

# SMD ONE PORT 433.92 MHz SAW RESONATOR

ASR433.92E

APPLICATION: Automotive Electronics/Remote Control



5 x 5 x 1.35mm

## STANDARD SPECIFICATIONS:

| CHARACTERISTICS          |                                     | UNIT                | MIN.           | TYP.    | MAX.    |
|--------------------------|-------------------------------------|---------------------|----------------|---------|---------|
| Center Frequency Fo      |                                     | MHz                 | 433.845        | 433.920 | 433.995 |
| Tolerance from Fo        |                                     | KHz                 |                | ±75     |         |
| Insertion Loss           |                                     | dB                  | -              | 1.3     | 2.0     |
| Quality Factor           | Unloaded                            | -                   |                | 10,500  |         |
|                          | 50Ω loaded                          |                     |                | 1,450   |         |
| Temperature Stability    | Turnover Temperature                | °C                  | 25             | 40      | 55      |
|                          | 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                   |                | 16      | 26      |
|                          | Motional Inductance L <sub>1</sub>  | μH                  |                | 61.724  |         |
|                          | Motional Capacitance C <sub>1</sub> | fF                  |                | 2.1817  |         |
|                          | Shunt Capacitance C <sub>0</sub>    | pF                  | 1.9            | 2.2     | 2.5     |
| Operating temp.          |                                     | °C                  | -40°C to +85°C |         |         |
| Storage temp.            |                                     | °C                  | -45°C to +85°C |         |         |
| Max. Rating              | DC voltage                          | V                   | ±10            |         |         |
| RF Power Dissipation     |                                     | dBm                 | 10             |         |         |

Data measured with: Source Impedance: Z<sub>s</sub>=50Ω, Load Impedance: Z<sub>L</sub>=50Ω, T<sub>A</sub>=25°C

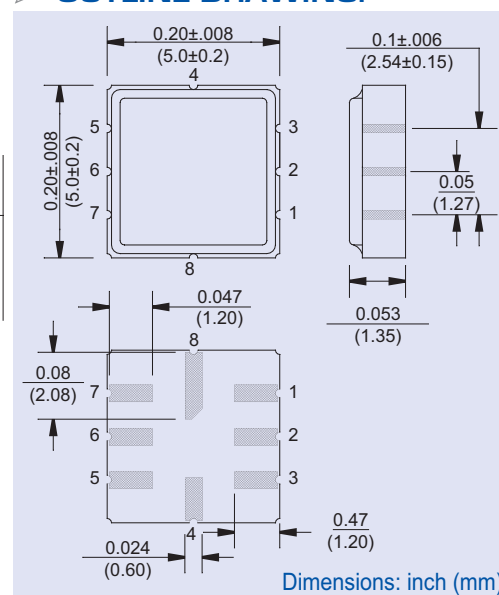
Electrostatic Sensitive Device. Handle with precaution.

## MARKING:

- 433.92 (433.92 Frequency in MHz)
- AR ZYX (ZY: Date code Z for month from A to L; Y for year, i.e. 4 for 2004; X: Traceability code)

| PIN NO. | CONNECTIONS  |
|---------|--------------|
| 2       | Input/Output |
| 6       | Output/Input |
| 4 & 8   | Case Ground  |
| 1,3,5,7 | N/C          |

## OUTLINE DRAWING:



## FREQUENCY RESPONSE:



## TEST CIRCUIT:

