

" OCXO " [Oven Controlled Crystal Oscillators]

OC32T

Square Wave

OC32E

True Sine Wave

Best stability

± 5.0 ppb

Standard
OCXO Series

DIP

3.3V

5.0V

Min.

5 MHz

Max.

40 MHz

Applications

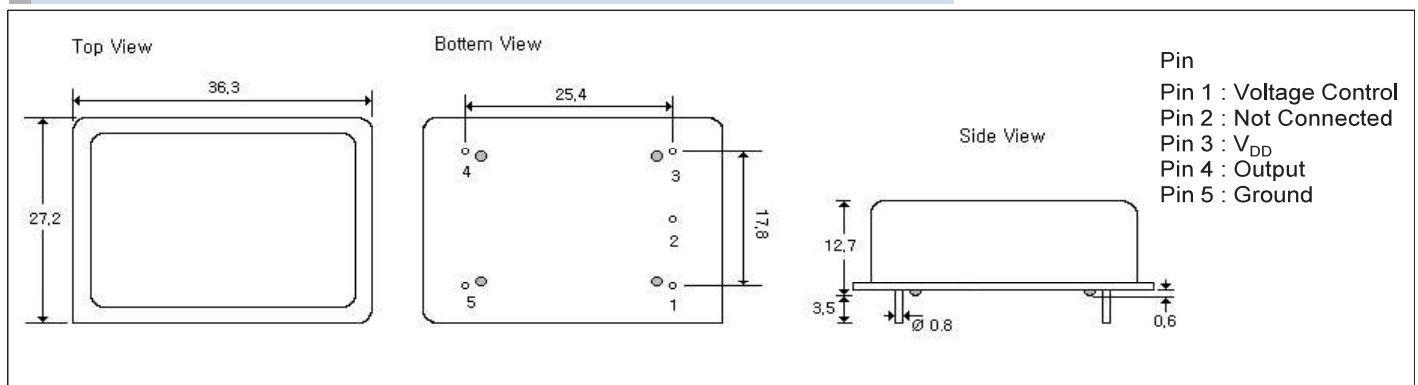
- OC32_ (36.3 * 27.2 * 12.7 mm)
- Full Size 5 pin dip full metal package
- +3.3V , +5.0V Supply Voltages
- Voltage control (Electronic Frequency Tuning) is standard .



General Specifications (at+25°C and specified input voltage)

| Output Wave Form | | Square wave. Wave form code is " T " | | True Sine Wave. Wave form code is " E " | |
|---|-----------------------------------|--|--------------------|---|----------------------------------|
| Supply Voltage | | +3.3 V | +5.0 V | +3.3 V | +5.0 V |
| Supply Voltage range , " Voltage code " | | +3.3V ± 5% , " 3 " | +5.0V ± 5% , " 5 " | +3.3V ± 5% , " 3 " | +5.0V ± 5% , " 5 " |
| Frequency Range | | 5 ~ 40.0 MHz Standard Frequency : 10.0 MHz | | 5 ~ 40.0 MHz Standard Frequency : 10.0 MHz | |
| Initial Calibration Tolerance | | ± 100 ppb (max.) | ± 100 ppb (max.) | ± 100 ppb (max.) | ± 100 ppb (max.) |
| | | Vcon = +1.65 V | Vcon = +2.5 V | Vcon = +1.65 V | Vcon = +2.5 V |
| Type of Crystal Cut Used | | " SC - cut " crystal or " IT - cut " crystal | | | |
| Frequency Stability | vs Temperature (refer to +25°C) | ± 3 ppb (max.) over 0°C to +70°C ± 5.0 ppb (max.) over -30°C to +70°C ± 10 ppb (max.) over -40°C to +85°C | | | |
| | vs Voltage Change | ± 0.5ppb (max.) , for a ± 5% input voltage change . | | | |
| | vs Warm-up time (+25°C) | 10 minute max. Within ± 10 ppb of its reference frequency. | | | |
| | vs Aging | ± 0.5 ppb max./after 30 days ; ± 50 ppb max./first year ; ± 300 ppb max.over 10 years. | | | |
| Voltage Control | Freq. Deviation Range | ± 0.5 ppm min. , ± 2 ppm max. Reference to fo at +25°C and over operating temperature range. | | | |
| | On pin 1 (EFC) | Control Voltage Range | | Control Voltage Range | |
| (Electronic Freq. Tuning) | Transfer Function | Positive : Increasing control voltage increases output frequency . | | | |
| | Input Impedance | 50 K ohms min. | | | |
| | EFC Linearity | ± 10 % (max.) | | | |
| Power | Power Dissipation (at +25°C) | 1.3 Watts max. at steady-state; 850 mA max. at turn-on. | | | |
| | Output | Output Level (for True Sine) | --- | --- | +8 dBm (typ.) , +10 dBm (max.) |
| Harmonic (for True Sine) | | --- | --- | -30 dBc (min.) | |
| Spurious (for True Sine) | | --- | --- | -60 dBc (min.) | |
| Load | | 15pF | | 50 Ω | |
| Output Logic High (V _{OH}) | | +2.4 V (min.) | +2.4 V (min.) | --- | --- |
| Output Logic Low (V _{OL}) | | + 0.4 V (max.) | + 0.4 V (max.) | --- | --- |
| Duty Cycle (V _{DD}) | | 50 % ± 5% @ +1.4V | | | |
| Rise and Fall Time | | 7 nS (max.) (20% → 80% of waveform) | | | |
| Phase Noise Offset [10.0 MHz] (typical) | 10 Hz | 100 Hz | 1 KHz | 10 KHz | |
| | -120 dBc | -135 dBc | -145 dBc | -150 dBc | |

Outline Dimensions (Unit : ±0.2 mm)



Mercury www.mercury-crystal.com

Taiwan : Tel:(+886)-2-2406-2779 / sales-tw@mercury-crystal.com

USA: Tel: (+1)-909-466-0427 / sales-us@mercury-crystal.com

China: Tel: (+86)-512-5763-8100 / sales-cn@mercury-crystal.com