



SAW Components

Data Sheet R901

Data Sheet

An abstract, grayscale background graphic featuring a globe with a grid of latitude and longitude lines. Overlaid on the globe is a large, stylized, 3D-effect word "EPCOS" in a light gray color. The word is tilted and appears to be floating or emerging from the globe. The overall image has a soft, ethereal quality with some light flares and a dark, smoky background.

EPCOS



SAW Components

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Resonator

315,00 MHz

Data Sheet

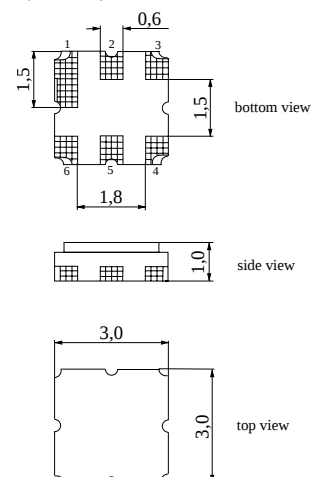
Features

- 1-port resonator
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators
- Hermetically sealed ceramic package
- Protection layer: Elpas
- AEC-Q200 qualified components family
- Compliant to EU RoHS Directive (2002/95/EC)
- Lead free soldering compatible with J - STD20C

Terminals

- Ni, gold plated

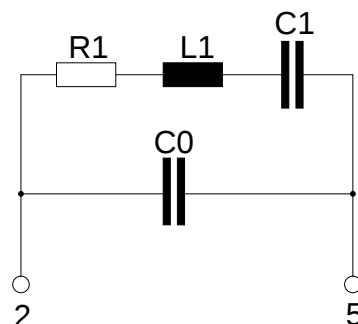
Ceramic package



Dimensions in mm, approx. weight 0,037 g

Pin configuration

- | | |
|---------|----------------------------------|
| 2 | Input |
| 5 | Output, grounded in 1-port conf. |
| 1,3,4,6 | Ground (case) |



Type	Ordering code	Marking and Package according to	Packing according to
R901	B39321-R 901-H110	C61157-A7-A143	F61074-V8168-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	314,925	315,000	315,075	MHz
Minimum insertion attenuation	$\alpha_{\min}$	—	1,5	1,9	dB
Unloaded quality factor	Q_U	7600	11000	—	
Ageing of f_c		—	—	-50/+50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	2,268	—	fF
Motional inductance	L_1	—	112,5	—	μH
Motional resistance	R_1	—	20	28	Ω
Parallel capacitance ²⁾	C_0	—	3,30	—	pF
Temperature coefficient of frequency ³⁾	TC_f	—	-0,032	—	ppm/K ²
Turnover temperature	T_0	15	—	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.

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