SAW multimedia filters

Series/Type: M3953M

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39458M3953M100		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.

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Data Sheet

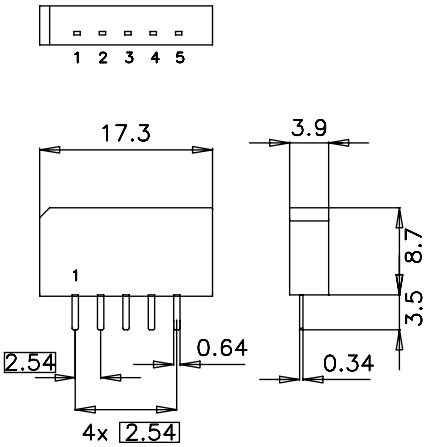
Application

- Standard: M/N
- TV IF filter with Nyquist slope and sound suppression
- High color carrier level
- Constant group delay



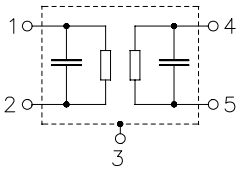
Features

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



Pin configuration

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



Data Sheet

Characteristics

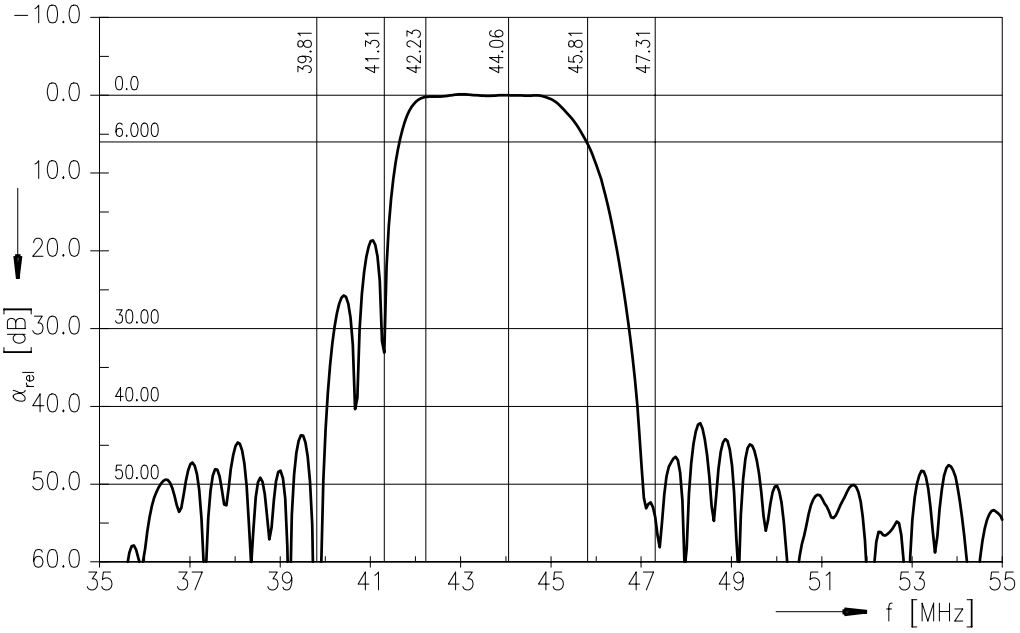
Reference temperature: T_A = 25 (45) ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

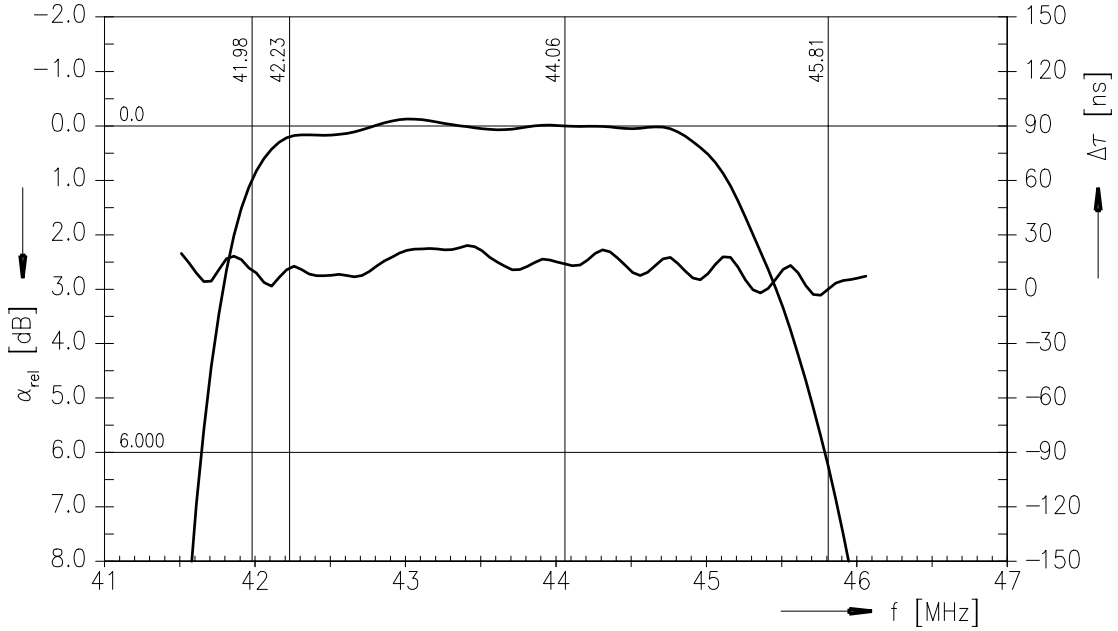
		min.	typ. @ 25 ˚C	max.	
Insertion attenuation	α				
Reference level for the following data 44.06 (44.00) MHz		11.2	12.7	14.2	dB
Relative attenuation	α_{rel}				
Picture carrier 45.81 (45.75) MHz		5.2	6.2	7.2	dB
Color carrier 42.23 (42.17) MHz		–0.5	0.2	0.9	dB
41.98 (41.92) MHz		0.2	0.9	1.6	dB
Sound carrier 41.31 (41.25) MHz		25.0	37.0	—	dB
Adj. picture carrier 39.81 (39.75) MHz		48.0	63.0	—	dB
Adj. sound carrier 47.31 (47.25) MHz		46.0	57.0	—	dB
Lower sidelobe 35.06 ...39.81(35.00 ... 39.75) MHz		40.0	45.0	—	dB
Upper sidelobe 47.31 ...55.06(47.25 ... 55.00) MHz		37.0	43.0	—	dB
Reflected wave signal suppression 1.3 µs ... 6.0 µs after main pulse (test pulse 250 ns, carrier frequency 44.06 MHz)		42.0	52.0	—	dB
Feedthrough signal suppression 1.3 µs ... 1.2 µs before main pulse (test pulse 250 ns, carrier frequency 44.06 MHz)		50.0	56.0	—	dB
Group delay ripple (p-p)	$\Delta\tau$	—	40	—	ns
Impedance at 44.06 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1.1 ‖ 15.6	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1.0 ‖ 4.0	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

Maximum ratings

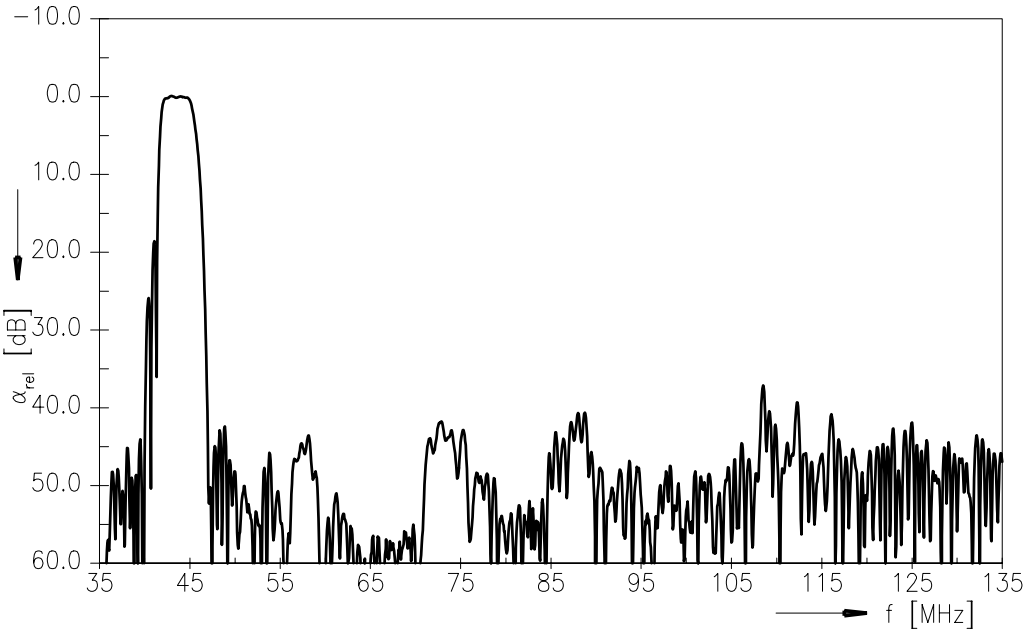
Operable temperature range	T	–25 / +65	˚C	
Storage temperature range	T_{stg}	–40 / +85	˚C	
DC voltage	V_{DC}	5	V	
AC voltage	V_{pp}	10	V	between any terminals

Frequency response

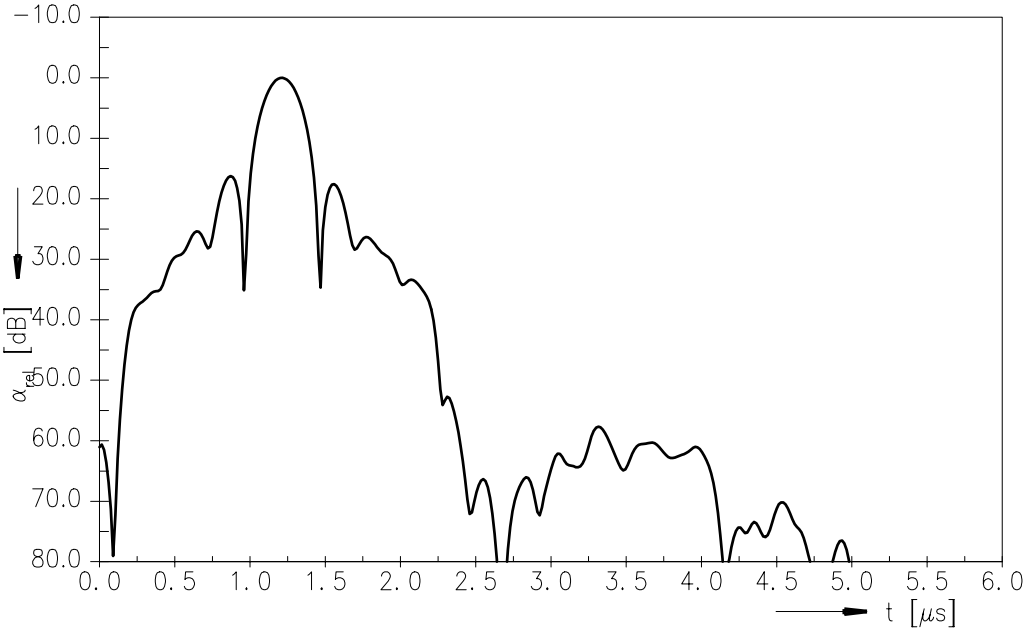




Frequency response



Time domain response



References

Type	M 3953 M
Ordering code	B39458-M3953-M100
Marking and package	C61157-A1-A15
Packaging	F61074-V8067-Z000
Date codes	L_1126
S-parameters	
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."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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