EPCOS

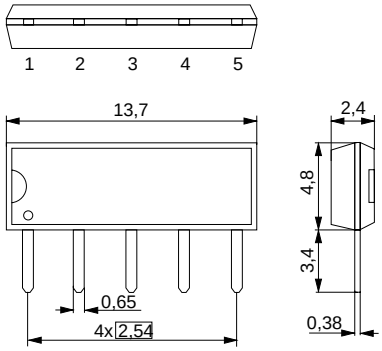
SAW Components

Data Sheet X 6857 D

Duroplast package **SIP5D**

Features

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



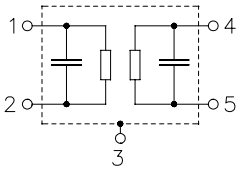
Terminals

- 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

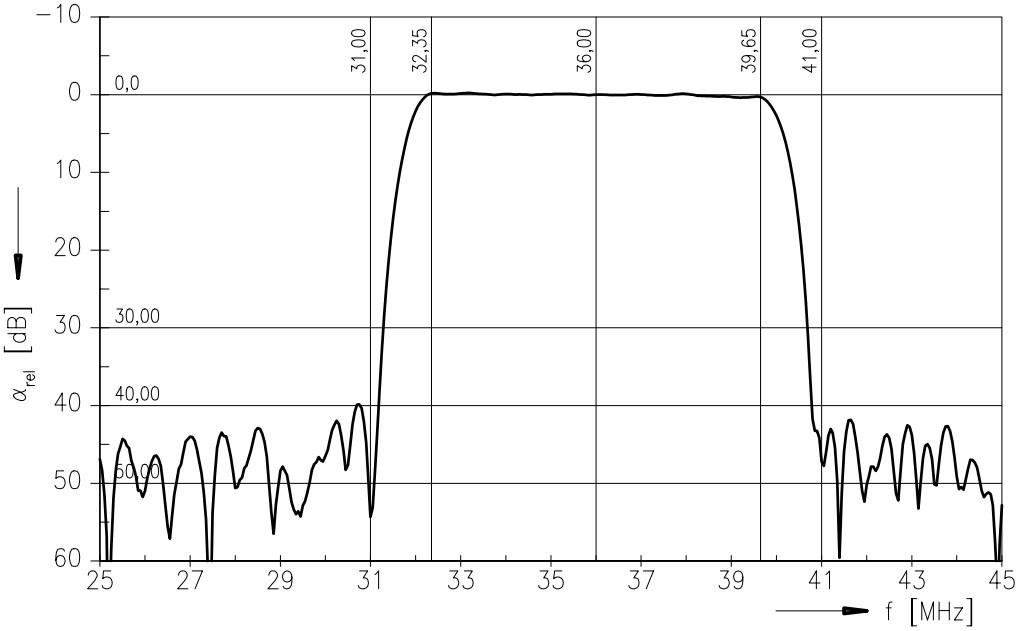
Operable temperature range	T_A	–25/+65	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

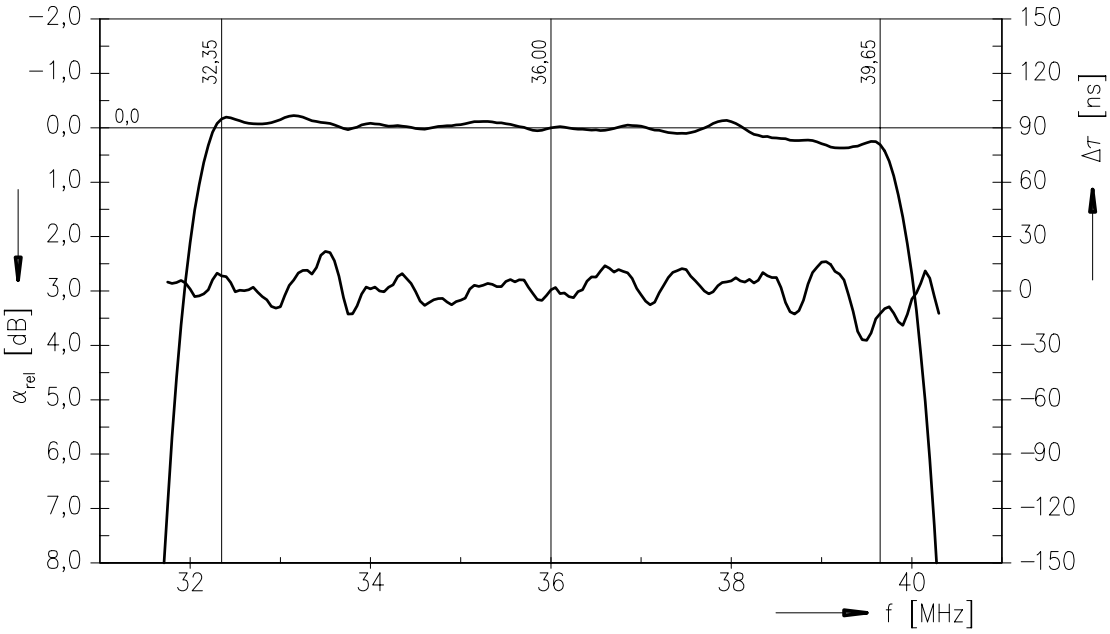
Characteristics

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

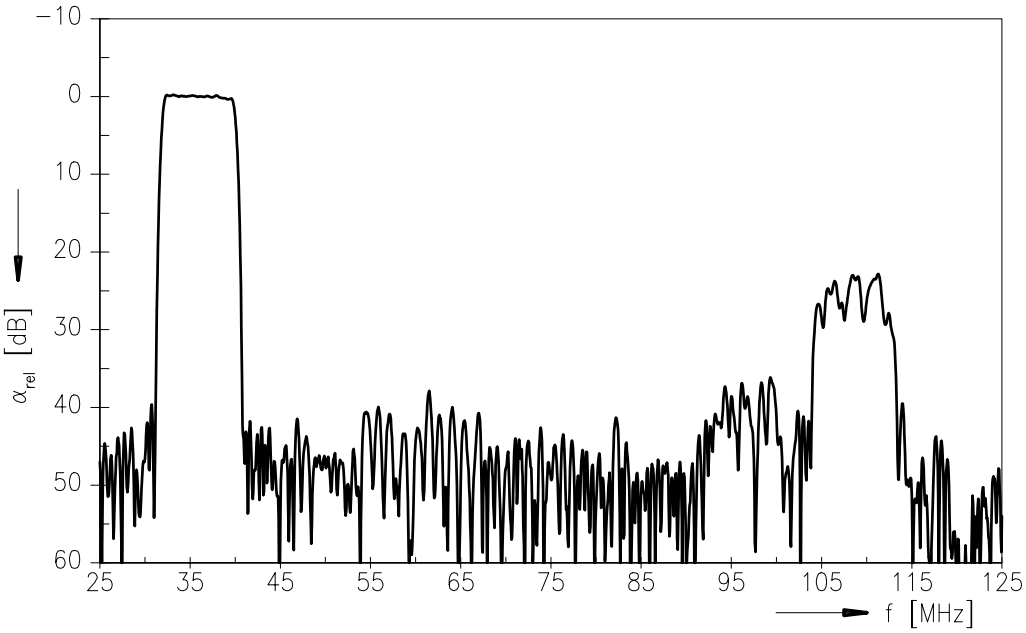
			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the following data	36,00 MHz		19,0	20,5	22,0	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
	32,35 ... 39,65 MHz		—	0,7	—	dB
Pass bandwidth						
$\alpha_{rel} \leq$ 1,5 dB		$B_{1,5dB}$	—	7,8	—	MHz
$\alpha_{rel} \leq$ 3 dB		B_{3dB}	—	8,1	—	MHz
$\alpha_{rel} \leq$ 15 dB		B_{15dB}	—	8,9	—	MHz
$\alpha_{rel} \leq$ 30 dB		B_{30dB}	—	9,4	—	MHz
Relative attenuation		α_{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		
Reflected wave signal suppression						
1,0 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 36,00 MHz)			42,0	52,0	—	dB
Feedthrough signal suppression						
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 36,00 MHz)			—	50,0	—	dB
Group delay ripple (p-p)		$\Delta\tau$				
	32,35 ... 39,65 MHz		—	50	—	ns
Impedance at 36,00 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			—	2,8 ‖ 15,5	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$			—	2,4 ‖ 4,4	—	kΩ || pF
Temperature coefficient of frequency		TC_f	—	–72	—	ppm/K

Frequency response

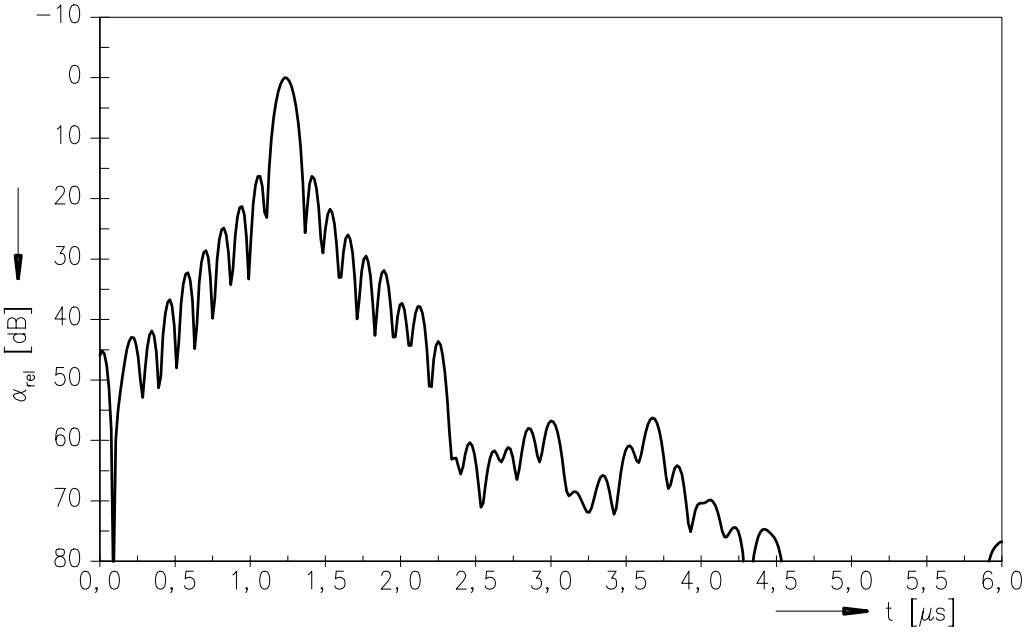




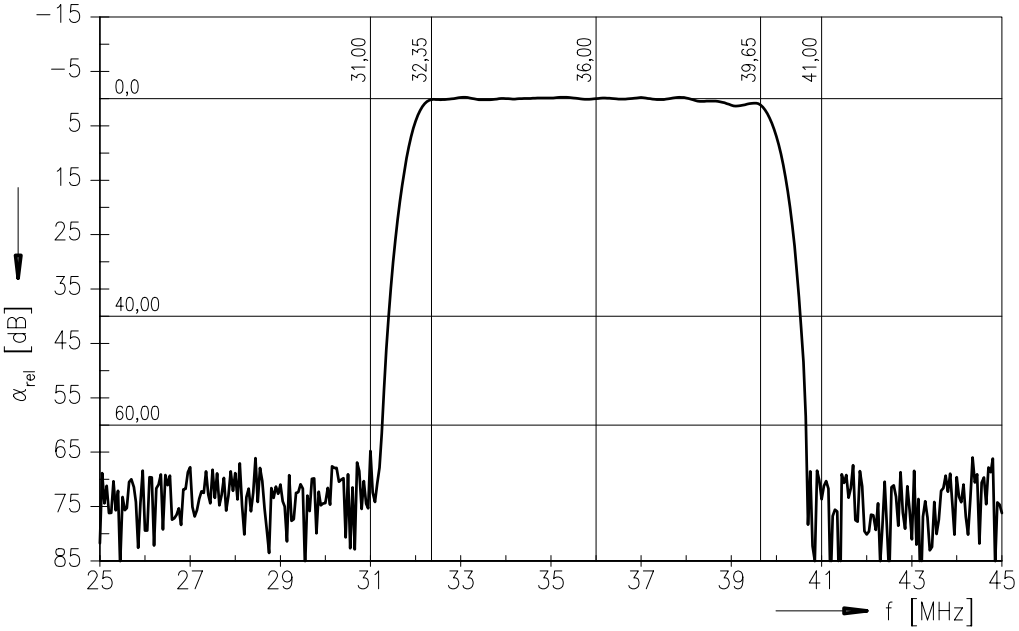
Frequency response

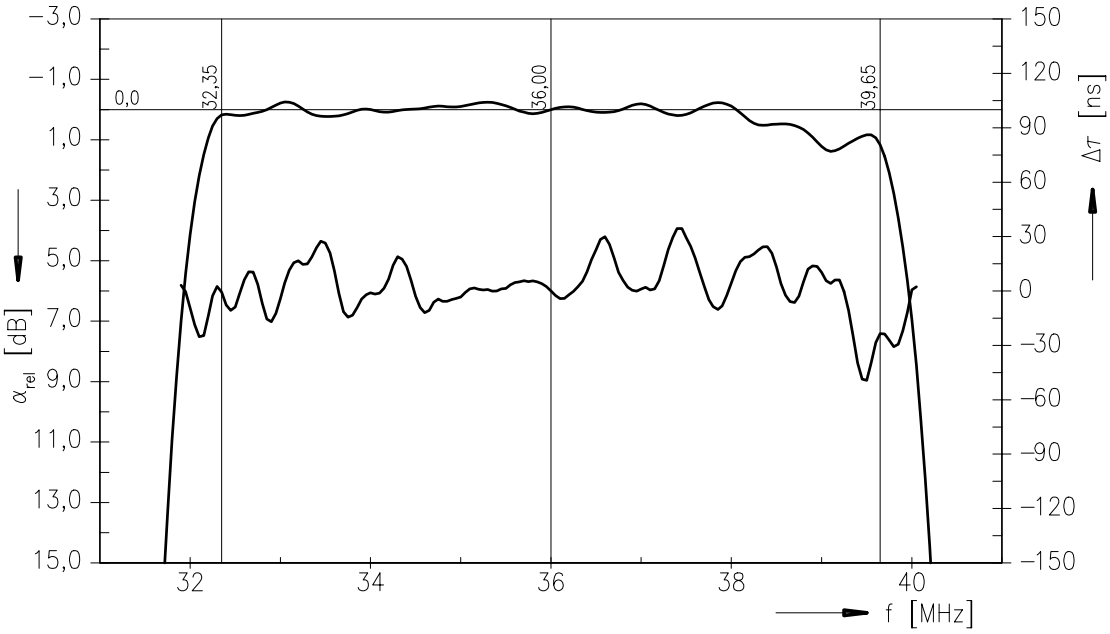


Time domain response



Frequency response of two cascaded devices





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