EPCOS

SAW Components

Data Sheet X 7001 L

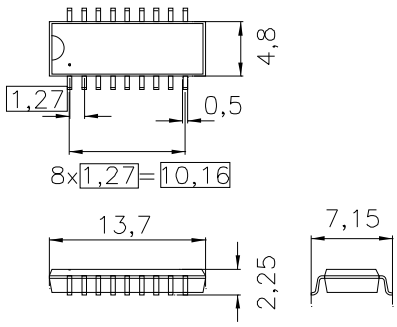
Duroplast package **DIP18D**

Features

- IF filter for Digital Audio Broadcasting
- Constant group delay
- **S**urface **M**ounted **T**echnology (**SMT**)
- Standard IC small outline (SO) package

Terminals

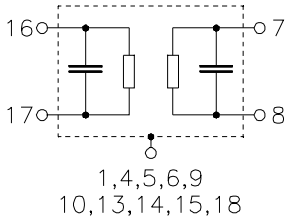
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 g

Pin configuration

16,17	Input
7,8	Output
1,4,5,6,9,10, 13,14,15,18	Chip carrier - ground
2,3,11,12	Not connected



Type	Ordering code	Marking and package according to	Packing according to
X 7001 L	B39307-X7001-L100	C61157-A2-A4	F61074-V8058-Z000

Maximum ratings

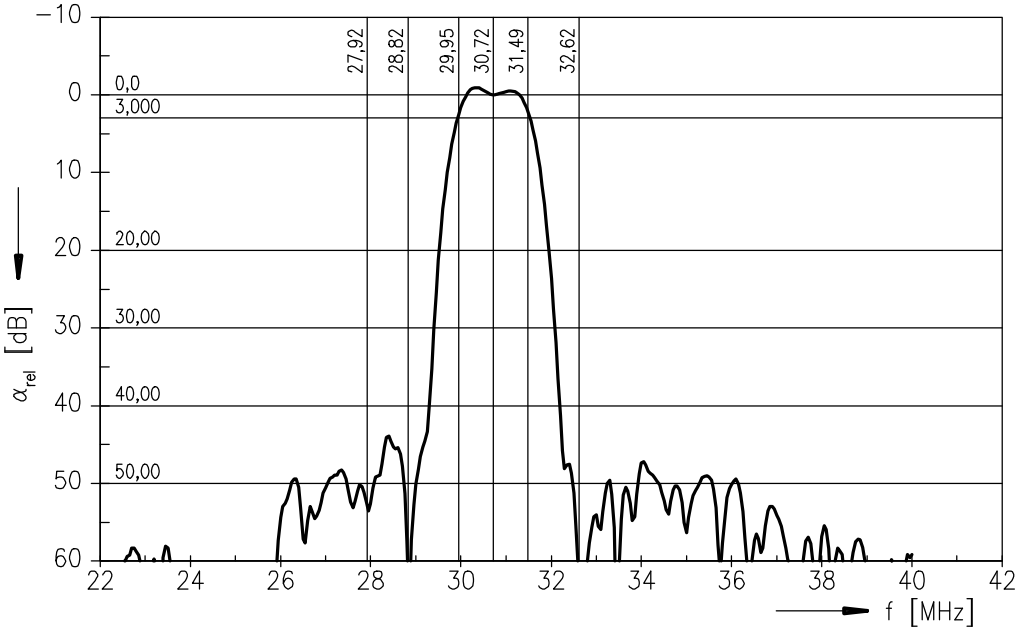
Operable temperature range	T_A	–40/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	0	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

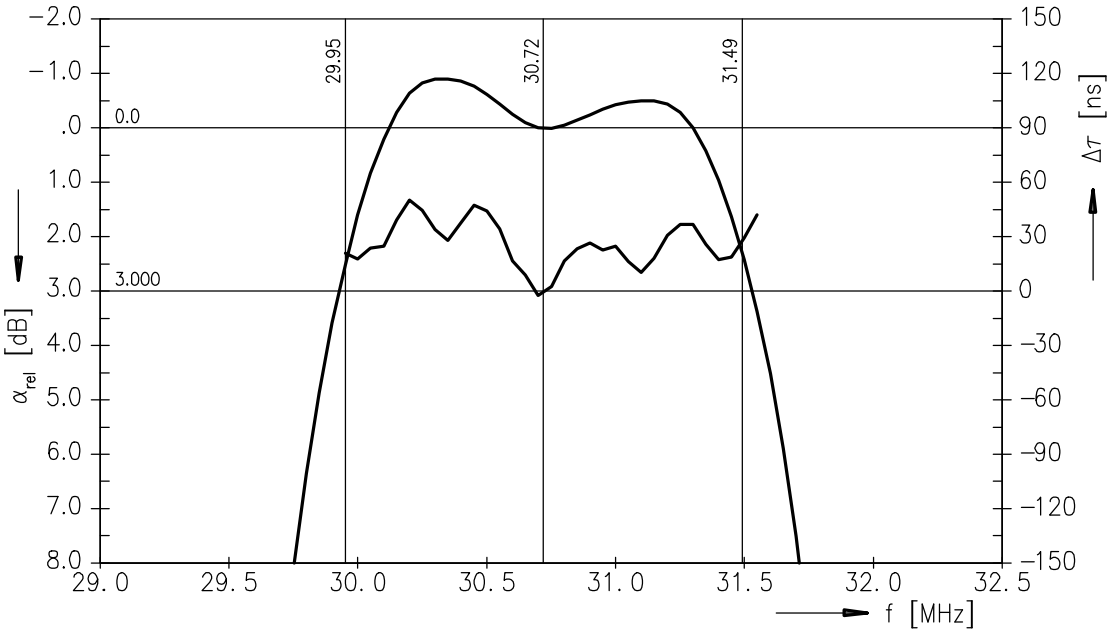
Characteristics

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 150 Ω
Terminating load impedance: Z_L = 1 kΩ

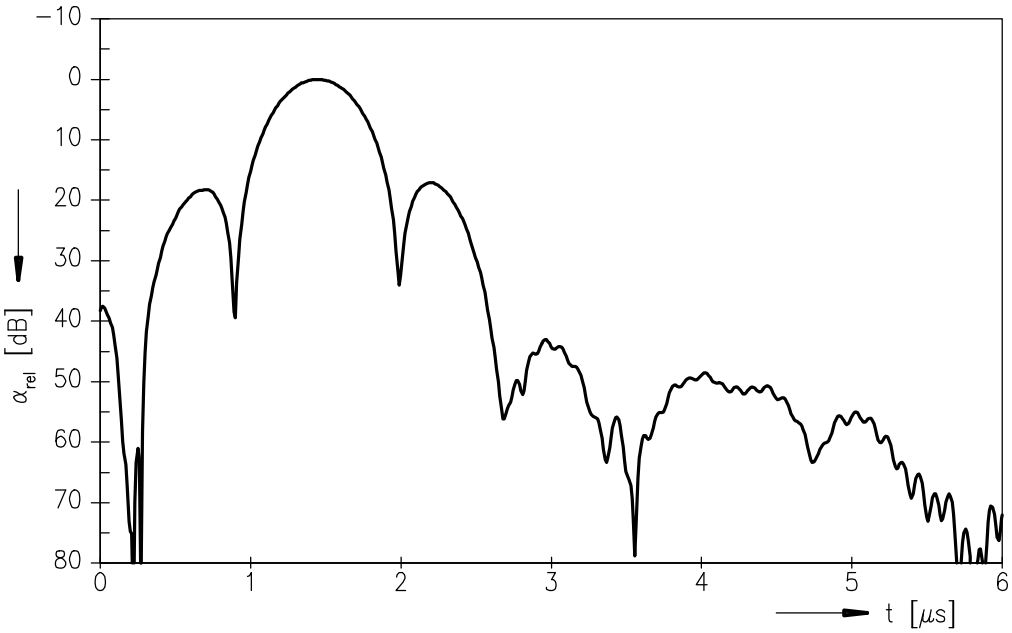
		min.	typ.	max.	
Center frequency (center between 3 dB points)	f_C	—	30,72	—	MHz
Insertion attenuation	α				
Reference level for the following data 30,72 MHz		19,3	20,8	22,3	dB
Pass bandwidth					
α_{rel} ≤3 dB	B_{3dB}	—	1,6	—	MHz
α_{rel} ≤20 dB	B_{20dB}	—	2,4	—	MHz
α_{rel} ≤30 dB	B_{30dB}	—	2,6	—	MHz
Relative attenuation	α_{rel}				
Lower sidelobe 22,00 ... 27,92 MHz		40,0	47,0	—	dB
27,92 ... 28,82 MHz		37,0	44,0	—	dB
Lower sidelobe 32,62 ... 42,00 MHz		40,0	47,0	—	dB
Reflected wave signal suppression 1,6 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 30,72 MHz)		38,0	45,0	—	dB
Group delay ripple (p–p)	$\Delta\tau$				
Aperture 50 kHz 29,95 ... 31,49 MHz		—	50	—	ns
Impedance at 30,72 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	2,0 || 19,8	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,5 || 10,1	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–18	—	ppm/K

Frequency response





Time domain response



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P.O. Box 80 17 09, D-81617 München

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