



**THE DATASHEET OF
B39921R2706U310**





SAW Components

SAW resonator

Short range devices

| | |
|-----------------------|------------------------|
| Series/type: | R2706 |
| Ordering code: | B39921R2706U310 |
| Date: | May 22, 2009 |
| Version: | 2.0 |

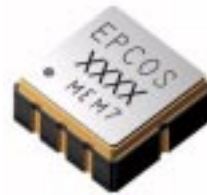


Data sheet



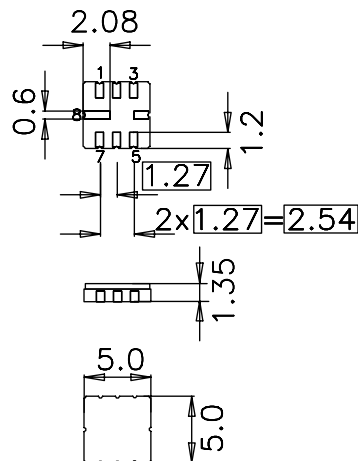
Application

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



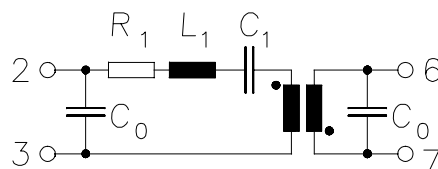
Features

- Package size 5.0 x 5.0 x 1.35 mm³
- Package code QCC8C
- RoHS compatible
- Approximate weight 0.1 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Protection layer Protec
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (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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915.00 MHz

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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 frequency (center frequency between 3 dB points) | f_C | 914.65 | 915.00 | 915.35 | MHz |
| Minimum insertion attenuation | α_{min} | — | 7.0 | 9.0 | dB |
| Phase at f_C | φ | — | 130 | — | ° el. |
| Loaded quality factor | Q_L | 3500 | 4300 | — | |
| Unloaded quality factor | Q_U | 6000 | 7600 | — | |
| Ageing of f_C | | — | — | ±50 | ppm |
| Equivalent circuit elements | | | | | |
| Motional capacitance | C_1 | — | 0.225 | — | fF |
| Motional inductance | L_1 | — | 134.5 | — | 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 | 0 | — | 30 | °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 | R2706 |
| Ordering code | B39921R2706U310 |
| 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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