



ISSUE 5; August 2012 - RoHS 2011/65/EU



Description

- Surface mount temperature compensated voltage controlled oscillator (TCVCXO) providing a high degree of frequency stability over a wide temperature range in a hermetically sealed ceramic package

Frequency Range

- Frequency 10.00 to 40.00MHz

Supply Voltage

- Voltage 3.3V $\pm 5\%$

Ageing

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

Output Compatibility & Load

- Output Compatibility HCMOS
- Drive Capability 15pF nom
- Pulling ± 5 ppm min
- Voltage Control 1.65V ± 1.0 V

Frequency Stabilities

- Frequency Stability ± 0.5 ppm

Operating Temperature Ranges

- -40 to 85°C

Electrical Parameters

- Current Draw (Typical): 3mA @ 20MHz
- Supply Voltage Variation:
 <30MHz ± 0.3 ppm
 30MHz to 40MHz ± 0.4 ppm
- Load Variation: ± 0.2 ppm (@15pF $\pm 10\%$)
 After Reflow: ± 1.0 ppm

Environmental Parameters

- Shock: IEC 60068-2-27, Test Ea: 980m/s² acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz-60Hz 1.5mm displacement, 60-2000Hz at 98.1m/s², 30mins in 3 mutually perpendicular planes at 1 oct/min
- Solderability: MIL-STD-202, Method 208, Category 3
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

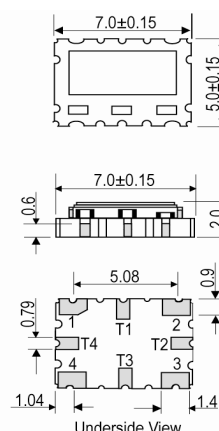
- Soldering: Suitable for Convection Reflow soldering. Peak temperature 260°C, 60sec max above 220°C
- Washing: Able to withstand aqueous washing

Ordering Information (*minimum required)

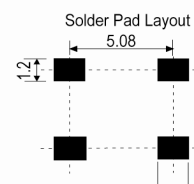
- Frequency*
- Model*
- Output
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage
- Example
 13.0MHz CFPT-126
 HCMOS ± 0.5 ppm -40 to 85C 3.3V



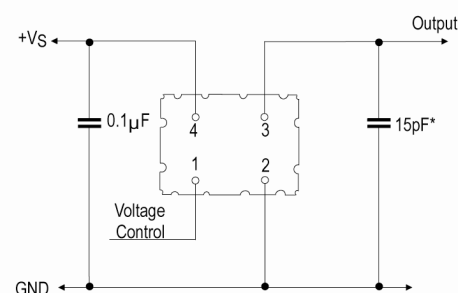
Outline (mm)



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



Test Circuit



* Inclusive of probe and jig capacitance

Sales Office Contact Details:

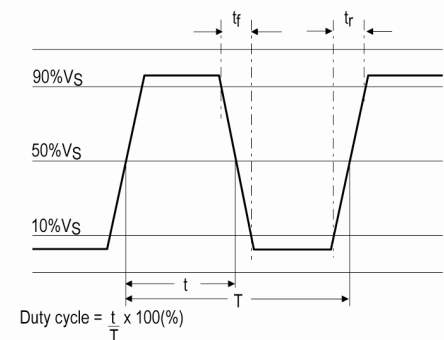
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**Packing Details**

- Pack Style: **Bulk** Loose in bulk pack
Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D
Pack Size 1,000
- Alternative packing options available

Output Waveform**Electrical Specification - maximum limiting values 3.3V ±5%**

Developed Frequencies	Temp Range	Stability	Pullability	Rise & Fall (10 to 90%)	Duty Cycle %
10.00MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
12.80MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
13.00MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
16.38MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
19.44MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
20.00MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
24.00MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
26.00MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
32.77MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%
40.00MHz	-40 to 85°C	±0.5ppm	±5ppm min	8ns	45/55%

This document was correct at the time of printing; please contact your local sales office for the latest version

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