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# SAW Components

Data Sheet B5025





**SAW Components**

**B5025**

**Low-Loss Filter**

**374,0 MHz**

**Data Sheet**

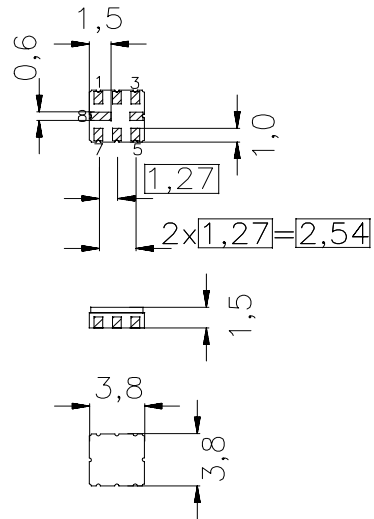
**Features**

- Low-loss IF filter
- Ceramic SMD package
- Balanced or unbalanced operation

**Terminals**

- Gold plated

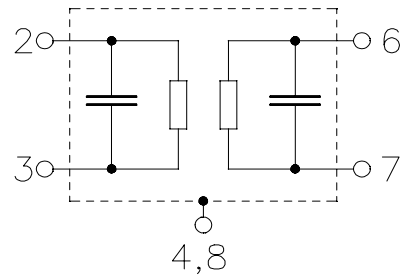
**Ceramic package QCC8B**



typ. Dimensions in mm, approx. weight 0,1 g

**Pin configuration**

- 3 Input
- 2 Input or input ground
- 7 Output
- 6 Output or output ground
- 4, 8 Case ground
- 1, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B5025	B39371-B5025-Z810	C61157-A7-A46	F61074-V8167-Z000

**Electrostatic Sensitive Device (ESD)**

**Maximum ratings**

Operable temperature range	$T$	-40 / +85	°C	Machine Model, 10 pulses
Storage temperature range	$T_{stg}$	-40 / +85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}^*$	100*	V	
Source power	$P_s$	10	dBm	

\*-acc. to JESD22-A115A(Machine Model), 10 negative & 10 positive pulses



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**Characteristics**

Operating temperature range:  $T = -10 \dots 80 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$  unbalanced and matching network.  
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$  unbalanced and matching network.

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Nominal frequency</b>	$f_N$	—	374,0	—	MHz
<b>Minimum insertion attenuation</b> (including matching network)	$\alpha_{\min}$	—	4,1	6,0	dB
<b>Bandwidth</b>	$B_{3\text{dB}}$				
$\alpha_{\text{rel}} \leq 3 \text{ dB}$		17	20,5	—	MHz
<b>Amplitude ripple (peak-to-peak)</b>	$\Delta\alpha$				
$f_N \pm 7 \text{ MHz}$		—	1,0	1,5	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
$f_N \pm 7 \text{ MHz}$		—	45	100	ns
<b>Relative attenuation (relative to <math>\alpha_{\min}</math>)</b>	$\alpha_{\text{rel}}$				
$f_N - 65,0 \text{ MHz} \dots f_N - 22,0 \text{ MHz}$		40	54	—	dB
$f_N - 22,0 \text{ MHz} \dots f_N - 16,5 \text{ MHz}$		35	41	—	dB
$f_N + 16,5 \text{ MHz} \dots f_N + 20,0 \text{ MHz}$		27	35	—	dB
$f_N + 20,0 \text{ MHz} \dots f_N + 30,0 \text{ MHz}$		35	37	—	dB
$f_N + 30,0 \text{ MHz} \dots f_N + 80,0 \text{ MHz}$		40	50	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-70	—	ppm/K

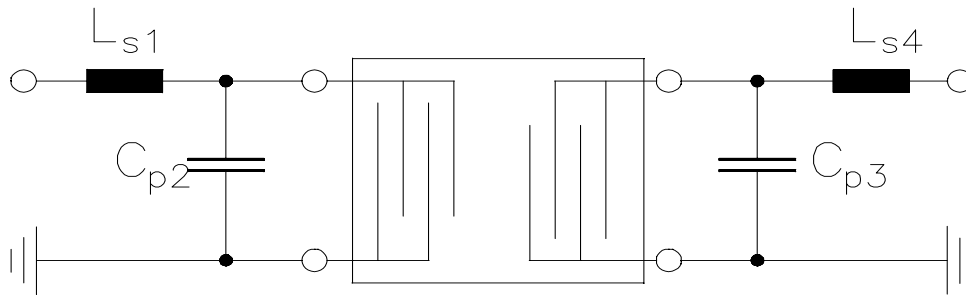


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Matching network to 50 Ω

(Element values depend upon PCB layout)



$L_{s1} = 39\text{nH}$   
 $C_{p2} = 1,2\text{pF}$

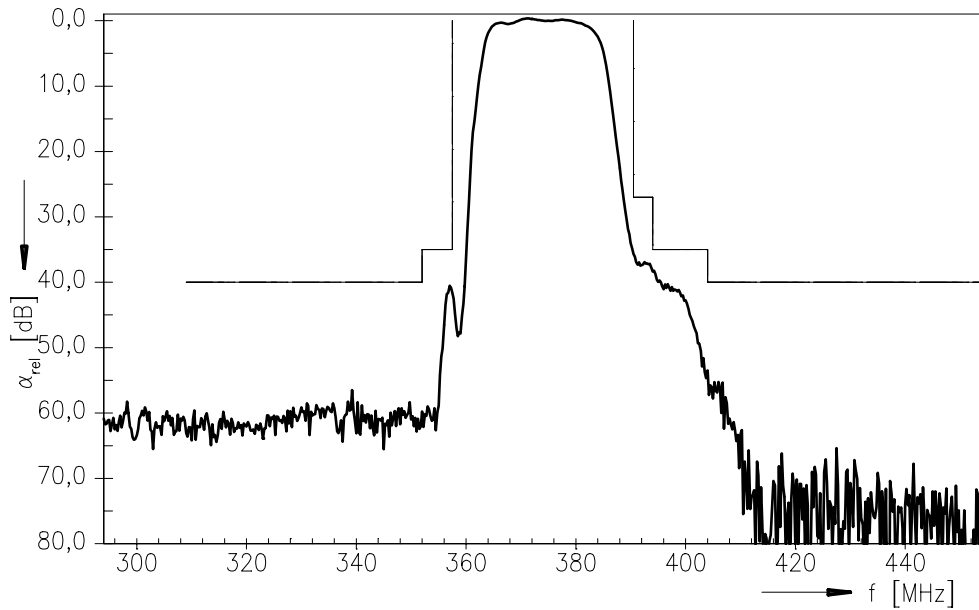
$C_{p3} = 1,0\text{pF}$   
 $L_{s4} = 47\text{nH}$



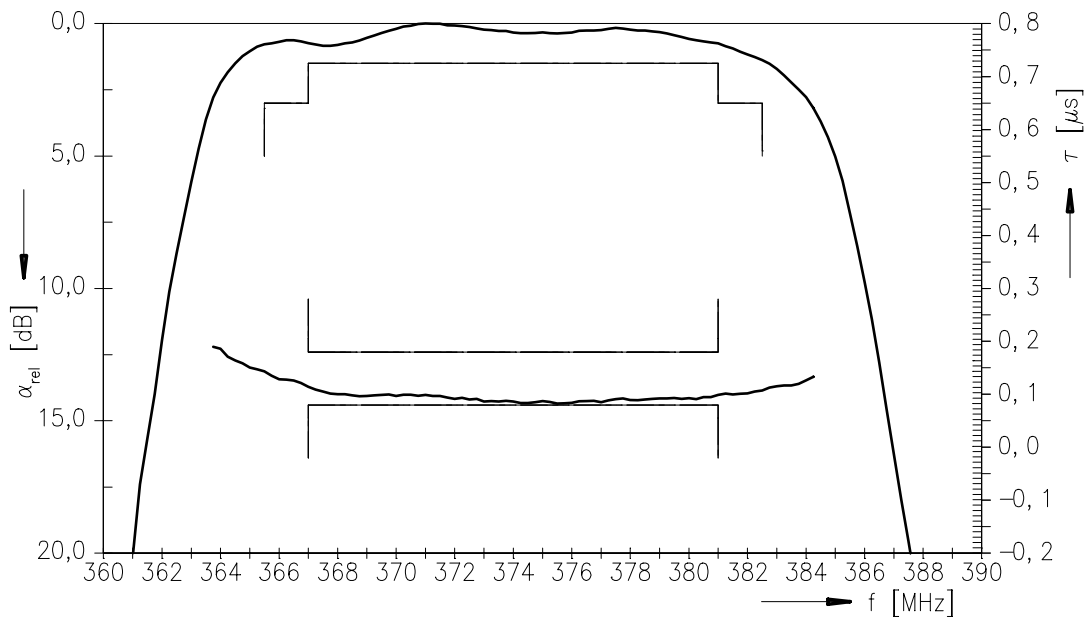
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Transfer function:



Transfer function (pass band):





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