EPCOS

SAW Components

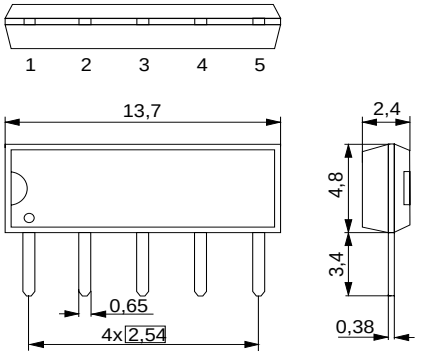
Data Sheet X 6941 D

Data Sheet

Standard

Duroplast package **SIP5D**

- HDTV



Features

- Constant group delay
- Optimized for cascade of two devices
- Optimized for balanced to balanced operation
- Standard IC package

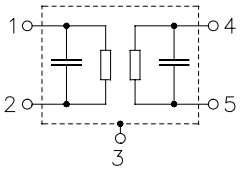
Terminals

- Tinned CuFe alloy

Dimensions in mm, approx. weight 0,5 g

Pin configuration

1	Input
2	Input
3	Chip carrier - ground
4	Output
5	Output



Type	Ordering code	Marking and package according to	Packing according to
X 6941 D	B39440-X6941-N201	C61157-A1-A21	F61074-V8049-Z000

Maximum ratings

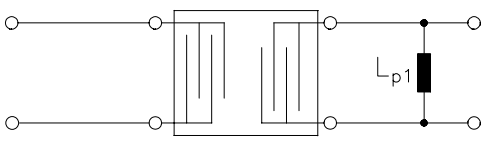
Operable temperature range	T_A	–25/+65	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

Characteristics

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

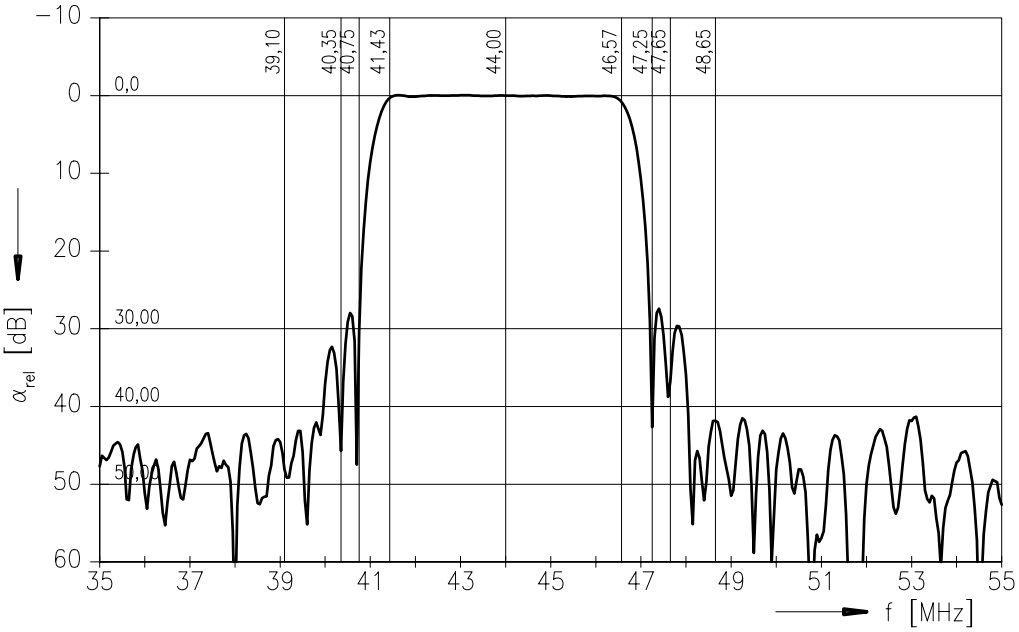
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		44,00 MHz		18,5	20,0	21,5	dB
Amplitude ripple (p-p)			Δα				
	41,60 ...	46,40 MHz		—	0,4	—	dB
Relative attenuation			α_{rel}				
		40,75 MHz		25,0	32,0	—	dB
		41,31 MHz		1,1	1,6	2,1	dB
		41,43 MHz		–0,4	0,3	1,0	dB
		41,60 MHz		–0,4	0,1	0,6	dB
		46,40 MHz		–0,4	0,1	0,6	dB
		46,57 MHz		0,1	0,6	1,1	dB
		46,69 MHz		1,5	2,0	2,5	dB
		47,25 MHz		25,0	36,0	—	dB
Lower sidelobe	35,00 ...	39,10 MHz		34,0	42,0	—	dB
	39,10 ...	40,35 MHz		27,0	32,0	—	dB
Upper sidelobe	47,65 ...	48,65 MHz		25,0	30,0	—	dB
	48,65 ...	55,00 MHz		32,0	37,0	—	dB
Reflected wave signal suppression							
1,5 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 44,00 MHz)				42,0	56,0	—	dB
Group delay ripple (p-p)			Δτ				
	41,31 ...	46,69 MHz		—	30	80	ns
Impedance at 44,00 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	1,9 || 22,2	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	6,1 || 5,7	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–18	—	ppm/K

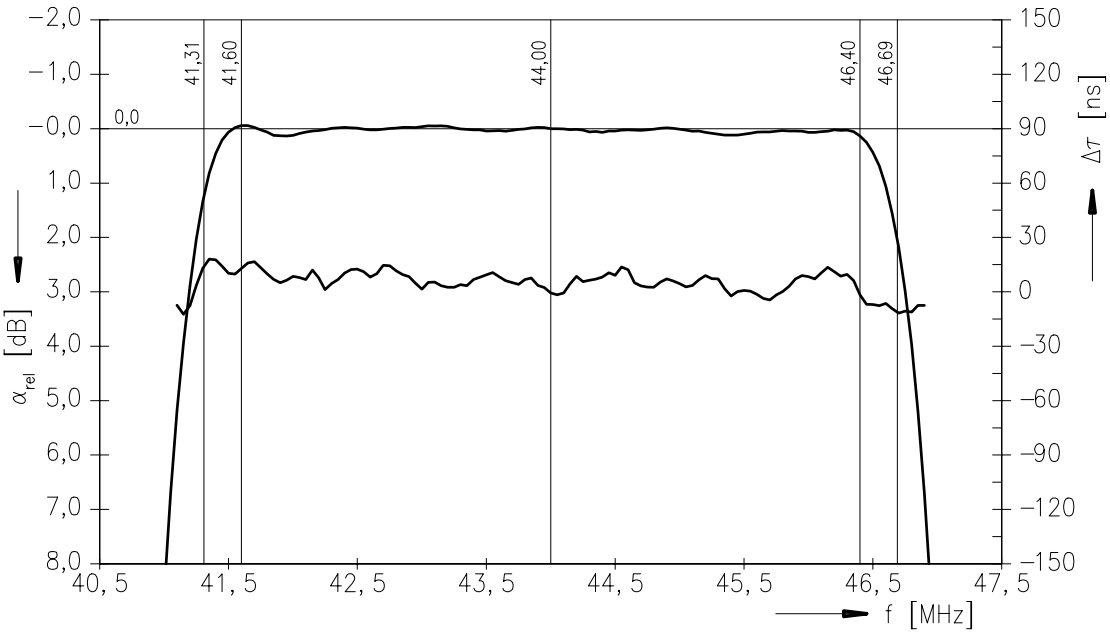
Matching network:



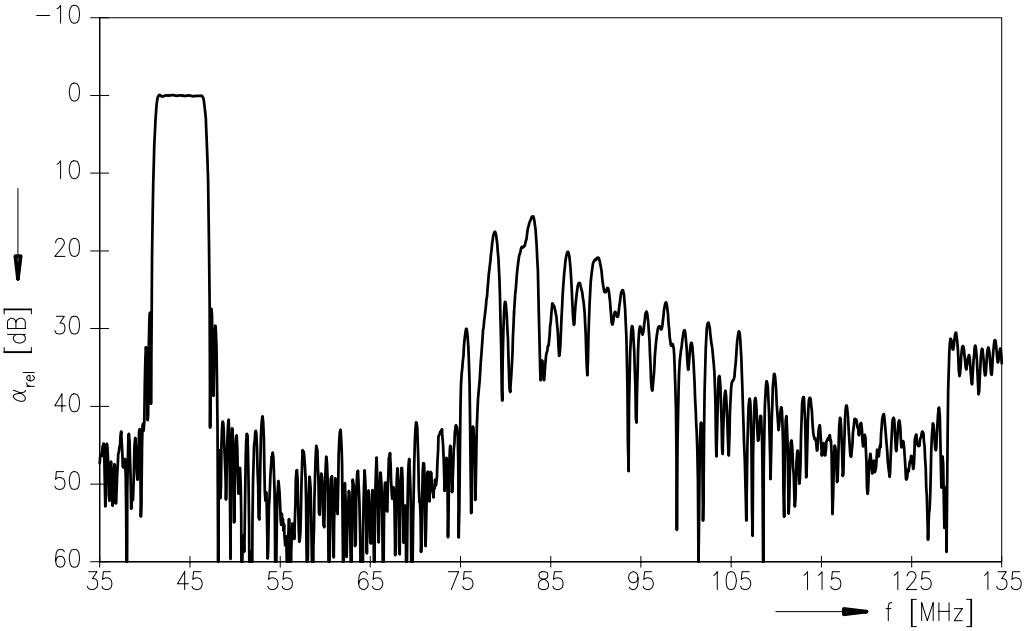
L_{p1} = 1800 nH

Frequency response

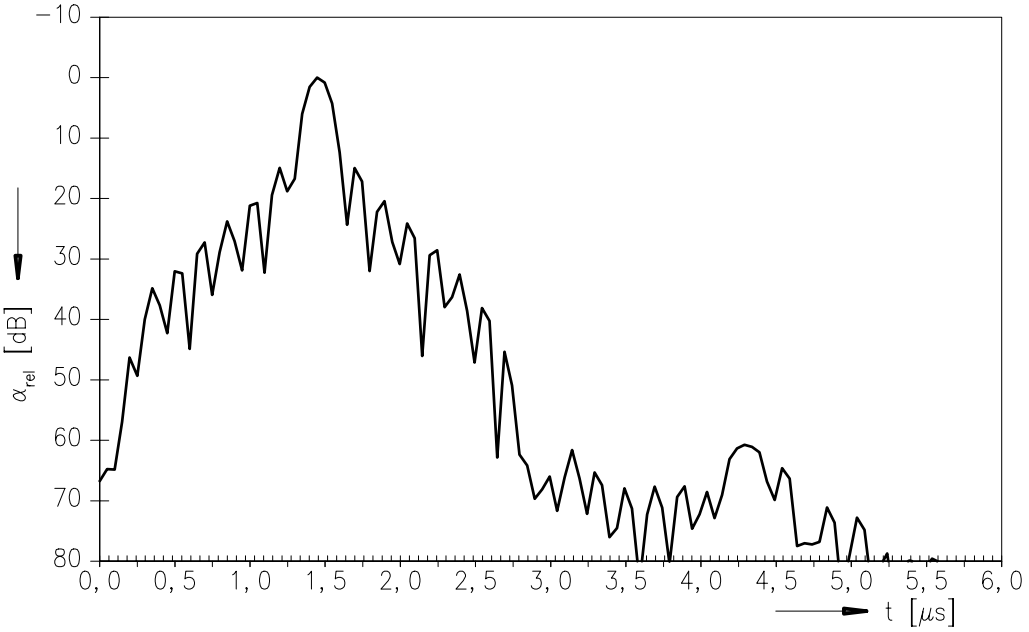




Frequency response



Time domain response



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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