EPCOS

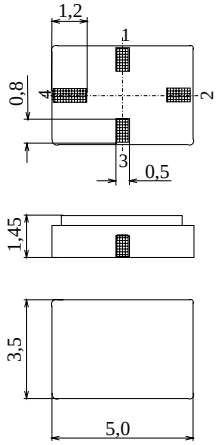
# SAW Components

*Data Sheet R882*

Ceramic package **QCC4A**

### Features

- 1-port resonator
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators
- Protection layer: Elpas



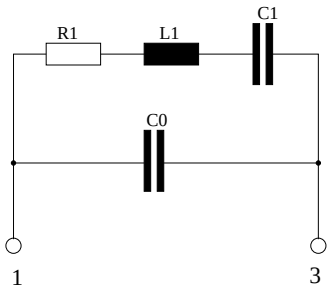

### Terminals

- Ni, gold plated

Dimensions in mm, approx. weight 0,1 g

### Pin configuration

| | |
|---|---|
| 1 | Input |
| 3 | Output, grounded in 1-port conf. |
| 2,4 | Ground (case) |




| Type | Ordering code | Marking and Package according to | Packing according to |
|---|---|---|---|
| R 882 | B39391-R 882-H210 | C61157-A7-A86 | F61074-V8120-Z000 |

**E**lectrostatic **S**ensitive **D**evice (**ESD**)

### Maximum ratings

| | | | | |
|---|---|---|---|---|
| Operable temperature range | $T_A$ | –40/+125 | ˚C | |
| Storage temperature range | $T_{stg}$ | –40/+125 | ˚C | |
| DC voltage | $V_{DC}$ | 12 | V | between any terminals |
| Source power | $P_s$ | 0 | dBm | |

**Data Sheet**

## Characteristics

Reference temperature: $T_A$ = 25 °C
Terminating source impedance: $Z_S$ = 50 Ω
Terminating load impedance: $Z_L$ = 50 Ω

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Center frequency** [1] | $f_c$ | 389,900 | 390,00 | 390,100 | MHz |
| **Minimum insertion attenuation** | $\alpha_{min}$ | — | 1,1 | 1,5 | dB |
| Unloaded quality factor | $Q_U$ | 8700 | 12000 | — | |
| **Ageing of $f_c$** | | — | — | –10/+50 | ppm |
| **Equivalent circuit elements** | | | | | |
| Motional capacitance | $C_1$ | — | 2,37 | — | fF |
| Motional inductance | $L_1$ | — | 70,27 | — | µH |
| Motional resistance | $R_1$ | — | 15 | 20 | Ω |
| Parallel capacitance [2] | $C_0$ | — | 2,5 | — | pF |
| **Temperature coefficient of frequency** [3] | $TC_f$ | — | –0,032 | — | ppm/K$^2$ |
| **Turnover temperature** | $T_0$ | 10 | — | 40 | °C |

[1] Center frequency is defined as maximum of the real part of the admittance

[2] If used in two port configuration (pin 1-input, pin 3-output) $C_0$ is reduced by approx. 0,3 pF.

[3] Temperature dependence of $f_c$: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

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This brochure replaces the previous edition.

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