SAW Components

SAW bandpass filter

Bandpass filters for terrestrial TV applications

Series/type:	**X 6753 M**
Ordering code:	**B39358-X6753-M100**
Date:	February 17, 2006
Version:	2.0

EPCOS

SAW Components	X 6753 M
SAW bandpass filter	**35.825 MHz**

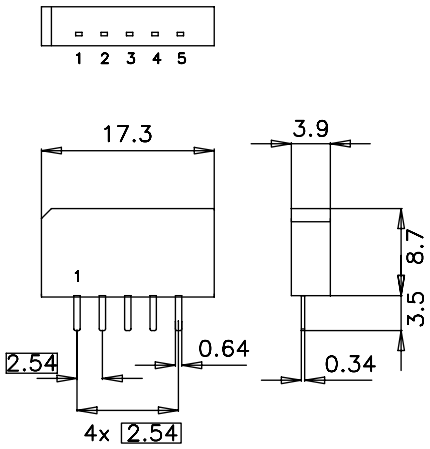
Data sheet

Application

- Bandpass filters for terrestrial TV applications
- Usable bandwidth 7.5 MHz

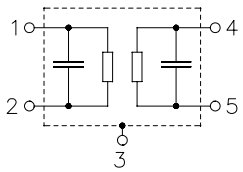
Features

- Plastic package SIP5K
- Approximate weight 1.0 g
- RoHS compatible
- Tinned CuFe alloy terminals



Pin configuration

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



Data sheet

Characteristics

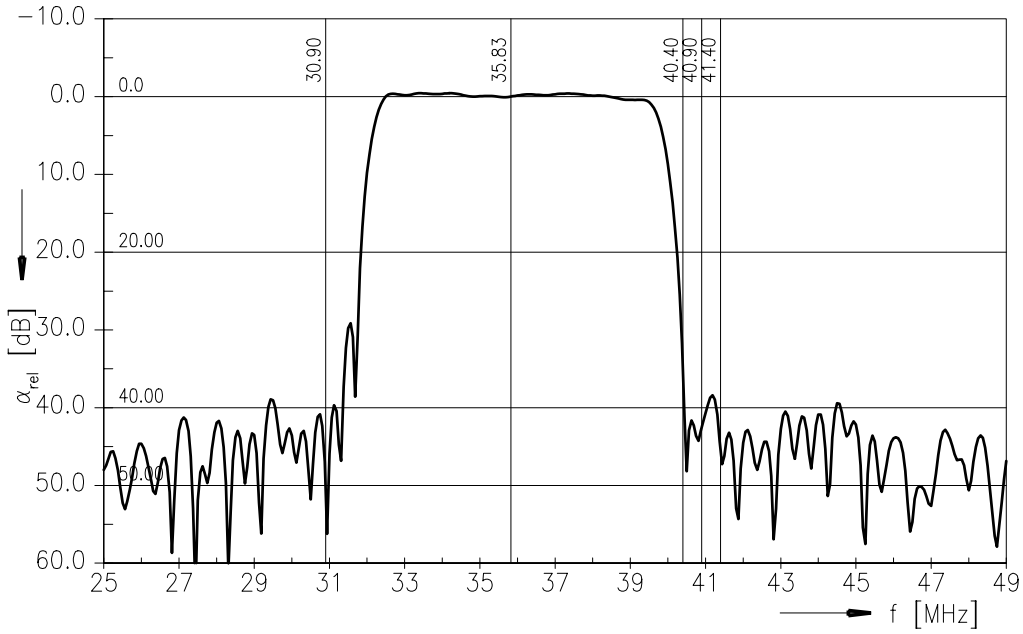
Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

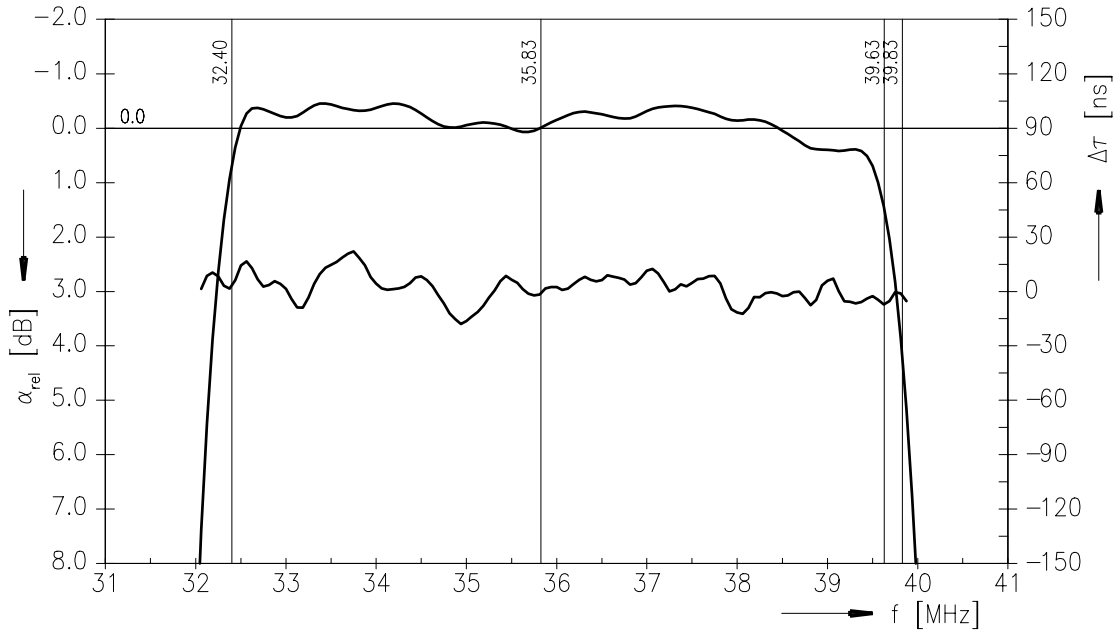
		min.	typ. @ 25 °C	max.	
Insertion attenuation	α				
Reference level for the 35.825 MHz following data		18.3	19.8	21.3	dB
Pass bandwith					
α_{rel} ≤1 dB	B_{1dB}	—	7.2	—	MHz
α_{rel} ≤3 dB	B_{3dB}	—	7.5	—	MHz
α_{rel} ≤30 dB	B_{30dB}	—	8.6	—	MHz
Relative attenuation	α_{rel}				
32.40 MHz		0.0	1.0	2.0	dB
39.63 MHz		0.4	1.4	2.4	dB
39.83 MHz		2.7	3.9	5.1	dB
31.90 MHz		—	16.7	—	dB
30.90 MHz		38.0	47.0	—	dB
40.40 MHz		27.0	32.0	—	dB
40.90 MHz		34.0	43.0	—	dB
41.40 MHz		36.0	44.0	—	dB
Lower sidelobe					
25.00 ... 30.90 MHz		34.0	39.0	—	dB
Upper sidelobe					
40.90 ... 50.00 MHz		31.0	38.0	—	dB
Reflected wave signal suppression					
1.2 µs ... 6.0 µs after main pulse (test pulse 250 ns, carrier frequency 35.825 MHz)		40.0	49.0	—	dB
Feedthrough signal suppression					
1.4 µs ... 1.3 µs before main pulse (test pulse 250 ns, carrier frequency 35.825 MHz)		—	50.0	—	dB
Group delay ripple (p-p)	Δt				
32.40 ... 39.63 MHz		—	50	—	ns
Impedance at 35.825 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	2.4‖16.9	—	kΩ ‖ pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1.9‖ 4.8	—	kΩ ‖ pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

Maximum ratings

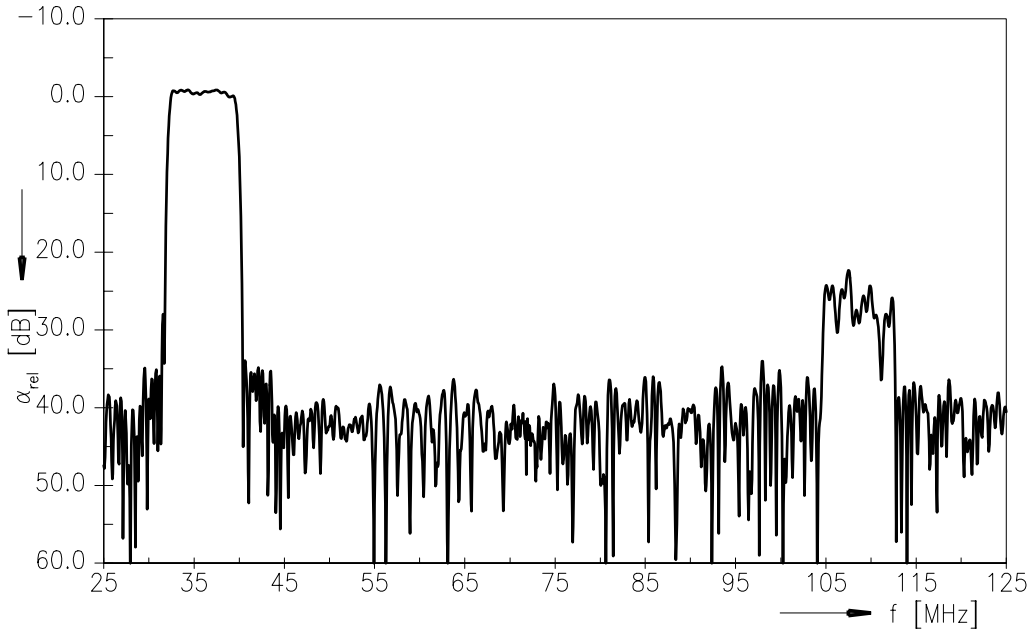
Operable temperature range	T	–25 / +65	˚C	
Storage temperature range	T_{stg}	–40 / +85	˚C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

Frequency response

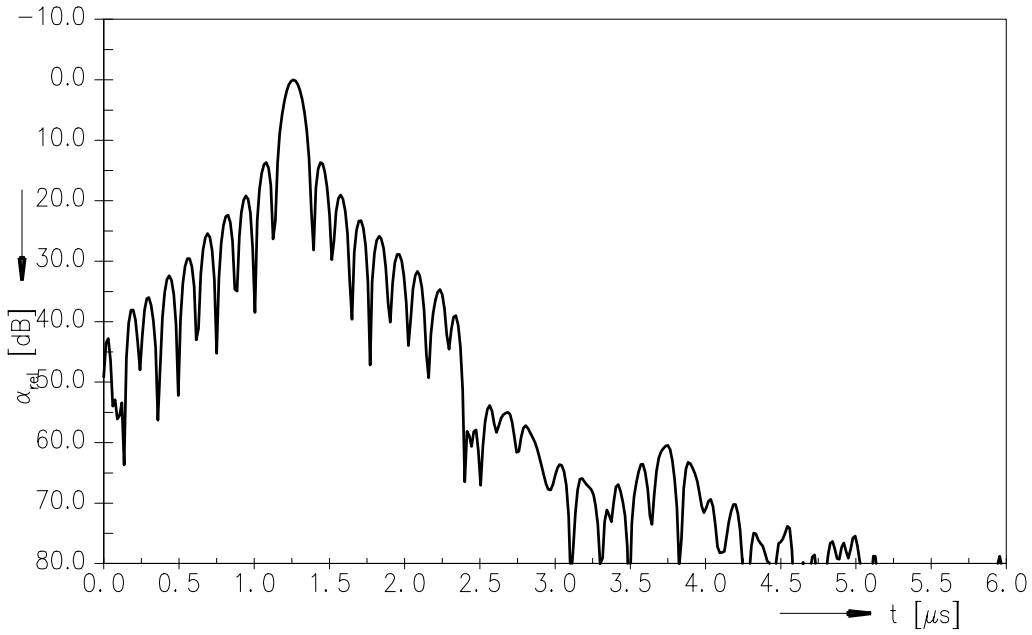




Frequency response



Time domain response



References

Type	X 6753 M
Ordering code	B39358-X6753-M100
Marking and package	C61157-A1-A15
Packaging	F61074-V8067-Z000
Date codes	L_1126
S-parameters	X6753M_NB.s4p
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

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