SAW Components

SAW resonator

Short range devices

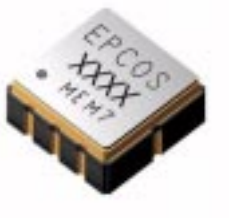
Series/type:	**R2704**
Ordering code:	**B39321R2704U310**
Date:	August 05, 2009
Version:	2.0

Preliminary data

SMD

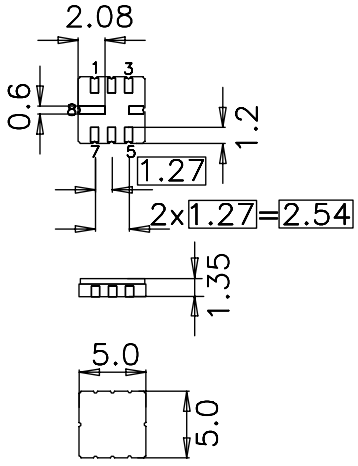
Application

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



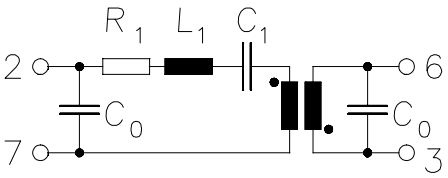
Features

- Package size 5.0 x 5.0 x 1.35 mm^3
- 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 SMD

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."

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