EPCOS

# *SAW Components*

*Data Sheet K 6259 K*



Data Sheet

### Standard

- D/K
- M/N

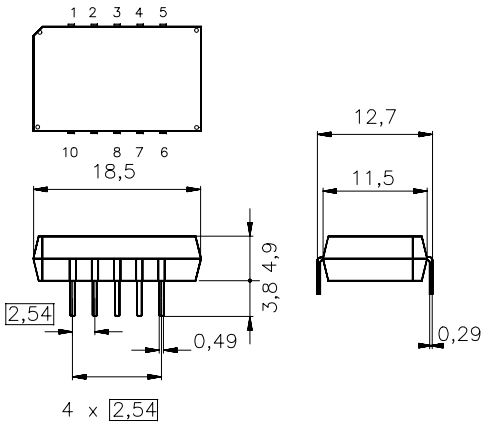
### Features

- TV IF filter switchable from M/N mode to D/K mode
- M/N mode with Nyquist slope and sound shelf at 34,40 MHz
- Constant group delay
- D/K mode with Nyquist slope and broad sound shelf for sound carriers at 32,40 MHz and 33,40 MHz
- Group delay predistortion

### Terminals

- Tinned CuFe alloy

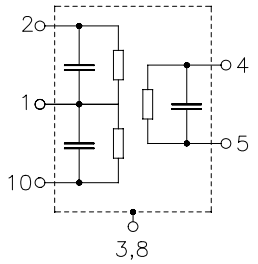
Plastic package **DIP10K**




Dimensions in mm, approx. weight 1,8 g

### Pin configuration

| | |
|---|---|
| 1 | Input |
| 2 | Input - ground |
| 3; 8 | Chip carrier - ground |
| 4; 5 | Output |
| 6; 7 | Not connected |
| 9 | Free |
| 10 | Switching input |




| Type | Ordering code | Marking and package according to | Packing according to |
|---|---|---|---|
| K 6259 K | B39389-K6259-K100 | C61157-A2-A3 | F61074-V8068-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 |

**Characteristics in M/N mode (switching input pin 10 connected to input pin 1)**

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

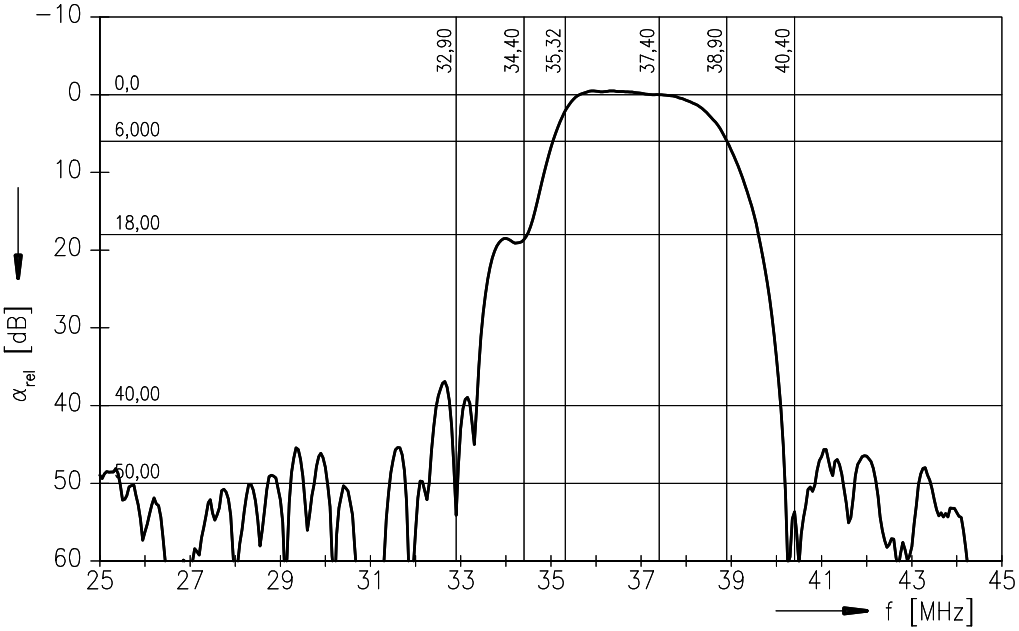
| | | | | min. | typ. | max. | |
|---|---|---|---|---|---|---|---|
| **Insertion attenuation** | | | $\alpha$ | | | | |
| Reference level for the following data | | 37,40 MHz | | 15,2 | 16,7 | 18,2 | dB |
| **Relative attenuation** | | | $\alpha_{rel}$ | | | | |
| Picture carrier | | 38,90 MHz | | 5,0 | 6,0 | 7,0 | dB |
| Color carrier | | 35,32 MHz | | 0,8 | 1,8 | 2,8 | dB |
| Sound carrier | | 34,40 MHz | | 16,9 | 18,4 | 19,9 | dB |
| Adjacent picture carrier | | 32,90 MHz | | 40,0 | 54,0 | — | dB |
| Adjacent sound carrier | | 40,40 MHz | | 41,0 | 50,0 | — | dB |
| Lower sidelobe | 25,00 ... | 32,90 MHz | | 33,0 | 38,0 | — | dB |
| Upper sidelobe | 40,40 ... | 45,00 MHz | | 36,0 | 43,0 | — | 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 | 50,0 | — | dB |
| **Feedthrough signal suppression** 1,2 µs ... 1,1 µs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz) | | | | — | 56,0 | — | dB |
| **Group delay ripple** (p-p) | | | $\Delta\tau$ | — | 40 | — | ns |
| **Impedance** at 37,40 MHz | | | | | | | |
| Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ | | | | — | 1,2 ‖ 17,2 | — | kΩ \|\| pF |
| Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | | | | — | 1,4 ‖ 6,0 | — | kΩ \|\| pF |
| **Temperature coefficient of frequency** | | | $TC_f$ | — | –72 | — | ppm/K |

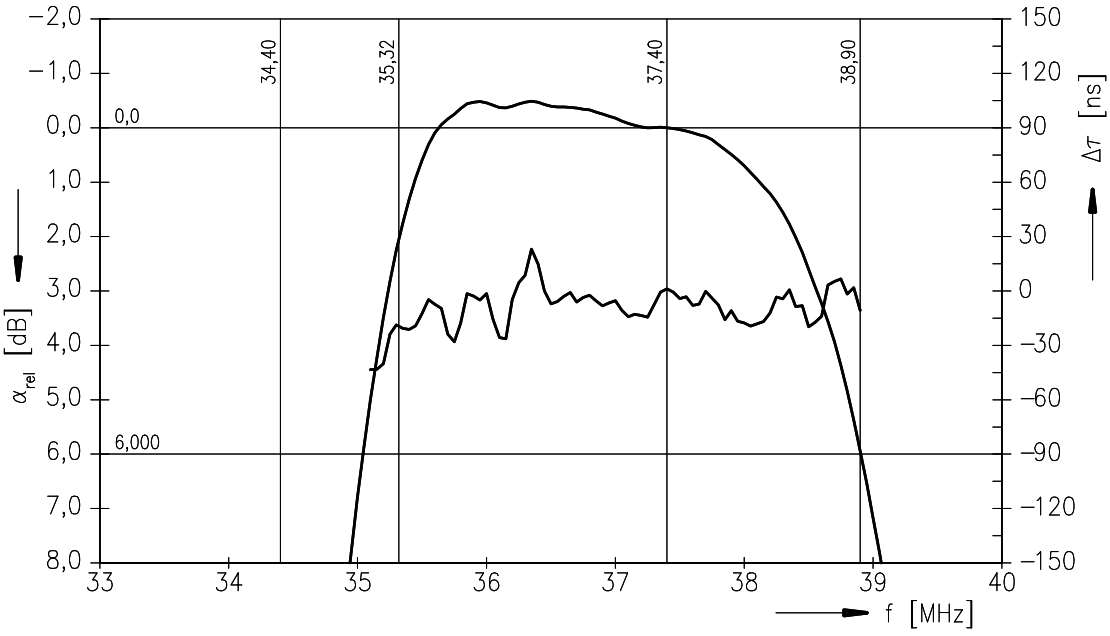
**Characteristics in D/K mode (switching input pin 10 connected to ground input pin 2)**

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

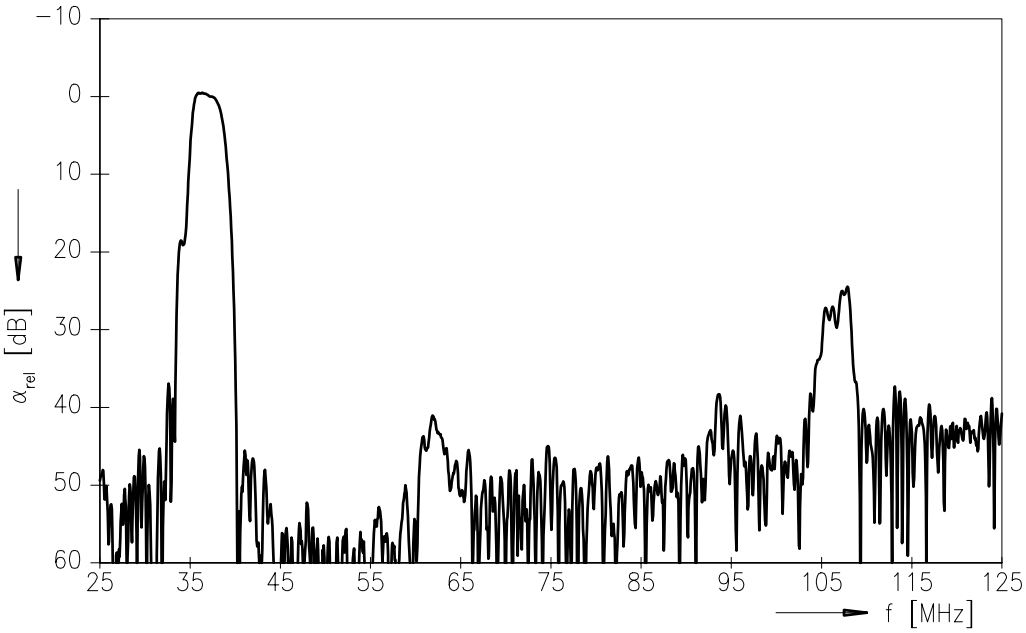
| | | | min. | typ. | max. | |
|---|---|---|---|---|---|---|
| **Insertion attenuation** | | $\alpha$ | | | | |
| Reference level for the following data | 37,40 MHz | | 15,9 | 17,4 | 18,9 | dB |
| **Relative attenuation** | | $\alpha_{rel}$ | | | | |
| Picture carrier | 38,90 MHz | | 5,1 | 6,1 | 7,1 | dB |
| Color carrier | 34,47 MHz | | –0,7 | 0,3 | 1,3 | dB |
| Sound carrier | 32,40 MHz | | 15,2 | 16,7 | 18,2 | dB |
| | 33,40 MHz | | 16,1 | 17,6 | 19,1 | dB |
| Adjacent picture carrier | 30,90 MHz | | 44,0 | 56,0 | — | dB |
| Adjacent sound carrier | 40,40 MHz | | 41,0 | 50,0 | — | dB |
| Lower sidelobe | 25,00 ... 30,90 MHz | | 37,0 | 45,0 | — | dB |
| Upper sidelobe | 40,40 ... 45,00 MHz | | 35,0 | 41,0 | — | 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 | 51,0 | — | dB |
| **Feedthrough signal suppression** | | | | | | |
| 1,2 µs ... 1,1 µs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz) | | | — | 56,0 | — | dB |
| **Group delay predistortion** (reference frequency 38,90 MHz) | | $\Delta\tau$ | | | | |
| | 37,10 MHz | | — | –75 | — | ns |
| | 34,47 MHz | | — | 20 | — | ns |
| **Impedance** at 37,40 MHz | | | | | | |
| Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ | | | — | 0,7 ‖26,4 | — | kΩ \|\| pF |
| Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | | | — | 1,4 ‖ 6,0 | — | kΩ \|\| pF |
| **Temperature coefficient of frequency** | | $TC_f$ | — | –72 | — | ppm/K |

**Frequency response M/N mode (switching input pin 10 connected to input pin 1)**

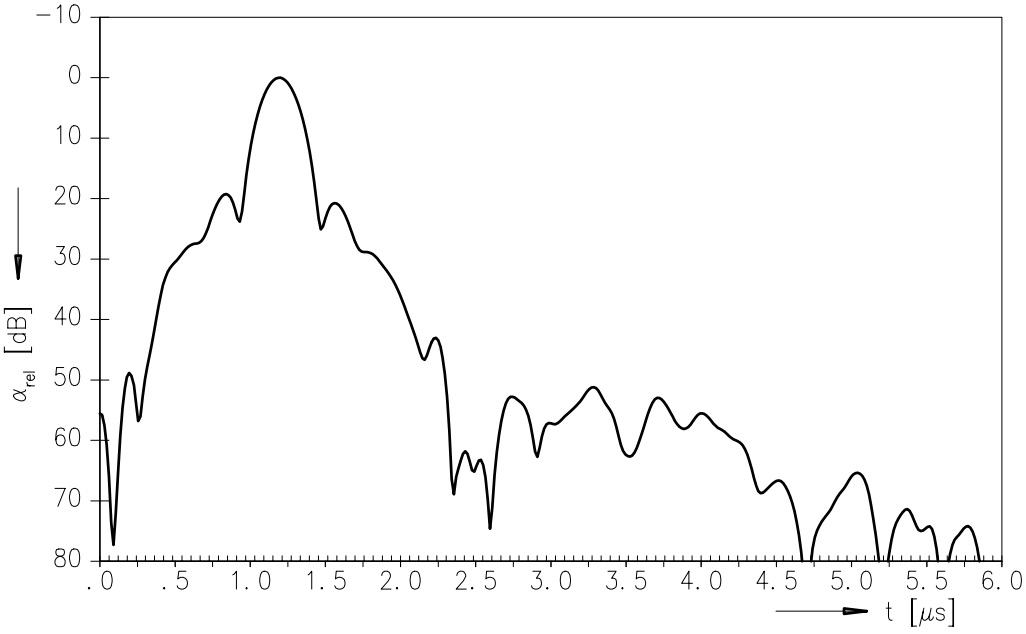


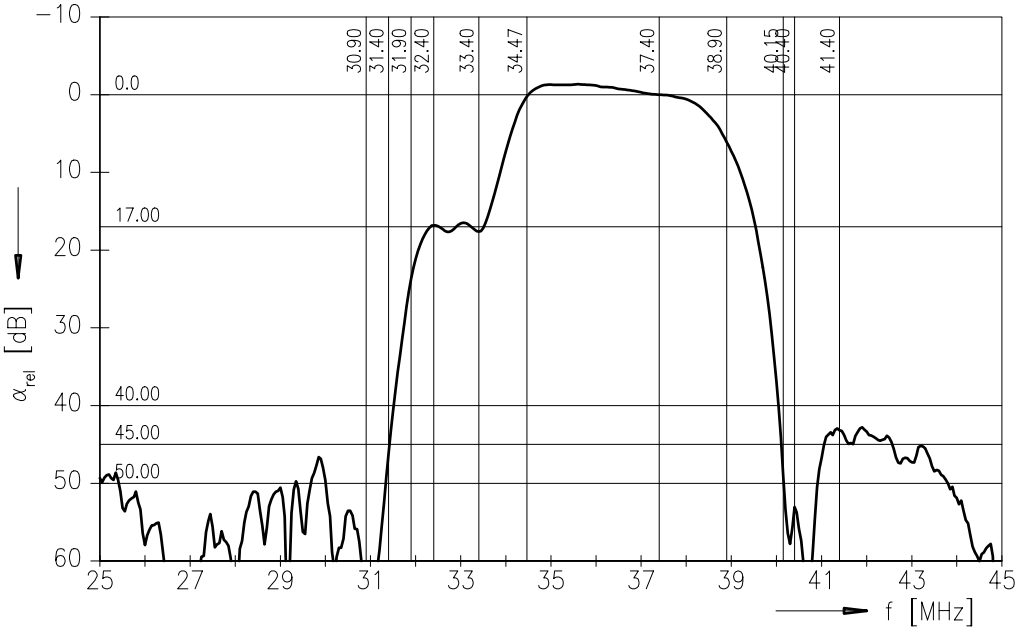
**Frequency response M/N mode (switching input pin 10 connected to input pin 1)**

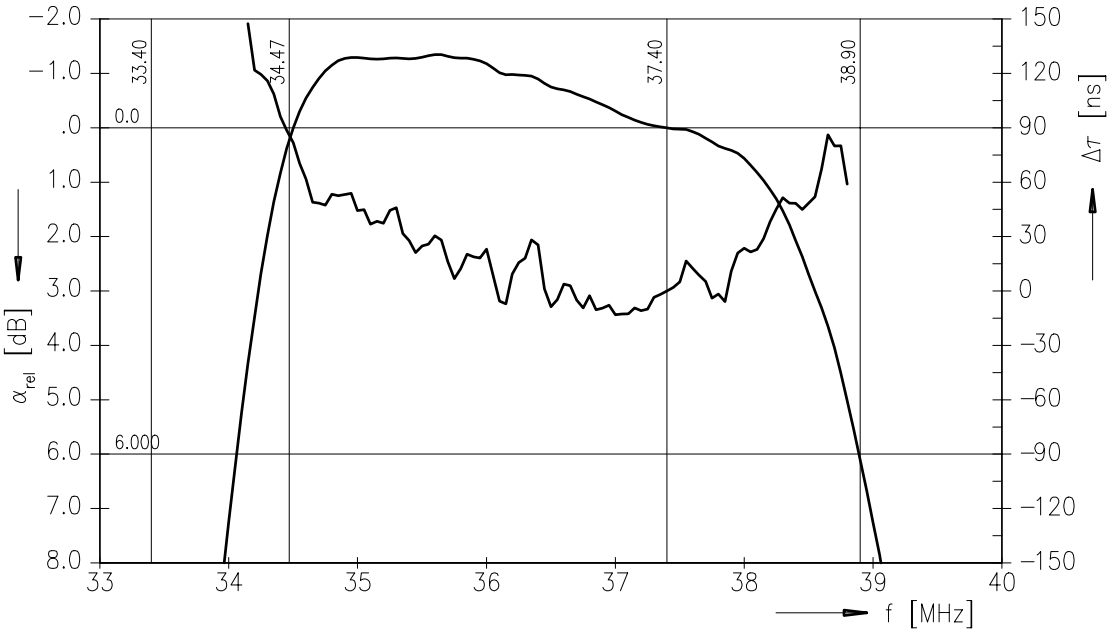



**Time domain response M/N mode**

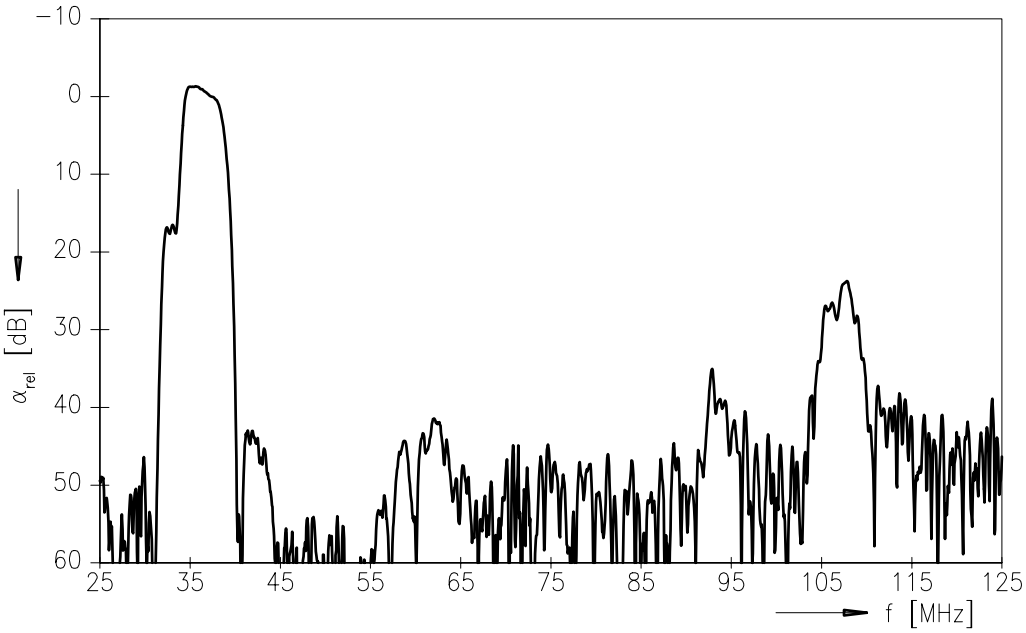


**Frequency response D/K mode (switching input pin 10 connected to ground input pin 2)**

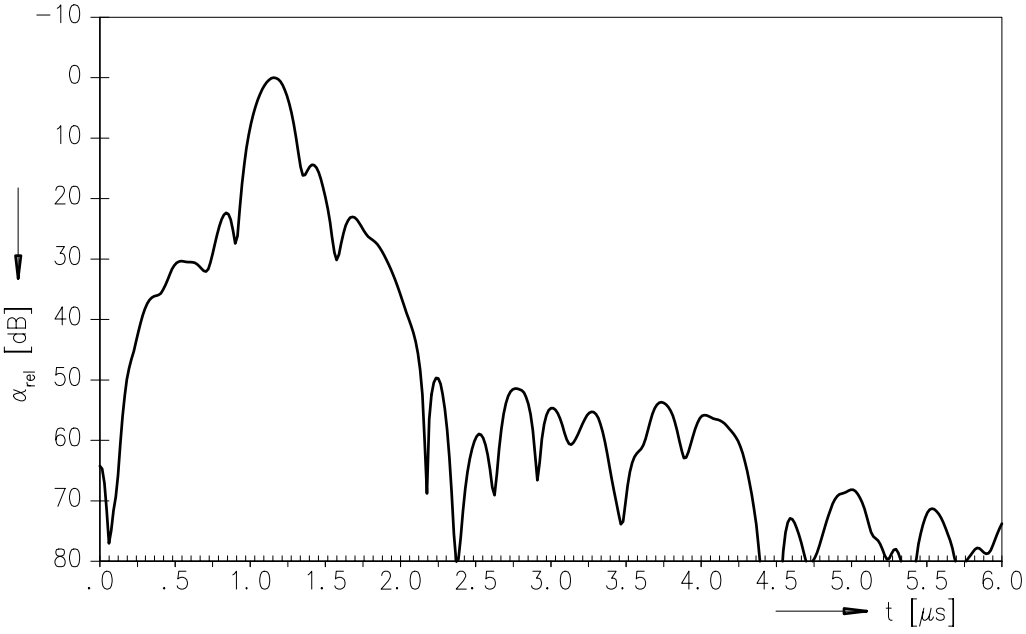


**Frequency response D/K mode (switching input pin 10 connected to ground input pin 2)**




**Time domain response D/K mode**



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