EPCOS

SAW Components

Data Sheet X 6893 D

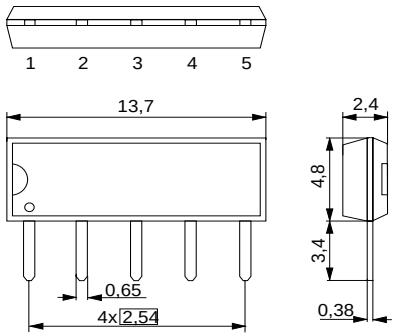
Duroplast package **SIP5D**

Features

- IF filter for digital cable TV
- Standard IC package

Terminals

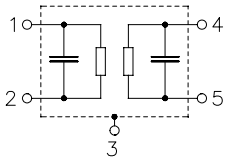
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 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 6893 D	B39440-X6893-N201	C61157-A1-A21	F61074-V8049-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

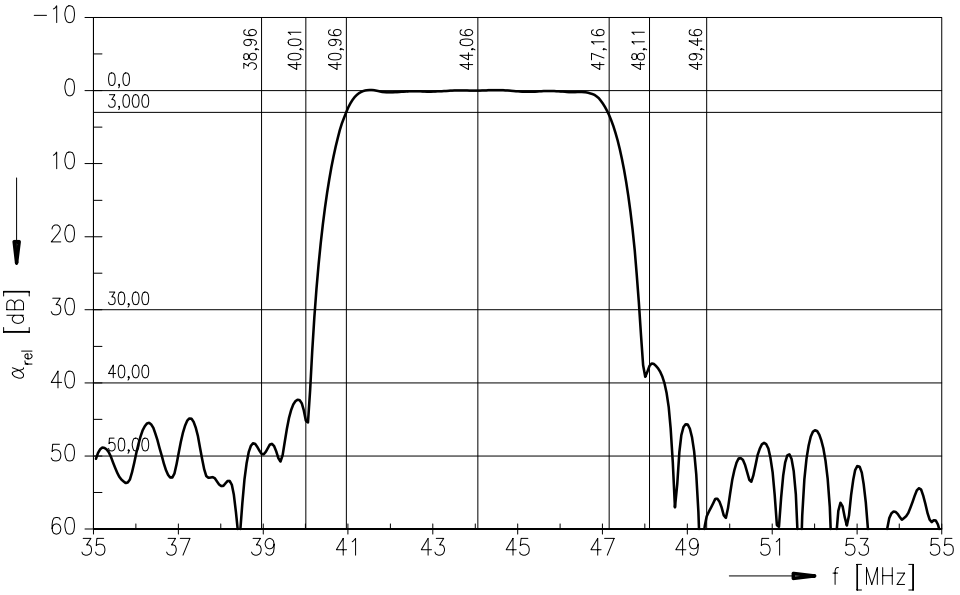
Data Sheet

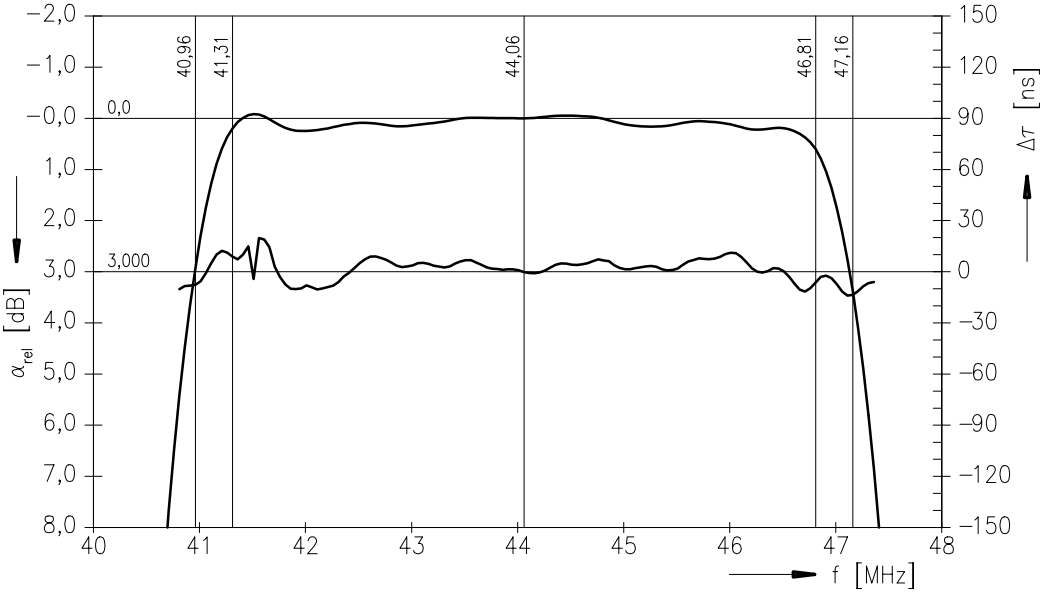
Characteristics

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

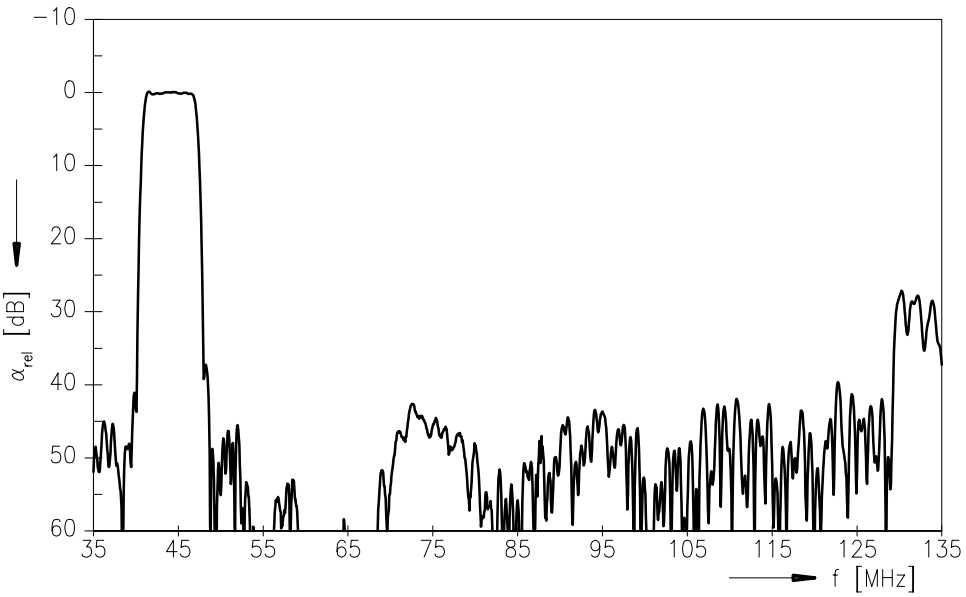
		min.	typ.	max.	
Center frequency (center between 10 dB points)	f_C	—	(44,00)	—	MHz
Insertion attenuation	α				
Reference level for the following data 44,06 (44,00) MHz		13,5	15,0	16,5	dB
Pass bandwith					
$\alpha_{rel} \leq 3$ dB	B_{3dB}	—	6,2	—	MHz
$\alpha_{rel} \leq 30$ dB	B_{30dB}	—	7,7	—	MHz
Relative attenuation	α_{rel}				
40,96 (40,90) MHz		—	2,8	—	dB
47,16 (47,10) MHz		—	3,3	—	dB
Lower sidelobe					
35,06 ... 38,96 (35,00 ... 38,90) MHz		38,0	45,0	—	dB
38,96 ... 40,01 (38,90 ... 39,95) MHz		35,0	43,0	—	dB
Upper sidelobe					
48,11 ... 49,46 (48,05 ... 49,40) MHz		30,0	37,0	—	dB
49,46 ... 55,06 (49,40 ... 55,00) MHz		38,0	45,0	—	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 1,2 µs ... 1,1 µs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p) Aperture 50 kHz	Δτ				
40,96 ... 47,16 (40,90 ... 47,10) MHz		—	40	—	ns
Impedance at 44,06 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,7 ‖15,2	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 ‖ 4,4	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

Frequency response

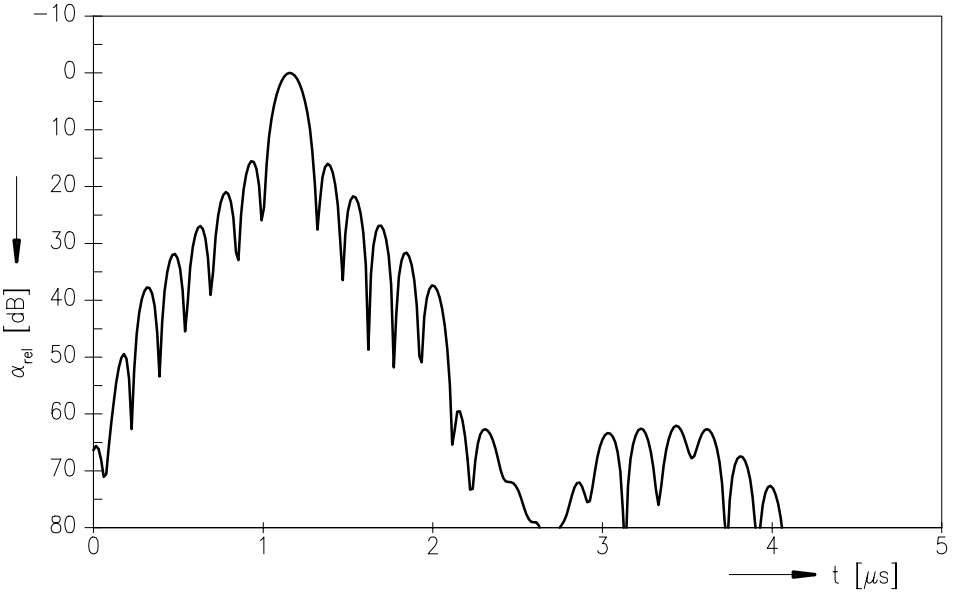




Frequency response



Time domain response



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