



## **Series/Type: X6857D**

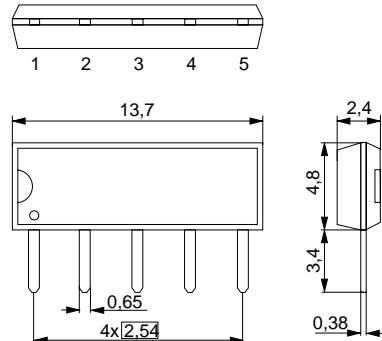
The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39360X6857N201		2011-01-14	2011-09-30	2012-09-30

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**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

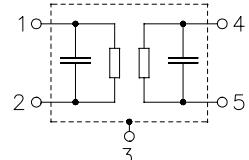
**Terminals**

- 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



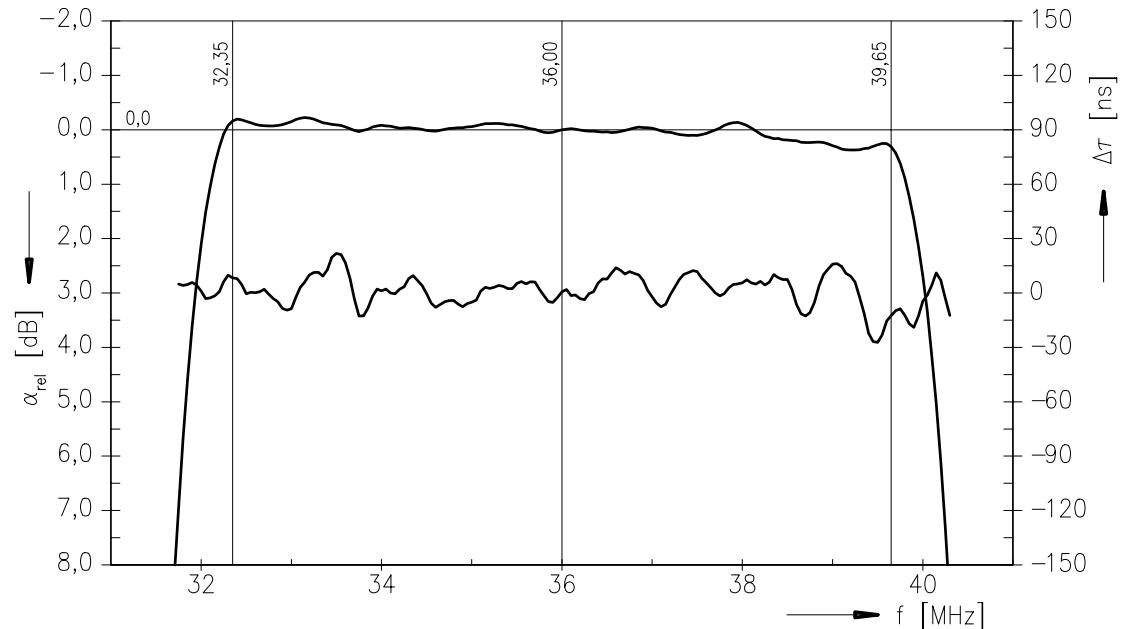
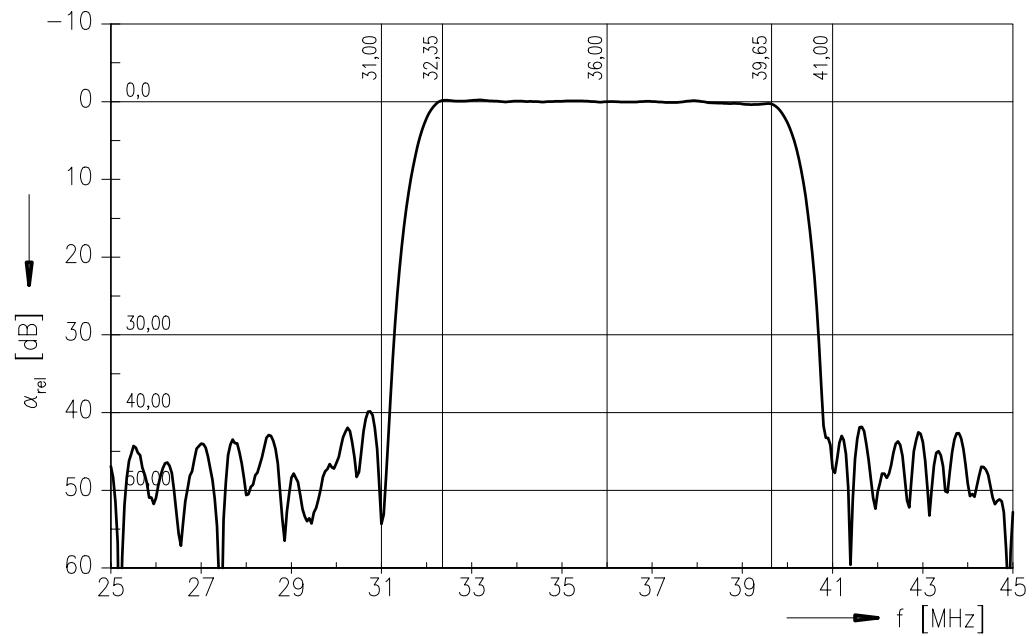
<b>SAW Components</b>	<b>X 6857 D</b>
<b>Bandpass Filter</b>	<b>36,00 MHz</b>

## Data Sheet

### Characteristics

Reference temperature:  $T_A = 25^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 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	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$			—	2,4 $\parallel$ 4,4	—	$\text{k}\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$		—	-72	—	ppm/K

**Data Sheet**
**Frequency response**




**SAW Components**

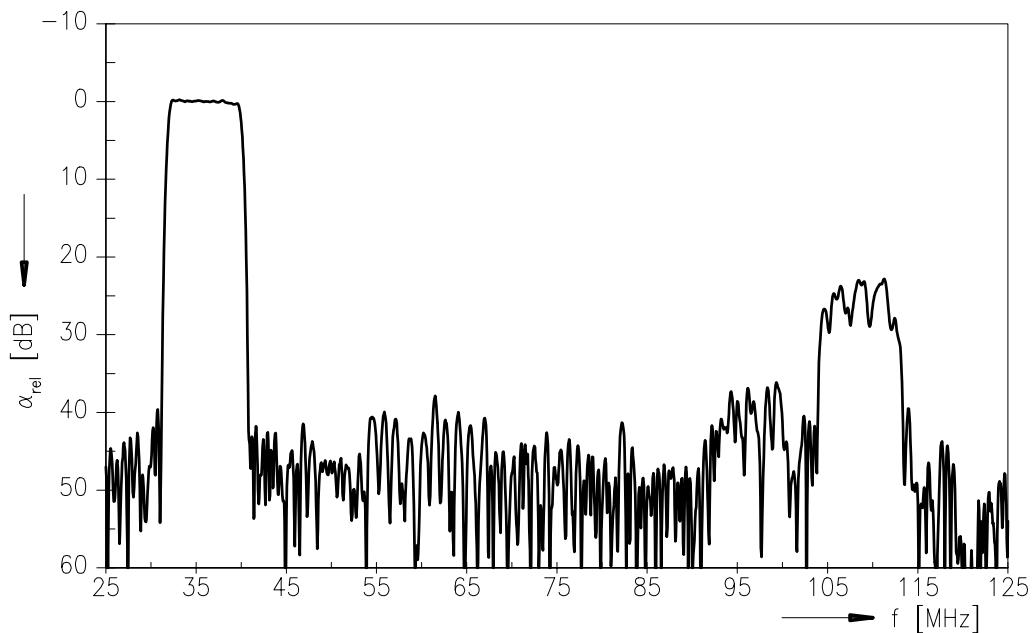
**X 6857 D**

**Bandpass Filter**

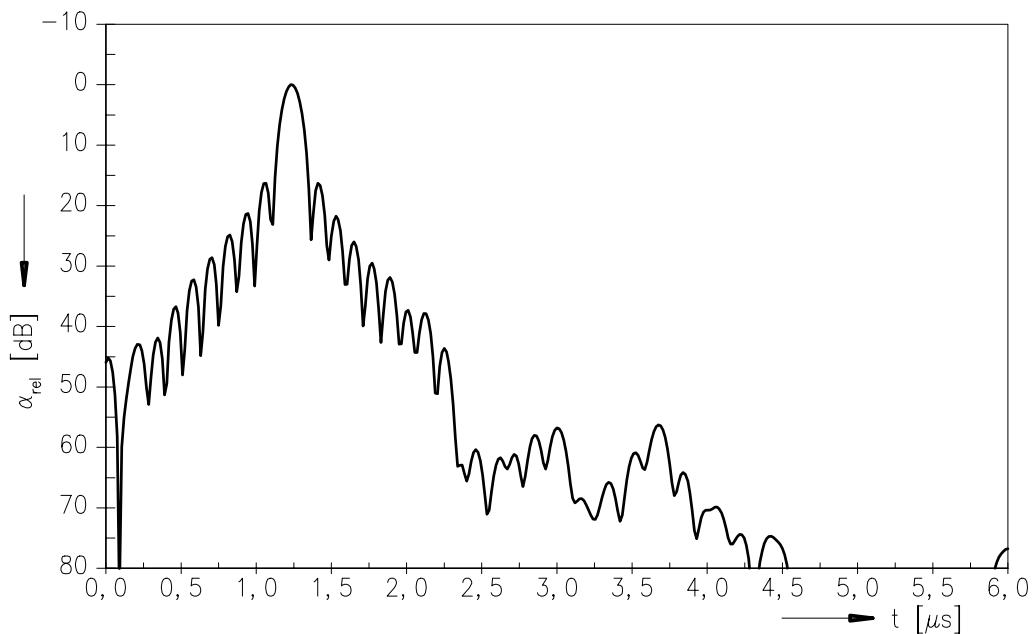
**36,00 MHz**

**Data Sheet**

**Frequency response**



**Time domain response**



**SAW Components**

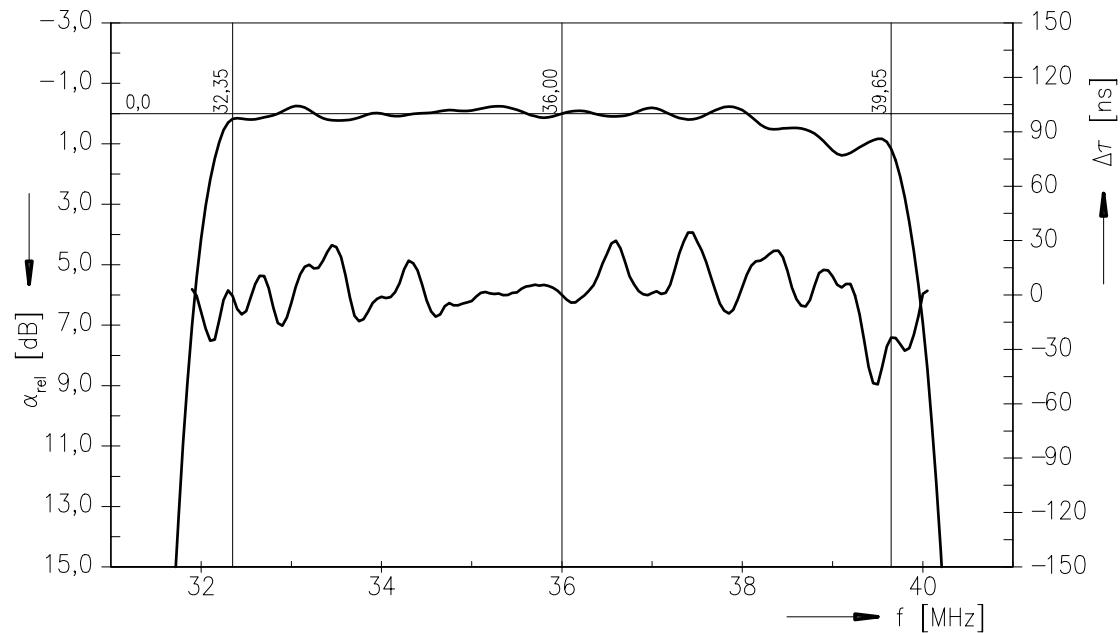
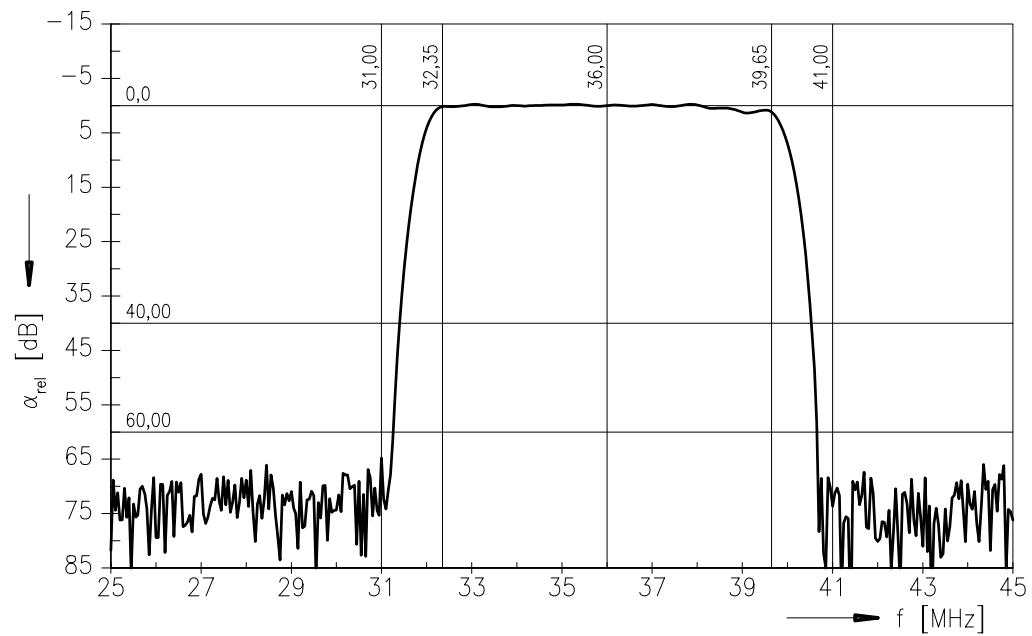
**X 6857 D**

**Bandpass Filter**

**36,00 MHz**

**Data Sheet**

**Frequency response of two cascaded devices**





<b>SAW Components</b>	<b>X 6857 D</b>
<b>Bandpass Filter</b>	<b>36,00 MHz</b>

## Data Sheet

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