



SAW Components

SAW resonator

Short range devices

Series/type:	R 958
Ordering code:	B39871R 958H110
Date:	May 04, 2009
Version:	2.1



SAW Components

R 958

SAW resonator

868.35 MHz

Preliminary data



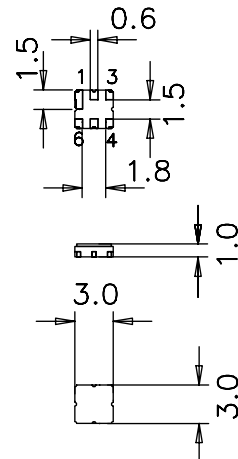
Application

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



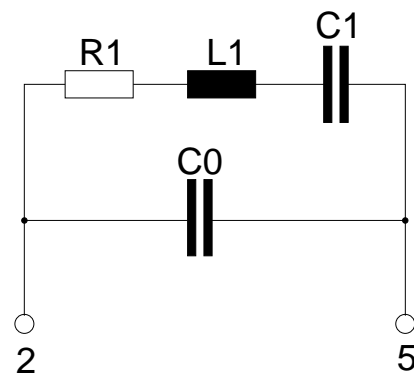
Features

- Package size 3.0 x 3.0 x 1.0 mm³
- 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
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

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





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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 frequency¹⁾	f_C	868.250	868.350	868.450	MHz
Minimum insertion attenuation	α_{\min}	—	1.3	1.8	dB
Unloaded quality factor	Q_U	5000	7500	—	
Ageing of f_C		—	—	−50/+50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	1.53	—	fF
Motional inductance	L_1	—	22.0	—	μH
Motional resistance	R_1	—	16	24	Ω
Parallel capacitance ²⁾	C_0	—	2.0	—	pF
Temperature coefficient of frequency³⁾	TC_f	—	−0.032	—	ppm/K ²
Turnover temperature	T_0	25	—	45	°C

¹⁾ Center frequency is defined as maximum of the real part of the admittance.

²⁾ If used in two port configuration (pin 2 - input, pin 5 - output) C_0 is reduced by approx. 0.3 pF.

³⁾ Temperature dependence of f_C : $f_C(T_A) = f_C(T_0) (1 + TC_f (T_A - T_0)^2)$

Maximum ratings

Operable temperature range	T	−45/+125	°C	
Storage temperature range	T_{stg}	−45/+125	°C	
DC voltage	V_{DC}	12	V	
Source power	P_S	0	dBm	

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**References**

Type	R 958
Ordering code	B39871R 958H110
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 maxi- mum 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 www.epcos.com .

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Please read *cautions and warnings and important notes* at the end of this document.



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