



SAW Components

Data Sheet X 6875 D





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X 6875 D

Bandpass Filter

44,00 MHz

Data Sheet

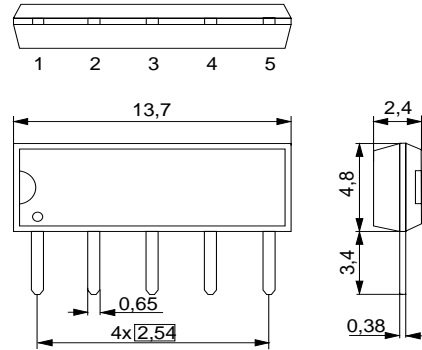
Duroplast package **SIP5D**

Features

- IF filter for digital cable TV
- Standard IC package

Terminals

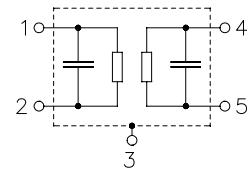
- Tinned CuFe alloy



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 6875 D	B39440-X6875-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



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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.	max.	
Center frequency (center between 3 dB points)	f_C	—	(44,00)	—	MHz
Insertion attenuation Reference level for the following data	α 44,06 (44,00) MHz	13,3	14,8	16,3	dB
Pass bandwidth $\alpha_{rel} \leq 3 \text{ dB}$	B_{3dB}	—	6,0	—	MHz
$\alpha_{rel} \leq 30 \text{ dB}$	B_{30dB}	—	7,9	—	MHz
Amplitude ripple 41,53 ... 46,59 (41,47 ... 46,53) MHz	$\Delta\alpha$	—	0,5	—	dB
Relative attenuation 41,53 (41,47) MHz	α_{rel}	—	0,3	—	dB
46,59 (46,53) MHz		—	0,3	—	dB
41,06 (41,00) MHz		1,6	2,8	4,0	dB
47,06 (47,00) MHz		2,0	3,2	4,4	dB
47,31 (47,25) MHz		—	6,7	—	dB
39,81 (39,75) MHz		39,0	49,0	—	dB
Lower sidelobe 35,06 ... 38,81 (35,00 ... 38,75) MHz		44,0	50,0	—	dB
38,81 ... 39,81 (38,75 ... 39,75) MHz		38,0	46,0	—	dB
Upper sidelobe 48,31 ... 50,31 (48,25 ... 50,25) MHz		37,0	47,0	—	dB
50,31 ... 55,06 (50,25 ... 55,00) MHz		43,0	53,0	—	dB
Reflected wave signal suppression 1,1 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression 1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p) 41,53 ... 46,59 (41,47 ... 46,53) MHz	$\Delta\tau$	—	40	—	ns
Impedance at 44,06 MHz Input: $Z_{IN} = R_{IN} \parallel C_{IN}$ Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 \parallel 14,3 1,6 \parallel 4,3	—	k Ω \parallel pF k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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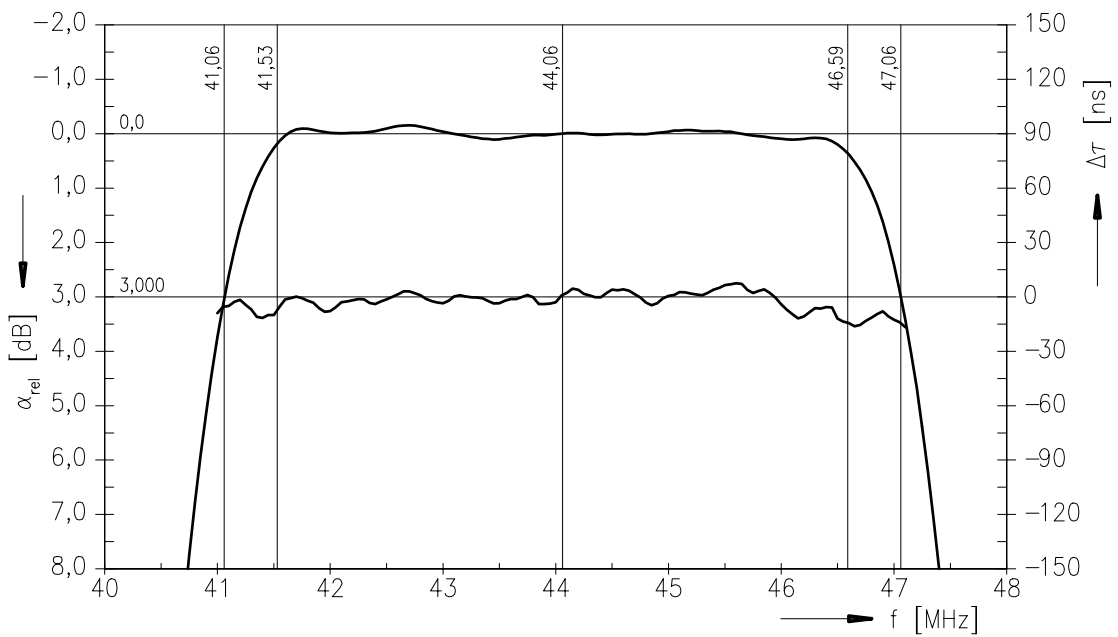
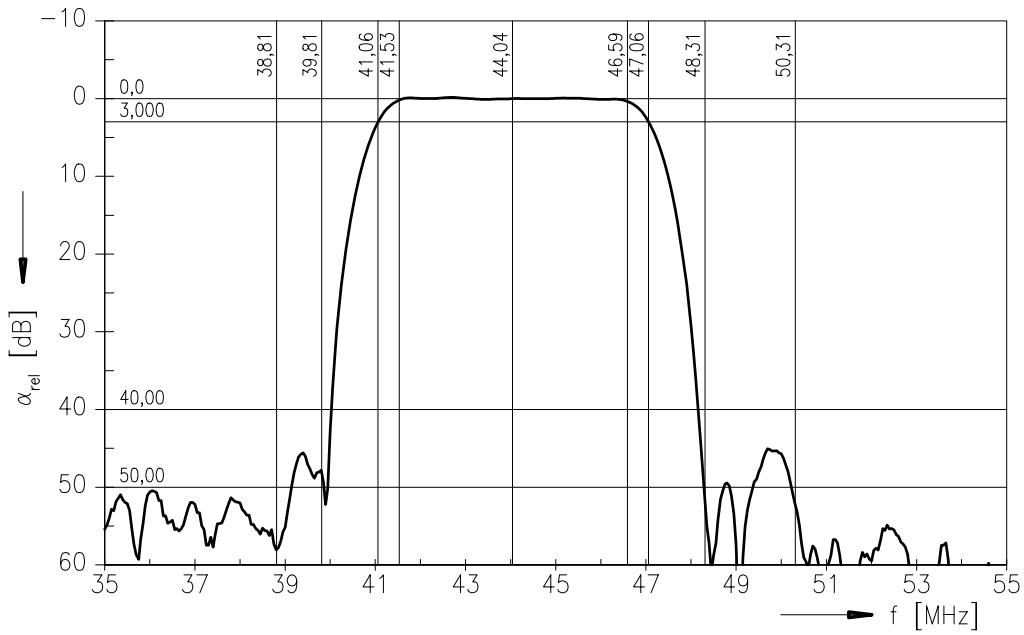
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Frequency response





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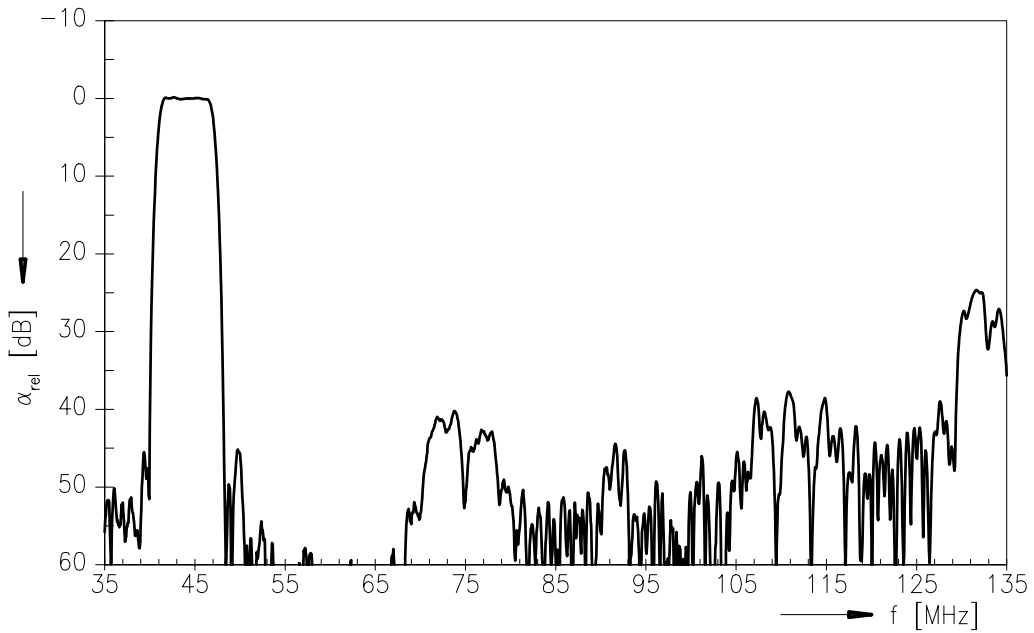
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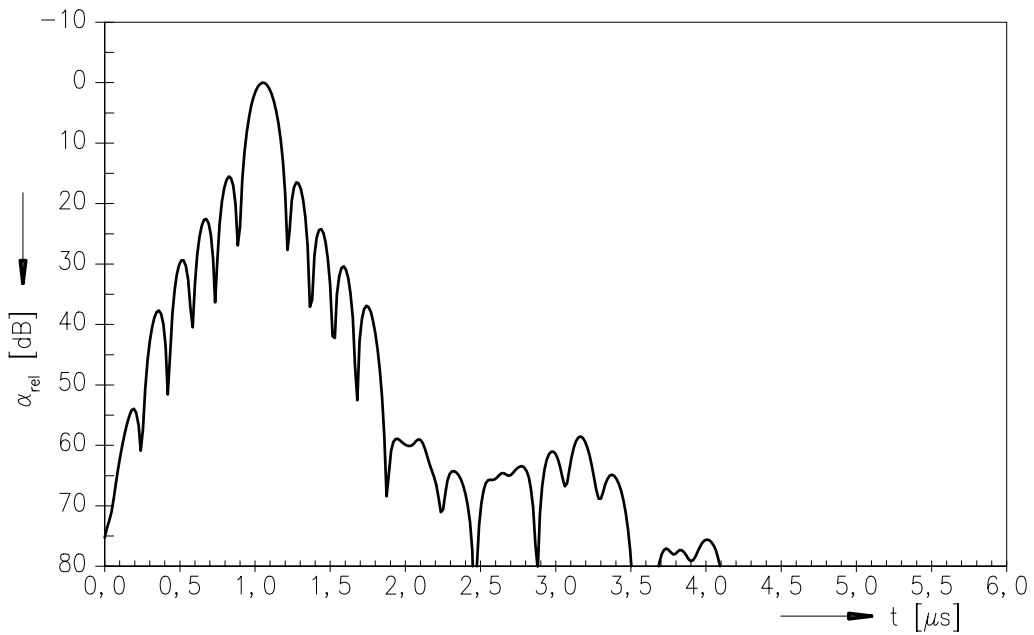
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Frequency response



Time domain response





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