

TEMPERATURE-COMPENSATED CRYSTAL OSCILLATOR

TXO83, VTX83

Applications

- Cellular / PHS / GPS / Communication Equipment

Features

- Dimensions (5.0×3.2×1.05)
- Seam sealed
- Low phase noise / Low power consumption
- High stability $\pm 2.5\text{ppm} / -30^{\circ}\text{C} \sim +75^{\circ}\text{C}$
- Clipped sine output (DC coupled)

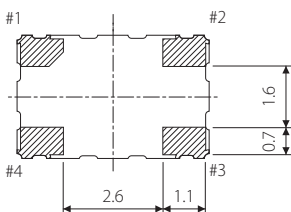
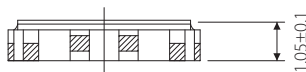
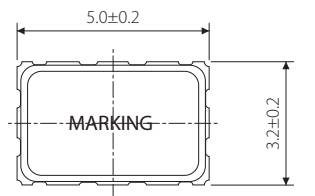
Specifications



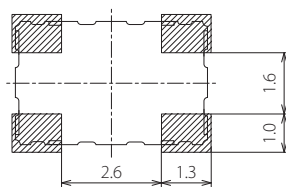
| Model | TXO83 | VTX83 | |
|----------------------------|--|---|--|
| Frequency range | 6.000~45.000 MHz | | |
| Nominal frequency (MHz) | 8, 10, 12, 12.8, 13, 14.4, 16.368, 19.2, 19.8, 20, 24.5535, 26, 40 | | |
| Frequency stability | Tolerance at 25°C | $\pm 2.0 \times 10^{-6}$ (Sixty minutes after reflow) | |
| | Temperature (Ref.to+25°C) | $\pm 2.5 \times 10^{-6} / -30 \sim +75^{\circ}\text{C}$ | |
| | Supply voltage change | $\pm 0.2 \times 10^{-6} / V_{\text{dd}} \pm 5\%$ | |
| | Load change | $\pm 0.2 \times 10^{-6} / Z_{\text{L}} \pm 10\%$ | |
| Aging (at 25°C) | $\pm 1.0 \times 10^{-6} / \text{First year}$ | | |
| Storage temperature range | -40~+85°C | | |
| Power supply voltage (Vcc) | +2.8V, +3.0V, +3.3V, +5.0V DC $\pm 5\%$ | | |
| Current consumption | 1.5mA max. (~20MHz), 2.0mA max. (~32MHz), 2.5mA max. (~45MHz) | | |
| Output | Load (ZL) | 10kΩ//10pF | |
| | Voltage | 0.8V p-p min. | |
| | Waveform | Clipped Sine Wave (DC-coupled output) | |
| External controlfunction | Frequency tuning range | — | $\pm 8.0 \times 10^{-6}$ min. (Positive) |
| | External control voltage | — | +1.5V $\pm 1.0\text{V}$ DC |
| | Input impedance (Zvin) | — | 500kΩ min. (650kΩ typ.) |
| Phase noise | -135dBc typ. at 1kHz offset | | |

Package quantity: 1,000pcs max./Reel.

Outline and Dimensions [unit:mm]



Example of a Terminal Land Pattern



| Terminal | Connection | |
|----------|------------|---------|
| | TCXO | VC-TCXO |
| #1 | GND | Vcont |
| #2 | GND | |
| #3 | OUTPUT | |
| #4 | Vdd | |