

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









# SAW Components

Data Sheet R904





SAW Components R904
Resonator 433,42 MHz

**Data Sheet** 

## 

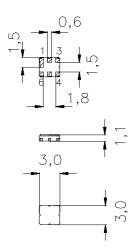
# Ceramic package **DCC6C**

#### **Features**

- 1-port resonator
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators
- Protection layer: ELPAS
- AEC-Q200 qualified component family
- Compliant to EU RoHs Directive (2002/95/EC)

### **Terminals**

■ Ni, gold plated



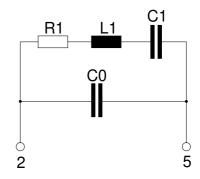
Dimensions in mm, approx. weight 0,037 g

# 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		
R904	B39431-R 904-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	-



SAW Components R904

Resonator 433,42 MHz

Data Sheet

**Characteristics** 

Reference temperature:  $T_{\rm A}=25\,^{\circ}{\rm C}$ Terminating source impedance:  $Z_{\rm S}=50\,\Omega$ Terminating load impedance:  $Z_{\rm L}=50\,\Omega$ 

		min.	typ.	max.	
Center frequency 1)	f <sub>c</sub>	433,345	433,42	433,495	MHz
Minimum insertion attenuation	$\alpha_{min}$	_	1,4	_	dB
Unloaded quality factor	$Q_{U}$	8300	11600	_	
Ageing of $f_{\rm c}$		_	_	-50/+50	ppm
Equivalent circuit elements					
Motional capacitance	$C_1$	_	1,76	_	fF
Motional inductance	$L_1$	_	76,7	_	μΗ
Motional resistance	$R_1$	_	18	25	Ω
Parallel capacitance 2)	$C_0$	_	2,4	_	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  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$ 



Resonator R904

Resonator 433,42 MHz

Data Sheet

# Published by EPCOS AG Surface Acoustic Wave Components Division, SAW CE AE P.O. Box 80 17 09, 81617 Munich, GERMANY

©.EPCOS AG 2005. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

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.