



SAW Components

SAW IF filter

TV IF filter for quasi / split sound applications

Series/type:	N 3564 D
Ordering code:	B39588-N3564-N301
Date:	August 29, 2008
Version:	2.0



SAW Components

N 3564 D

SAW IF filter

58.75 MHz

Data sheet

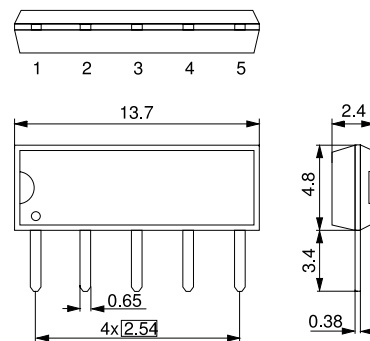
Application

- Standard: M
- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression, symmetrical output
- Sound channel with pass band for sound carrier only
- Customized group delay predistortion



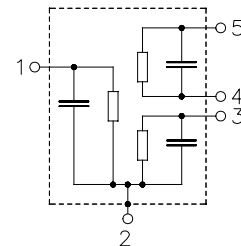
Features

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



Pin configuration

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



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


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Characteristics of picture channel

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 the following data 57.08 (57.00) MHz	12.0	13.5	15.0	dB
Relative attenuation α_{rel}				
Picture carrier 58.83 (58.75) MHz	5.8	6.8	7.8	dB
Color carrier 55.25 (55.17) MHz	-1.0	0.0	1.0	dB
Sound carrier 54.33 (54.25) MHz	27.0	40.0	—	dB
Adj.picture carrier 52.83 (52.75) MHz	44.0	60.0	—	dB
Adj.sound carrier 60.33 (60.25) MHz	42.0	54.0	—	dB
Lower sidelobe 45.08 ... 52.83 (45.00 ... 52.75) MHz	38.0	43.0	—	dB
Upper sidelobe 60.33 ... 65.08 (60.25 ... 65.00) MHz	34.0	38.0	—	dB
Reflected wave signal suppression				
1.3 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 57.08 MHz)	42.0	50.0	—	dB
Feedthrough signal suppression				
1.3 μs ... 1.2 μs before main pulse (test pulse 250 ns, carrier frequency 57.08 MHz)	—	56.0	—	dB
Group delay predistortion Δt				
(reference frequency 58.83 MHz) 55.25 MHz	—	80	—	ns
Impedance at 57.08 MHz				
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	—	0.8 \parallel 17.8	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	1.0 \parallel 3.4	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f	—	-72	—	ppm/K



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Characteristics of sound channel

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 the following data	54.33 (54.25) MHz	16.5	18.0	19.5	dB
Relative attenuation α_{rel}					
Picture carrier	58.83 (58.75) MHz	31.0	40.0	—	dB
Color carrier	55.25 (55.17) MHz	18.0	25.0	—	dB
Adj. picture carrier	52.83 (52.75) MHz	25.0	35.0	—	dB
Adj. sound carrier	60.33 (60.25) MHz	31.0	38.0	—	dB
Lower sidelobe					
45.08 ... 52.83	(45.00 ... 52.75) MHz	35.0	40.0	—	dB
Upper sidelobe					
60.33 ... 65.08	(60.25 ... 65.00) MHz	26.0	36.0	—	dB
Impedance at 54.33 MHz					
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1.1 \parallel 3.2	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f					
		—	-72	—	ppm/K



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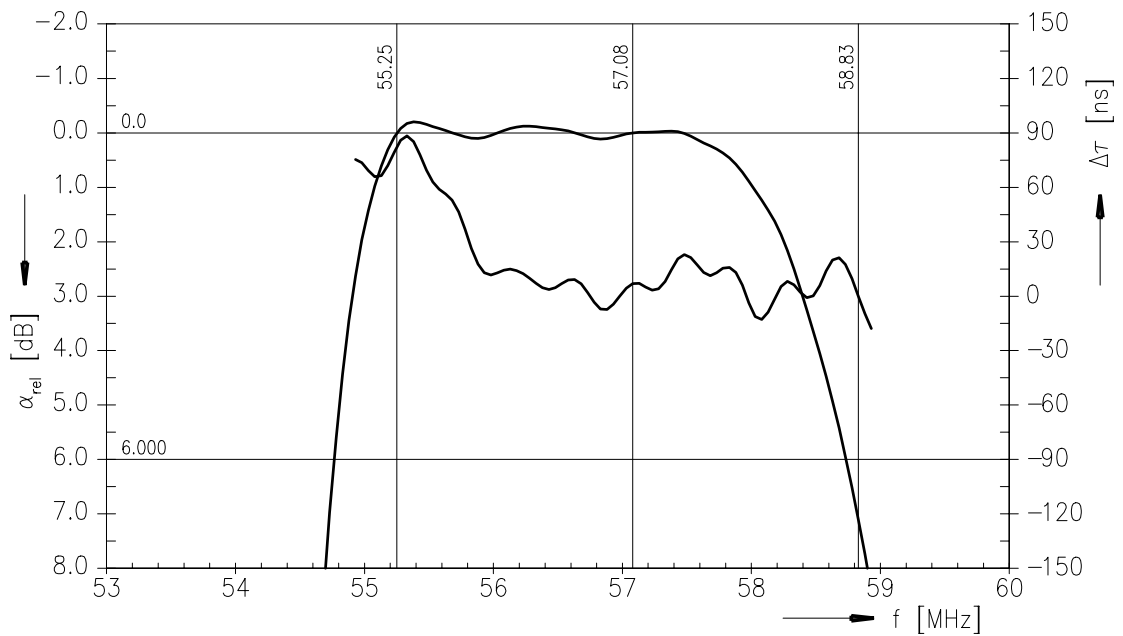
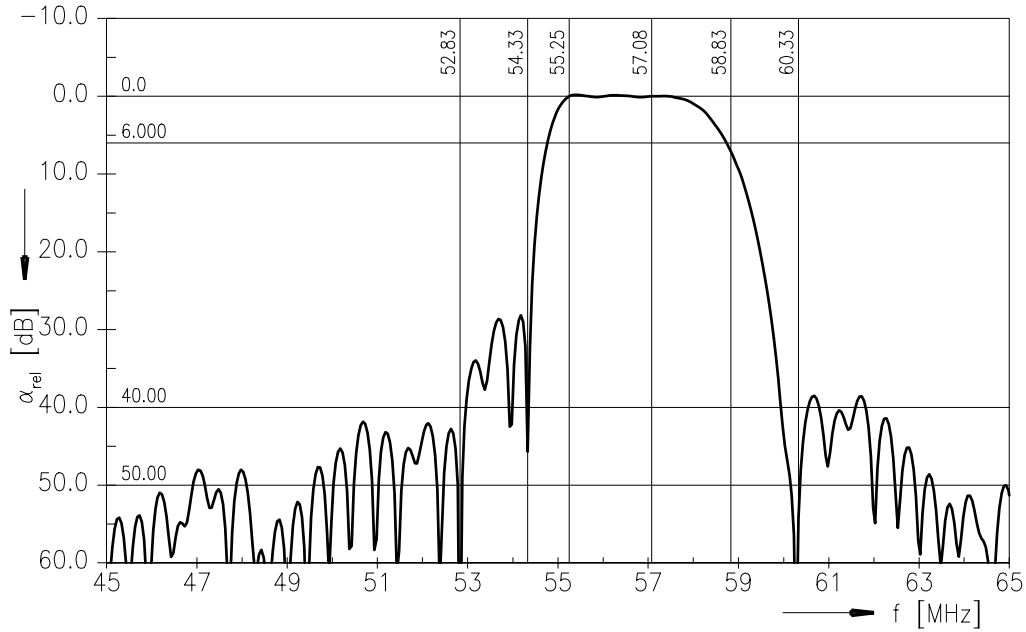
Maximum ratings

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



Data sheet

Frequency response of picture channel



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



SAW Components

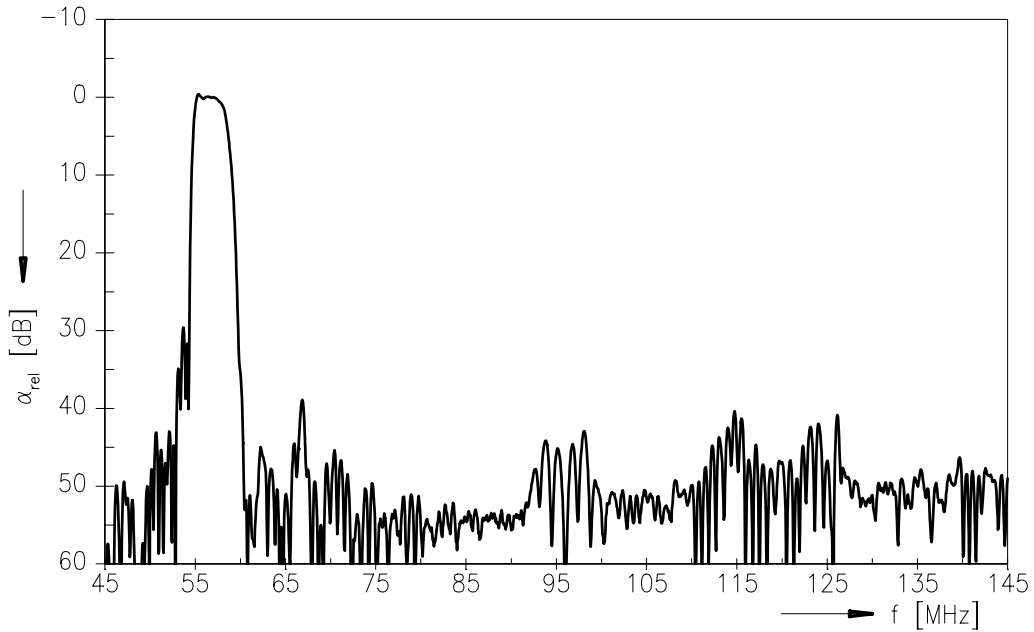
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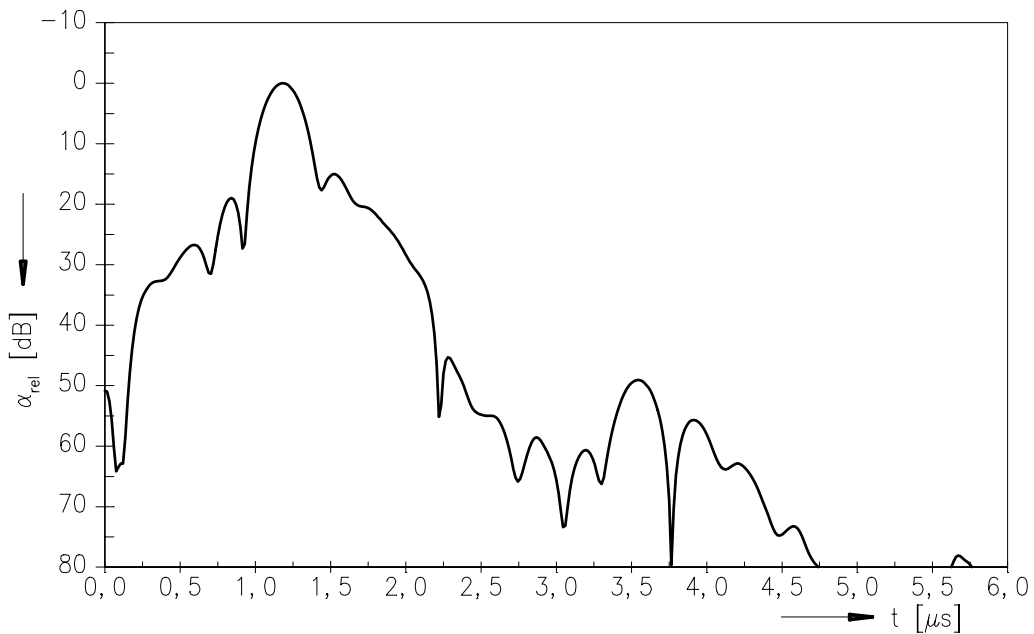
58.75 MHz

Data sheet

Frequency response of picture channel



Time domain response



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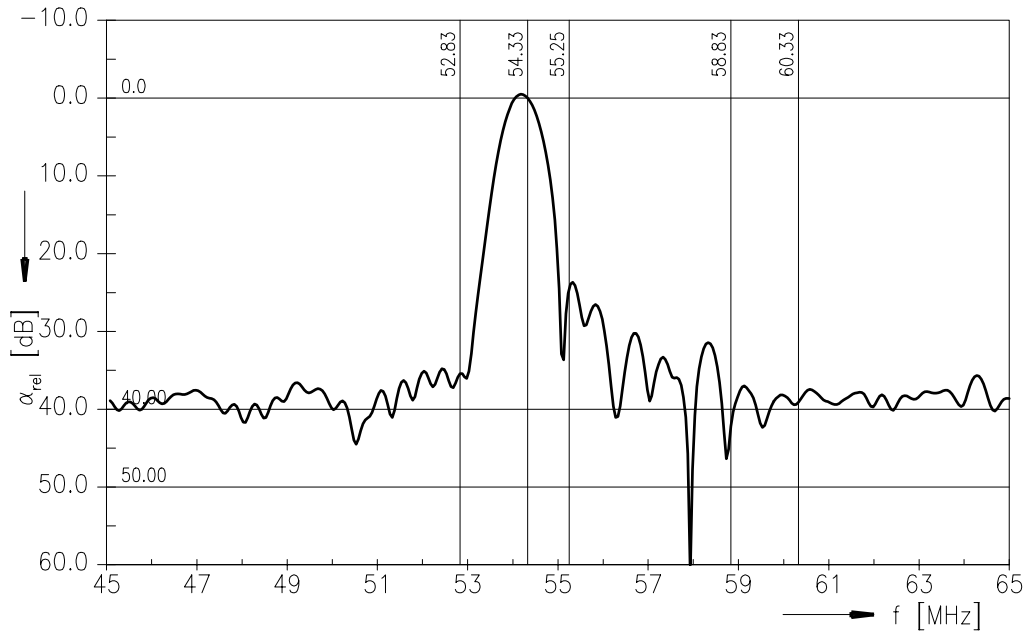
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Data sheet

Frequency response of sound channel



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References

Type	N 3564 D
Ordering code	B39588-N3564-N301
Marking and package	C61157-A1-A21
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	
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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