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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





# SAW multimedia filters

## Series/Type: X6865D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39361X6865N201		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](http://www.epcos.com/sales).

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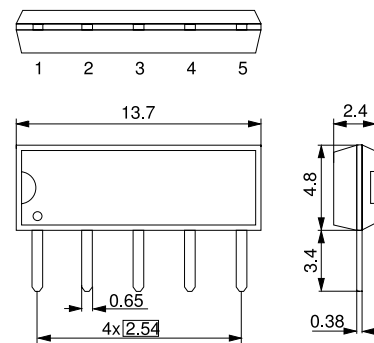
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**Data sheet**
**Application**

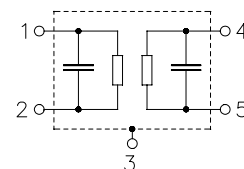
- Usable bandwidth 6.0 MHz


**Features**

- Duroplast package **SIP5D**
- Approximate weight 0.5 g
- Standard IC package
- RoHS compatible
- Tinned CuFe alloy terminals


**Pin configuration**

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



**SAW Components**
**X 6865 D**
**SAW bandpass filter**
**36.125 MHz**
**Data sheet**
**Characteristics**

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

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	36.125	—	MHz
(center between 3 dB points)					
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	36.13 MHz	16.1	17.6	19.1	dB
<b>Pass bandwidth</b>					
$\alpha_{\text{rel}} \leq 3\ \text{dB}$	$B_{3\text{dB}}$	5.8	6.0	6.2	MHz
$\alpha_{\text{rel}} \leq 30\ \text{dB}$	$B_{30\text{dB}}$	7.4	7.6	7.8	MHz
<b>Relative attenuation</b>					
	$\alpha_{\text{rel}}$				
	33.59 MHz	-1.1	0.1	1.3	dB
	38.65 MHz	-0.8	0.4	1.6	dB
	33.12 MHz	1.3	2.5	3.7	dB
	39.12 MHz	1.9	3.1	4.3	dB
Lower sidelobe					
	25.00 ... 32.12 MHz	38.0	44.0	—	dB
Upper sidelobe					
	40.12 ... 41.42 MHz	36.0	40.0	—	dB
	41.42 ... 45.00 MHz	38.0	45.0	—	dB
<b>Reflected wave signal suppression</b>					
1.3 $\mu\text{s}$ ... 6.0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 36.13 MHz)		42.0	52.0	—	dB
<b>Feedthrough signal suppression</b>					
1.3 $\mu\text{s}$ ... 1.2 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 36.13 MHz)		50.0	56.0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
	33.12 ... 39.12 MHz	—	40	—	ns
<b>Impedance at 36.13 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	2.2 $\parallel$ 15.3	—	k $\Omega$ $\parallel$ pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1.4 $\parallel$ 5.6	—	k $\Omega$ $\parallel$ pF
<b>Temperature coefficient of frequency</b>	$\text{TC}_f$	—	-72	—	ppm/K

**SAW Components**

**X 6865 D**

**SAW bandpass filter**

**36.125 MHz**

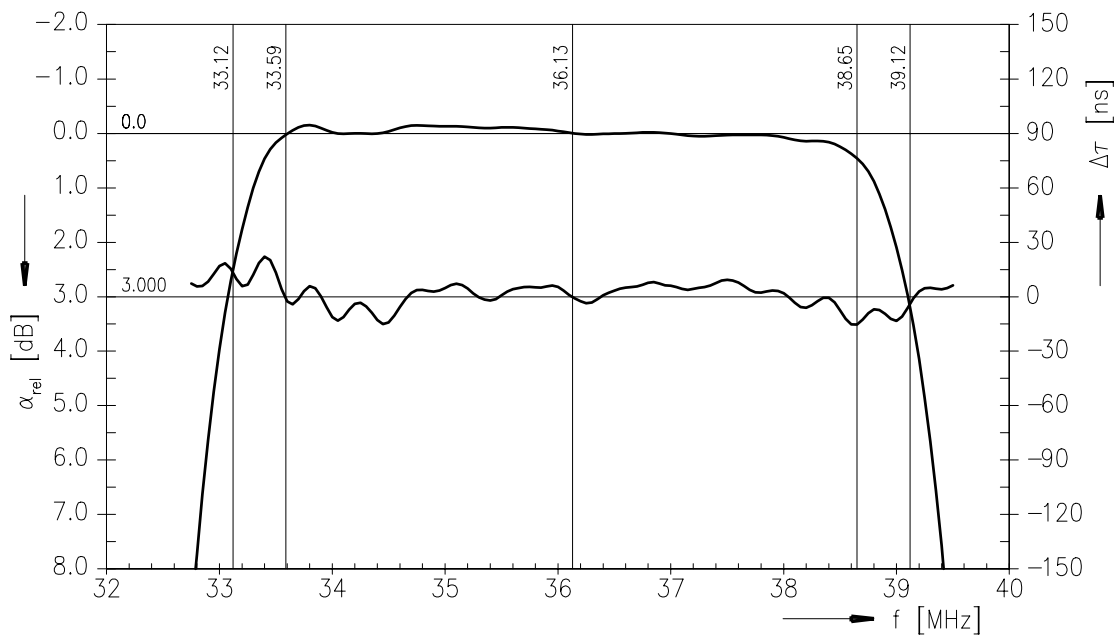
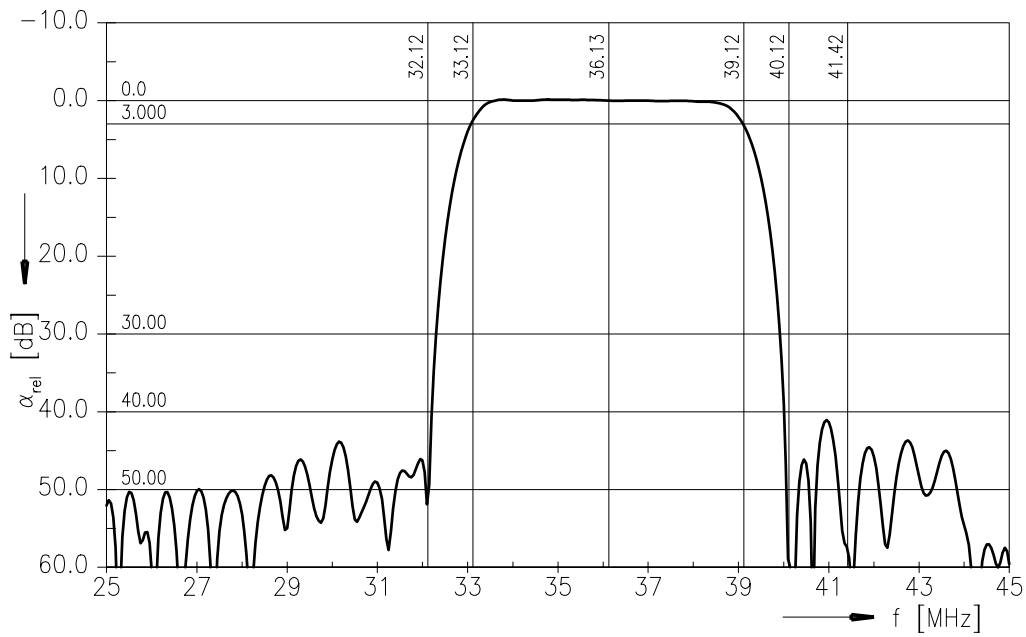
**Data sheet**

**Maximum ratings**

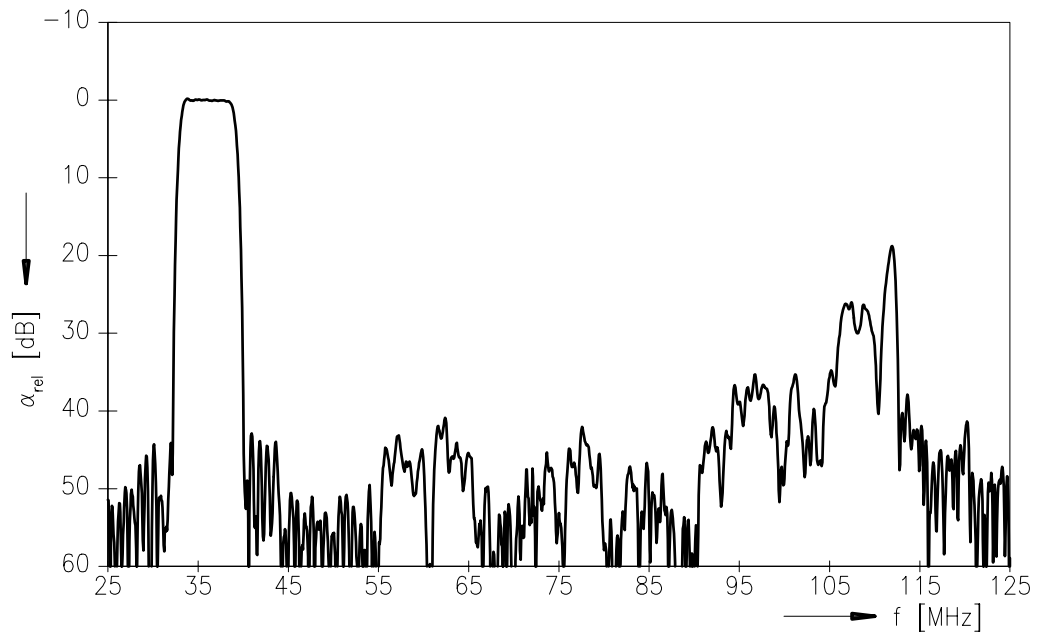
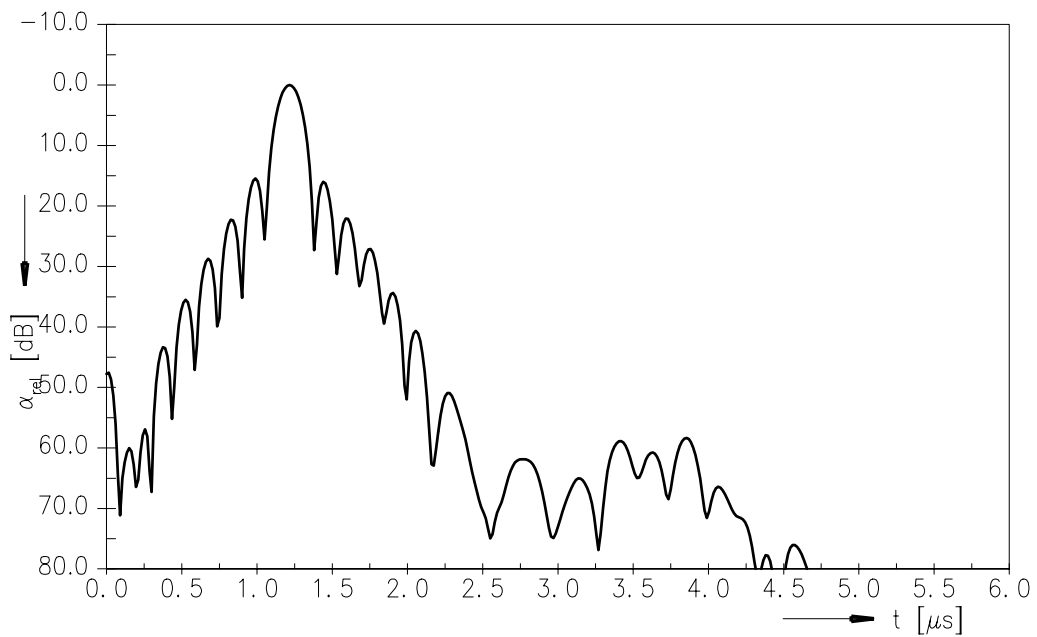
Operable temperature range	T	-25 / +65	°C	
Storage temperature range	T <sub>stg</sub>	-40 / +85	°C	
DC voltage	V <sub>DC</sub>	5	V	between any terminals
AC voltage	V <sub>pp</sub>	10	V	between any terminals

Data sheet

Frequency response



Please read *cautions and warnings* and *important notes* at the end of this document.

**Data sheet**
**Frequency response**

**Time domain response**


<b>SAW Components</b>	<b>X 6865 D</b>
<b>SAW bandpass filter</b>	<b>36.125 MHz</b>

Data sheet

References

<b>Type</b>	X 6865 D
<b>Ordering code</b>	B39361-X6865-N201
<b>Marking and package</b>	C61157-A1-A21
<b>Packaging</b>	F61074-V8049-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	X6865N_NB.s4p
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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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Please read *cautions and warnings and important notes* at the end of this document.



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