



SAW Components

SAW bandpass filter

Bandpass filters for TV Applications

Series/type:	X 6865 D
Ordering code:	B39361-X6865-N201
Date:	July 14, 2008
Version:	2.0



SAW Components

X 6865 D

SAW bandpass filter

36.125 MHz

Data sheet

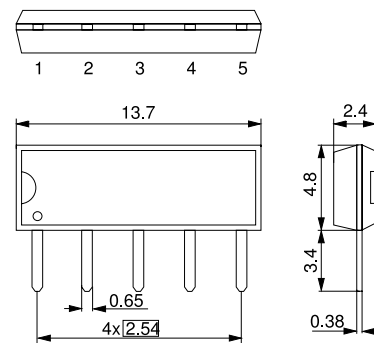
Application

- Usable bandwidth 6.0 MHz



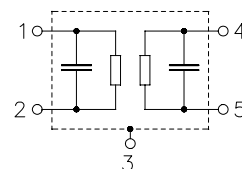
Features

- 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



Please read *cautions and warnings and important notes* at the end of this document.


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Characteristics

Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	36.125	—	MHz
(center between 3 dB points)					
Insertion attenuation	α				
Reference level for the following data	36.13 MHz	16.1	17.6	19.1	dB
Pass bandwidth					
$\alpha_{rel} \leq 3\text{ dB}$	B_{3dB}	5.8	6.0	6.2	MHz
$\alpha_{rel} \leq 30\text{ dB}$	B_{30dB}	7.4	7.6	7.8	MHz
Relative attenuation					
	α_{rel}				
	33.59 MHz	-1.1	0.1	1.3	dB
	38.65 MHz	-0.8	0.4	1.6	dB
	33.12 MHz	1.3	2.5	3.7	dB
	39.12 MHz	1.9	3.1	4.3	dB
Lower sidelobe					
	25.00 ... 32.12 MHz	38.0	44.0	—	dB
Upper sidelobe					
	40.12 ... 41.42 MHz	36.0	40.0	—	dB
	41.42 ... 45.00 MHz	38.0	45.0	—	dB
Reflected wave signal suppression					
1.3 μ s ... 6.0 μ s after main pulse (test pulse 250 ns, carrier frequency 36.13 MHz)		42.0	52.0	—	dB
Feedthrough signal suppression					
1.3 μ s ... 1.2 μ s before main pulse (test pulse 250 ns, carrier frequency 36.13 MHz)		50.0	56.0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
	33.12 ... 39.12 MHz	—	40	—	ns
Impedance at 36.13 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	2.2 \parallel 15.3	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1.4 \parallel 5.6	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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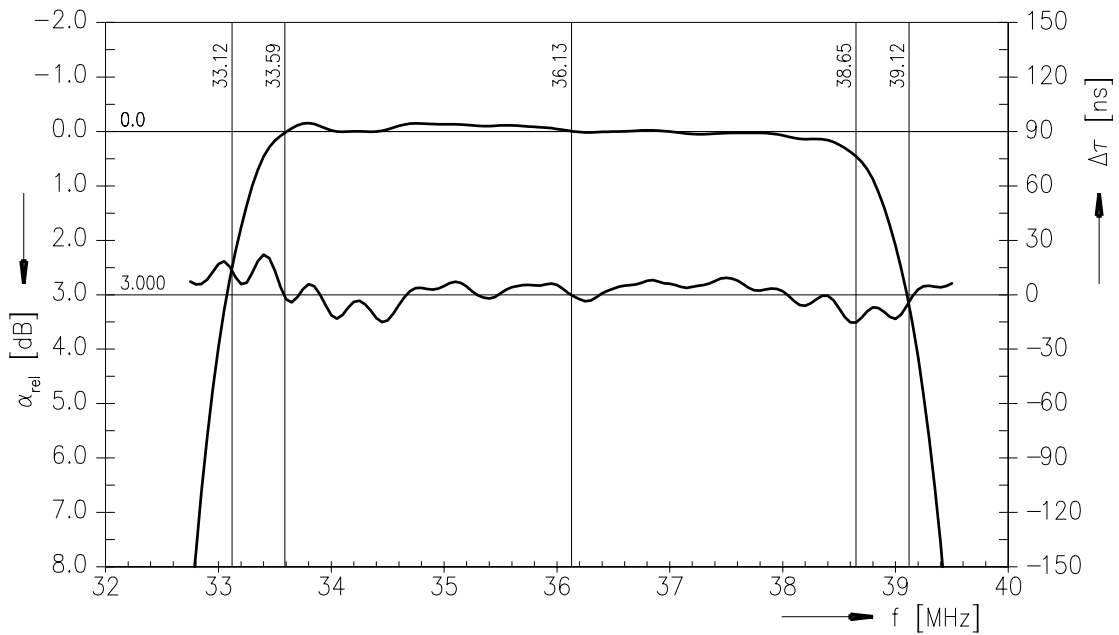
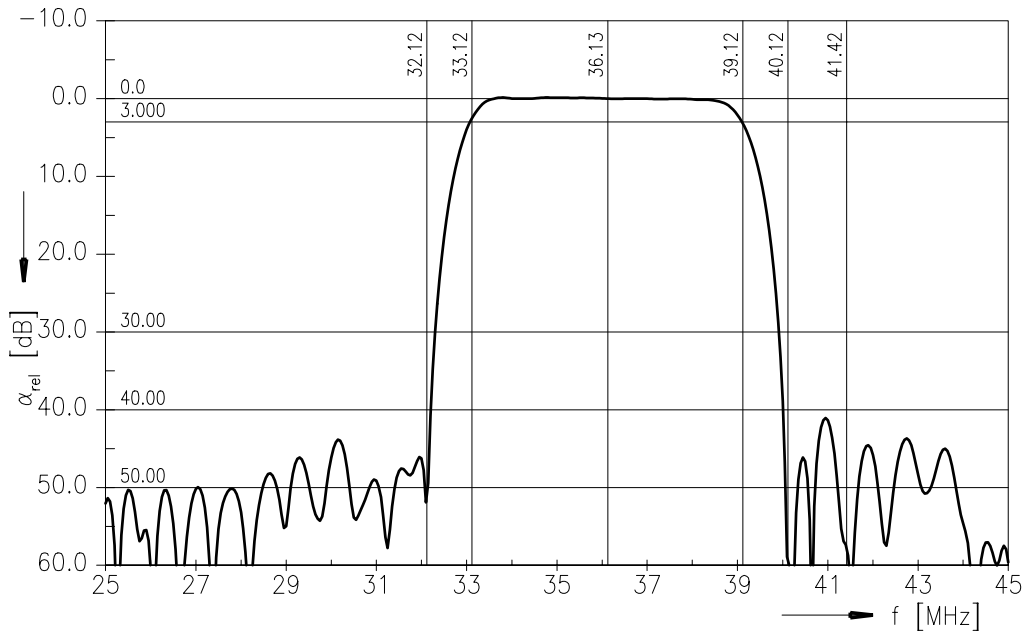
Maximum ratings

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

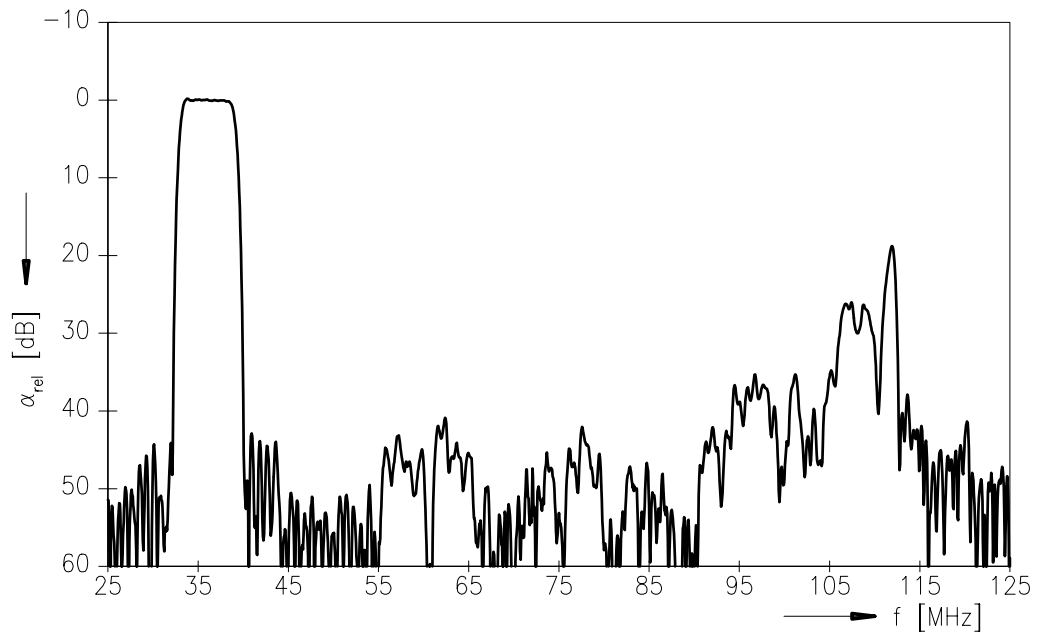


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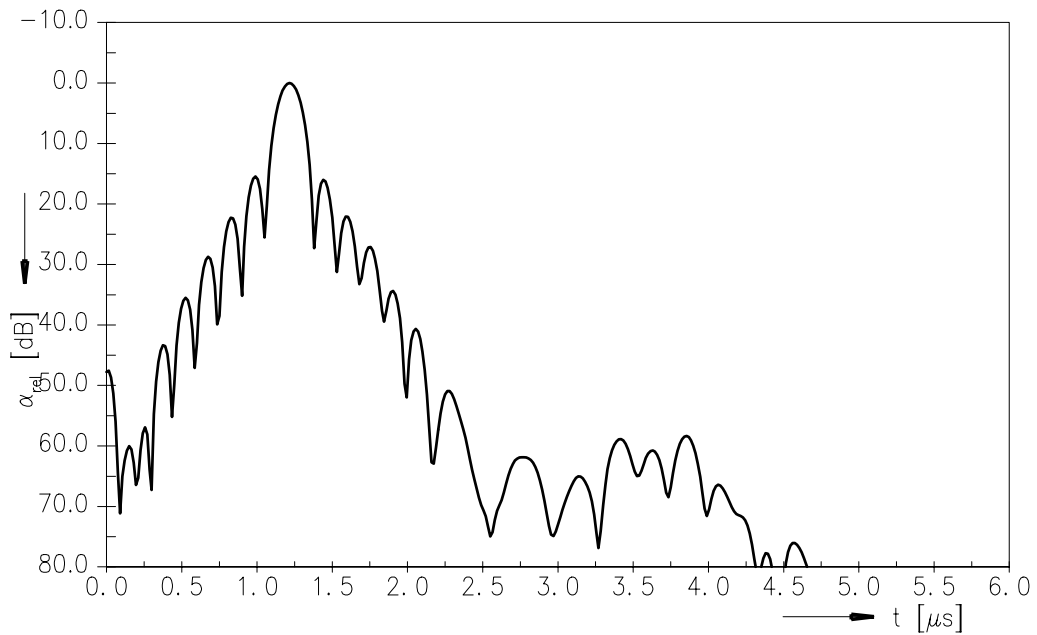


Data sheet

Frequency response



Time domain response





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Data sheet

References

Type	X 6865 D
Ordering code	B39361-X6865-N201
Marking and package	C61157-A1-A21
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	X6865N_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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