



# SAW Components

Preliminary Data R856

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid pattern. Overlaid on the globe is the word "EPCOS" in a large, white, sans-serif font, which is slightly tilted and appears to be part of a larger, repeating pattern.



<b>SAW Components</b>	<b>R856</b>
<b>Resonator</b>	<b>434,15 MHz</b>

## Preliminary Data

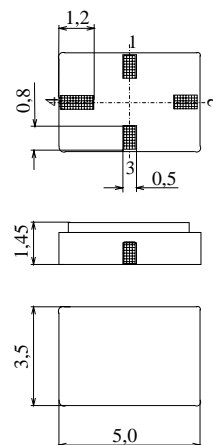
Ceramic package **QCC4A**

### Features

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

### Terminals

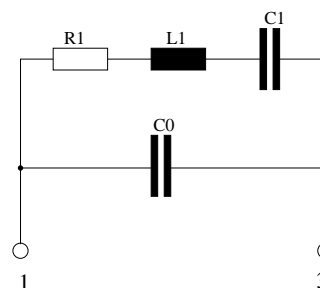
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

### Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
R856	B39431-R 856-H210	C61157-A7-A86	F61074-V8175-Z000

Electrostatic Sensitive Device (ESD)

### Maximum ratings

Operable temperature range	$T_A$	-40/+125	°C	between any terminals
Storage temperature range	$T_{stg}$	-40/+125	°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>	$f_c$	434,10	434,15	434,20	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	1,2	1,5	dB
Unloaded quality factor	$Q_U$	8000	11700	—	
<b>Ageing of <math>f_c</math></b>		—	—	-10/+50	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_1$	—	1,92	—	fF
Motional inductance	$L_1$	—	70,0	—	$\mu\text{H}$
Motional resistance	$R_1$	—	14	19	$\Omega$
Parallel capacitance <sup>2)</sup>	$C_0$	—	2,2	—	pF
<b>Temperature coefficient of frequency</b> <sup>3)</sup>	$TC_f$	—	-0,032	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	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>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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