



# SAW Components

Data Sheet R 734





Data Sheet

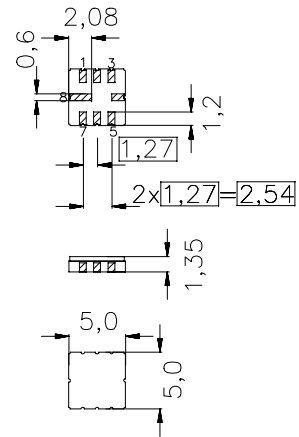
Ceramic package **QCC8C**

Features

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

Terminals

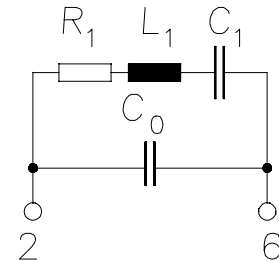
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

- |     |                                  |
|-----|----------------------------------|
| 2   | Input                            |
| 6   | Output, grounded in 1-port conf. |
| 4,8 | Ground (case)                    |
| 1,3 | float                            |
| 5,7 | float / ground                   |



| Type  | Ordering code     | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| R 734 | B39301-R 734-U310 | C61157-A7-A56                    | F61074-V8070-Z000    |

Electrostatic Sensitive Device (ESD)

Maximum ratings

|                            |           |          |     |                       |
|----------------------------|-----------|----------|-----|-----------------------|
| Operable temperature range | $T_A$     | -45/+120 | °C  | between any terminals |
| Storage temperature range  | $T_{stg}$ | -45/+120 | °C  |                       |
| DC voltage                 | $V_{DC}$  | 12       | V   |                       |
| Source power               | $P_s$     | 0        | dBm |                       |



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Characteristics

Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating Load impedance:  $Z_L = 50\ \Omega$

|   |                 | min.    | typ.    | max.     |                    |
|---|-----------------|---------|---------|----------|--------------------|
| <b>Center frequency</b> <sup>1)</sup>                     | $f_c$           | 304,275 | 304,325 | 304,375  | MHz                |
| <b>Minimum insertion attenuation</b>                      | $\alpha_{\min}$ | —       | 1,4     | 1,7      | dB                 |
| Unloaded quality factor                                   | $Q_U$           | 8000    | 13700   | —        |                    |
| <b>Ageing of <math>f_c</math></b>                         |                 | —       | —       | $\pm 50$ | ppm                |
| <b>Equivalent circuit elements</b>                        |                 |         |         |          |                    |
| Motional capacitance                                      | $C_1$           | —       | 2,13    | —        | fF                 |
| Motional inductance                                       | $L_1$           | —       | 128,40  | —        | $\mu\text{H}$      |
| Motional resistance                                       | $R_1$           | —       | 18      | 28       | $\Omega$           |
| Parallel capacitance <sup>2)</sup>                        | $C_0$           | —       | 3,2     | —        | pF                 |
| <b>Temperature coefficient of frequency</b> <sup>3)</sup> | $TC_f$          | —       | -0,03   | —        | ppm/K <sup>2</sup> |
| <b>Turnover temperature</b>                               | $T_0$           | 15      | —       | 45       | $^{\circ}\text{C}$ |

<sup>1)</sup> Center frequency is defined as maximum of the real part of the admittance

<sup>2)</sup> If used in two port configuration (pin 2-input, pin 6-output)  $C_0$  is reduced by approx. 0,3 pF.

<sup>3)</sup>Temperature dependence of  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



**SAW Components**

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**Resonator**

**304,325 MHz**

**Data Sheet**

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