



## 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

Model CFPT-126

Model Issue number 5

## Frequency Parameters

- Frequency 20.0MHz
- Frequency Tolerance @ 25°C INCLUSIVE
- Frequency Stability  $\pm 0.50\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 1\text{ppm}$  typical in 1st year @  $25^\circ\text{C}$

## Electrical Parameters

- Supply Voltage 3.3V
- Supply Voltage Tolerance  $\pm 5\%$
- Current Draw (Typical): 3mA @ 20MHz
- Supply Voltage Variation:  
 $<30\text{MHz} \pm 0.3\text{ppm}$   
 $30\text{MHz to } 40\text{MHz} \pm 0.4\text{ppm}$
- Load Variation:  $\pm 0.2\text{ppm}$  (@15pF  $\pm 10\%$ )  
 After Reflow:  $\pm 1.0\text{ppm}$

## Frequency Adjustment

- Pulling  $\pm 5\text{ppm min}$
- Control Voltage Details 1.65V  $\pm 1.0\text{V}$

## Output Details

- Output Compatibility HCMOS
- Output Load 15pF nom
- Rise and Fall time (10% - 90%) 8ns max
- Duty Cycle 45/55%

## Environmental Parameters

- Shock: IEC 60068-2-27, Test Ea: 980m/s<sup>2</sup> 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/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes at 1 oct/min
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Solderability: MIL-STD-202, Method 208, Category 3

## Manufacturing Details

- Soldering: Suitable for Convection Reflow soldering. Peak temperature  $260^\circ\text{C}$ , 60sec max above  $220^\circ\text{C}$
- Washing: Able to withstand aqueous washing

## Compliance

- RoHS Status Compliant
- REACH Status Compliant

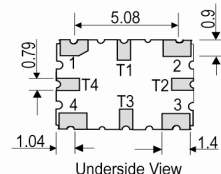
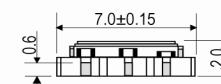
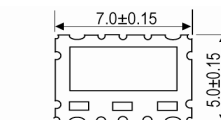
## Packaging

- Pack Type: Bulk Loose in bulk pack
- Pack Size 100
- Alternative packing option available

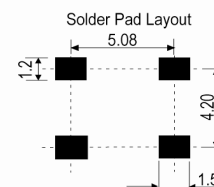
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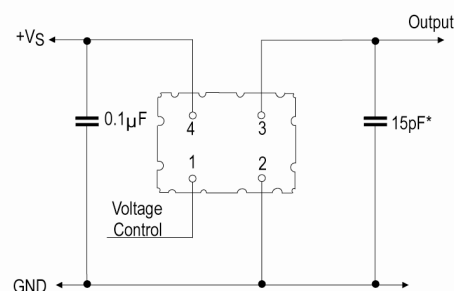
## Outline (mm)



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

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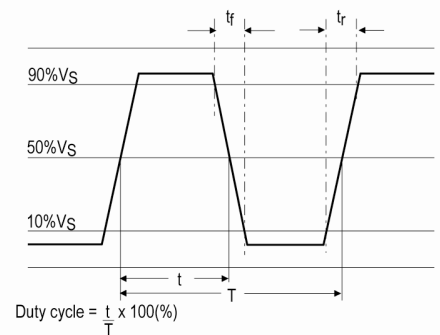
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**Wave Form**



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