

## **SAW Components**

### SAW resonator

Short range devices

Series/type: R 961

Ordering code: B39321R 961H110

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SAW Components R 961

SAW resonator 315.00 MHz

**Data sheet** 



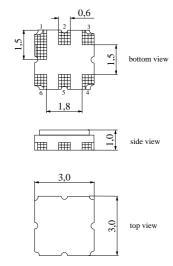
#### **Application**

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



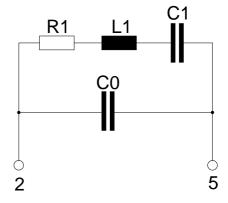
#### **Features**

- Package size 3.0 x 3.0 x 1.0 mm<sup>3</sup>
- Package code DCC6E
- RoHS compatible
- Approximate weight 0.037 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Lead free soldering compatible with J STD20C
- Passivation layer Elpas
- AEC-Q200 qualified component family
- Electrostactic Sensitive Device (ESD)



#### Pin configuration

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





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**Characteristics** 

 $\begin{array}{ll} \mathsf{T_A} &= 25\ ^\circ\mathsf{C} \\ \mathsf{Z_S} &= 50\ \Omega \\ \mathsf{Z_L} &= 50\ \Omega \end{array}$ Reference temperature: Terminating source impedance: Terminating load impedance:

		min.	typ.	max.	
Center frequency <sup>1)</sup>	f <sub>C</sub>	314.95	315.00	315.05	MHz
Minimum insertion attenuation	$\alpha_{\text{min}}$	_	1.4	1.9	dB
Unloaded quality factor	$Q_U$	7500	10700		
Ageing of f <sub>C</sub>		_	_	-50/+50	ppm
Equivalent circuit elements					
Motional capacitance	$C_1$	_	2.47	_	fF
Motional inductance	$L_1$	_	103.6	_	μΗ
Motional resistance	$R_1$	_	19	27	Ω
Parallel capacitance <sup>2)</sup>	$C_0$	_	3.2	_	pF
Temperature coefficient of frequency <sup>3</sup>	) TC <sub>f</sub>	_	-0.032	_	ppm/K <sup>2</sup>
Turnover temperature	$T_0$	15	_	35	°C

#### **Maximum ratings**

Operable temperature range	Т	-40/+125	°C
Storage temperature range	$T_{stg}$	-40/+125	°C
DC voltage	$V_{DC}$	12	V
Source power	$P_S$	0	dBm

<sup>1)</sup> 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 +  $T_0$ C) (1 +  $T_0$ C) (2)



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#### References

Туре	R 961
Ordering code	B39321R 961H110
Marking and package	C61157-A7-A143
Packaging	F61074-V8168-Z000
Date codes	L_1126
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents:  "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

For further information please contact your local EPCOS sales office or visit our webpage at  $\underline{www.epcos.com}$ .

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