



# SAW COMPONENTS

## Series/Type: J3353K

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39389J3353K100	K3953M + K9353M	2008-01-18	2008-06-30	2008-09-30

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](http://www.epcos.com/sales).

**SAW Components**
**J 3353 K**
**IF Filter for Quasi/Split Sound Applications**
**38,90 MHz**
**Data Sheet**
**Standard**

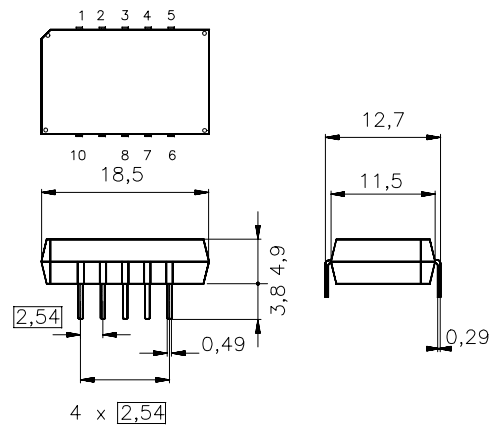
- I
- D/K

**Features**

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression
- Customized group delay predistortion
- Sound channel with passband for sound carriers at 32,90 MHz and 32,35 MHz (NICAM)
- Suitable for CENELEC EN 55020

**Terminals**

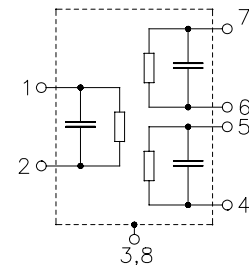
- Tinned CuFe alloy

 Plastic package **DIP10K**


Dimensions in mm, approx. weight 1,8 g

**Pin configuration**

- |      |                       |
|------|-----------------------|
| 1    | Input                 |
| 2    | Input - ground        |
| 3; 8 | Chip carrier - ground |
| 4; 5 | Output - sound        |
| 6; 7 | Output - picture      |
| 9    | Free                  |
| 10   | Not connected         |



Type	Ordering code	Marking and package according to	Packing according to
J 3353 K	B39389-J3353-K100	C61157-A2-A3	F61074-V8068-Z000

**Maximum ratings**

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

**SAW Components**
**J 3353 K**
**IF Filter for Quasi/Split Sound Applications**
**38,90 MHz**
**Data Sheet**
**Characteristics of picture channel**

Reference temperature:  $T_A = 25\text{ °C}$   
 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	37,40 MHz	12,9	14,4	15,9	dB
<b>Relative attenuation</b>					
	$\alpha_{rel}$				
Picture carrier	38,90 MHz	5,0	6,0	7,0	dB
Color carrier	34,47 MHz	-0,6	0,4	1,4	dB
Sound carrier	32,90 MHz	40,0	52,0	—	dB
	32,35 MHz	44,0	56,0	—	dB
	31,40 MHz	48,0	60,0	—	dB
Adjacent picture carrier	30,90 MHz	50,0	62,0	—	dB
	30,40 MHz	48,0	60,0	—	dB
	30,40 MHz	48,0	60,0	—	dB
Adjacent sound carrier	40,90 MHz	45,0	55,0	—	dB
	40,35 MHz	43,0	53,0	—	dB
	40,35 MHz	43,0	53,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	46,0	54,0	—	dB
Upper sidelobe	40,90 ... 45,00 MHz	39,0	45,0	—	dB
<b>Reflected wave signal suppression</b>					
1,2 $\mu$ s ... 6,0 $\mu$ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	55,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu$ s ... 1,1 $\mu$ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB
<b>Group delay predistortion</b>					
(reference frequency 38,90 MHz)					
	$\Delta\tau$				
	38,90 MHz	—	0	—	ns
	34,47 MHz	—	-50	—	ns
<b>Impedance at 37,40 MHz</b>					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,2 $\parallel$ 24,0	—	k $\Omega$ $\parallel$ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,5 $\parallel$ 3,6	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K

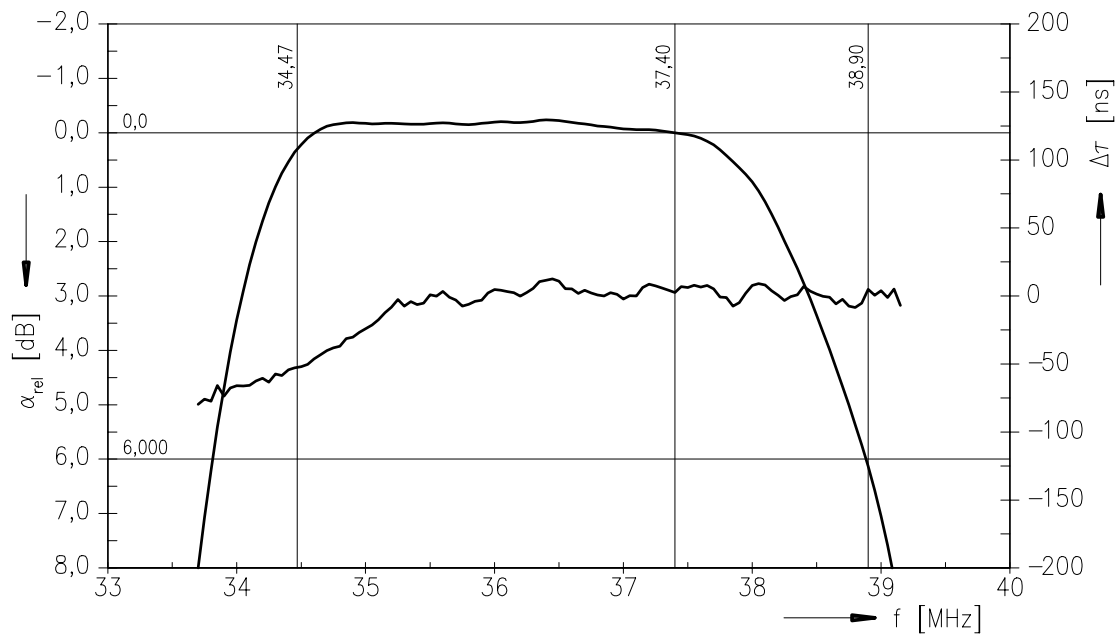
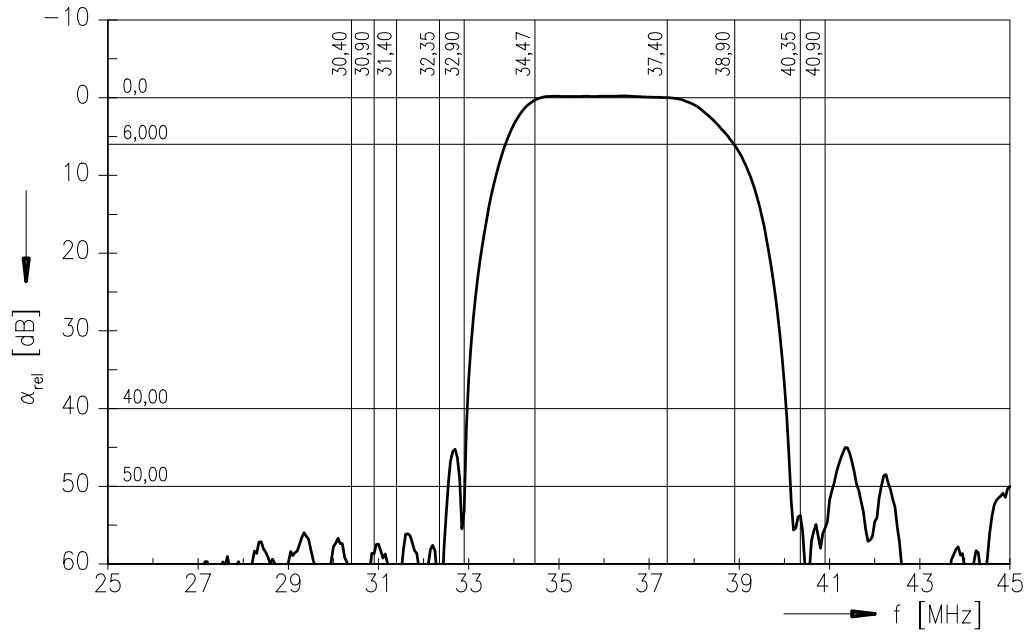
**Data Sheet**
**Characteristics of sound channel**

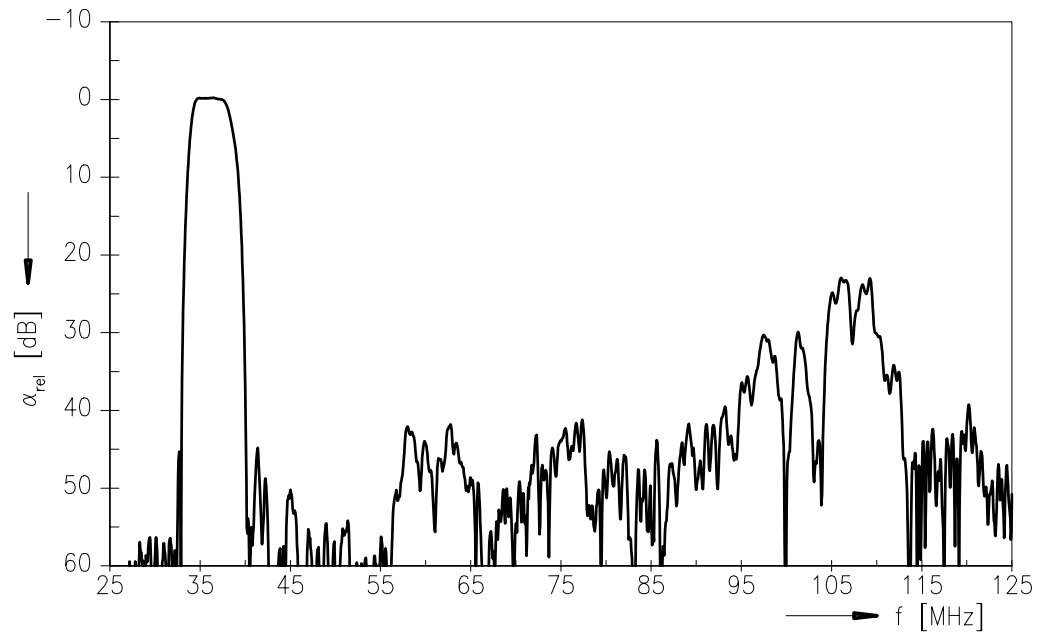
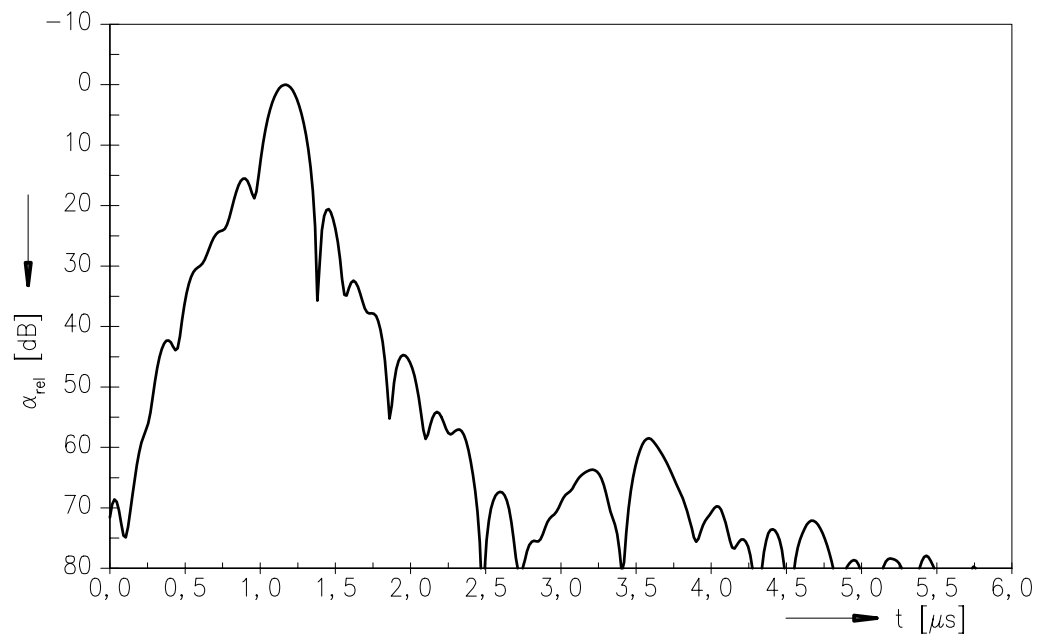
Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Insertion attenuation</b>					
	$\alpha$				
Reference level for the following data	32,35 MHz	10,4	11,9	13,4	dB
<b>Relative attenuation</b>					
	$\alpha_{rel}$				
Sound carrier	32,90 MHz	-0,5	0,5	1,5	dB
	31,95 MHz	—	2,5	—	dB
Picture carrier	38,90 MHz	46,0	58,0	—	dB
Color carrier	34,47 MHz	33,0	47,0	—	dB
Adjacent picture carrier	30,90 MHz	40,0	51,0	—	dB
Adjacent sound carrier	40,90 MHz	48,0	59,0	—	dB
	40,35 MHz	46,0	55,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	39,0	45,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	44,0	50,0	—	dB
<b>Impedance</b> at 32,35 MHz					
	Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	2,5 $\parallel$ 3,6	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>					
	$TC_f$	—	-72	—	ppm/K

Data Sheet

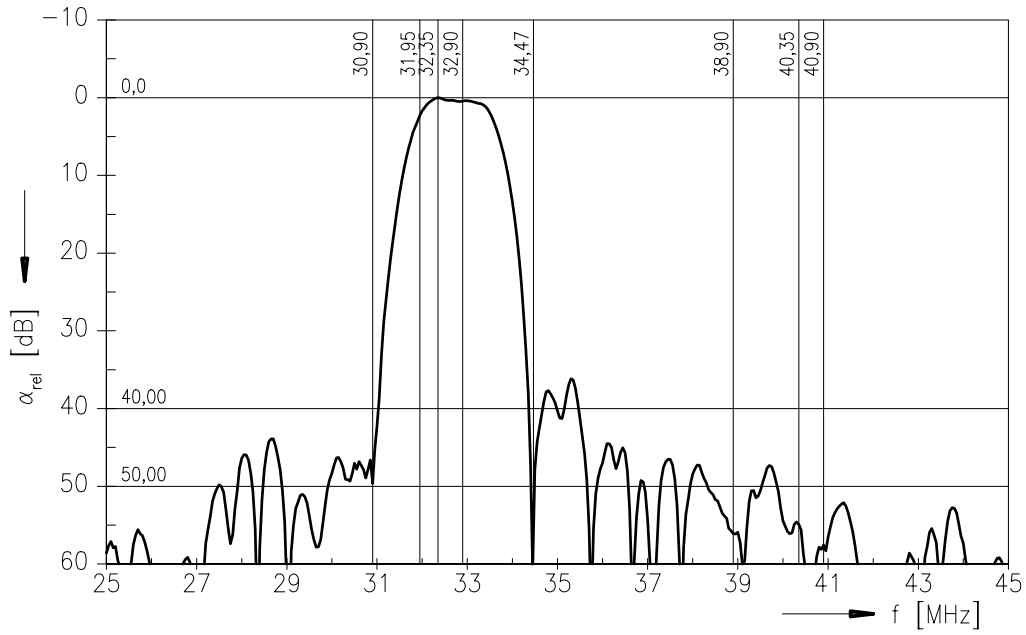
Frequency response of picture channel



**Data Sheet**
**Frequency response of picture channel**

**Time domain response of picture channel**


Data Sheet

Frequency response of sound channel



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