



SAW Components

SAW resonator

Short range devices

Series/type:	R2711
Ordering code:	B39871R2711U310
Date:	May 22, 2009
Version:	2.0

Data sheet



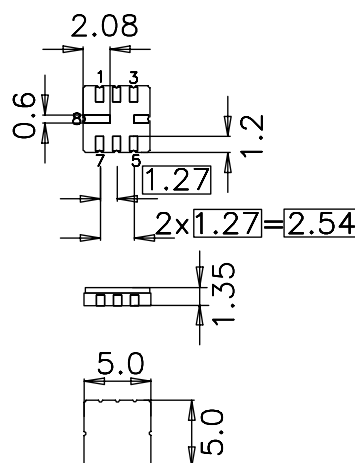
Application

- 2-port resonator
- nominal 180°- phase at resonance
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators



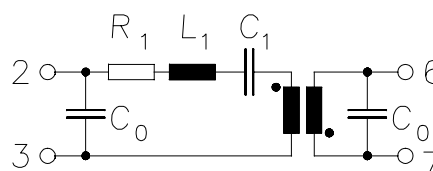
Features

- Package size 5.0 x 5.0 x 1.35 mm³
- Package code QCC8C
- RoHS compatible
- Approximate weight 0.1 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Protection layer Protec
- AEC-Q200 qualified component family
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

2	Input / Output
6	Output / Input
3	Ground (Input / Output)
7	Ground (Output / Input)
4,8	Ground (case)
1,5	Ground





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868.35 MHz

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Characteristics

Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
Center frequency	f_C	868.25	868.35	868.45	MHz
(center frequency between 3 dB points)					
Minimum insertion attenuation	$\alpha_{\min}$	—	7.0	9.0	dB
Phase at f_C	φ	—	130	—	° el.
Loaded quality factor	Q_L	3000	3600	—	
Unloaded quality factor	Q_U	5500	6600	—	
Ageing of f_C		—	—	−10/+40	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	0.279	—	fF
Motional inductance	L_1	—	120.4	—	μH
Motional resistance	R_1	—	100	—	Ω
Input / Output capacitance	C_0	—	1.9	—	pF
Temperature coefficient of frequency¹⁾	TC_f	—	−0.03	—	ppm/K ²
Turnover temperature	T_0	15	—	35	°C

¹⁾ 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	between any terminals
Storage temperature range	T_{stg}	−45/+125	°C	
DC voltage	V_{DC}	0	V	
Source power	P_S	0	dBm	

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**References**

Type	R2711
Ordering code	B39871R2711U310
Marking and package	C61157-A7-A56
Packaging	F61074-V8169-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 www.epcos.com.

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Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.

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



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