## EPCOS

## SAW Components <br> Data Sheet B3823

## Data Sheet

## SAW Components

## 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 $0,07 \mathrm{~g}$


## 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 <br> according to | Packing <br> according to |
| :--- | :--- | :--- | :--- |
| B3823 | B39401-B3823-Z810 | C61157-A7-A46 | F61074-V8037-Z000 |

Electrostatic Sensitive Device (ESD)

## Maximum ratings

| Operable temperature range | $T_{\mathrm{A}}$ | $-30 /+70$ | ${ }^{\circ} \mathrm{C}$ |  |
| :--- | :--- | :---: | :---: | :--- |
| Storage temperature range | $T_{\mathrm{stg}}$ | $-40 /+85$ | ${ }^{\circ} \mathrm{C}$ |  |
| DC voltage | $V_{\mathrm{DC}}$ | 0 | V |  |
| Source power | $P_{\mathrm{S}}$ | 10 | dBm | source impedance $50 \Omega$ |

SAW Components

## Low-Loss Filter

## Data Sheet

## Characteristics

Operating temperature range:
Terminating source impedance:
Terminating load impedance:

$$
\begin{aligned}
& T_{\mathrm{A}}=+15 \ldots+35^{\circ} \mathrm{C} \\
& Z_{\mathrm{S}}=50 \Omega \\
& Z_{\mathrm{L}}=50 \Omega
\end{aligned}
$$

|  |  | min. | typ. | max. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal frequency | $f_{N}$ | - | 397,5 | - | MHz |
| Maximum insertion attenuation $395,0 \mathrm{MHz} . . .400,0 \mathrm{MHz}$ | $\alpha_{\text {max }}$ | - | 2,7 | 3,5 | dB |
| $\begin{aligned} & \text { Amplitude ripple }(p-p) \\ & \qquad 395,0 \mathrm{MHz} \ldots 400,0 \mathrm{MHz} \end{aligned}$ | $\Delta \alpha$ | - | 0,6 | 1,4 | dB |
| $\begin{aligned} & \text { Return loss (Input and Output) } \\ & \qquad 395,0 \mathrm{MHz} \ldots 400,0 \mathrm{MHz} \end{aligned}$ |  | 12,0 | 13,0 | - | dB |
| VSWR $395,0 \mathrm{MHz} \ldots 400,0 \mathrm{MHz}$ |  | - | 1,6:1 | 2,0:1 |  |
| Absolute attenuation | $\alpha_{\text {abs }}$ |  |  |  |  |
| 0,1 MHz ... 355,0 MHz |  | 40 | 60 | - | dB |
| $355,0 \mathrm{MHz} \ldots 390,0 \mathrm{MHz}$ |  | 25 | 35 | - | dB |
| $435,0 \mathrm{MHz} . . .885,0 \mathrm{MHz}$ |  | 40 | 50 | - | dB |
| 885,0 MHz ... 2000,0 MHz |  | 20 | 35 | - | dB |
| Temperature coefficient of frequency | TC ${ }_{\text {f }}$ | - | -36 | - | ppm/K |

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## Characteristics

Operating temperature range:
Terminating source impedance:
Terminating load impedance:
$T_{\mathrm{A}}=-30 \ldots+70^{\circ} \mathrm{C}$
$Z_{S}=50 \Omega$
$Z_{\mathrm{L}}=50 \Omega$

|  |  | min. | typ. | max. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal frequency | $f_{N}$ | - | 397,5 | - | MHz |
| Maximum insertion attenuation $395,0 \mathrm{MHz} . . .400,0 \mathrm{MHz}$ | $\alpha_{\text {max }}$ | - | 3,0 | 3,5 | dB |
| $\begin{aligned} & \text { Amplitude ripple }(p-p) \\ & \qquad 395,0 \mathrm{MHz} \ldots 400,0 \mathrm{MHz} \end{aligned}$ | $\Delta \alpha$ | - | 0,8 | 2,0 | dB |
| Return loss (Input and Output) $395,0 \mathrm{MHz} . . .400,0 \mathrm{MHz}$ |  | 12,0 | 13,0 | - | dB |
| VSWR $395,0 \mathrm{MHz} . .400,0 \mathrm{MHz}$ |  | - | 1,6:1 | 2,0:1 |  |
| Absolute attenuation $\begin{aligned} & 0,1 \mathrm{MHz} \ldots 355,0 \mathrm{MHz} \\ & 355,0 \mathrm{MHz} \ldots 390,0 \mathrm{MHz} \\ & 435,0 \mathrm{MHz} \ldots 885,0 \mathrm{MHz} \\ & 885,0 \mathrm{MHz} \ldots 2000,0 \mathrm{MHz} \end{aligned}$ | $\alpha_{\text {abs }}$ | $\begin{aligned} & 40 \\ & 25 \\ & 40 \\ & 20 \end{aligned}$ | $\begin{aligned} & 60 \\ & 35 \\ & 50 \\ & 35 \end{aligned}$ | $\begin{aligned} & - \\ & - \end{aligned}$ | $\begin{aligned} & \mathrm{dB} \\ & \mathrm{~dB} \\ & \mathrm{~dB} \\ & \mathrm{~dB} \end{aligned}$ |
| Temperature coefficient of frequency | $T C_{f}$ | - | -36 | - | ppm/K |

## Low-Loss Filter

Data Sheet
Transfer function


Normalized transfer function (pass band; +15 ${ }^{\circ} \mathrm{C} \ldots+35{ }^{\circ} \mathrm{C}$ )


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Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC IS PD
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