SAW Components

SAW RF filter

Short range devices

Series/type: B4301
Ordering code: B39921B4301F210
Date: December 01, 2010
Version: 2.0
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SAW RF filter

Data sheet

Application

- Low-loss RF filter for remote control receivers
- No matching network required for operation at 50 Ω

Features

- Package size 1.4 x 1.1 x 0.4 mm³
- Package code QCS5P
- RoHS compatible
- Approximate weight 0.003 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- AEC-Q200 qualified component family (operable temperature range –40˚C to +85˚C)
- Electrostatic Sensitive Device (ESD)

Pin configuration

- 1 Input
- 4 Output
- 2,3,5 to be grounded
SAW Components

SAW RF filter 915.00 MHz

Data sheet

Characteristics

Temperature range for specification: \( T = -40 \, ^\circ\text{C} \) to \( +85 \, ^\circ\text{C} \)
Terminating source impedance: \( Z_S = 50 \, \Omega \)
Terminating load impedance: \( Z_L = 50 \, \Omega \)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>min.</th>
<th>typ. @ 25 (^\circ\text{C})</th>
<th>max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency ( f_C )</td>
<td>—</td>
<td>915.00 MHz</td>
<td>—</td>
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<tr>
<td>Maximum insertion attenuation ( \alpha_{\text{max}} )</td>
<td>—</td>
<td>1.5 dB</td>
<td>2.5 dB</td>
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<tr>
<td>Amplitude ripple ( \Delta \alpha )</td>
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<td>0.9 dB</td>
<td>1.8 dB</td>
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<tr>
<td>Attenuation ( \alpha )</td>
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<td>42 dB</td>
<td>50 dB</td>
</tr>
<tr>
<td></td>
<td>40 dB</td>
<td>46 dB</td>
<td>43 dB</td>
</tr>
<tr>
<td></td>
<td>35 dB</td>
<td>43 dB</td>
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<td>35 dB</td>
<td>41 dB</td>
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Maximum ratings

<table>
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<tr>
<th>Operable temperature range ( T )</th>
<th>(-40/+85) (^\circ\text{C})</th>
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<tr>
<td>Storage temperature range ( T_{\text{stg}} )</td>
<td>(-40/+85) (^\circ\text{C})</td>
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<tr>
<td>DC voltage ( V_{\text{DC}} )</td>
<td>0 V</td>
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<tr>
<td>Source power ( P_S )</td>
<td>10 dBm</td>
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source impedance 50 \( \Omega \)

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

Transfer function (wideband)
# References

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<td>Date codes</td>
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<td>S-parameters</td>
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<td>defined as compatible with the following documents:</td>
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<td>Moldability</td>
<td>Before using in overmolding environment, please contact your EPCOS sales office.</td>
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<td>Matching coils</td>
<td>See Inductor pdf-catalog <a href="http://www.tdk.co.jp/tefe02/coil.htm#aname1">http://www.tdk.co.jp/tefe02/coil.htm#aname1</a> and Data Library for circuit simulation <a href="http://www.tdk.co.jp/etvcl/index.htm">http://www.tdk.co.jp/etvcl/index.htm</a></td>
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Published by EPCOS AG  
Surface Acoustic Wave Components Division  
P.O. Box 80 17 09, 81617 Munich, GERMANY  
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