


**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-125
- Model Issue number 10

**Frequency Parameters**

- Frequency 20.0MHz
- Frequency Stability  $\pm 0.90\text{ppm}$
- Operating Temperature Range -20.00 to 70.00°C
- Ageing  $\pm 1\text{ppm}$  typical in 1st year  
@25°C

**Electrical Parameters**

- Supply Voltage 3.3V  $\pm 5\%$
- Current Draw 3.00mA
- Supply current typical at 20MHz
- Supply Voltage Variation  
 $< 30\text{MHz } \pm 0.3\text{ppm}$   
 $30\text{MHz to } < 40\text{MHz } \pm 0.4\text{ppm}$   
 $40\text{MHz } \pm 0.5\text{ppm}$
- 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  $1.65\text{V } \pm 1.0\text{V}$

**Output Details**

- Output Compatibility HCMOS
- Drive Capability 15pF (nominal)
- Rise and Fall Time 8.0ns 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
- Solderability: MIL-STD-202, Method 208, Category 3
- Storage Temperature Range: -55 to 125°C

**Manufacturing Details**

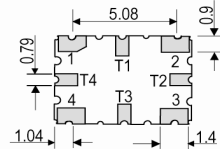
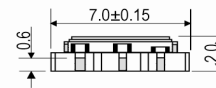
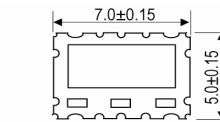
- Soldering: Suitable for Convection Reflow soldering. Peak temperature 260°C for 10sec max
- Washing: Able to withstand aqueous washing

**Compliance**

- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): 1

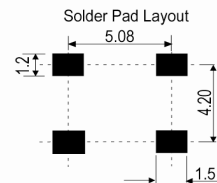
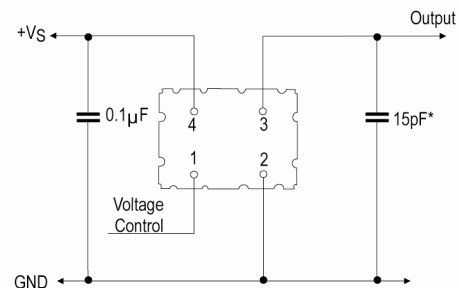
**Packaging Details**

- Pack Style: Bulk Loose in bulk pack
- Pack Size: 100


**Outline (mm)**


Underside View

- 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:**

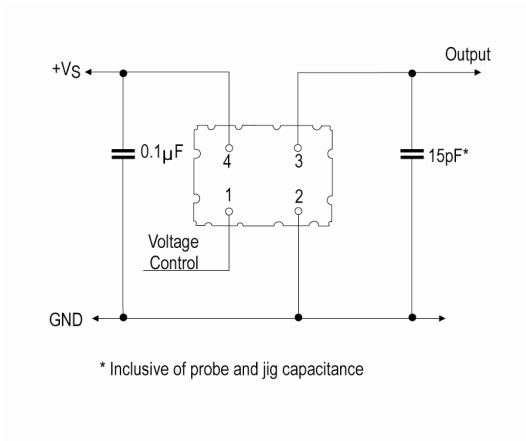
 UK: +44 (0)1460 270200  
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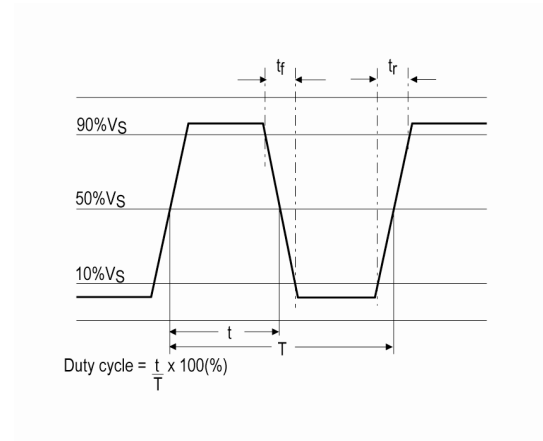
 Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
 Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

- Alternative packing option available

**Test Circuit**



**Wave Form**



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