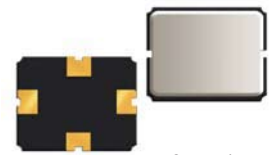


# SMD ONE PORT 310.00E MHz SAW RESONATOR

ASR310S2



RoHS  
Compliant



5 x 3.5 x 1.5mm

## STANDARD SPECIFICATIONS:

| CHARACTERISTICS          |                                     | UNIT                | MIN.           | TYP.    | MAX.    |
|--------------------------|-------------------------------------|---------------------|----------------|---------|---------|
| Center Frequency Fo      |                                     | MHz                 | 309.925        | 310.000 | 310.075 |
| Tolerance from Fo        |                                     | KHz                 |                | ±75     |         |
| Insertion Loss           |                                     | dB                  | -              | 1.5     | 2.2     |
| Quality Factor           | Unloaded                            | -                   |                | 15,333  |         |
|                          | 50Ω loaded                          |                     |                | 2,000   |         |
| Temperature Stability    | Turnover Temperature                | °C                  | 24             | 39      | 54      |
|                          | Turnover Frequency                  | KHz                 |                | Fc      |         |
|                          | Freq. Temp. Coefficient             | ppm/°C <sup>2</sup> |                | 0.037   |         |
| Frequency Aging          |                                     | ppm/year            |                | ±10     |         |
| DC Insulation Resistance |                                     | MΩ                  | 1.0            |         |         |
| RF Equivalent RLC Model  | Motional Resistance R <sub>1</sub>  | Ω                   |                | 19      | 29      |
|                          | Motional Inductance L <sub>1</sub>  | μH                  |                | 118.143 |         |
|                          | Motional Capacitance C <sub>1</sub> | fF                  |                | 2.2333  |         |
|                          | Shunt Capacitance C <sub>0</sub>    | pF                  | 1.8            | 2.1     | 2.4     |
| Operating temp.          |                                     | °C                  | -40°C to +85°C |         |         |
| Storage temp.            |                                     | °C                  | -40°C to +85°C |         |         |
| Max. Rating              | DC voltage                          | V                   | ±10            |         |         |
| RF Power Dissipation     |                                     | dBm                 | 10             |         |         |

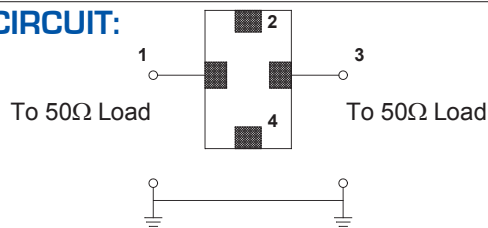
Electrostatic Sensitive Device. Handle with precaution.

## MARKING:

- ASR310 ZYX  
(Z for month from A to L;  
Y for year, i.e. 4 for 2004,  
X: Traceability code)

| PIN NO. | CONNECTIONS  |
|---------|--------------|
| 1       | Input/Output |
| 3       | Output/Input |
| 2 & 4   | Case Ground  |

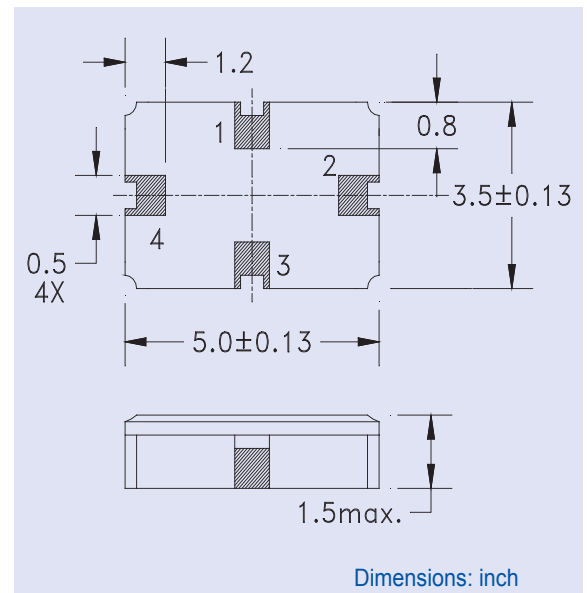
## TEST CIRCUIT:



## NOTES:

- 1) Frequency aging is specified at 65°C or less.
- 2) The center frequency Fc, is the frequency of minimum IL with the resonator in the specified test fixture in a 50Ω test system with VSWR <=1.2.
- 3) Unless otherwise specified, case temperature is 25°C ± 2°C.
- 4) The design model values are for reference only. The capacitance C0 is the measured static capacitance between either pin 1 and ground or pin 2 to ground.

## OUTLINE DRAWING:



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[C30-T4](#) [AWSCR-4.19CRLA-C15-T3](#) [AWSCR-4.19CRLB-C15-T3](#) [AWSCR-4.91CRLB-C15-T3](#) [AWSCR-5.00CPLA-C30-T4](#) [AWSCR-](#)  
[5.00CPLB-C30-T4](#) [AWSCR-5.00CRLA-C15-T3](#) [AWSCR-5.00CRLA-C39-T3](#) [AWSCR-5.00CRLB-C15-T3](#) [AWSCR-7.37CPLA-C30-T4](#)  
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