

**Customer Part:**

**Description**

- Surface mount temperature compensated voltage controlled oscillator (VCTCXO) 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 12.80MHz
- Frequency Stability  $\pm 0.90\text{ppm}$
- Operating Temperature Range  $-20.00$  to  $70.00^\circ\text{C}$
- Ageing  $\pm 1\text{ppm}$  typical in 1st year @ $25^\circ\text{C}$

**Electrical Parameters**

- Supply Voltage  $3.3\text{V} \pm 5\%$
- Current Draw  $3.000\text{mA}$
- 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:  $\pm 0.2\text{ppm}$  (@ $15\text{pF} \pm 10\%$ )  
 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  $15\text{pF}$  (nominal)
- Rise and Fall Time  $8.0\text{ns max}$
- Duty Cycle  $45/55\%$

**Environmental Parameters**

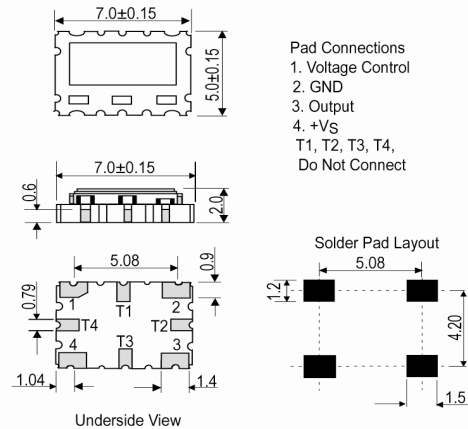
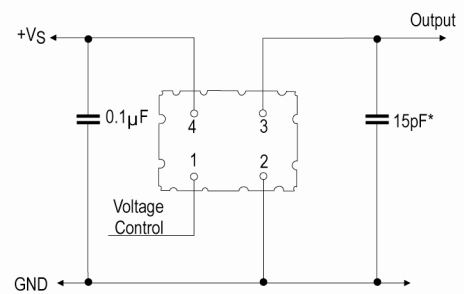
- Shock: IEC 60068-2-27, Test Ea:  $980\text{m/s}^2$  acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4:  $10\text{Hz}-60\text{Hz}$   $1.5\text{mm}$  displacement,  $60-2000\text{Hz}$  at  $98.1\text{m/s}^2$ , 30mins in 3 mutually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

**Manufacturing Details**

- Soldering: Suitable for Convection Reflow soldering. Peak temperature  $260^\circ\text{C}$  for 10sec max
- Washing: Able to withstand aqueous washing
- RoHS Terminations NiCoAu
- RoHS Reflow Temp  $260\text{degC}$  30s

**Compliance**

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): 1


**Outline (mm)**

**Test Circuit**


\* Inclusive of probe and jig capacitance

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

USA: +1.760 668 8935

 Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

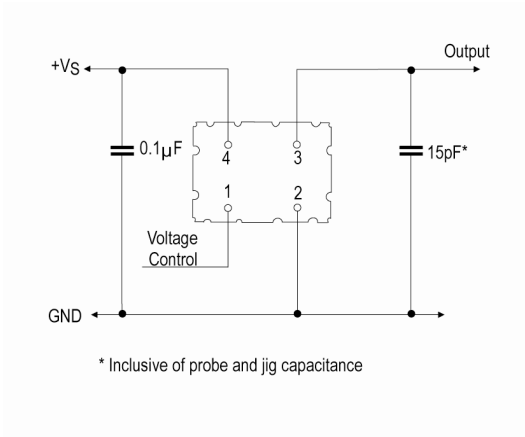
 Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

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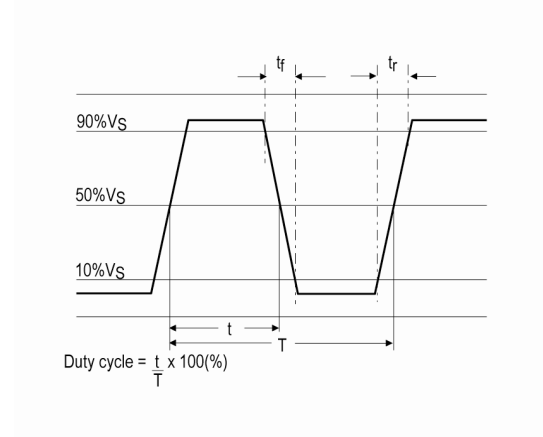
**Packaging Details**

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

**Test Circuit**



**Wave Form**



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