



SAW Components

Data Sheet R 850

Data Sheet

A large, stylized, 3D graphic of the EPCOS logo. The letters "EPCOS" are rendered in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The graphic is in grayscale and has a metallic, reflective appearance.



SAW Components

R 850

Resonator

433,94 MHz

Data Sheet

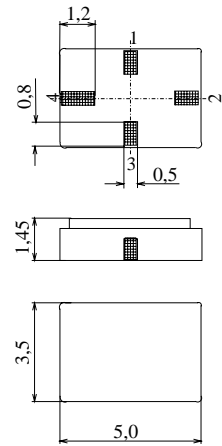
Ceramic package **QCC4A**

Features

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

Terminals

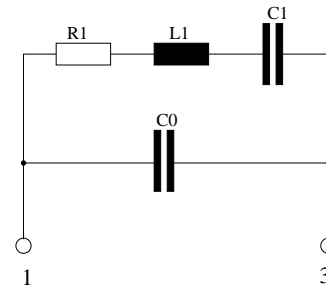
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
R 850	B39431-R 850-H210	C61157-A7-A86	F61074-V8120-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.	
Center frequency ¹⁾	f_c	433,89	433,94	433,99	MHz
Minimum insertion attenuation	α_{\min}	—	1,2	1,5	dB
Unloaded quality factor	Q_U	8000	13800	—	
Ageing of f_c		—	—	-10/+50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	2,066	—	fF
Motional inductance	L_1	—	65,11	—	μH
Motional resistance	R_1	—	13	18	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	15	25	35	°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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This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.