



SAW Components

SAW bandpass filter

Bandpass filters for TV Applications

Series/type:	X 6885 D
Ordering code:	B39361-X6885-N201
Date:	April 29, 2008
Version:	2.0

Data sheet

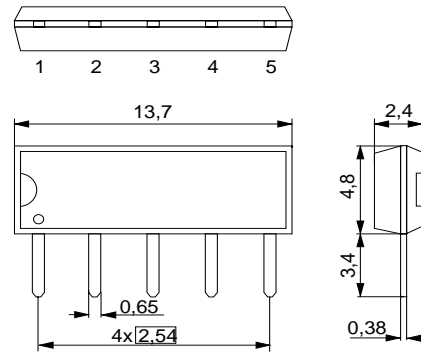
Application

- IF filter for digital TV applications
- Usable bandwidth 8.0 MHz



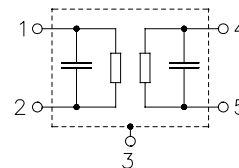
Features

- Duroplast package **SIP5D**
- Approximate weight 0.5 g
- Standard IC package
- RoHS compatible
- Tinned CuFe alloy terminals



Pin configuration

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





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36.125 MHz

Data sheet

Characteristics

Reference temperature:

$$T_A = 25 \text{ }^\circ\text{C}$$

Terminating source impedance:

$$Z_S = 50 \text{ } \Omega$$

Terminating load impedance:

$$Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	36.07	36.125	36.18	MHz
(center between 10 dB points)					
Insertion attenuation	α				
Reference level for the	36.13 MHz	22.4	23.9	25.4	dB
following data					
Pass bandwidth					
$\alpha_{rel} \leq 1 \text{ dB}$	B_{1dB}	—	7.5	—	MHz
$\alpha_{rel} \leq 3 \text{ dB}$	B_{3dB}	—	8.0	—	MHz
$\alpha_{rel} \leq 30 \text{ dB}$	B_{30dB}	—	9.5	—	MHz
Relative attenuation					
	α_{rel}				
	32.32 MHz	—	1.2	—	dB
	39.93 MHz	—	1.3	—	dB
	32.13 MHz	1.9	3.1	4.3	dB
	40.13 MHz	1.9	3.1	4.3	dB
	31.25 MHz	32.0	39.0	—	dB
	47.25 MHz	38.0	52.0	—	dB
Lower sidelobe					
	25.00 ... 29.50 MHz	32.0	37.0	—	dB
	29.50 ... 31.25 MHz	32.0	37.0	—	dB
Upper sidelobe					
	41.00 ... 45.00 MHz	26.0	32.0	—	dB
	45.00 ... 50.00 MHz	32.0	39.0	—	dB
Reflected wave signal suppression					
1.2 μs ... 6.0 μs after main pulse		42.0	50.0	—	dB
(test pulse 250 ns, carrier frequency 36.13 MHz)					
Feedthrough signal suppression					
1.0 μs ... 0.9 μs before main pulse		—	50.0	—	dB
(test pulse 250 ns, carrier frequency 36.13 MHz)					
Group delay ripple (p-p)		Δt			
	32.33 ... 39.93 MHz	—	40	—	ns
Impedance at 36.13 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	5.0 \parallel 9.9	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	4.1 \parallel 2.8	—	k Ω \parallel pF
Temperature coefficient of frequency		TC_f	—	-72	ppm/K



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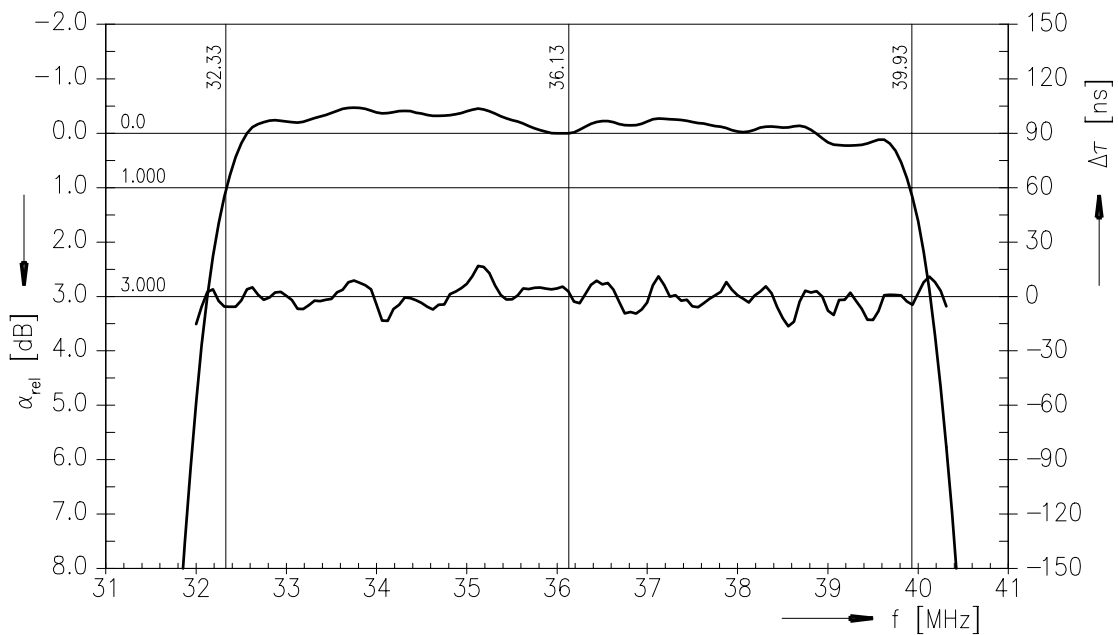
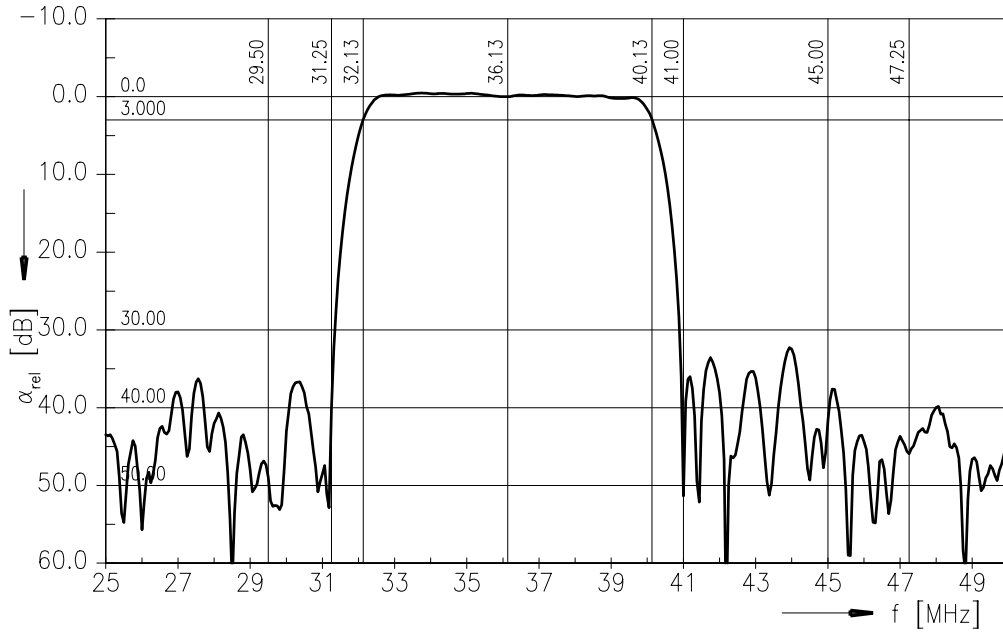
Maximum ratings

Operable temperature range	T	-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

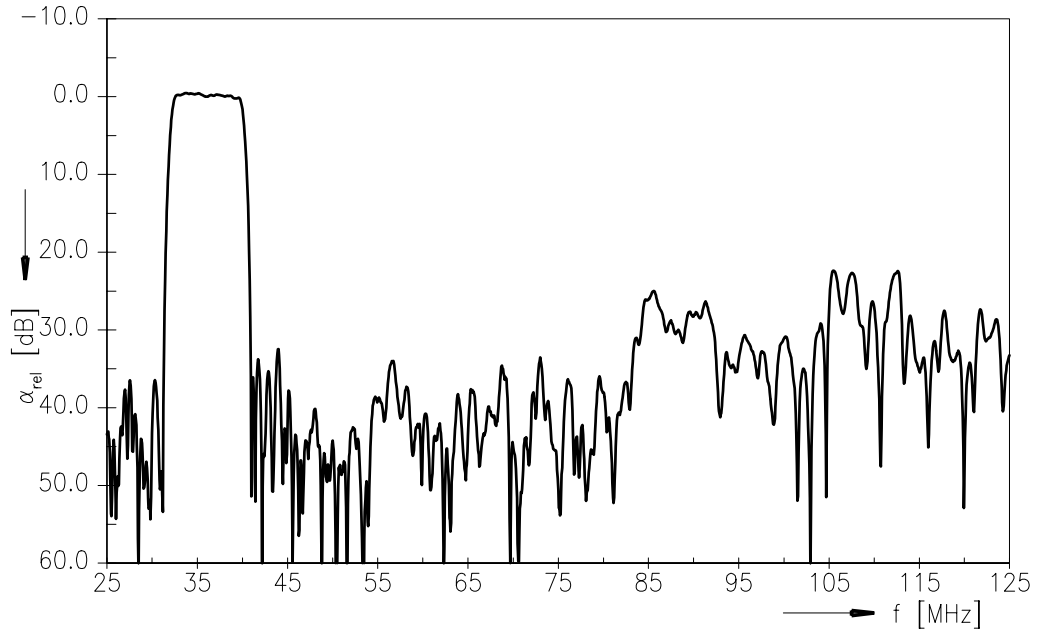
Frequency response



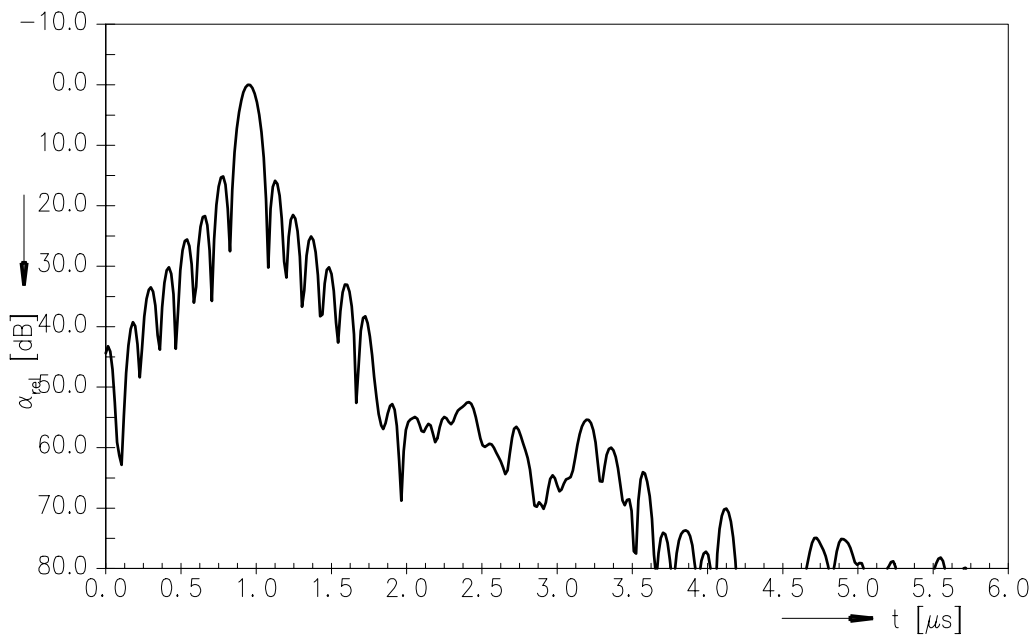


Data sheet

Frequency response



Time domain response





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SAW bandpass filter 36.125 MHz

Data sheet

References

Type	X 6885 D
Ordering code	B39361-X6885-N201
Marking and package	C61157-A1-A21
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	X6885N_NB.s4p
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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