EPCOS

SAW Components

Data Sheet M 3568 M

Data Sheet

Standard

- M/N

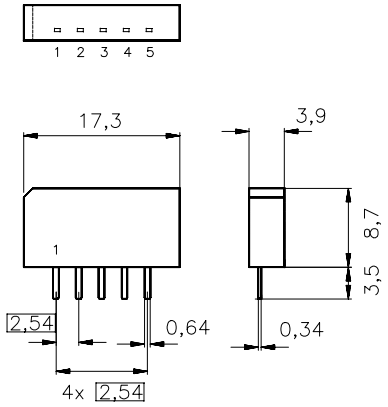
Features

- 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 passband for sound carrier only

Terminals

- Tinned CuFe alloy

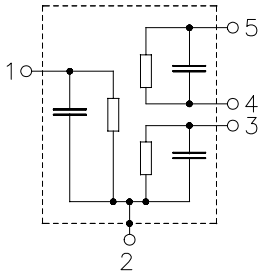
Plastic package **SIP5K**



Dimensions in mm, approx. weight 1,0 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
M 3568 M	B39458-M3568-M201	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 picture channel

Reference temperature: T_A = 25 (45) ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

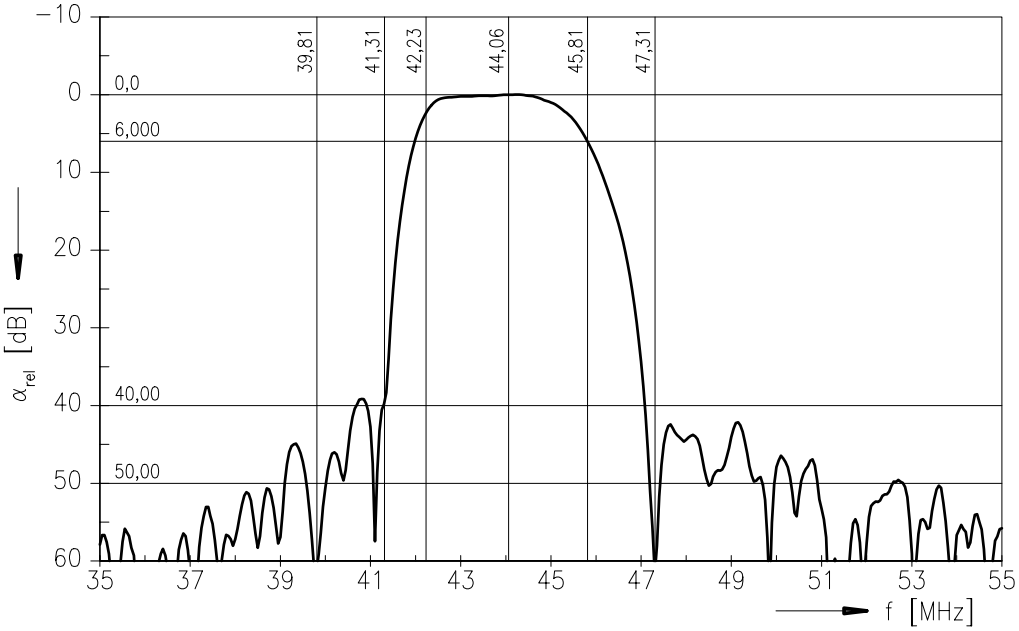
		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	44,06 (44,00) MHz	12,3	13,8	15,3	dB
Relative attenuation	α_{rel}				
Picture carrier	45,81 (45,75) MHz	4,9	5,9	6,9	dB
Color carrier	42,23 (42,17) MHz	1,4	2,4	3,4	dB
Sound carrier	41,31 (41,25) MHz	34,0	43,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	50,0	65,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	42,0	52,0	—	dB
Lower sidelobe					
35,06 ... 39,81	(35,00 ... 39,75) MHz	41,0	45,0	—	dB
Upper sidelobe					
47,31 ... 55,06	(47,25 ... 55,00) MHz	36,0	42,0	—	dB
Reflected wave signal suppression					
1,2 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
Group delay predistortion (reference frequency 45,75 MHz)	Δτ				
42,23 (42,17) MHz		—	50	—	ns
Group delay ripple (p-p)					
43,06 ... 45,81	(43,00 ... 45,75) MHz Δτ	—	40	—	ns
Impedance at 44,06 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,1 ‖19,1	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 ‖ 3,1	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

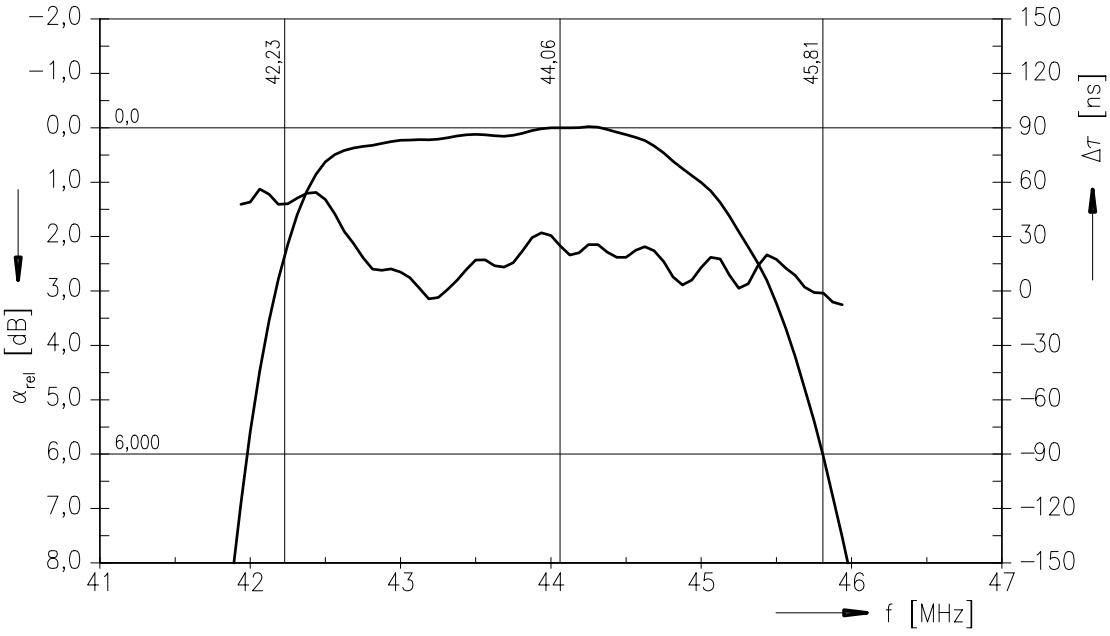
Characteristics of sound channel

Reference temperature: T_A = 25 (45) ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

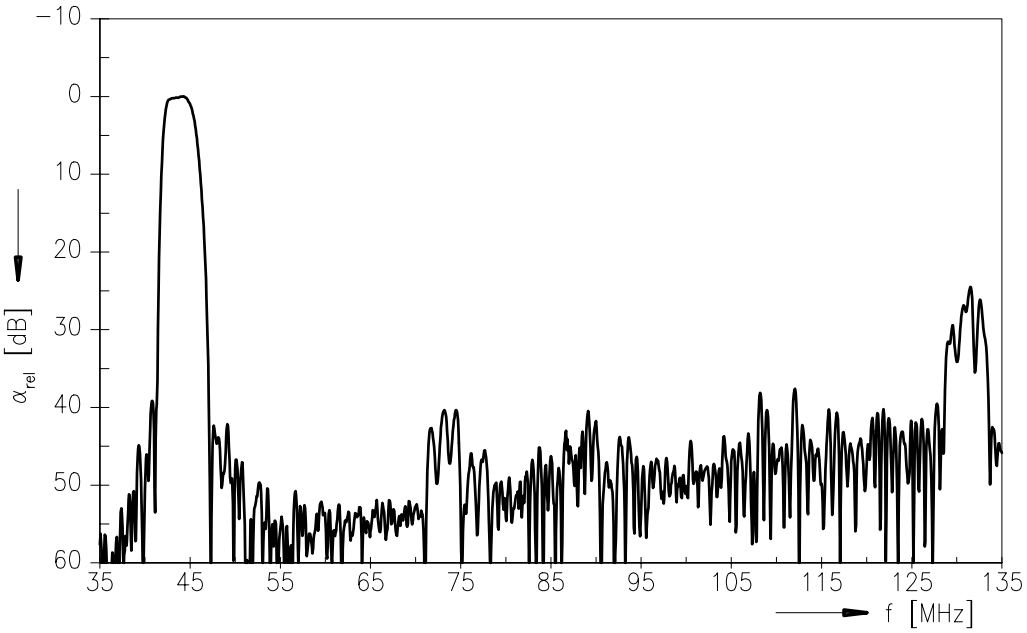
		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	41,31 (41,25) MHz	10,2	11,7	13,2	dB
Relative attenuation	α_{rel}				
Picture carrier	45,81 (45,75) MHz	38,0	50,0	—	dB
Color carrier	42,23 (42,17) MHz	13,0	16,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	32,0	37,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	40,0	50,0	—	dB
Lower sidelobe					
35,06 ... 39,81	(35,00 ... 39,75) MHz	32,0	40,0	—	dB
Upper sidelobe					
47,31 ... 55,06	(47,25 ... 55,00) MHz	38,0	42,0	—	dB
Impedance at 41,31 MHz					
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	3,3 || 2,6	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

Frequency response of picture channel

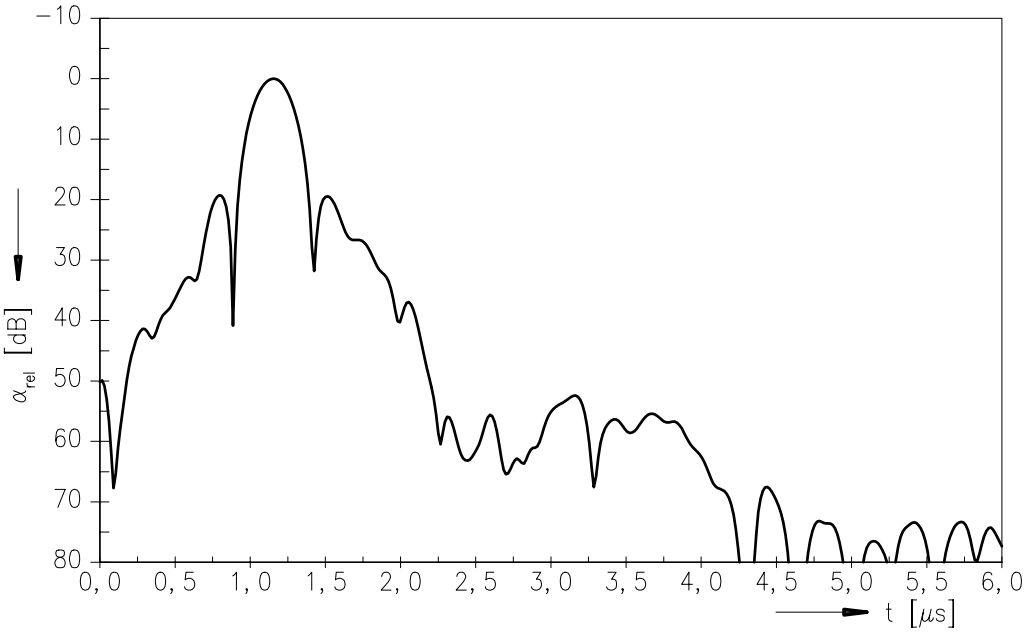




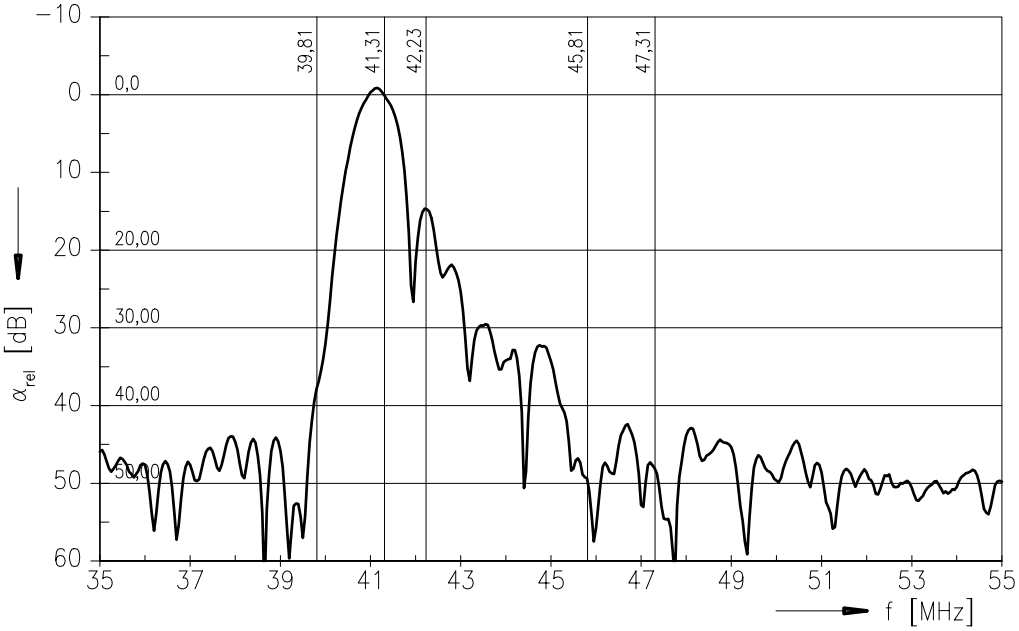
Frequency response of picture channel



Time domain response of picture channel



Frequency response of sound channel



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