

# SAW Components

Data Sheet R900





SAW Components R900
Resonator 433,92 MHz

**Data Sheet** 



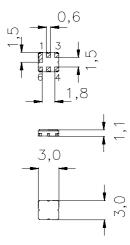
Ceramic package **DCC6C** 

### **Features**

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

### **Terminals**

■ Ni, gold plated



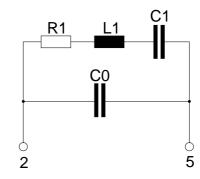
Dimensions in mm, approx. weight 0,037 g

# Pin configuration

2 Input

5 Output, grounded in 1-port conf.

1, 3, 4, 6 Ground (case)



Туре	Ordering code	Marking and Package	Packing		
		according to	according to		
R900	B39431-R 900-U410	C61157-A7-A67	F61074-V8168-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)	$f_{\rm c}$	433,845	433,920	433,995	MHz
Minimum insertion attenuation	$lpha_{min}$	_	1,4	1,9	dB
Unloaded quality factor	$Q_{U}$	8300	12000	_	
Ageing of $f_{\rm c}$		_	_	-50/+50	ppm
Equivalent circuit elements					
Motional capacitance	$C_1$	_	1,685	_	fF
Motional inductance	$L_1$	_	79,82	_	μΗ
Motional resistance	$R_1$	_	18	26	Ω
Parallel capacitance 2)	$C_0$	_	2,3	_	pF
Temperature coefficient of frequency 3)	TC <sub>f</sub>	_	-0,032	_	ppm/K <sup>2</sup>
Turnover temperature	$T_0$	20	_	50	°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 2-input, pin 5-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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