



# SAW Components

Data Sheet X 6857 D

Data Sheet

A large, stylized, 3D graphic of the word "EPCOS" in a light gray, sans-serif font. The letters are slightly tilted and have a soft, glowing effect. In the background, there is a faint, abstract image of a globe or a similar spherical object with curved lines.



## SAW Components

**X 6857 D**

## Bandpass Filter

**36,00 MHz**

### Data Sheet

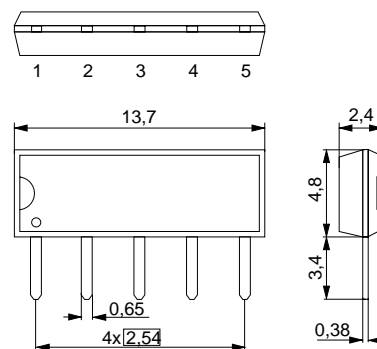
Duroplast package **SIP5D**

### Features

- IF filter for digital TV
- Optimized for cascade of two devices
- Standard IC package

### Terminals

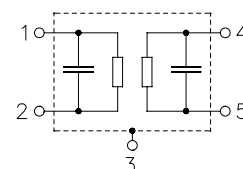
- Tinned CuFe alloy



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 6857 D	B39360-X6857-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:  $T_A = 25\text{ }^{\circ}\text{C}$   
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>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	36,00 MHz	19,0	20,5	22,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	32,35 ... 39,65 MHz	—	0,7	—	dB
<b>Pass bandwidth</b>					
$\alpha_{\text{rel}} \leq 1,5\text{ dB}$	$B_{1,5\text{dB}}$	—	7,8	—	MHz
$\alpha_{\text{rel}} \leq 3\text{ dB}$	$B_{3\text{dB}}$	—	8,1	—	MHz
$\alpha_{\text{rel}} \leq 15\text{ dB}$	$B_{15\text{dB}}$	—	8,9	—	MHz
$\alpha_{\text{rel}} \leq 30\text{ dB}$	$B_{30\text{dB}}$	—	9,4	—	MHz
<b>Relative attenuation</b>	$\alpha_{\text{rel}}$				
	31,65 MHz	7,0	10,0	—	dB
	40,35 MHz	7,0	10,0	—	dB
	31,30 MHz	22,0	29,0	—	dB
	40,70 MHz	22,0	29,0	—	dB
Lower sidelobe	25,00 ... 31,00 MHz	36,0	40,0		
Upper sidelobe	41,00 ... 45,00 MHz	36,0	41,0		
<b>Reflected wave signal suppression</b>					
1,0 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 36,00 MHz)		42,0	52,0	—	dB
<b>Feedthrough signal suppression</b>					
1,3 $\mu\text{s}$ ... 1,2 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 36,00 MHz)		—	50,0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
	32,35 ... 39,65 MHz	—	50	—	ns
<b>Impedance at 36,00 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	2,8 $\parallel$ 15,5	—	k $\Omega$ $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	2,4 $\parallel$ 4,4	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



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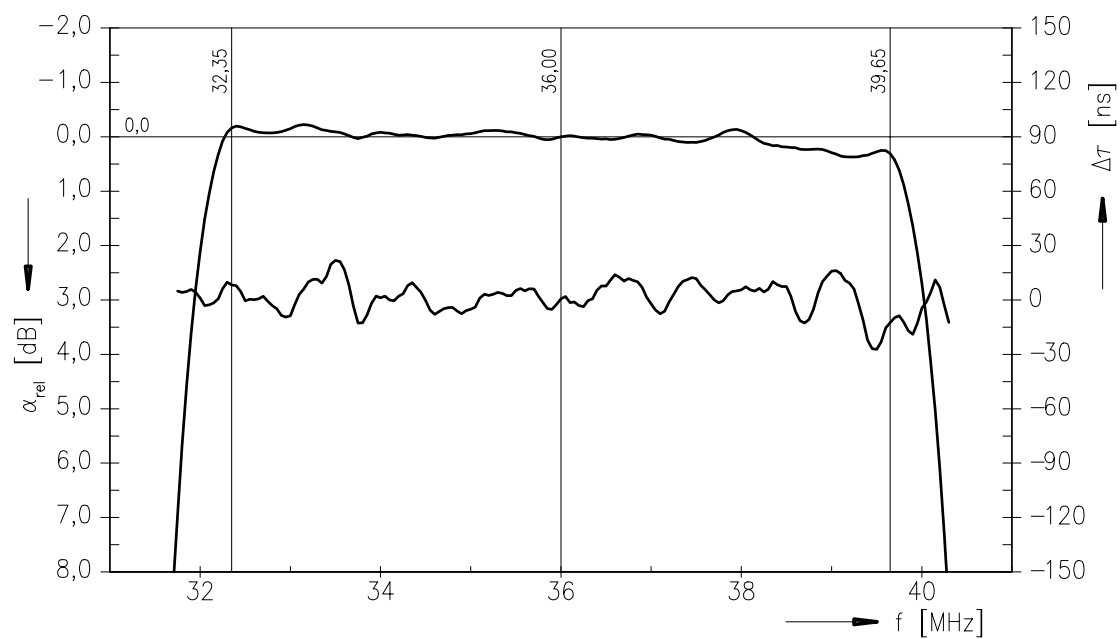
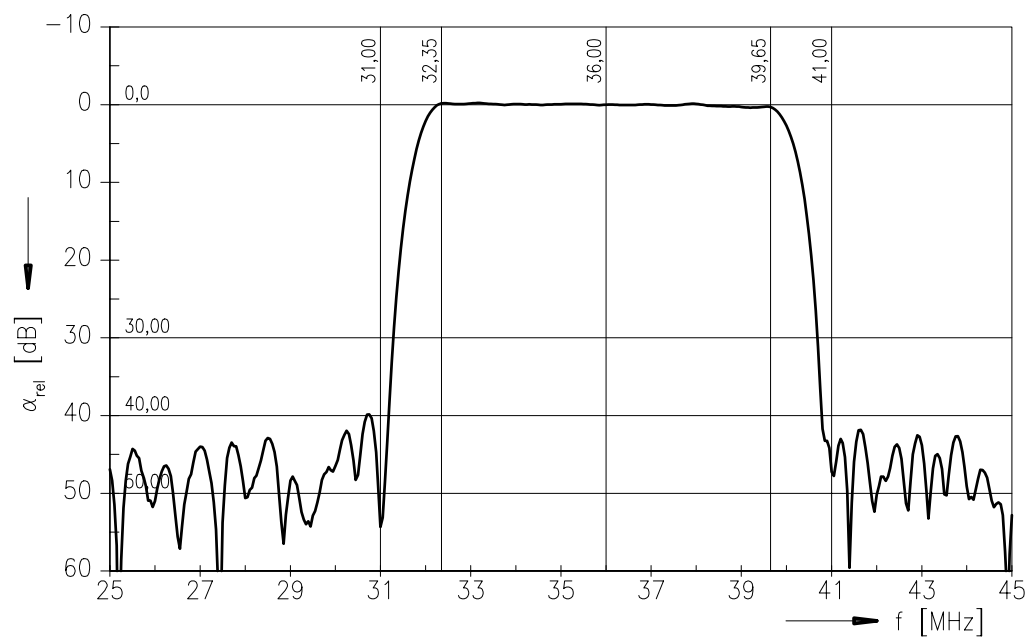
X 6857 D

Bandpass Filter

36,00 MHz

Data Sheet

Frequency response





**SAW Components**

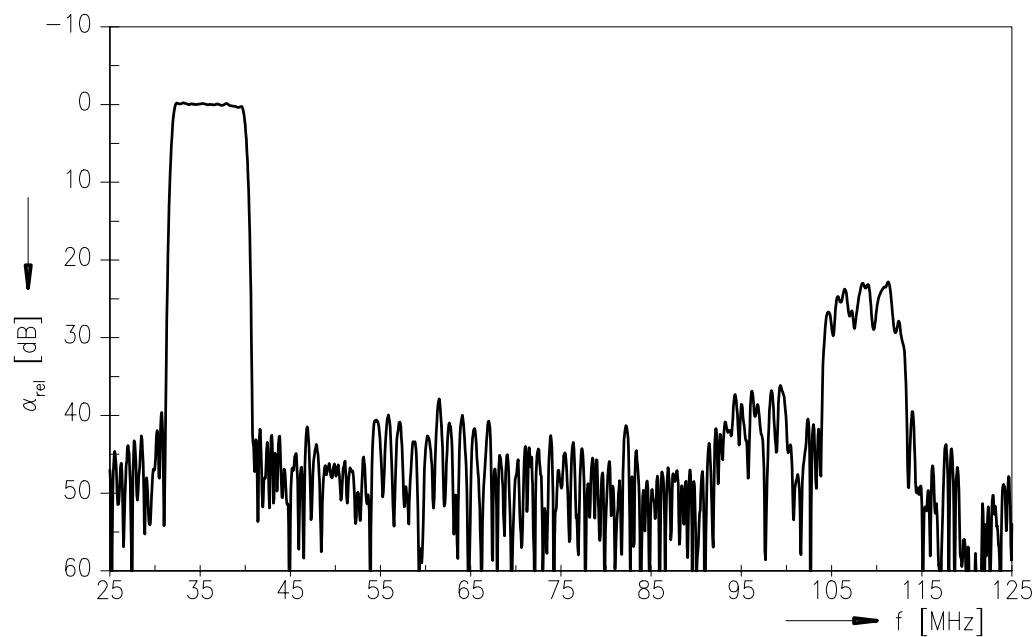
**X 6857 D**

**Bandpass Filter**

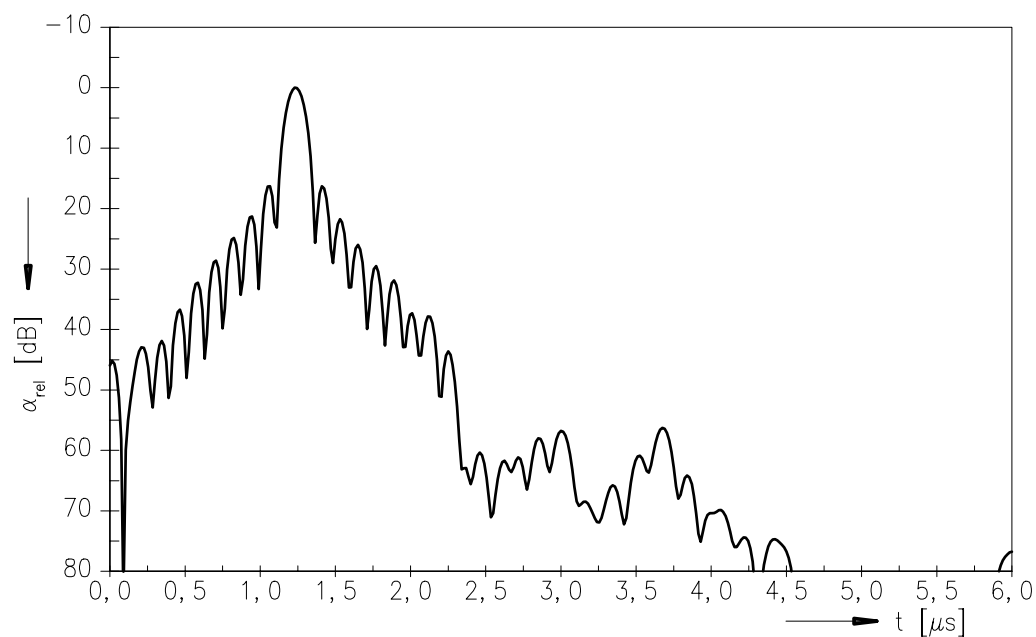
**36,00 MHz**

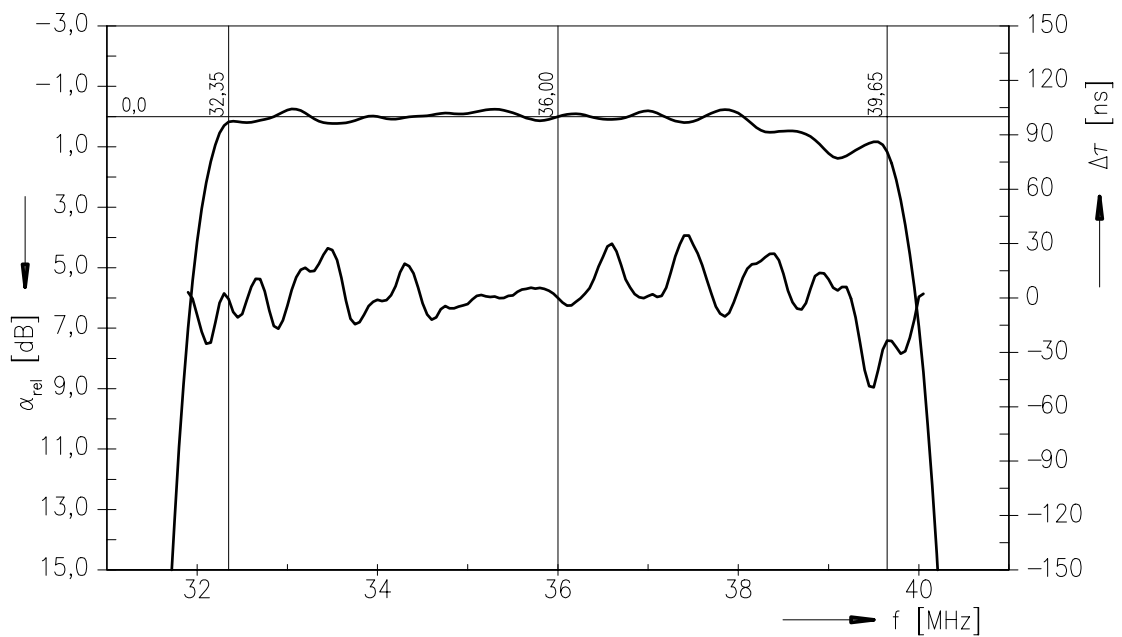
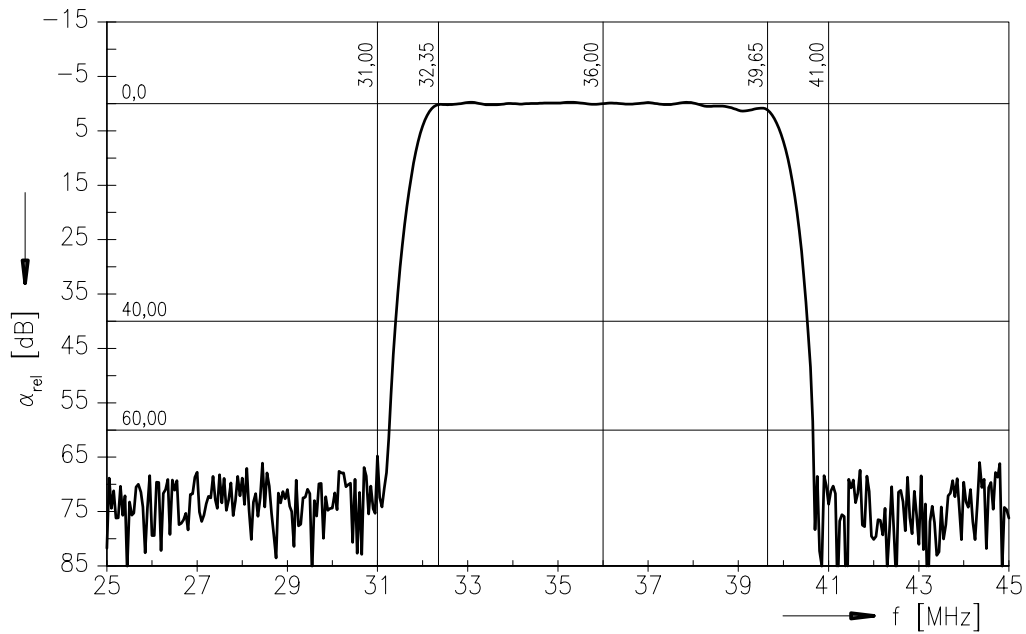
**Data Sheet**

**Frequency response**



**Time domain response**



**SAW Components****X 6857 D****Bandpass Filter****36,00 MHz****Data Sheet****Frequency response of two cascaded devices**



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