



SAW multimedia filters

Series/Type: K3953D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39389K3953N201		2011-01-14	2011-09-30	2012-09-30

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.



SAW Components

K 3953 D

IF Filter for Video Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

- B/G
- I
- L/L'

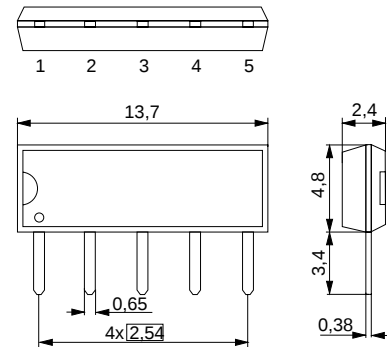
Duroplast package **SIP5D**

Features

- TV IF filter with Nyquist slope at 33,90 MHz and 38,90 MHz
- Constant group delay
- Suitable for CENELEC EN 55020
- Standard IC package

Terminals

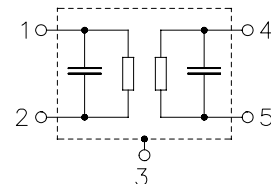
- Tinned CuFe alloy



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
K 3953 D	B39389-K3953-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.	
Insertion attenuation		α				
Reference level for the following data	37,40 MHz		12,0	13,5	15,0	dB
Relative attenuation		α_{rel}				
Picture carrier	38,90 MHz		5,0	6,0	7,0	dB
	33,90 MHz		6,3	7,5	8,7	dB
Color carrier	34,47 MHz		—	1,3	—	dB
Sound carrier	33,40 MHz		20,0	24,0	—	dB
	32,90 MHz		—	49,0	—	dB
	32,40 MHz		—	55,0	—	dB
Adjacent picture carrier	30,90 MHz		48,0	57,0	—	dB
	31,90 MHz		48,0	58,0	—	dB
	40,15 MHz		36,0	46,0	—	dB
Adjacent sound carrier	40,40 MHz		46,0	54,0	—	dB
	41,40 MHz		44,0	50,0	—	dB
	40,90 MHz		46,0	54,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz		45,0	54,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz		40,0	47,0	—	dB
Reflected wave signal suppression						
1,2 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			42,0	50,0	—	dB
Feedthrough signal suppression						
1,2 μ s ... 1,1 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			50,0	56,0	—	dB
Group delay ripple (p-p)		$\Delta\tau$	—	50	—	ns
Impedance at 37,40 MHz						
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$			—	1,4 $\parallel$ 16,9	—	k Ω $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$			—	1,6 $\parallel$ 4,7	—	k Ω $\parallel$ pF
Temperature coefficient of frequency		TC_f	—	-72	—	ppm/K



SAW Components

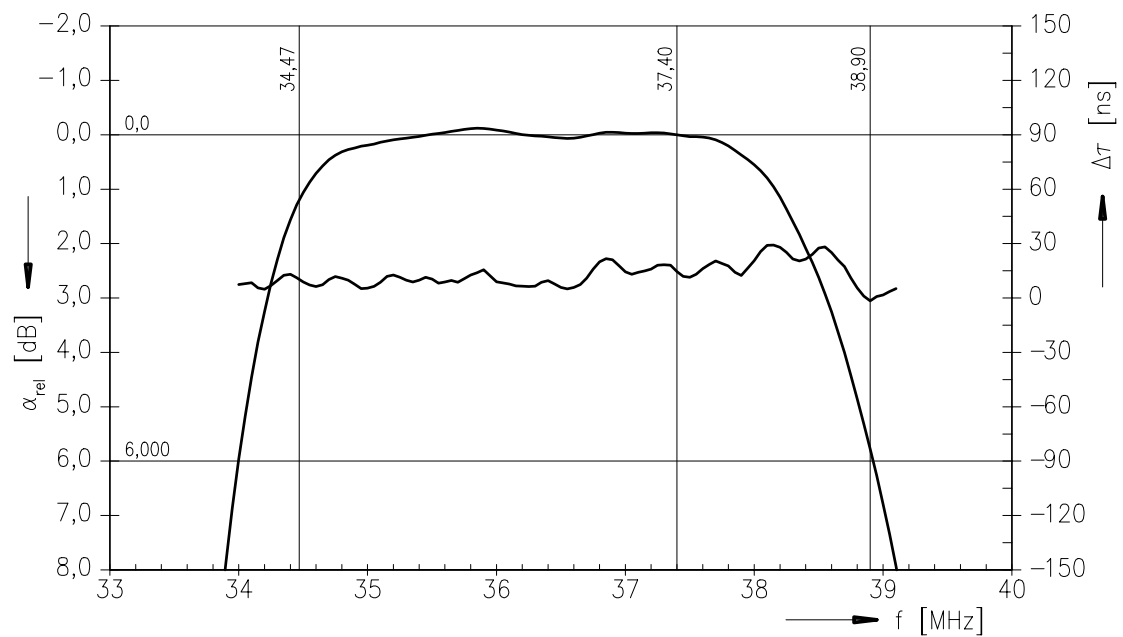
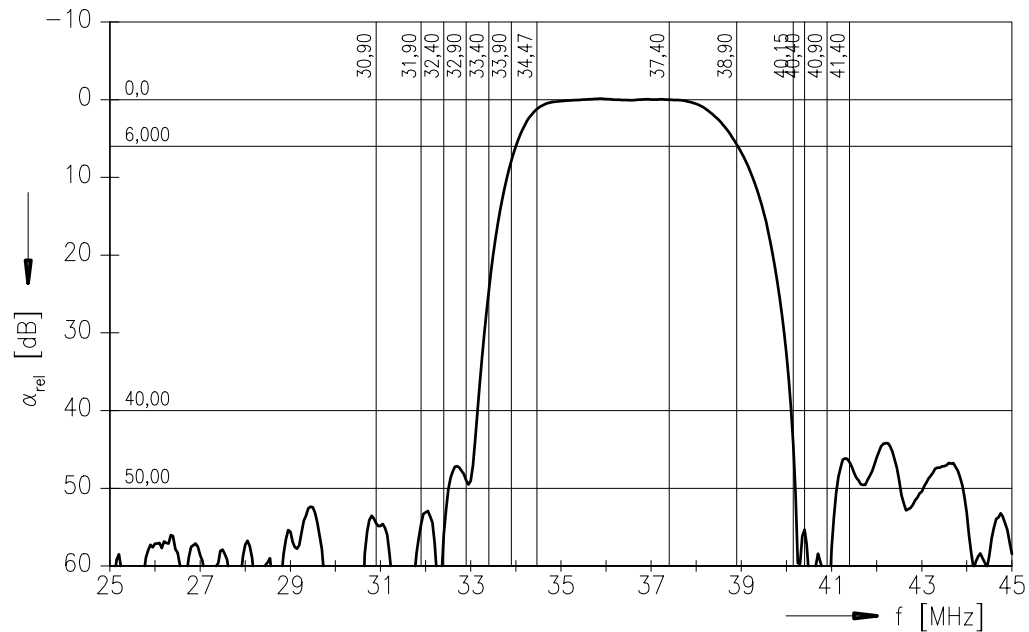
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Data Sheet

Frequency response





SAW Components

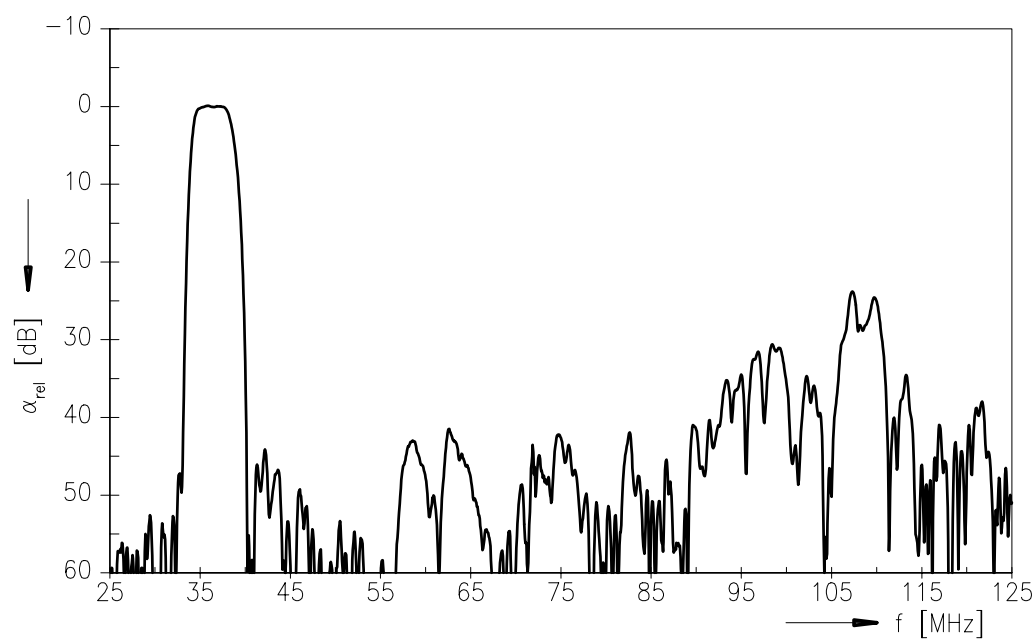
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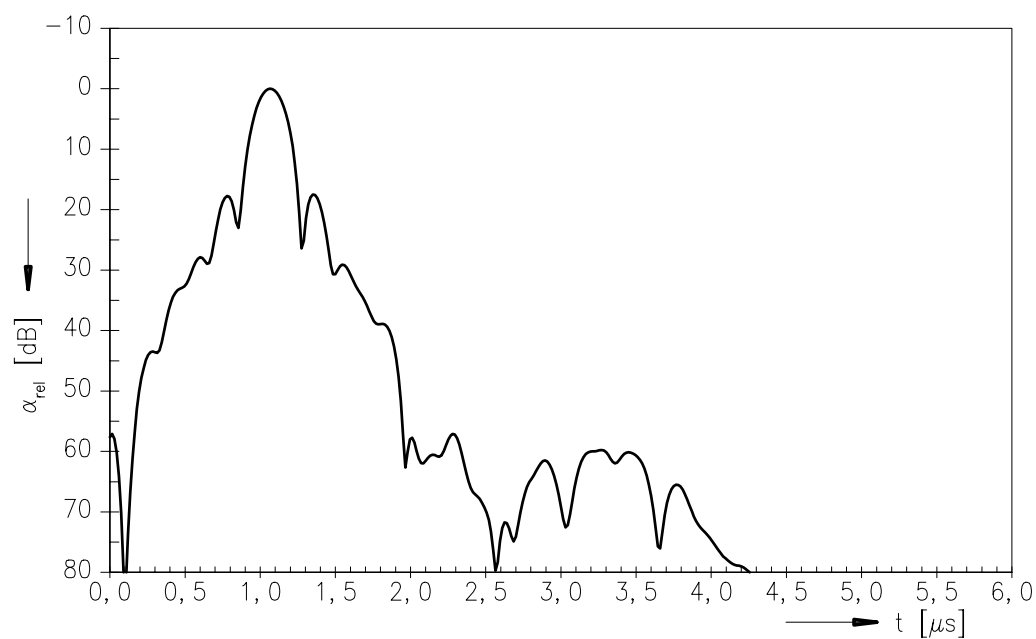
33,90 MHz and 38,90 MHz

Data Sheet

Frequency response



Time domain response





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Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW CE MM PD
P.O. Box 80 17 09, D-81617 München

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