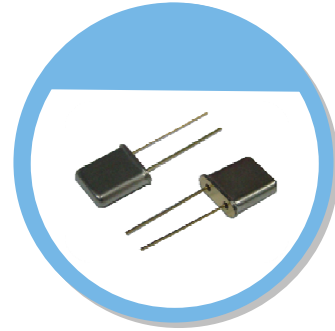


XH(UM-1) Type

FEATURE

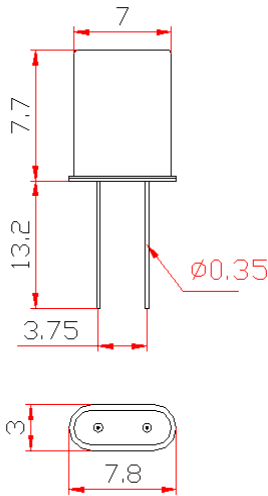
- 7.3 x 2.6 x 7.8 mm UM-1 Resistance Weld
- Gold electrode, vacuum
- Fast warm up
- High stability, low temperature frequency coefficient
- Good aging and reliability



TYPICAL APPLICATION

- Precision OCXO, VCXO and TCXO oscillators

DIMENSION (mm)



EQUIVALENT SERIES RESISTANCE (E.S.R)

| Frequency Range | MODE(Cut) | E.S.R. |
|----------------------|-----------------------|--------|
| 8 MHz ≤ Fo ≤ 10 MHz | AT Fundamental | ≤ 40Ω |
| 10 MHz < Fo ≤ 20 MHz | AT Fundamental | ≤ 35Ω |
| 20 MHz < Fo ≤ 40 MHz | AT 3 rd OT | ≤ 30Ω |
| 40 MHz < Fo ≤ 80 MHz | AT 3 rd OT | ≤ 30Ω |
| 5 MHz ≤ Fo ≤ 10 MHz | SC Fundamental | ≤ 50Ω |
| 10 MHz < Fo ≤ 20 MHz | SC Fundamental | ≤ 40Ω |
| 20 MHz < Fo ≤ 40 MHz | SC 3 rd OT | ≤ 100Ω |

ELECTRICAL SPECIFICATION

| Parameter | Min. | Typical | Max. | Unit |
|----------------------------|---|---------|------|----------|
| Operating Temp. Range | -55 | | +125 | °C |
| Standard Frequency | 20, 24, 25.6, 26, 38.88, 40 | | | MHz |
| Turn Point | +75°C to +105°C (mode, cut, frequency dependent, other turn points) | | | °C |
| Frequency Tolerance @ Turn | ±3 | ±5 | ±10 | ppm |
| Level of Drive | | 100 | 500 | μW |
| Shunt Capacitance (C0) | | | 7.0 | pF |
| Insulation Resistance | 500MΩ @ 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 | AT 3 rd OT | < 35 | < 3.0 | 0.93 ± 20% | 380k | 0.5 |
| 24 MHz | AT 3 rd OT | < 30 | < 3.0 | 1.07 ± 20% | 350k | 0.5 |
| 26 MHz | AT 3 rd OT | < 30 | < 3.0 | 1.16 ± 20% | 270k | 0.5 |
| 38.88 MHz | AT 3 rd OT | < 30 | < 4.0 | 1.54 ± 20% | 220k | 0.5 |
| 20 MHz | SC 3 rd OT | < 100 | < 3.0 | 0.16 ± 20% | 600k | 0.1 |
| 25.6 MHz | SC 3 rd OT | < 60 | < 3.2 | 0.35 ± 20% | 400k | 0.1 |
| 40 MHz | SC 3 rd OT | < 60 | < 4.5 | 0.36 ± 20% | 300k | 0.2 |