

HCMOS TCXO

TXO99



Applications

- Communication Equipment
- Automotive

Features

- HCMOS output with Tri-state function
- Ceramic package, Dimensions(3.2×2.5×1.0)
- High stability $\pm 2.5\text{ppm} / -30^\circ\text{C} \sim +105^\circ\text{C}$
- Low current consumption
- Low phase noise, Low jitter
- Compliant products with AEC-Q200

Specifications



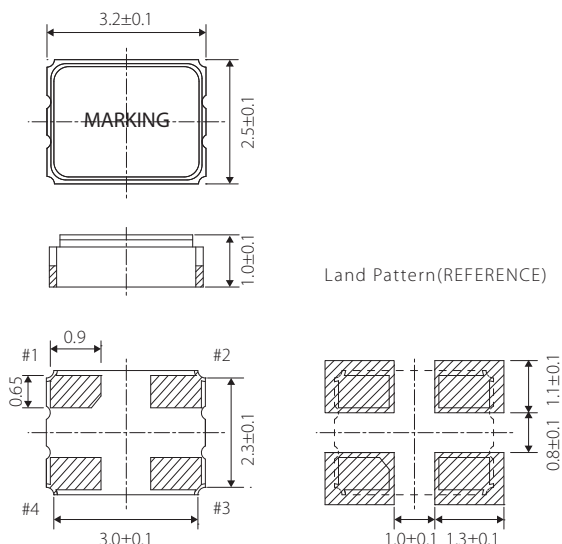
| Model | TX093 | |
|-----------------------------|--|---|
| Frequency range | 10.0~55.0MHz | |
| Nominal frequency (MHz) | 10, 12, 16, 20, 24, 32, 40, 54 | |
| Storage temperature range | -40~+125 °C | |
| Operating temperature range | -30~+105 °C | |
| Frequency stability | Tolerance at 25°C | $\pm 2.0 \times 10^{-6}$ (Sixty minutes after reflow) |
| | Temperature (+25°C basis) | $\pm 2.5 \times 10^{-6} / -30 \sim +75^\circ\text{C}$ |
| | Supply voltage change | $\pm 0.2 \times 10^{-6} / V_{\text{dd}} \pm 5\%$ |
| | Load change | $\pm 0.2 \times 10^{-6} / Z_L \pm 10\%$ |
| Aging | $\pm 1.0 \times 10^{-6} / \text{year at } +25^\circ\text{C}$ | |
| Power supply voltage (Vdd) | +2.5V, +2.8V, +3.3V DC $\pm 5\%$ | |
| Current consumption | *note / 10uA max (Standby) | |
| Output level | C-MOS | |
| Load | 15pF | |
| Output voltage level | Vol:10%Vdd max. / VoH:90%Vdd min. | |
| Rise & Fall time | 5ns max. / 10%Vdd ~ 90%Vdd | |
| Duty cycle | 45% ~ 55% at 1/2Vdd | |
| Phase Noise / Jitter | -145dBc / Hz Typ. at 10kHz offset / 1 σ 3ps typ. | |
| Tri-state Function | #1: Floating. or "H" → Output enable / #1:"L" → Output disable(Hi-Z) | |

*Reference / Idd Spec (mA max.)

| Frequency | 4~10MHz | ~20MHz | ~30MHz | ~40MHz | ~54MHz |
|-----------|---------|--------|--------|--------|--------|
| 2.5V | 3.1 | 3.7 | 4.2 | 4.6 | 5.5 |
| 2.8V | 3.4 | 4.1 | 4.7 | 5.2 | 6.0 |
| 3.3V | 4.0 | 4.8 | 5.5 | 6.0 | 7.0 |

Package quantity: 3,000pcs max./Reel.

Outline and Dimensions [unit:mm]



| Terminal | Connection |
|----------|------------|
| #1 | Tri-state |
| #2 | GND |
| #3 | Output |
| #4 | Vcc |

| Tri-state Function | |
|--------------------|--------------|
| Tri-state pin | Output |
| High or Floating | Active |
| Low | Hi-Impedance |