



# SAW Components

Data Sheet X 6893 D





**SAW Components**

**X 6893 D**

**Bandpass Filter**

**44,00 MHz**

Data Sheet

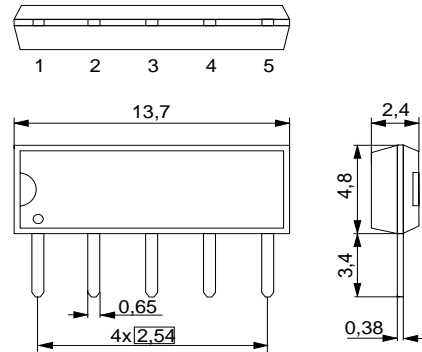
Duroplast package **SIP5D**

**Features**

- IF filter for digital cable TV
- Standard IC package

**Terminals**

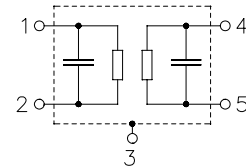
- Tinned CuFe alloy



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 6893 D	B39440-X6893-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.	
<b>Center frequency</b> (center between 10 dB points)	$f_C$	—	(44,00)	—	MHz
<b>Insertion attenuation</b> Reference level for the following data	$\alpha$ 44,06 (44,00) MHz	13,5	15,0	16,5	dB
<b>Pass bandwidth</b> $\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	—	6,2	—	MHz
$\alpha_{\text{rel}} \leq 30 \text{ dB}$	$B_{30\text{dB}}$	—	7,7	—	MHz
<b>Relative attenuation</b> 40,96 (40,90) MHz	$\alpha_{\text{rel}}$	—	2,8	—	dB
47,16 (47,10) MHz		—	3,3	—	dB
<b>Lower sidelobe</b> 35,06 ... 38,96 (35,00 ... 38,90) MHz		38,0	45,0	—	dB
38,96 ... 40,01 (38,90 ... 39,95) MHz		35,0	43,0	—	dB
<b>Upper sidelobe</b> 48,11 ... 49,46 (48,05 ... 49,40) MHz		30,0	37,0	—	dB
49,46 ... 55,06 (49,40 ... 55,00) MHz		38,0	45,0	—	dB
<b>Reflected wave signal suppression</b> 1,2 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
<b>Feedthrough signal suppression</b> 1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
<b>Group delay ripple (p-p)</b> Aperture 50 kHz	$\Delta\tau$	—	40	—	ns
<b>Impedance at 44,06 MHz</b> Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$ Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,7 $\parallel$ 15,2 1,6 $\parallel$ 4,4	—	$\text{k}\Omega \parallel \text{pF}$ $\text{k}\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



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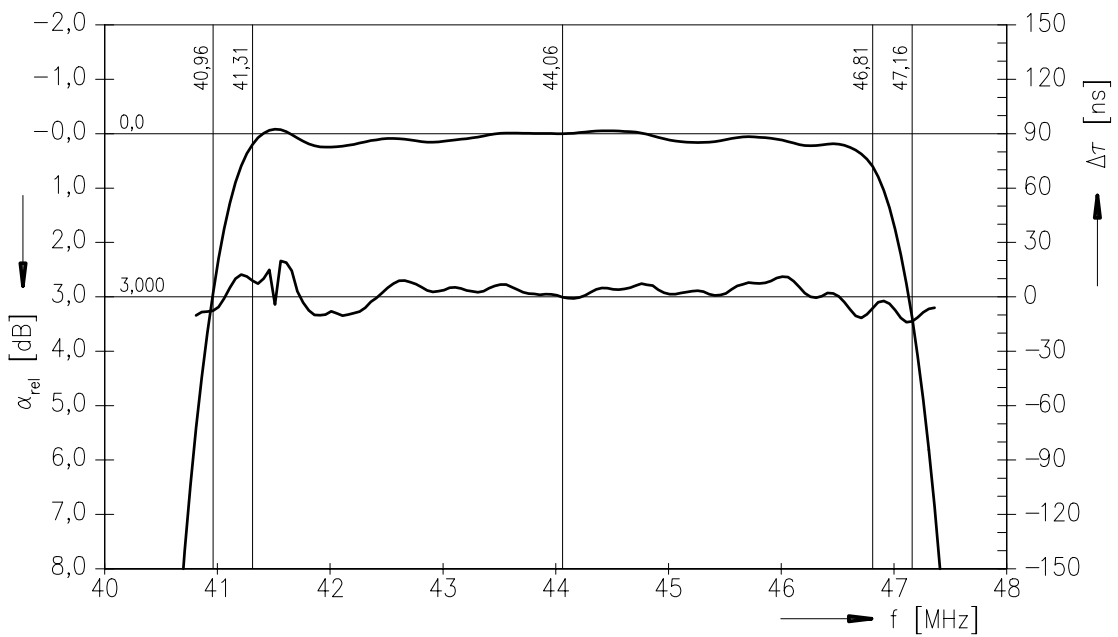
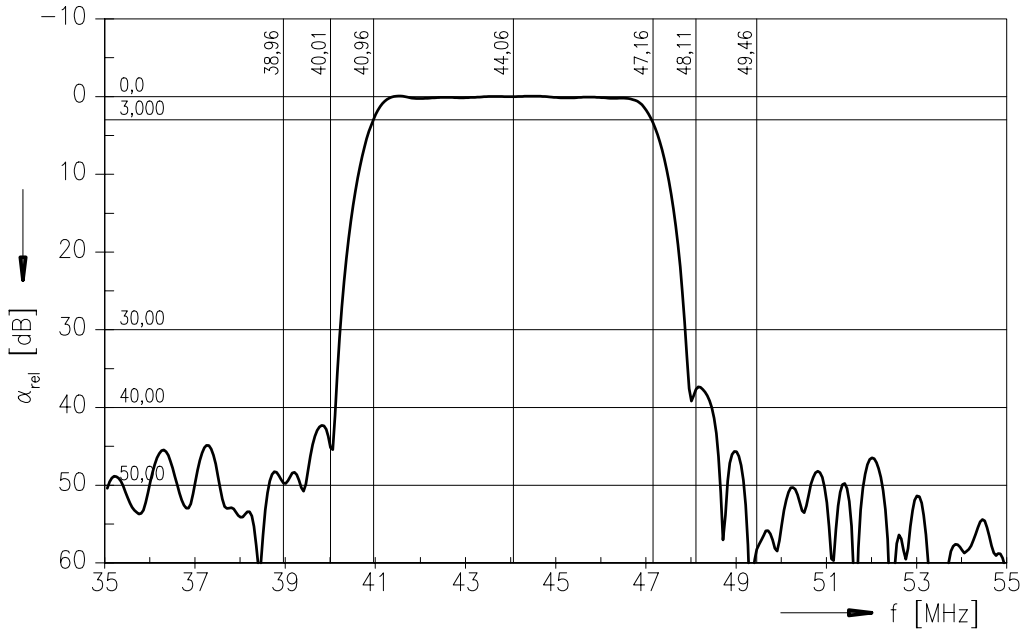
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Frequency response





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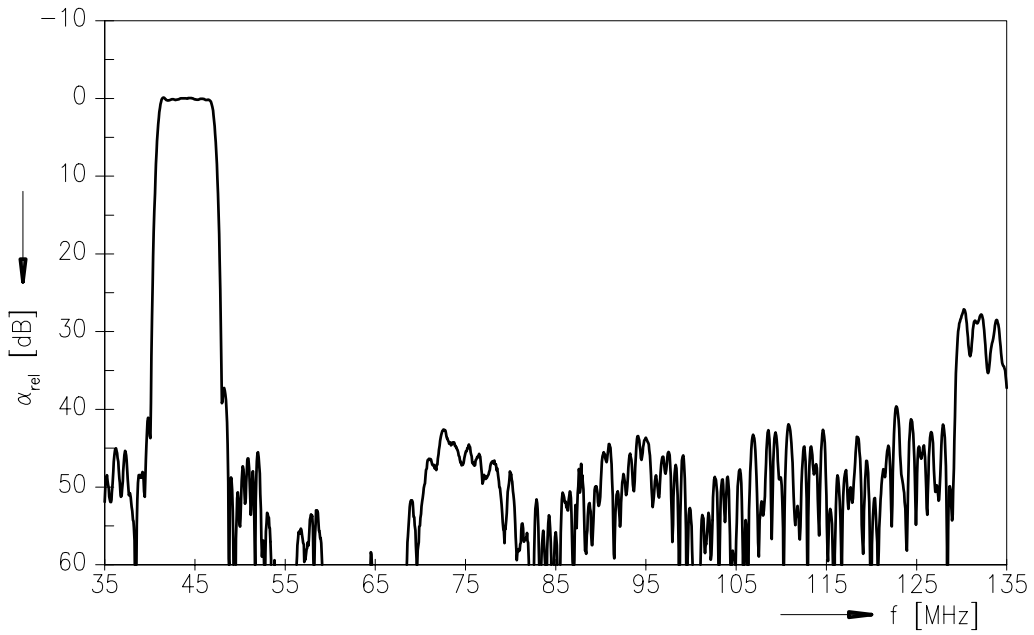
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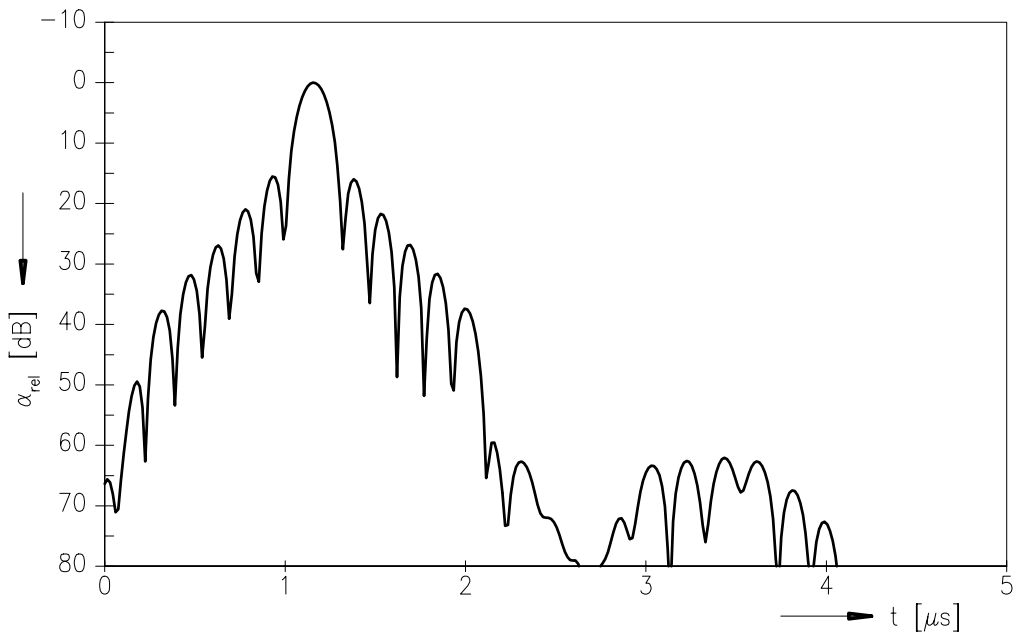
44,00 MHz

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Frequency response



Time domain response





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