



# SAW Components

Data Sheet B3884

Data Sheet

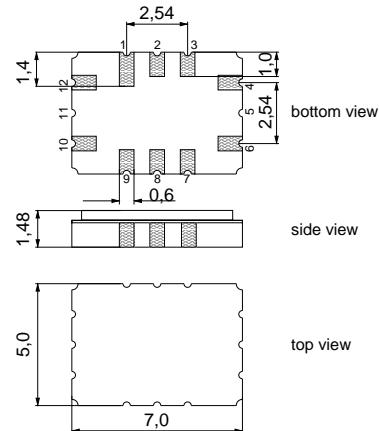


**Features**

- Low-loss filter
- Temperature stable
- Ceramic SMD package

**Terminals**

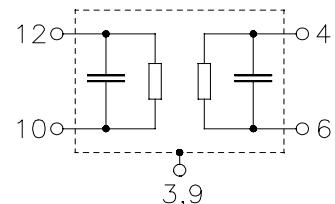
- Gold-plated



Dimensions in mm, approx. weight 0,2 g

**Pin configuration**

10	Input
12	Input ground or bal. input
4	Output
6	Output ground or bal. output
3, 9	Case - ground
1, 2, 7, 8	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B3884	B39441-B3884-H310	C61157-A7-A95	F61074-V8170-Z000

**Electrostatic Sensitive Device (ESD)**

**Maximum ratings**

Operable temperature range	$T$	$-40/+85$	$^{\circ}\text{C}$	
Storage temperature range	$T_{\text{stg}}$	$-40/+85$	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	0	V	
Source power	$P_s$	10	dBm	

**SAW Components****B3884****Low-Loss Filter****439,25 MHz****Data Sheet****Characteristics**

Operating temperature:

 $T = -25 \dots +85^\circ\text{C}$ 

Terminating source impedance:

 $Z_S = 75 \Omega$  and matching network

Terminating load impedance:

 $Z_L = 75 \Omega$  and matching network

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Nominal frequency</b>	$f_N$	—	439,25	—	MHz
<b>Insertion attenuation at <math>f_N</math> (<math>T=25^\circ\text{C}</math>)</b>	$\alpha_N$	6,5	8,3	9,5	dB
<b>Variation of insertion att. (rel. to <math>\alpha_N</math>)</b>	$\alpha_{\text{rel}}$	—	$\pm 0,7$	$\pm 0,9$	dB
<b>Frequency response</b>					
3 dB Lower frequency	$f_{L \text{ 3dB}}$	—	438,3	438,75	MHz
3 dB Upper frequency	$f_{U \text{ 3dB}}$	439,75	440,3	—	MHz
35 dB Lower frequency	$f_{L \text{ 35dB}}$	436,25	436,8	—	MHz
35 dB Upper frequency	$f_{U \text{ 35dB}}$	—	441,8	442,25	MHz
<b>Amplitude ripple (peak to adjacent valley)</b>					
$f_N \pm 100 \text{ kHz}$		—	0,1	0,5	dB
<b>Relative attenuation</b>					
$f_N - 200,0 \text{ MHz} \dots f_N - 10,0 \text{ MHz}$	$\alpha_{\text{rel}}$	40	50	—	dB
$f_N - 10,0 \text{ MHz} \dots f_N - 3,0 \text{ MHz}$		35	50	—	dB
$f_N + 3,0 \text{ MHz} \dots f_N + 10,0 \text{ MHz}$		35	48	—	dB
$f_N + 10,0 \text{ MHz} \dots f_N + 200,0 \text{ MHz}$		40	45	—	dB
<b>Temperature coefficient of frequency</b> <sup>1)</sup>	$TC_f$	—	- 0,036	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	—	45	—	°C

<sup>1)</sup> Temperature dependance of  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



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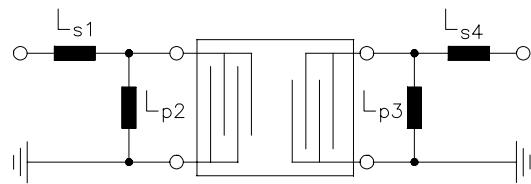
**Low-Loss Filter**

**439,25 MHz**

**Data Sheet**

**Matching network to 75  $\Omega$**

(Element values depend on PCB layout)



$$L_{s1} = 39 \text{ nH}$$

$$L_{p2} = 18 \text{ nH}$$

$$L_{p3} = 18 \text{ nH}$$

$$L_{s4} = 56 \text{ nH}$$



SAW Components

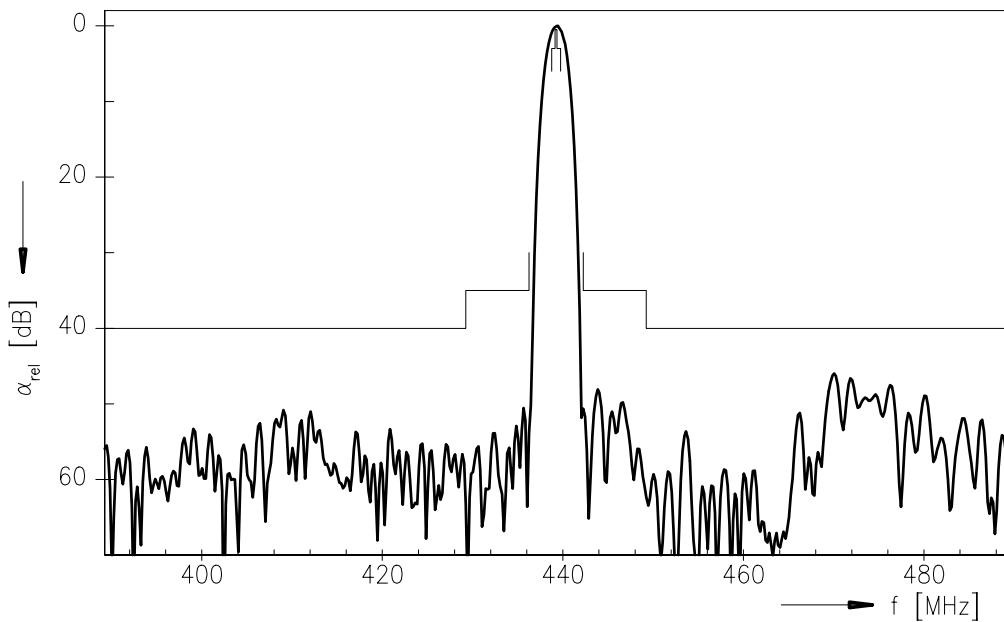
B3884

Low-Loss Filter

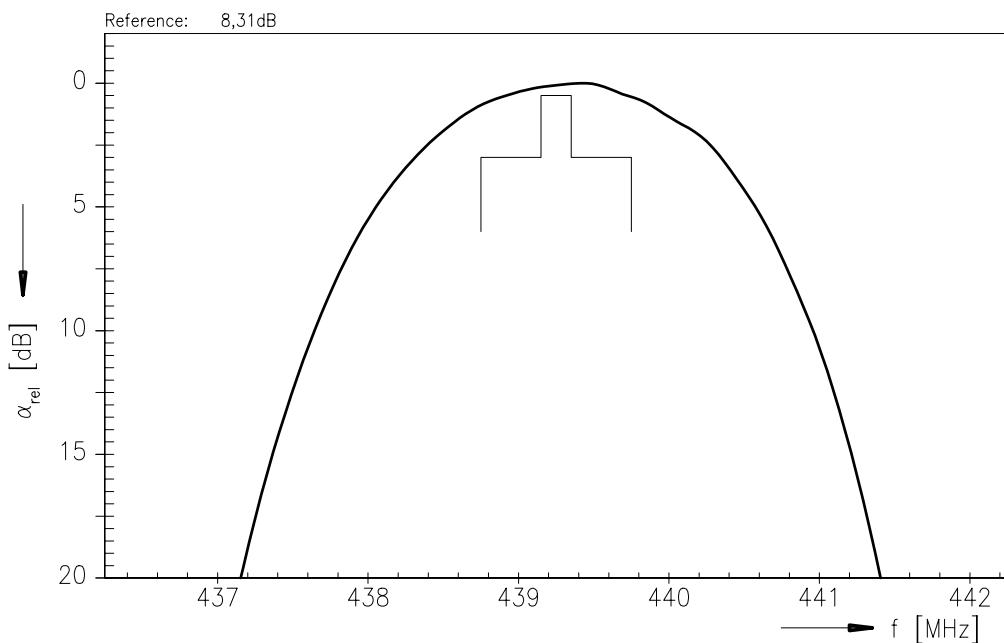
439,25 MHz

Data Sheet

### Normalized frequency response



### Normalized frequency response





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**B3884**

**Low-Loss Filter**

**439,25 MHz**

**Data Sheet**

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