



### Features

- > Resistance welded type crystal units.
- > A great number of standard frequencies.
- > Higher frequency pullability and lower equivalent series resistance.
- > Lower cost and highly mass production capability.
- > The best choice of TV, STB, LCDM and Cable Modem.
- > RoHS Compliant / Pb Free

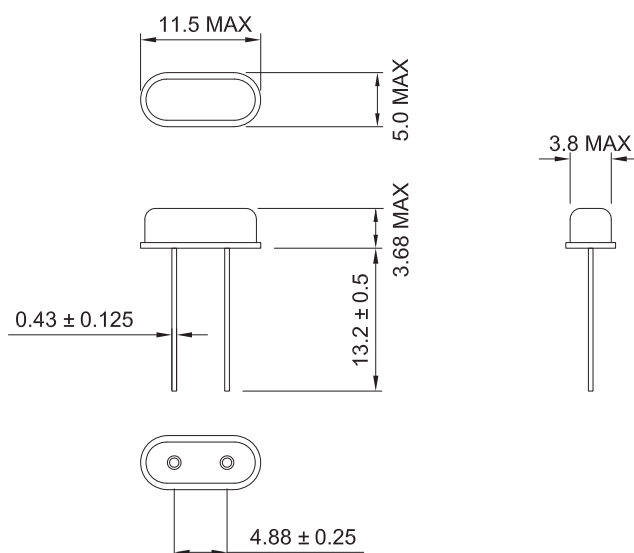
### Electrical Specifications

| Item / Type                                          | 9B                                   |
|------------------------------------------------------|--------------------------------------|
| Frequency Range                                      | 3.2 ~ 90 MHz                         |
| Frequency Tolerance (at 25 °C)                       | ± 30 ppm, or specify                 |
| Frequency Stability Over Operating Temperature Range | ± 30 ppm (- 20 ~ +70 °C), or specify |
| Operating Temperature Range                          | - 20 ~ +70 °C                        |
| Shunt Capacitance (C0)                               | 7 pF Max.                            |
| Drive Level                                          | 1 ~ 500 µW (100 µW typical)          |
| Load Capacitance                                     | 18 pF, or specify                    |
| Aging (at 25 °C)                                     | ± 3 ppm / year Max.                  |
| Storage Temperature Range                            | - 40 ~ + 85 °C                       |

### Equivalent Series Resistance(ESR)

| Fundamental     |            | 3rd Overtone |            |
|-----------------|------------|--------------|------------|
| 3.2 ~ 3.686 MHz | 200 Ω Max. | 27 ~ 30 MHz  | 100 Ω Max. |
| 3.686 ~ 5 MHz   | 150 Ω Max. | 30 ~ 50 MHz  | 80 Ω Max.  |
| 5 ~ 10 MHz      | 80 Ω Max.  | 50 ~ 90 MHz  | 60 Ω Max.  |
| 10 ~ 14 MHz     | 40 Ω Max.  |              |            |
| 14 ~ 30 MHz     | 30 Ω Max.  |              |            |

### Dimensions



Units:mm

Remark : Specification subject to change without prior notice. Please confirm with our sales.