SAW Components

SAW resonator

Short range devices

Series/type:	**R2704**
Ordering code:	**B39321R2704U310**
Date:	August 05, 2009
Version:	2.0

Preliminary data

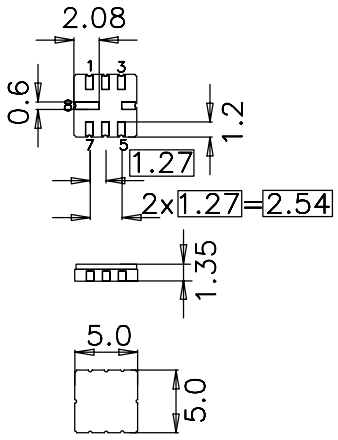
SMD

Application

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

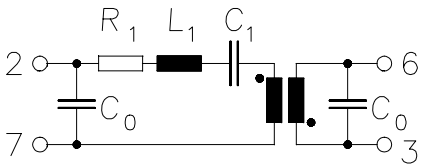
Features

- 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 Elpas
- AEC-Q200 qualified component family
- **E**lectrostactic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Preliminary data

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Characteristics

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	314.925	315.00	315.075	MHz
Minimum insertion attenuation	α_{min}	—	9.4	11.0	dB
Phase at f_c	φ	—	160	—	° el.
Loaded quality factor	Q_L	5800	9000	—	
Unloaded quality factor	Q_U	9200	13600	—	
Ageing of f_C		—	—	–50/+50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	0.196	—	fF
Motional inductance	L_1	—	1.302	—	µH
Motional resistance	R_1	—	195	—	Ω
Input / Output capacitance	C_0	—	1.3	—	pF
Temperature coefficient of frequency[1)]	TC_f	—	–0.032	—	ppm/K²
Turnover temperature	T_0	—	25	—	°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	
Storage temperature range	T_{stg}	–45/+125	°C	
DC voltage	V_{DC}	12	V	
Source power	P_S	0	dBm	

References

Type	R2704
Ordering code	B39321R2704U310
Marking and package	C61157-A7-A56
Packaging	F61074-V8069-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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