



# SAW Components

Data Sheet B3823

Data Sheet

A large, stylized, and somewhat abstract graphic of the EPCOS logo. The word "EPCOS" is rendered in a bold, sans-serif font, with the letters appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The graphic is in grayscale and has a high-contrast, almost glowing appearance.



## SAW Components

B3823

## Low-Loss Filter

397,5 MHz

### Data Sheet

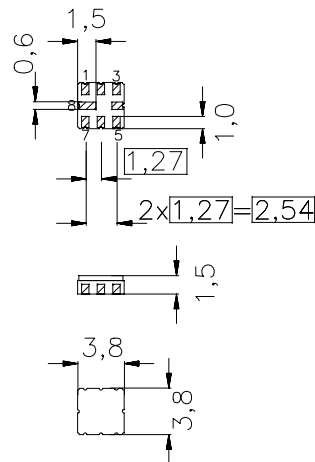
Ceramic package QCC8B

#### Features

- Low-loss filter (RX) for Trunked Radio
- Usable bandwidth 5 MHz
- No matching required for operation at 50  $\Omega$
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

#### Terminals

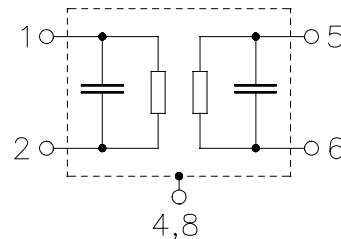
- Gold-plated



typ. Dimensions in mm, approx. weight 0,07 g

#### Pin configuration

1	Input
2	Input ground
5	Output
6	Output ground
3, 7	Ground
4, 8	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3823	B39401-B3823-Z810	C61157-A7-A46	F61074-V8037-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T_A$	-30 / +70	$^{\circ}\text{C}$	
Storage temperature range	$T_{\text{stg}}$	-40 / +85	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	0	V	
Source power	$P_s$	10	dBm	source impedance 50 $\Omega$



<b>SAW Components</b>	<b>B3823</b>
<b>Low-Loss Filter</b>	<b>397,5 MHz</b>

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### Characteristics

Operating temperature range:	$T_A = +15 \dots +35 \text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50 \text{ }\Omega$
Terminating load impedance:	$Z_L = 50 \text{ }\Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	397,5	—	MHz
<b>Maximum insertion attenuation</b> 395,0 MHz ... 400,0 MHz	$\alpha_{\max}$	—	2,7	3,5	dB
<b>Amplitude ripple (p-p)</b> 395,0 MHz ... 400,0 MHz	$\Delta\alpha$	—	0,6	1,4	dB
<b>Return loss (Input and Output)</b> 395,0 MHz ... 400,0 MHz		12,0	13,0	—	dB
<b>VSWR</b> 395,0 MHz ... 400,0 MHz		—	1,6:1	2,0:1	
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 355,0 MHz		40	60	—	dB
355,0 MHz ... 390,0 MHz		25	35	—	dB
435,0 MHz ... 885,0 MHz		40	50	—	dB
885,0 MHz ... 2000,0 MHz		20	35	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	– 36	—	ppm/K



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#### Characteristics

Operating temperature range:  $T_A = -30 \dots +70 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ }\Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ }\Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	397,5	—	MHz
<b>Maximum insertion attenuation</b> 395,0 MHz ... 400,0 MHz	$\alpha_{\max}$	—	3,0	3,5	dB
<b>Amplitude ripple (p-p)</b> 395,0 MHz ... 400,0 MHz	$\Delta\alpha$	—	0,8	2,0	dB
<b>Return loss (Input and Output)</b> 395,0 MHz ... 400,0 MHz		12,0	13,0	—	dB
<b>VSWR</b> 395,0 MHz ... 400,0 MHz		—	1,6:1	2,0:1	
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 355,0 MHz		40	60	—	dB
355,0 MHz ... 390,0 MHz		25	35	—	dB
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<b>Temperature coefficient of frequency</b>	$TC_f$	—	– 36	—	ppm/K



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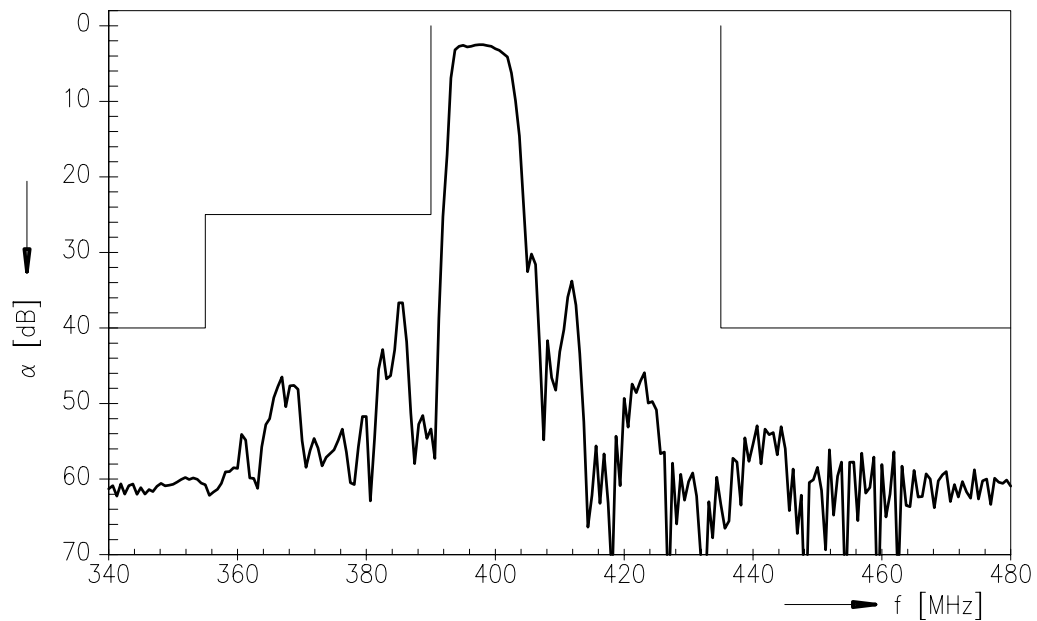
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Low-Loss Filter

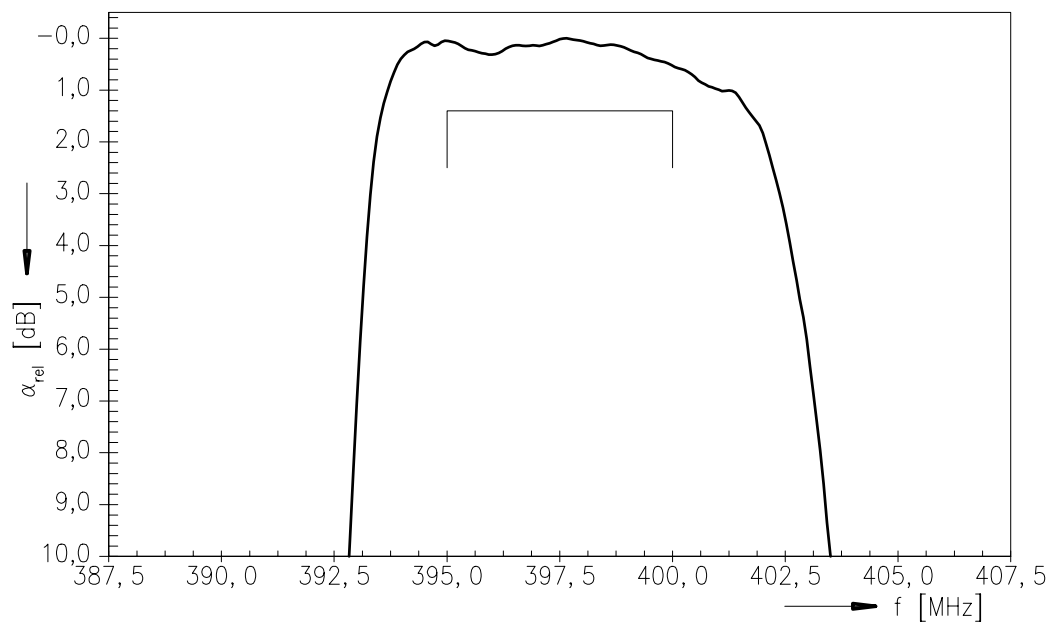
397,5 MHz

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Transfer function



Normalized transfer function (pass band; +15 °C ... +35 °C)





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**Low-Loss Filter**

**397,5 MHz**

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