

## Customer Part:

### Description

- Surface mount 3.2 x 2.5mm crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid.
- Model CFPS-39
- Model Issue number 6

### Frequency Parameters

- Frequency 12.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  max per year @  $25^\circ\text{C}$

### Electrical Parameters

- Supply Voltage  $3.3\text{V} \pm 10\%$
- Current Draw 7.000mA

### Output Details

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 5.0ns max
- Duty Cycle 45/55%
- Output Low Vol: 10% Vs max  
Output High Voh: 90% Vs min
- Start-Up Time: 10ms max.  
0.7ms typ to 90% of final amplitude (under ideal conditions @  $25^\circ\text{C}$ )

### Output Control

- Standby Operation:  
Logic '1' ( $>70\%$  Vs) to pad 1 enables oscillator output  
Logic '0' ( $<30\%$  Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state  
No connection to pad 1 enables oscillator output  
Standby Current: 10 $\mu\text{A}$  max

### Environmental Parameters

- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20g (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

### Manufacturing Details

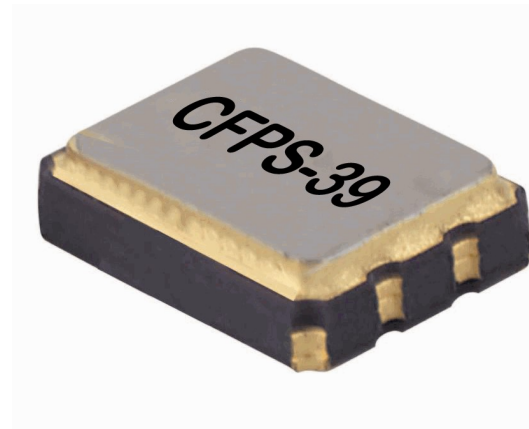
- RoHS Terminations NiAu
- RoHS Reflow Temp 260degC max for 10s max

### Compliance

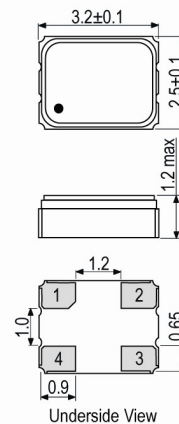
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

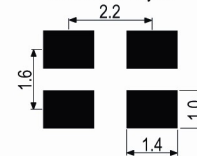


### Outline (mm)

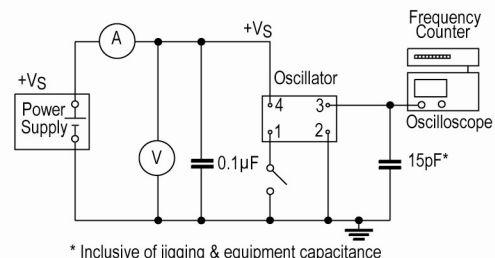


- Pad Connections
- Standby Operation
  - GND
  - Output
  - +Vs

### Solder Pad Layout



### Test Circuit



\* Inclusive of jigging & equipment capacitance

### Sales Office Contact Details:

UK: +44 (0)1460 270200

Germany: 0800 1808 443

France: 0800 901 383

USA: +1 760 318 2824

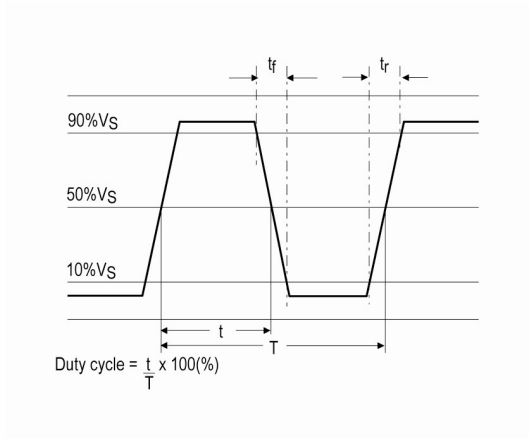
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

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

**Customer Part:**

- *Alternative packing option available*

**Wave Form**



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