

CFPT-126

ISSUE 1 ; 7 JANUARY 2005

Delivery Options

- Please contact our sales office for details

Package Outline

- 7.0 x 5.0 x 2.0mm SMD (surface mount device)

Description

- CFPT-126 is a surface mount temperature compensated voltage controlled oscillator (TCVCXO) providing a high degree of frequency stability over a wide temperature range

Supply Voltage

- 3.3V \pm 5%

Frequency Stability

- Temperature ± 0.5 ppm (code E)
- Supply Voltage Variation ± 0.3 ppm *
- Load Variation (15pF $\pm 10\%$) ± 0.2 ppm
- After Reflow ± 1.0 ppm

* Supply Voltage Variation :
 ≥ 30.0 MHz to < 40.0 MHz, ± 0.4 ppm

Operating Temperature Range

- -40 to 85°C (code X)

Supply Current

- 3mA @ 20MHz typical

Output Compatibility

- HCMOS
- Load: 15pF nom.
- Vol: $< 10\%$ Vsupply
- Voh: $> 90\%$ Vsupply
- Duty Cycle: 45/55%
- Rise Time: 8ns
- Fall Time: 8ns

Ageing

- ± 1 ppm / year typical in 1st year @ 25°C

Standard Stock Frequencies (MHz)

- 10, 12.8, 13.0, 16.384, 19.44, 20.0, 26.0, 32.768 40.0MHz
- Other frequencies may be available, please contact our sales office.

Frequency Adjustment

- $> \pm 5$ ppm by means of 1.65 \pm 1V control voltage

Marking

- CMAC and Batch Code
- Stab/Temp code + Frequency Code + Date Code

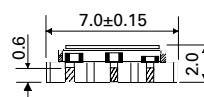
Minimum Ordering Information Required

- Frequency + Model Number (Example 10.0MHz CFPT-126)

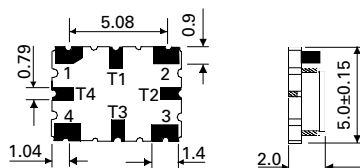
Environmental Specification

- Storage Temperature Range -55 to 125°C
- Vibration: IEC 60068-2-6 Test Fc Procedure B4, 10-60Hz 1.5mm displacement, at 98.1 ms⁻², 30 minutes in each of three mutually perpendicular axes at 1 octave per minute
- Shock: IEC 60068-2-27 Test Ea, 980ms⁻² acceleration for 6ms duration, 3 shocks in each direction along three mutually perpendicular axes
- Solderability: MIL-STD-202, Method 208, Category 3

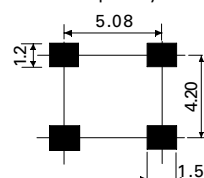
Outline in mm



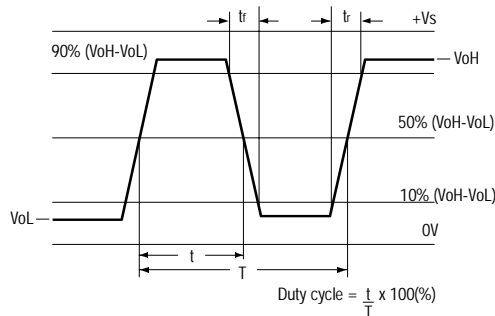
Pad Connections
1. Voltage Control
2. GND
3. Output
4. +Vs
T1, T2, T3, T4,
Do Not Connect



Solder pad layout



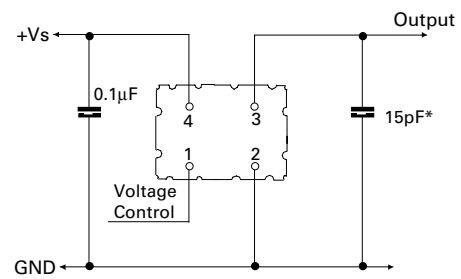
Output Waveform



Manufacturing Information

- Soldering: SMD product suitable for Convection Reflow soldering. Peak temperature 260°C. Maximum time above 220°C, 60 secs.
- Washing: Able to withstand aqueous washing process.
- Packaging: Tape and reel, details available on request.

Test Circuit



* inclusive of probe and jig capacitance

SURFACE MOUNT
TCXOs