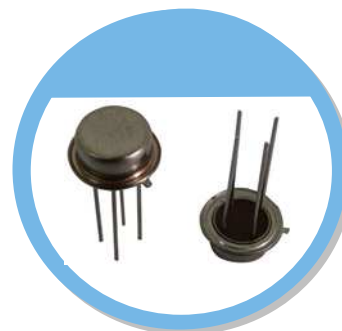


X6(TO-5) Type

FEATURE

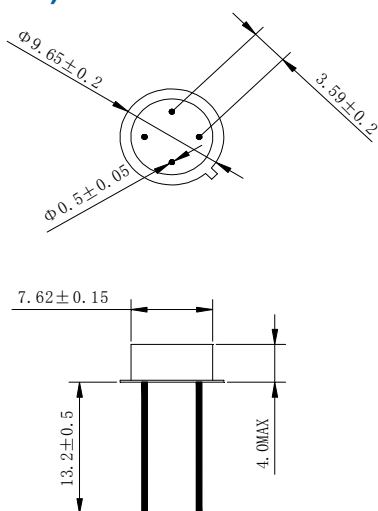
- $\varnothing 9.85 \times 4.0$ mm TO-5 Cold Weld
- Gold electrode, vacuum
- Fast warm up
- High stability, low temperature frequency coefficient
- Good aging and reliability



TYPICAL APPLICATION

- Precision OCXO, VCXO and TCXO oscillators

DIMENSION (mm)



EQUIVALENT SERIES RESISTANCE (E.S.R)

| Frequency Range | MODE(Cut) | E.S.R. |
|----------------------------------|-----------------------|------------------|
| 19.2 MHz \leq Fo \leq 22 MHz | SC 3 rd OT | $\leq 100\Omega$ |
| 22 MHz < Fo \leq 30 MHz | SC 3 rd OT | $\leq 60\Omega$ |
| 30 MHz < Fo \leq 80 MHz | SC 3 rd OT | $\leq 50\Omega$ |
| 80 MHz < Fo \leq 120 MHz | SC 5 th OT | $\leq 110\Omega$ |

ELECTRICAL SPECIFICATION

| Parameter | Min. | Typical | Max. | Unit |
|----------------------------|---|---------|---------|--------------------|
| Operating Temp. Range | -55 | | +105 | $^{\circ}\text{C}$ |
| Standard Frequency | 20, 25, 40, 100 | | | MHz |
| Turn Point | +75 $^{\circ}\text{C}$ to +105 $^{\circ}\text{C}$ (mode, cut, frequency dependent, other turn points) | | | $^{\circ}\text{C}$ |
| Frequency Tolerance @ Turn | ± 3 | ± 5 | ± 8 | ppm |
| Level of Drive | | 100 | 500 | μW |
| Shunt Capacitance (C0) | | | 7.0 | pF |
| Insulation Resistance | 500M Ω @ DC100V | | | |
| Aging | ± 0.5 to ± 1.0 | | | ppm/year |

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

STANDARD OPTIONS

| Nominal Frequency | MODE(Cut) | R(Ω) | C0(pF) | C1(fF) | Q(Typical) | Aging(ppm/year) |
|-------------------|-----------------------|---------------|--------|----------------|------------|-----------------|
| 20 MHz | IT 3 rd OT | < 100 | < 3.0 | 0.17 \pm 20% | 650k | 0.06 |
| 25 MHz | IT 3 rd OT | < 60 | < 3.5 | 0.54 \pm 20% | 380k | 0.07 |
| 40 MHz | SC 3 rd OT | < 60 | < 4.0 | 0.31 \pm 20% | 270k | 0.3 |
| 100 MHz | SC 5 th OT | < 110 | < 5.0 | 0.15 \pm 30% | 120k | 0.5 |

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice