



SAW Components

SAW bandpass filter

Bandpass filters for digital cable applications

Series/type:	X 6765 X
Ordering code:	B39570-X6765-X400
Date:	March 25, 2008
Version:	2.0



SAW Components

X 6765 X

SAW bandpass filter

57.00 MHz

Data Sheet

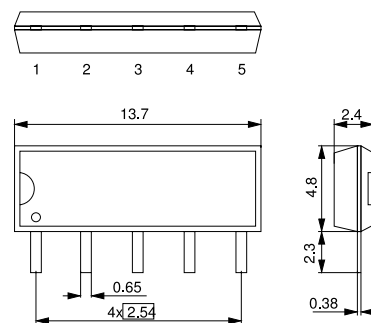
Application

- IF filter for digital cable TV
- Usable bandwidth 5.5 MHz
- Balanced input option



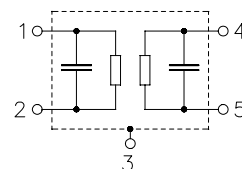
Features

- Duroplast package **SIP5D**
- Standard IC package
- Approximate weight 0.5 g
- 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: $T_A = 25 (45) \text{ }^\circ\text{C}$
 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.	
Insertion attenuation α				
Reference level for 57.08 (57.00) MHz the following data	11.0	12.5	14.0	dB
Pass bandwidth				
$\alpha_{rel} \leq 3 \text{ dB}$ B_{3dB}	—	5.5	—	MHz
Relative attenuation α_{rel}				
54.43 (54.35) MHz	-0.8	0.2	1.2	dB
59.28 (59.20) MHz	-0.2	0.8	1.8	dB
54.08 (54.00) MHz	—	3.0	—	dB
59.58 (59.50) MHz	—	3.6	—	dB
52.83 (52.75) MHz	34.0	42.0	—	dB
60.33 (60.25) MHz	30.0	38.0	—	dB
Lower sidelobe				
45.08 ... 52.83 (45.00 ... 52.75) MHz	36.0	42.0	—	dB
Upper sidelobe				
60.33 ... 61.58 (60.25 ... 61.50) MHz	32.0	38.0	—	dB
61.58 ... 65.08 (61.50 ... 65.00) 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 57.08 MHz)	42.0	52.0	—	dB
Group delay ripple (p-p) $\Delta\tau$				
Aperture 50kHz 54.08 ... 59.58 (54.00 ... 59.50) MHz	—	50	—	ns
Impedance at 57.08 MHz				
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	—	0.9 11.8	—	k Ω pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	1.2 3.1	—	k Ω pF
Temperature coefficient of frequency TC_f	—	-72	—	ppm/K



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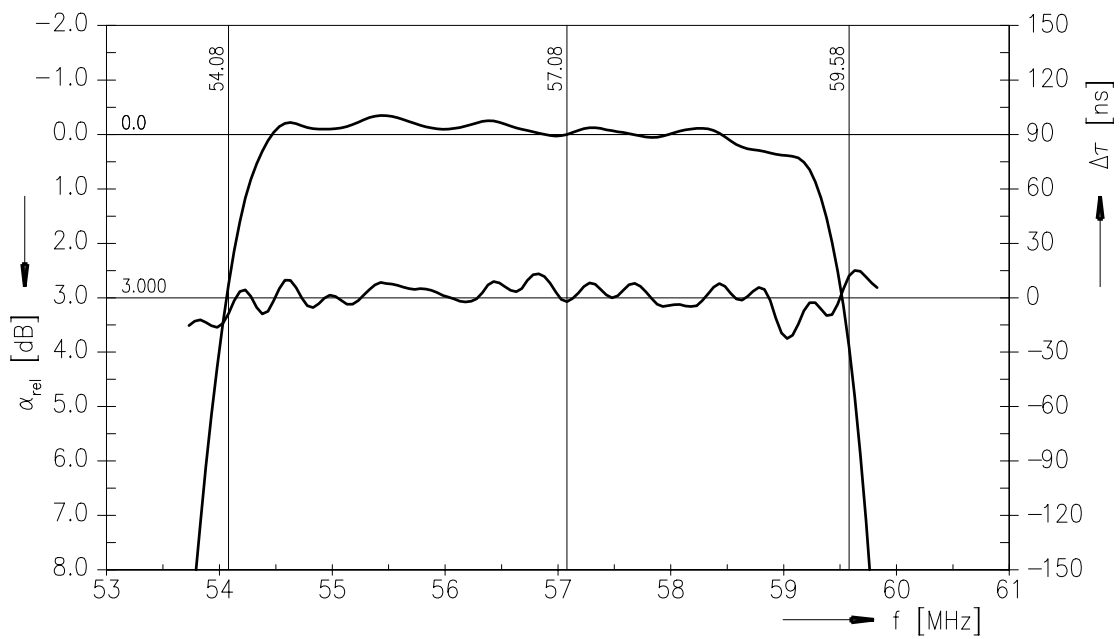
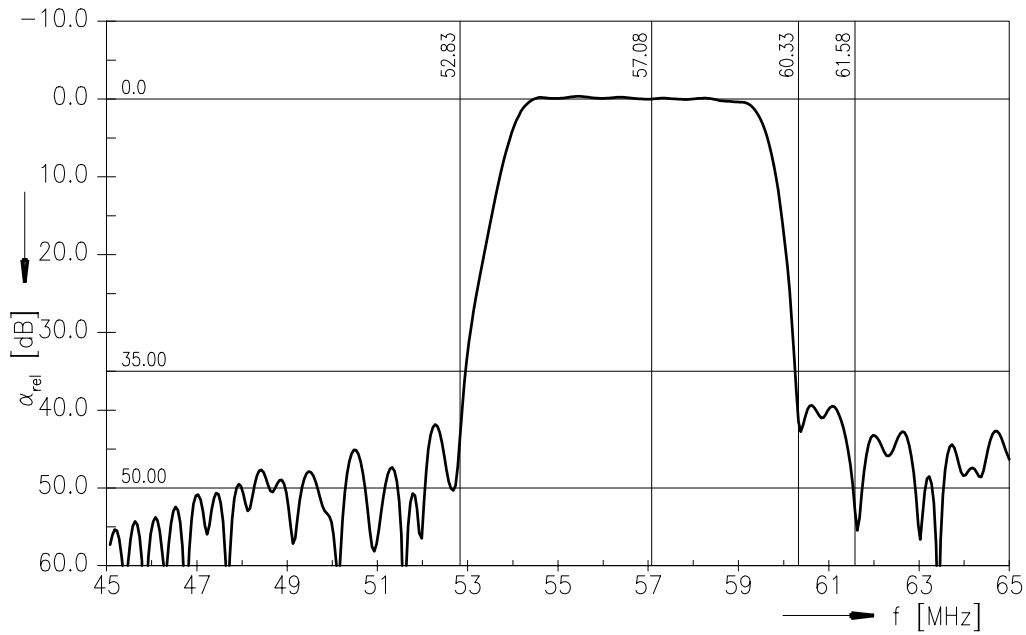
Maximum ratings

Operable temperature range	T	-25 / +65	°C	
Storage temperature range	T _{stg}	-40 / +85	°C	
DC voltage	V _{DC}	5	V	
AC voltage	V _{pp}	10	V	between any terminals



Data Sheet

Frequency response

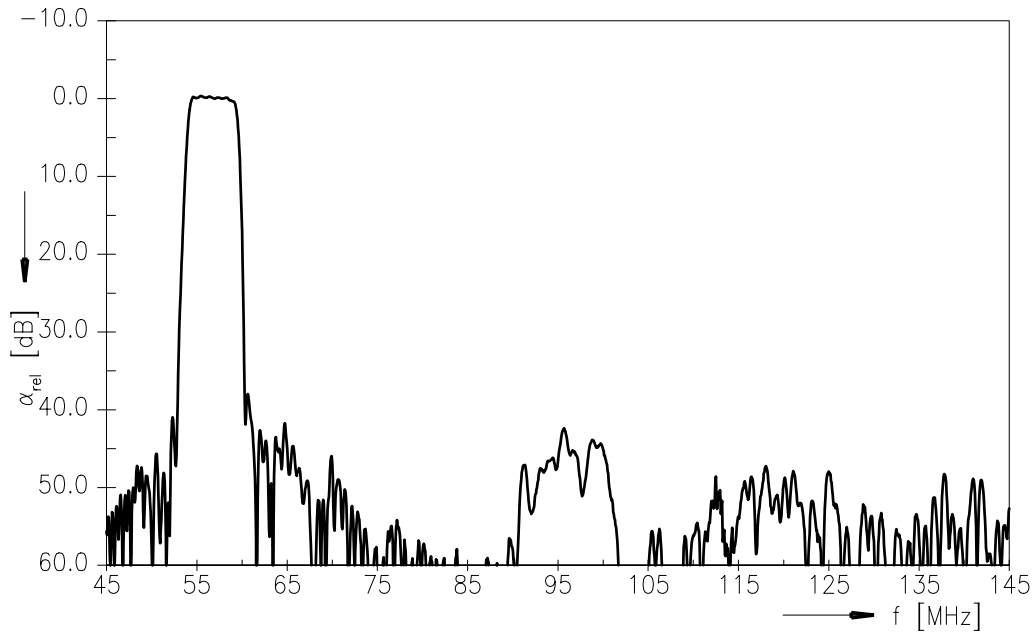


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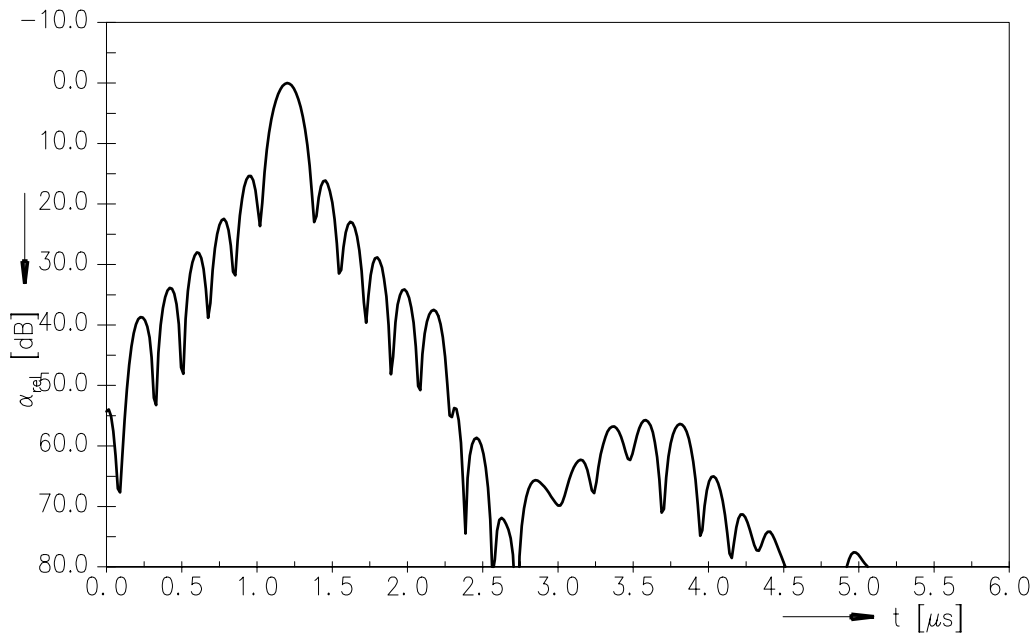


Data Sheet

Frequency response



Time domain response





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Data Sheet

References

Type	X 6765 X
Ordering code	B39570-X6765-X400
Marking and package	C61157-A1-A22
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	X6765X_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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