



# SAW Components

Data Sheet K 6259 K

Data Sheet

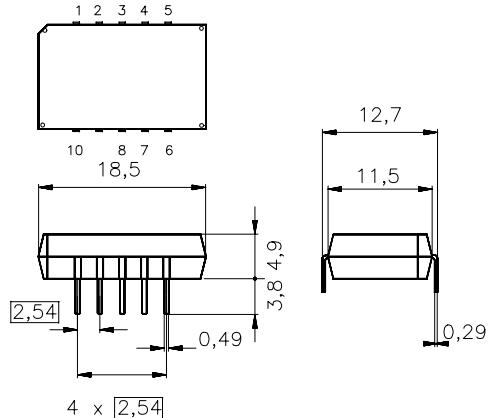


**SAW Components**
**K 6259 K**
**IF Filter for Intercarrier/Multistandard Applications**
**38,90 MHz**
**Data Sheet**
**Standard**

- 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

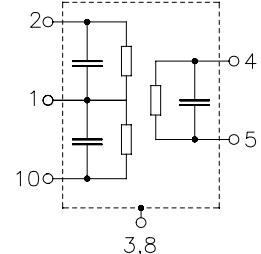
**Plastic package DIP10K**

**Terminals**

- Tinned CuFe alloy

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



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

Reference temperature:  $T_A = 25^\circ\text{C}$

Terminating source impedance:  $Z_S = 50 \Omega$

Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	37,40 MHz	15,2	16,7	18,2	dB
<b>Relative attenuation</b>	$\alpha_{\text{rel}}$				
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
<b>Reflected wave signal suppression</b>					
1,2 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	50,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		—	56,0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$	—	40	—	ns
<b>Impedance at 37,40 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,2 $\parallel$ 17,2	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,4 $\parallel$ 6,0	—	$\text{k}\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



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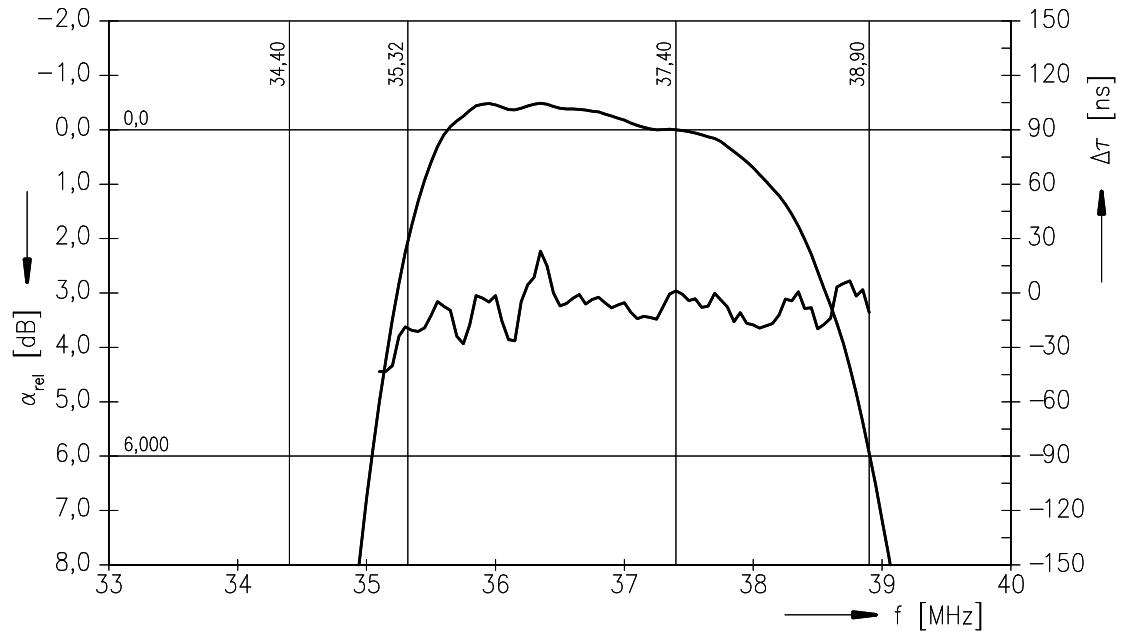
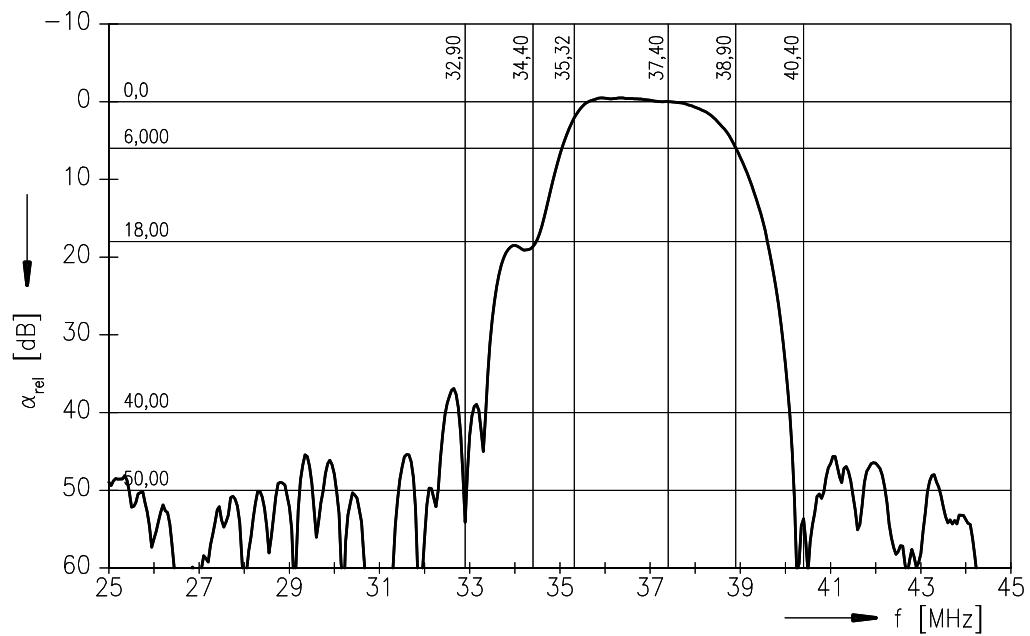
### Characteristics in D/K mode (switching input pin 10 connected to ground input pin 2)

Reference temperature:  $T_A = 25^\circ\text{C}$

Terminating source impedance:  $Z_S = 50 \Omega$

Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ.	max.	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	37,40 MHz	15,9	17,4	18,9	dB
<b>Relative attenuation</b>	$\alpha_{\text{rel}}$				
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
<b>Reflected wave signal suppression</b>					
1,2 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	51,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		—	56,0	—	dB
<b>Group delay predistortion</b>	$\Delta\tau$				
(reference frequency 38,90 MHz)					
	37,10 MHz	—	-75	—	ns
	34,47 MHz	—	20	—	ns
<b>Impedance at 37,40 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	0,7 $\parallel$ 26,4	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,4 $\parallel$ 6,0	—	$\text{k}\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K

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


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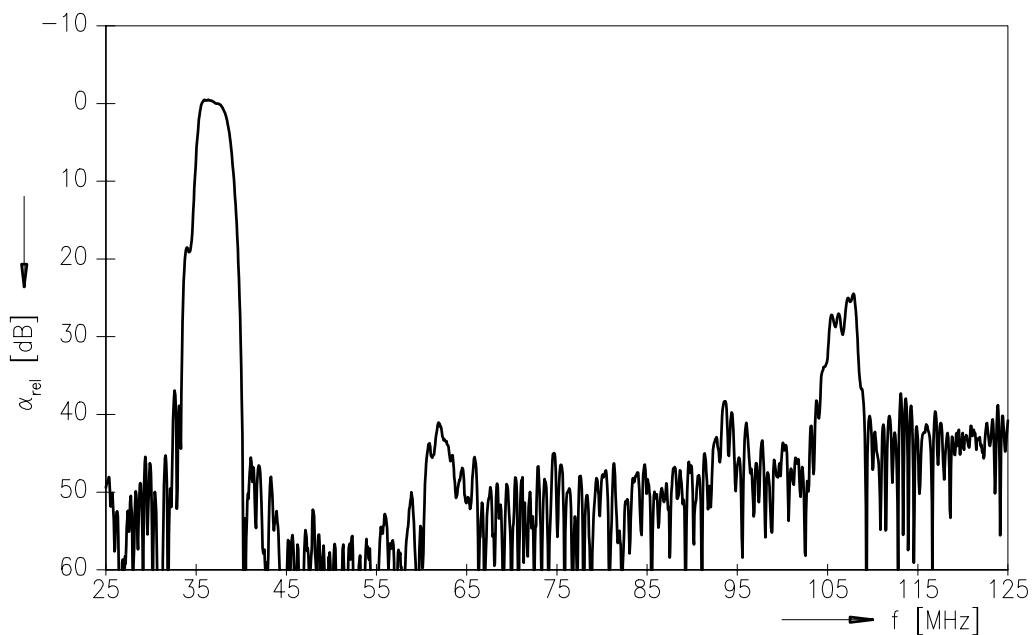
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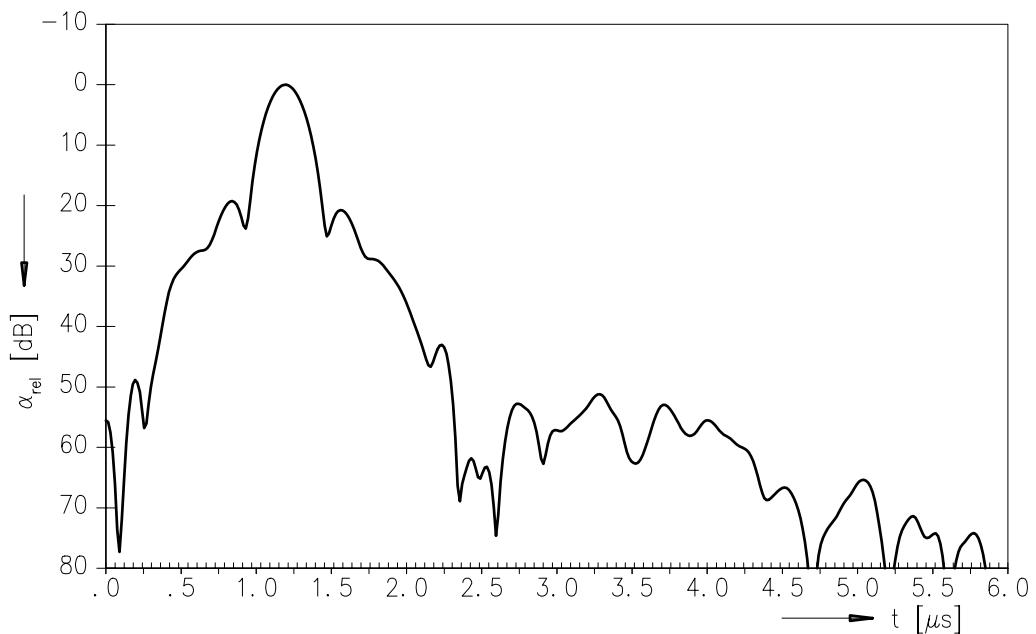
**38,90 MHz**

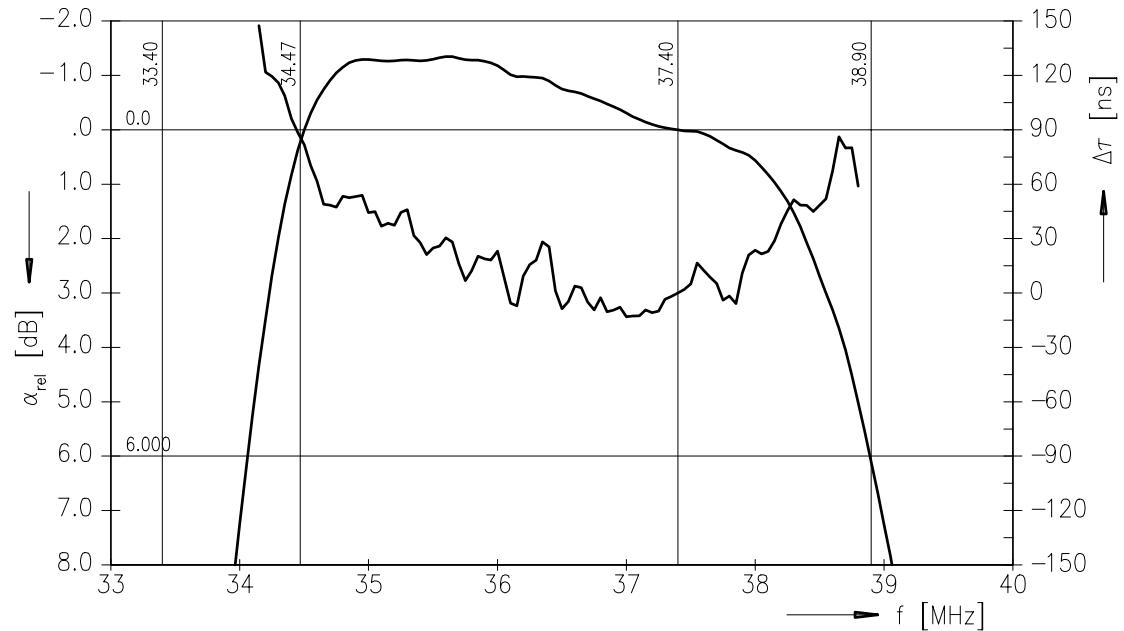
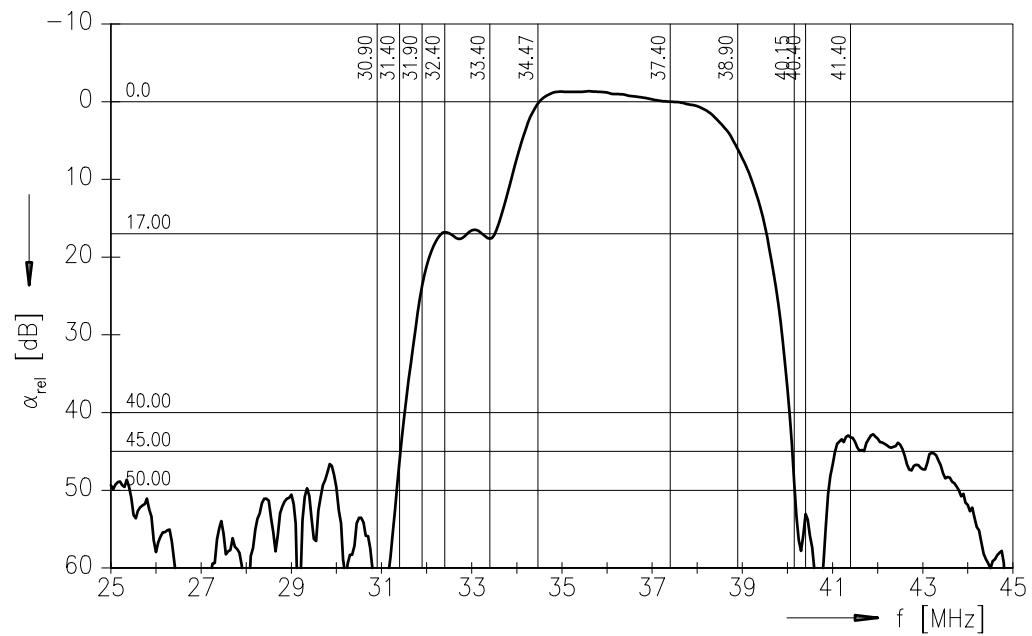
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**Frequency response M/N mode (switching input pin 10 connected to input pin 1)**



**Time domain response M/N mode**



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


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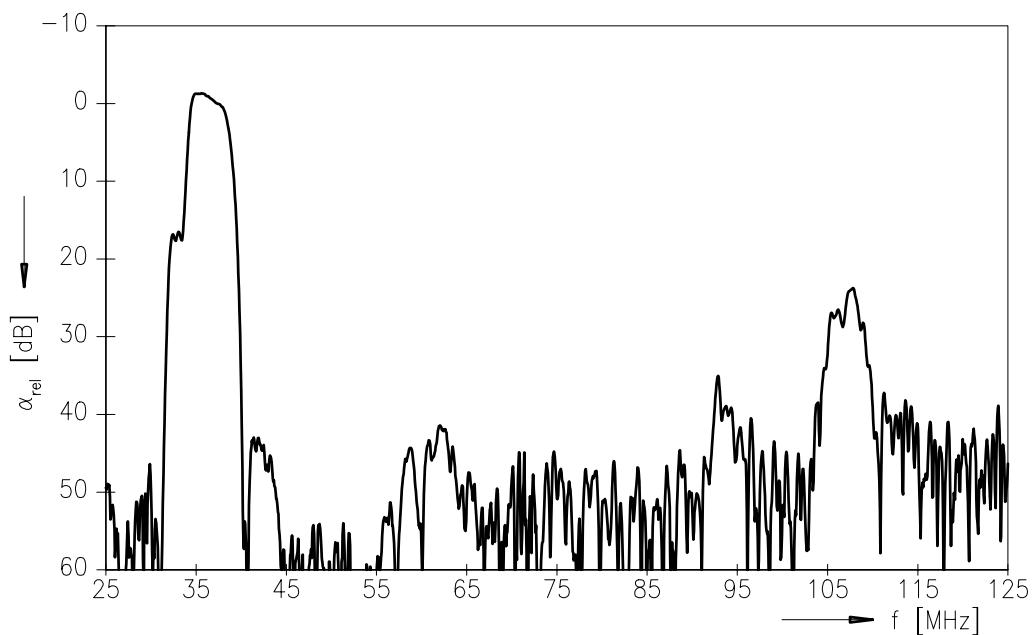
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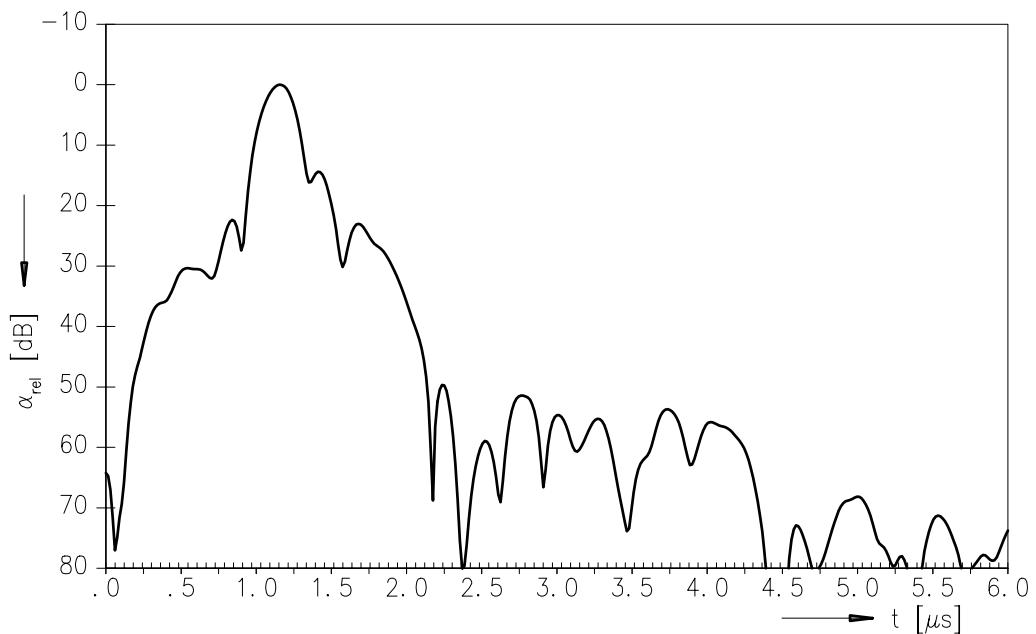
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**Frequency response D/K mode (switching input pin 10 connected to ground input pin 2)**



**Time domain response D/K mode**





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