

### 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 8
- Note: please be aware that devices supplied against this model may show slight cosmetic differences depending upon the frequency and specification, however all electrical details remain as per the model specification.

#### Frequency Parameters

- Frequency 40.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 85.00°C
- Ageing  $\pm 5\text{ppm}$  max per year @ 25°C

#### Electrical Parameters

- Supply Voltage 3.3V  $\pm 10\%$
- Current Draw 20.000mA

#### Output Details

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 7.0ns max
- Duty Cycle 40/60
- Output Low VoL: 10% Vs max  
Output High VoH: 90% Vs min
- Start-Up Time: 10ms max

#### 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

#### Noise Parameters

- RMS Phase Jitter:  
Frequency range 10MHz to 39.9MHz:  
Phase Jitter (12KHz to 5MHz): 1ps rms max  
Frequency range 40MHz to 125MHz:  
Phase Jitter (12KHz to 20MHz): 1ps rms max

#### Environmental Parameters

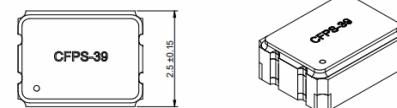
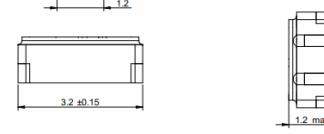
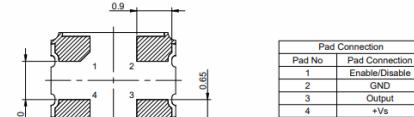
- Storage Temperature Range: -55 to 125°C
- Shock: Half Sine shock pulse with peak acceleration 500g;  
Pulse duration: 0.3ms
- Vibration: MIL-STD-202 Method 204. 5g for 20 minutes, 12 cycles in each of the 3 orientations, 10 - 2000 Hz. As per Table 11 of AEC-Q200.

#### Manufacturing Details

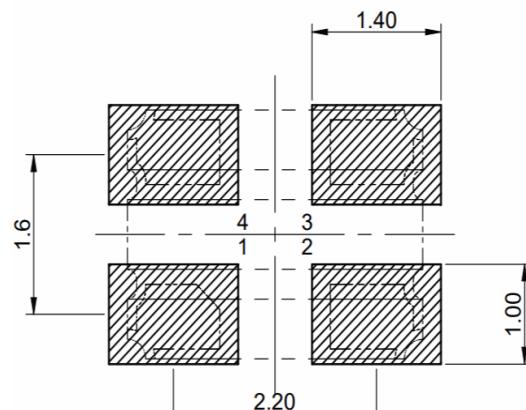
- RoHS Terminations NiAu
- RoHS Reflow Temp 260°C max for 10s max



#### Outline (mm)



#### Recommended Solder Pad Layout



#### Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

### Customer Part:

#### Compliance

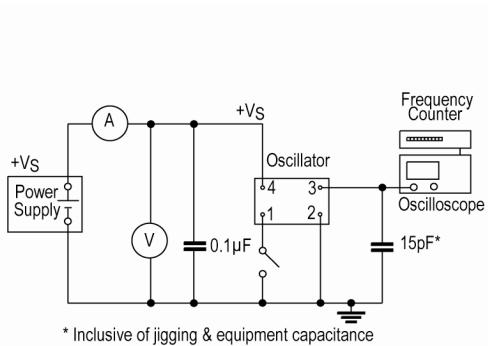
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

#### Packaging Details

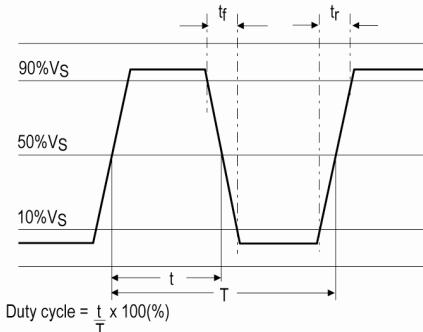
- Tape & reel in accordance with EIA-481  
Quantities below the standard reel size to be supplied on  
cut tape

Standard Pack Quantity: 3,000

### Test Circuit



### Waveform



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