EPCOS

SAW Components

Data Sheet X 6966 M

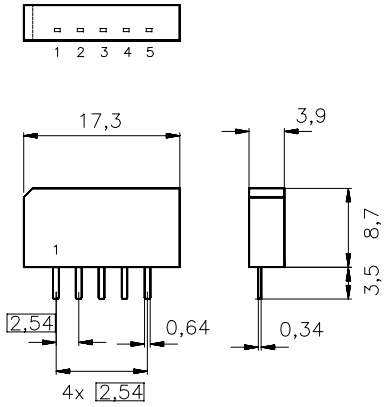
Plastic package **SIP5K**

Features

- IF filter for digital cable TV

Terminals

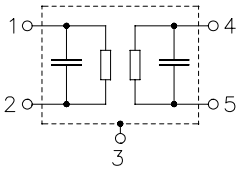
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 g

Pin configuration

1	Input
2	Input - ground
3	Chip carrier - ground
4	Output
5	Output



Type	Ordering code	Marking and package according to	Packing according to
X 6966 M	B39361-X6966-M100	C61157-A1-A15	F61074-V8067-Z000

Maximum ratings

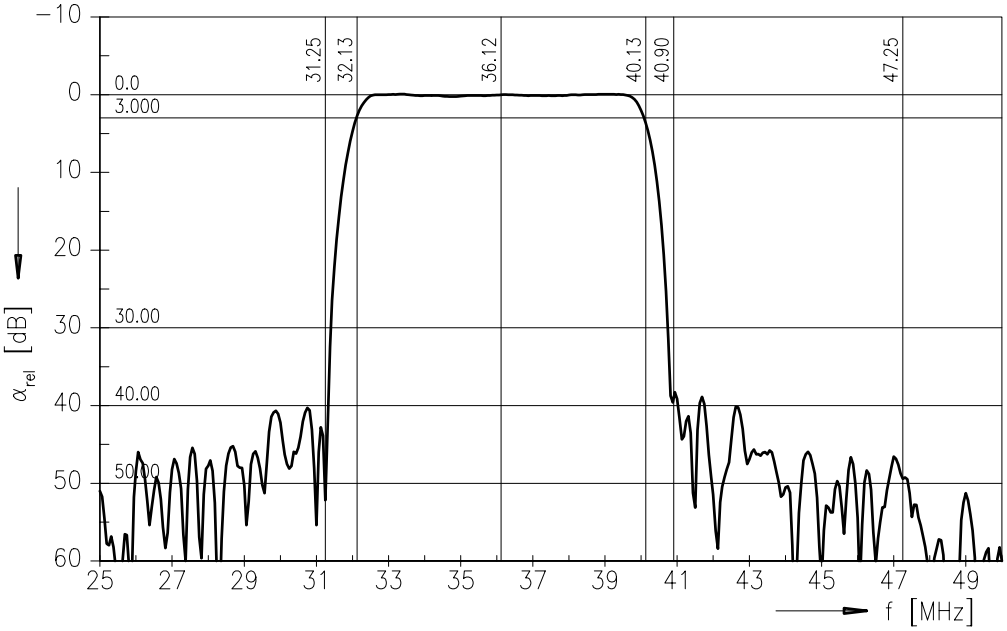
Operable temperature range	T_A	–25/+65	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

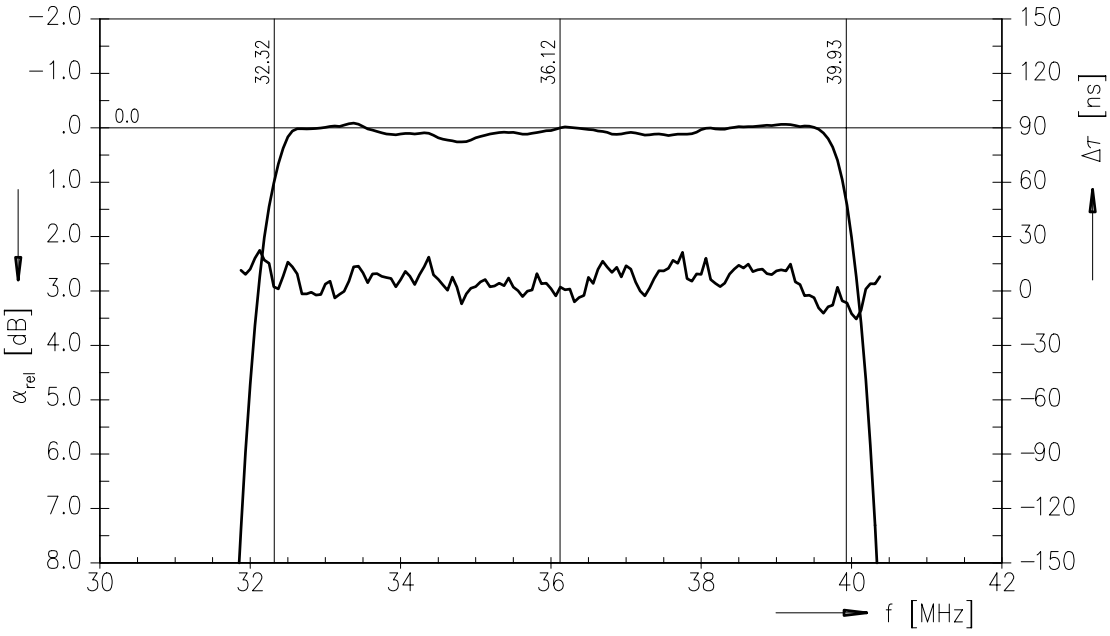
Characteristics

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

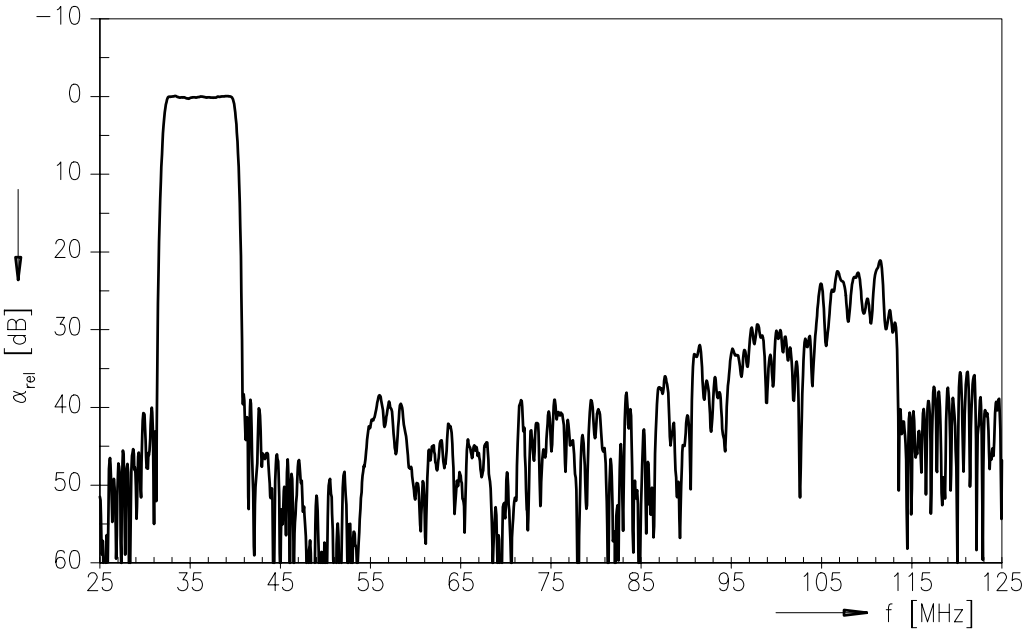
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		36,125 MHz		18,8	20,3	21,8	dB
Amplitude ripple			$\Delta\alpha$				
	32,65 ...	39,60 MHz		0,0	0,5	1,0	dB
Pass bandwith							
α_{rel} ≤1 dB			B_{1dB}	—	7,5	—	MHz
α_{rel} ≤3 dB			B_{3dB}	—	8,0	—	MHz
α_{rel} ≤30 dB			B_{30dB}	—	9,4	—	MHz
Relative attenuation			α_{rel}				
		32,32 MHz		–0,1	0,9	1,9	dB
		39,93 MHz		0,4	1,4	2,4	dB
		32,13 MHz		1,5	2,7	3,9	dB
		40,13 MHz		2,3	3,5	4,7	dB
		31,25 MHz		37,0	51,0	—	dB
		47,25 MHz		45,0	60,0	—	dB
Lower sidelobe	25,00 ...	31,25 MHz		35,0	41,0	—	dB
Upper sidelobe	40,90 ...	50,00 MHz		32,0	39,0	—	dB
Reflected wave signal suppression							
1,0 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)				42,0	52,0	—	dB
Feedthrough signal suppression							
1,2 µs ... 1,1 µs before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)				50,0	56,0	—	dB
Group delay ripple (p-p)			$\Delta\tau$				
Aperture 62,5 kHz	32,32 ...	39,93 MHz		—	40	—	ns
Impedance at 36,125 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	2,3 || 14,7	—	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

Frequency response

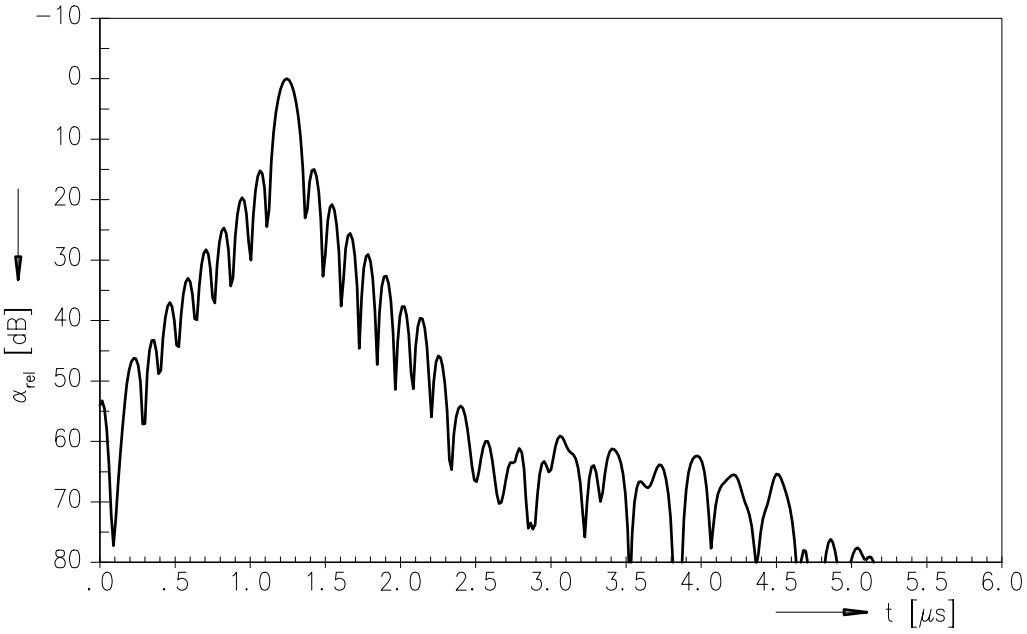




Frequency response



Time domain response



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