



# SAW Components

Data Sheet R 807

Data Sheet

A large, stylized, 3D-rendered "EPCOS" logo in white, tilted diagonally. The background is dark and features a faint, glowing globe with latitude and longitude lines, and some abstract, curved, metallic-looking shapes.



SAW Components	R 807
Resonator	303,825 MHz
Data Sheet	SMD

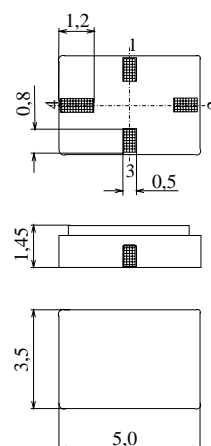
Ceramic package **QCC4A**

#### Features

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

#### Terminals

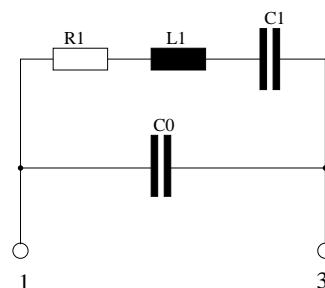
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

#### Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
R807	B39301-R807-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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## Resonator

303,825 MHz

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#### Characteristics

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

		min.	typ.	max.	
<b>Center frequency</b> <sup>1)</sup>	$f_c$	303,750	303,825	303,900	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	1,2	1,6	dB
Unloaded quality factor	$Q_U$	12500	17300	—	
<b>Ageing of <math>f_c</math></b>		—	—	-10/+50	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_1$	—	1,95	—	fF
Motional inductance	$L_1$	—	140,72	—	$\mu$ H
Motional resistance	$R_1$	—	15	21	$\Omega$
Parallel capacitance <sup>2)</sup>	$C_0$	—	2,5	—	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  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



SAW Components		R 807
Resonator		303,825 MHz
Data Sheet		The SMD logo is the letters "SMD" in a bold, italicized, sans-serif font, with a horizontal line through the middle of the letters.

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