

SAW Components

Data Sheet R 801





| SAW Components | R 801 |
|----------------|------------|
| Resonator | 315,00 MHz |

Data Sheet

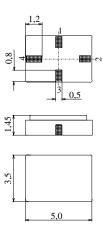
Ceramic package QCC4A

Features

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

Terminals

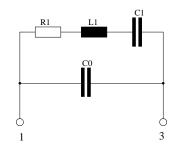
■ Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

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



| Туре | Ordering code | Marking and Package | Packing | |
|-------|-------------------|---------------------|-------------------|--|
| | | according to | according to | |
| R 801 | B39321-R 801-H210 | C61157-A7-A86 | F61074-V8120-Z000 | |

Electrostatic Sensitive Device (ESD)

Maximum ratings

| Operable temperature range | T_{A} | -40/+125 | °C | |
|----------------------------|---------------|----------|-----|-----------------------|
| Storage temperature range | $T_{\rm stg}$ | -40/+125 | °C | |
| DC voltage | $V_{\rm DC}$ | 12 | V | between any terminals |
| Source power | $P_{\rm s}$ | 0 | dBm | |



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Characteristics

 $\begin{array}{ll} \mbox{Reference temperature:} & T_{\mbox{A}} = 25 \ ^{\circ}\mbox{C} \\ \mbox{Terminating source impedance:} & Z_{\mbox{S}} = 50 \ \Omega \\ \mbox{Terminating load impedance:} & Z_{\mbox{L}} = 50 \ \Omega \\ \end{array}$

| | | min. | typ. | max. | |
|---|-----------------|---------|--------|---------|--------------------|
| Center frequency 1) | f _c | 314,925 | 315,00 | 315,075 | MHz |
| Minimum insertion attenuation | α_{min} | _ | 1,3 | 1,8 | dB |
| Unloaded quality factor | Q_{U} | 11000 | 17000 | _ | |
| Ageing of f_c | | _ | _ | -10/+50 | ppm |
| Equivalent circuit elements | | | | | |
| Motional capacitance | C_1 | _ | 1,74 | _ | fF |
| Motional inductance | L_1 | _ | 146,73 | _ | μH |
| Motional resistance | R_1 | _ | 16 | 24 | Ω |
| Parallel capacitance 2) | C_0 | _ | 2,7 | _ | pF |
| Temperature coefficient of frequency 3) | TC _f | _ | -0,032 | _ | ppm/K ² |
| Turnover temperature | T_0 | 10 | _ | 30 | °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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