

CFPT-125

ISSUE 5 ; 19 OCTOBER 2004

Delivery Options

- Please contact our sales office for details

Package Outline

- 7.0 x 5.0 x 2.0mm SMD

Description

- CFPT-125 is a surface mount temperature compensated voltage controlled oscillator (TCVCO) providing a high degree of frequency stability over a wide temperature range

Supply Voltage

- 3.3V $\pm$ 5%

Frequency Stability

- Temperature ± 0.9 ppm (code T)
- 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
 ≥ 40.0 MHz, ± 0.5 ppm

Operating Temperature Range

- -20 to 70°C (code S)

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

- 10, 12.8, 13.0, 14.4, 16.32, 16.384, 19.44, 20.0, 26.0, 32.768 40.0MHz
- Other frequencies may be available, please contact our sales office

Frequency Adjustment

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

Marking

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

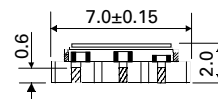
Minimum Ordering Information Required

- Frequency + Model Number (example 10.0MHz CFPT-125)

Environmental Specification

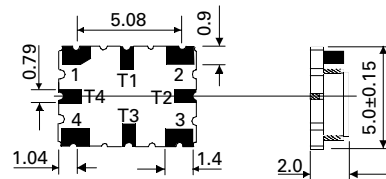
- Storage Temperature Range -55 to 125°C
- Vibration: IEC 60068-2-6 Test Fc Procedure B4, 10-60Hz 1.5mm displacement, at 98.1m/s², 30 minutes in each of three mutually perpendicular axes at 1 octave per minute
- Shock: IEC 60068-2-27 Test Ea, 980m/s² acceleration for 6ms duration, 3 shocks in each direction along three mutually perpendicular axes
- Solderability: MIL-STD-202, Method 208, Category 3

Outline in mm

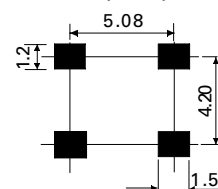


Pad Connections

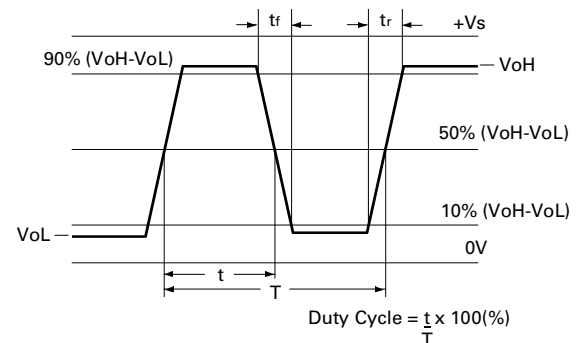
1. Voltage Control
 2. GND
 3. Output
 4. +Vs
- T1, T2, T3, T4,
Do Not Connect



Solder pad layout



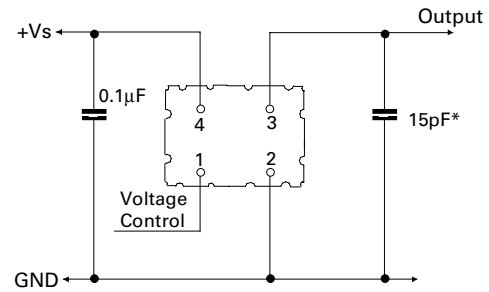
Output Waveform



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

CFPT-125TS STOCK SURFACE MOUNT TCXOs

CFPT-125TS - HCMOS

Frequency	Frequency Stability	Operating Temperature	Stock No. Code	Alpha Code	Packaging
10.0MHz	±0.9ppm	-20 to 70°C	TVX0009900	T600H	Bulk
12.8MHz	±0.9ppm	-20 to 70°C	TVX0009901	T602H	Bulk
13.0MHz	±0.9ppm	-20 to 70°C	TVX0009902	T603H	Bulk
14.4MHz	±0.9ppm	-20 to 70°C	TVX0009903	T604H	Bulk
16.32MHz	±0.9ppm	-20 to 70°C	TVX0009904	T632H	Bulk
16.384MHz	±0.9ppm	-20 to 70°C	TVX0009905	T633H	Bulk
19.44MHz	±0.9ppm	-20 to 70°C	TVX0009906	T617H	Bulk
20.0MHz	±0.9ppm	-20 to 70°C	TVX0009907	T619H	Bulk
26.0MHz	±0.9ppm	-20 to 70°C	TVX0009908	T626H	Bulk
32.768MHz	±0.9ppm	-20 to 70°C	TVX0009909	T628H	Bulk
40.0MHz	±0.9ppm	-20 to 70°C	TVX0009910	T629H	Bulk