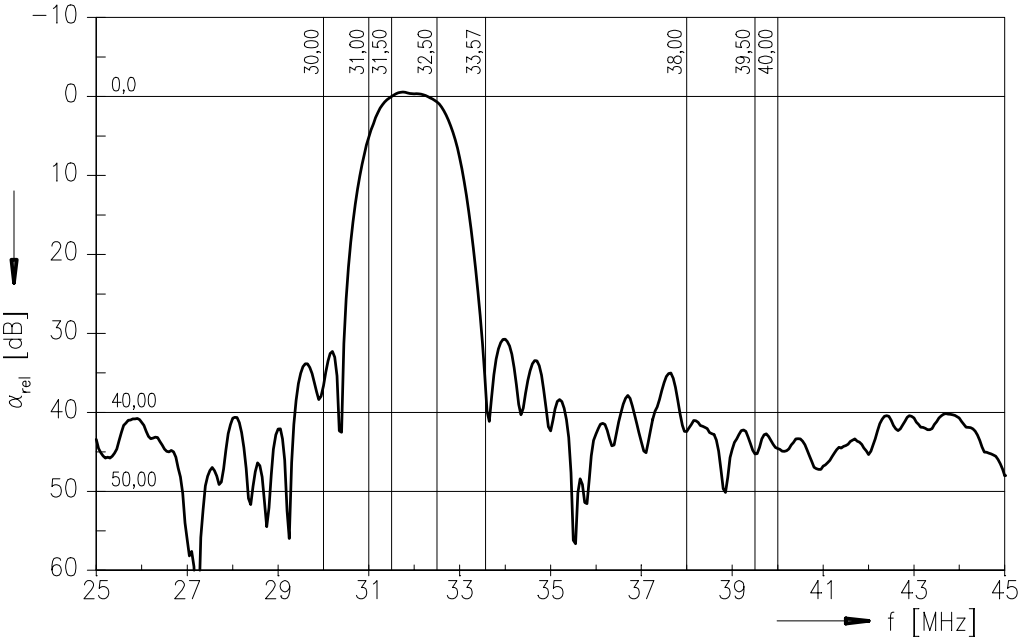
**Frequency response of picture channel**




**Time domain response of picture channel**



**Frequency response of sound channel**



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