

# SAW Components

Data Sheet R 854





SAW Components R 854
Resonator 314,50 MHz

**Data Sheet** 

SMD

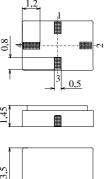
Ceramic package QCC4A

# **Features**

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

#### **Terminals**

■ Ni, gold plated

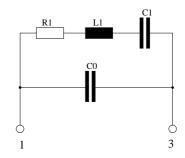




Dimensions in mm, approx. weight 0,1 g

# 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		
R854	B39311-R854-H210	C61157-A7-A86	F61074-V8175-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	$P_{s}$	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)	$f_{\rm C}$	314,45	314,50	314,55	MHz
Minimum insertion attenuation	$\alpha_{min}$	_	1,3	1,6	dB
Unloaded quality factor	$Q_{U}$	9700	13200	_	
Ageing of f <sub>c</sub>		_	_	-10/+50	ppm
Equivalent circuit elements					
Motional capacitance	$C_1$	_	2,37	_	fF
Motional inductance	$L_1$	_	107,99	_	μΗ
Motional resistance	$R_1$	_	16	22	Ω
Parallel capacitance 2)	$C_0$	_	3,0	_	pF
Temperature coefficient of frequency 3)	TC <sub>f</sub>	_	-0,032	_	ppm/K <sup>2</sup>
Turnover temperature	$T_0$	15	_	35	°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 1-input, pin 3-output)  $C_0$  is reduced by approx. 0,3 pF.

<sup>&</sup>lt;sup>3)</sup>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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