EPCOS

SAW Components

Data Sheet X 7257 M



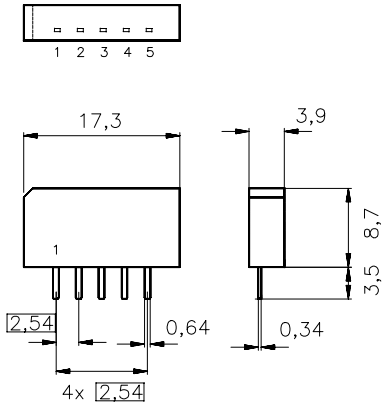
Plastic package **SIP5K**

Features

- TV IF filter
- Switchable between two bandwidths

Terminals

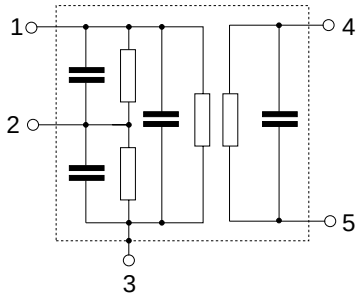
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 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
X 7257 M		C61157-A1-A15	F61074-V8067-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 of channel 1 (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

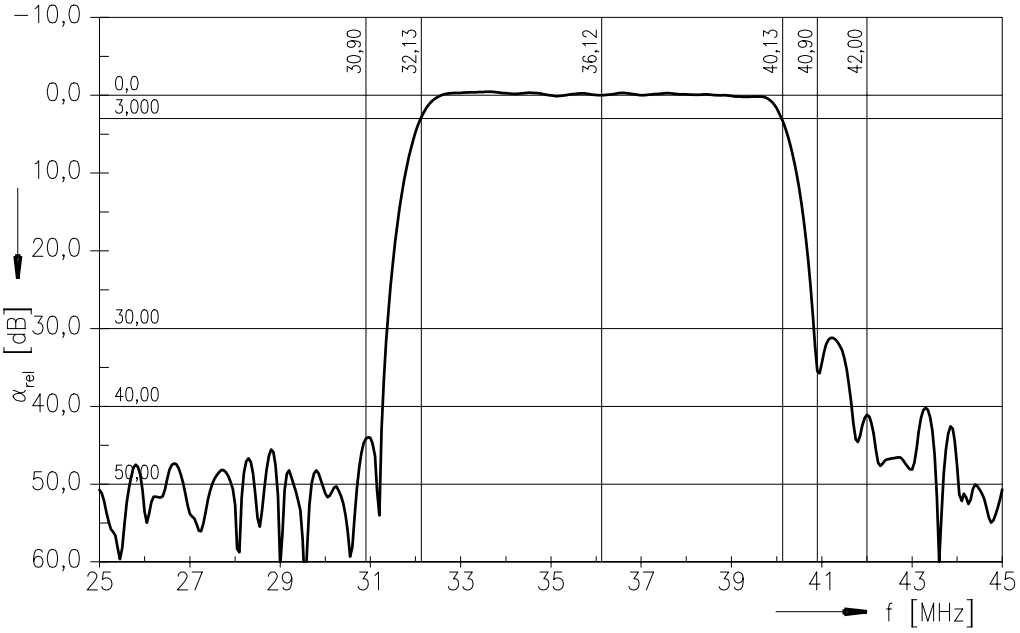
			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the following data	36,125 MHz		20,1	21,6	23,1	dB
Pass bandwidth						
α_{rel} ≤3 dB		B_{3dB}	—	8,0	—	MHz
α_{rel} ≤30 dB		B_{30dB}	—	9,5	—	MHz
Relative attenuation		α_{rel}				
	32,32 MHz		– 0,2	1,0	2,2	dB
	33,93 MHz		– 0,1	1,1	2,3	dB
	32,13 MHz		—	2,8	—	dB
	40,13 MHz		—	3,2	—	dB
Lower sidelobe	25,00 ... 30,90 MHz		34,0	42,0	—	dB
Upper sidelobe	42,00 ... 45,00 MHz		33,0	39,0	—	dB
Reflected wave signal suppression						
1,4 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)			40,0	49,0	—	dB
Feedthrough signal suppression						
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)			—	50,0	—	dB
Group delay ripple (p-p)		Δτ				
	32,32 ... 39,93 MHz		—	60	—	ns
Impedance at 36,125 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			—	1,6 ‖16,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$			—	2,4 ‖ 4,3	—	kΩ || pF
Temperature coefficient of frequency		TC_f	—	–72	—	ppm/K

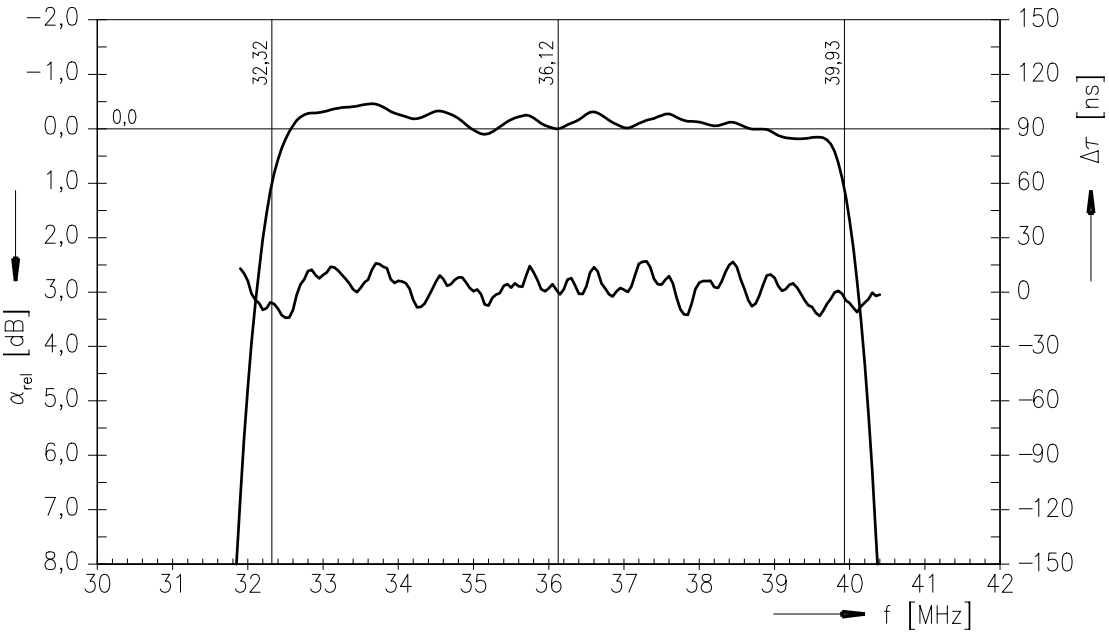
Characteristics of channel 2 (switching input pin 2 connected to pin 1)

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

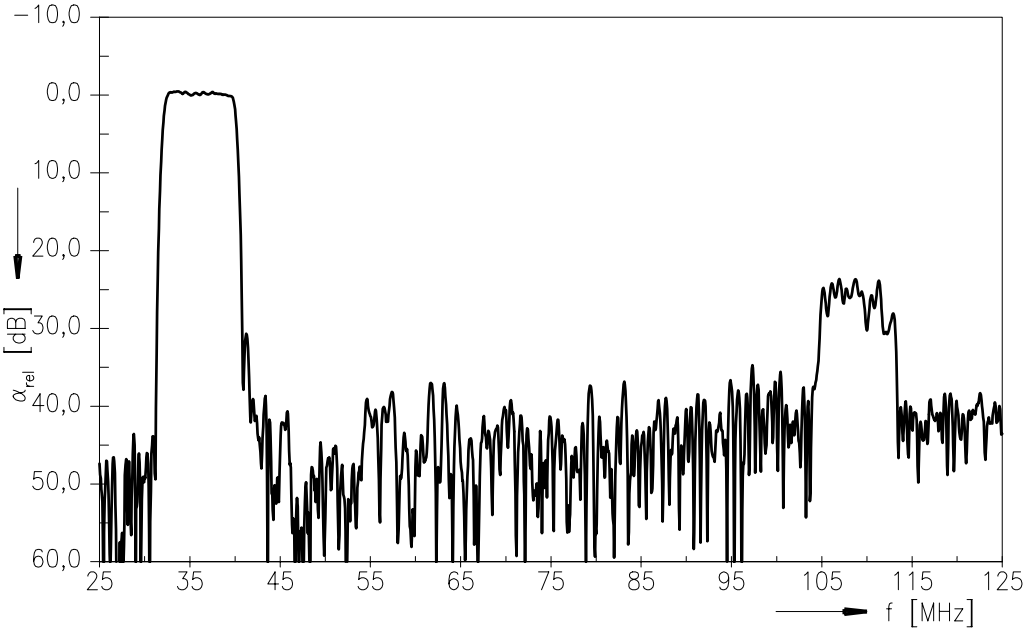
		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	36,125 MHz	20,5	22,0	23,5	dB
Pass bandwidth					
α_{rel} ≤3 dB	B_{3dB}	—	6,0	—	MHz
α_{rel} ≤30 dB	B_{30dB}	—	7,7	—	MHz
Relative attenuation	α_{rel}				
	33,59 MHz	– 1,2	0,0	1,2	dB
	38,65 MHz	– 1,2	0,0	1,2	dB
	33,12 MHz	—	2,7	—	dB
	39,12 MHz	—	2,7	—	dB
Lower sidelobe	25,00 ... 32,00 MHz	34,0	40,0	—	dB
Upper sidelobe	40,40 ... 42,50 MHz	27,0	33,0	—	dB
	42,50 ... 45,00 MHz	33,0	39,0	—	dB
Reflected wave signal suppression					
1,4 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		40,0	50,0	—	dB
Feedthrough signal suppression					
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		—	50,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
33,59 ... 38,65 MHz		—	50	—	ns
Impedance at 36,125 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,6 ‖17,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,4 ‖ 4,3	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

Frequency response in channel 1

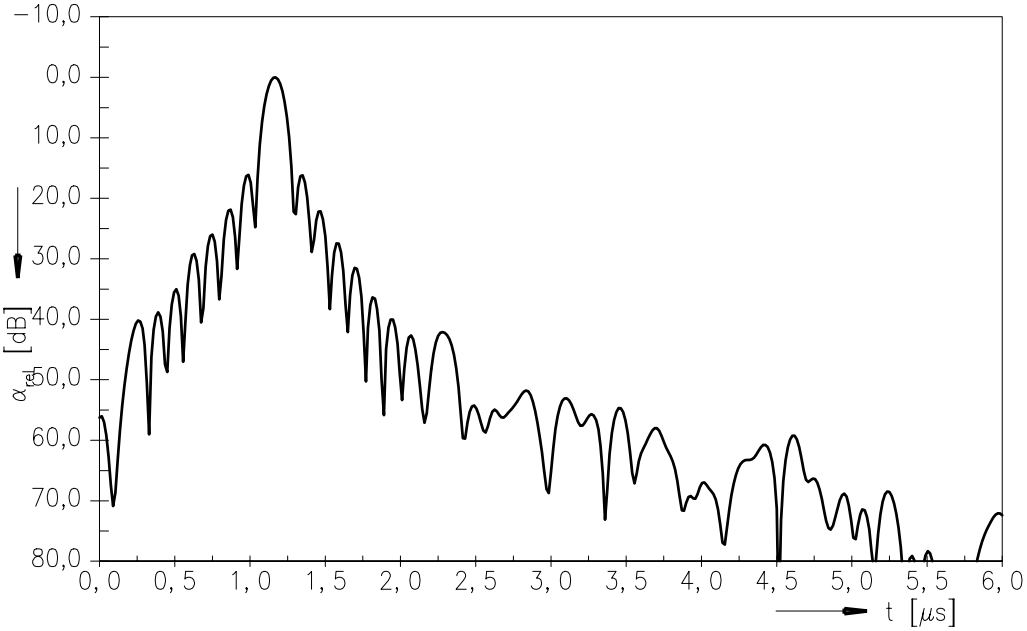




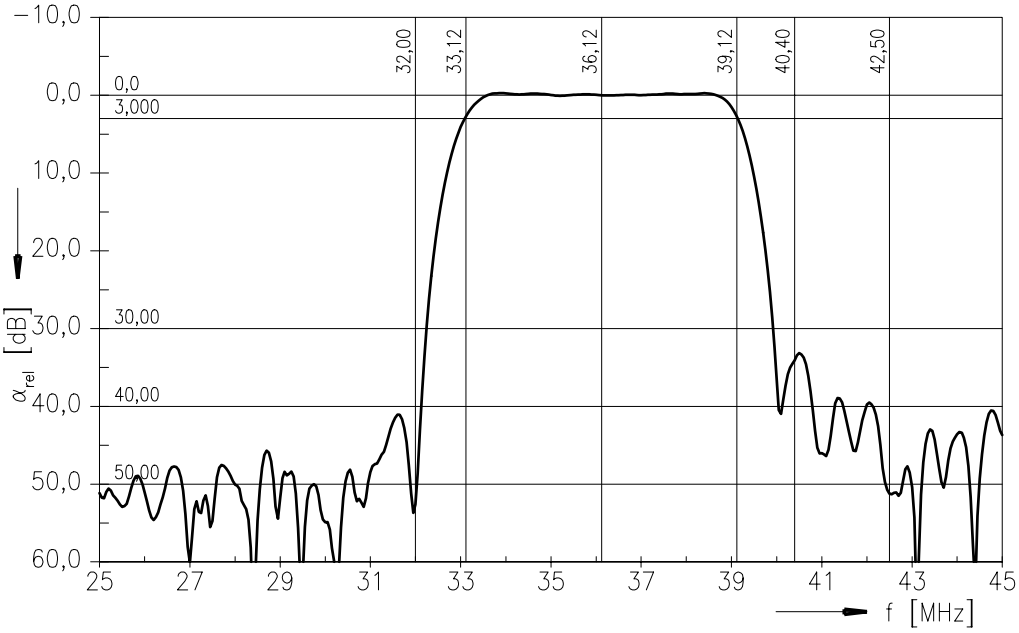
Frequency response of channel 1

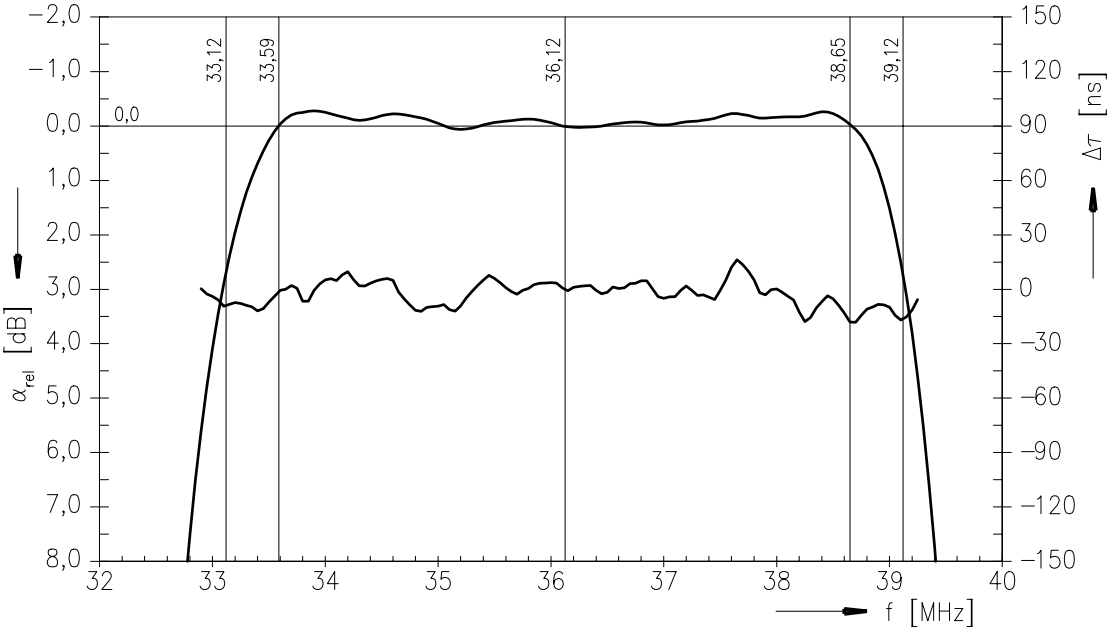


Time domain response of channel 1

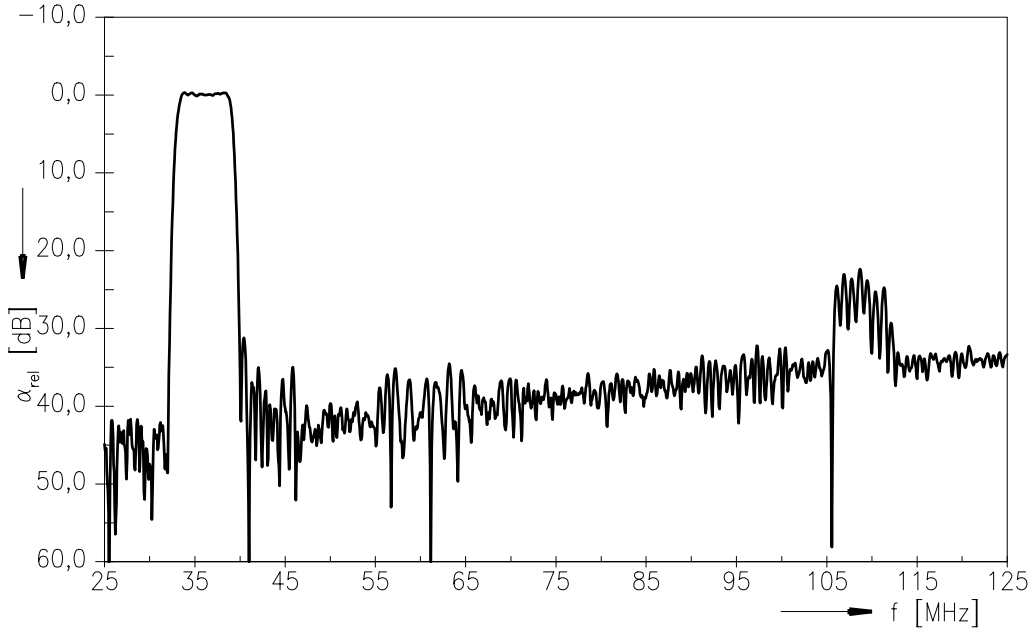


Frequency response in channel 2

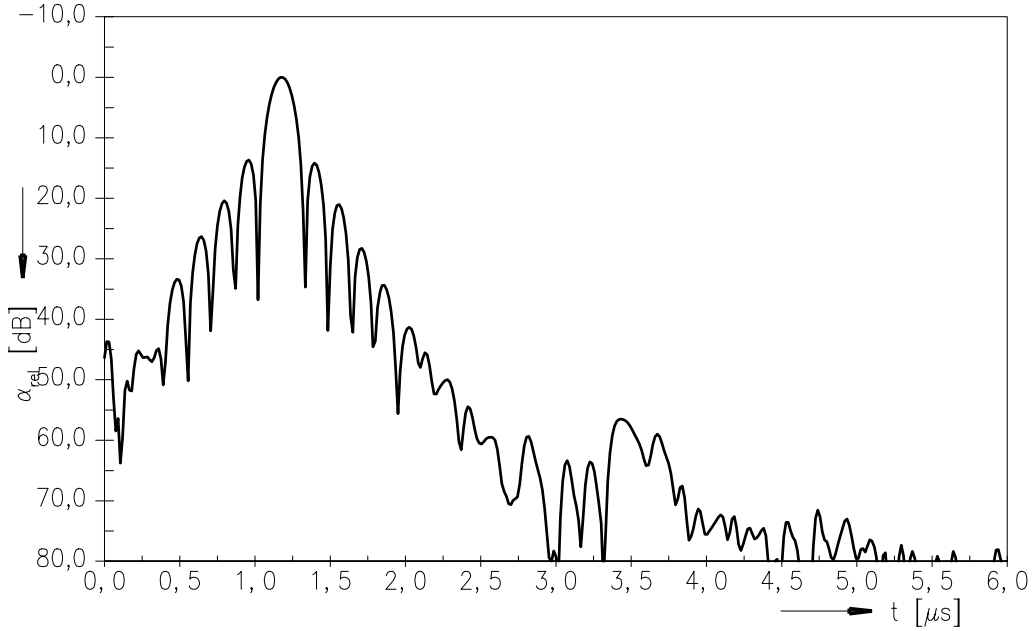




Frequency response of channel 2



Time domain response of channel 2



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