

**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 7
- 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 8.0MHz
- Frequency Stability ±25.00ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing ±5ppm max per year @ 25°C

**Electrical Parameters**

- Supply Voltage 3.3V ±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: 10µA max

**Noise Parameters**

- RMS Phase Jitter:  
 (Bandwidth 12kHz to 5MHz): 1ps max, frequency range 10MHz~39.9MHz  
 (Bandwidth 12kHz to 20MHz): 1ps max, frequency range 40MHz~125MHz

**Environmental Parameters**

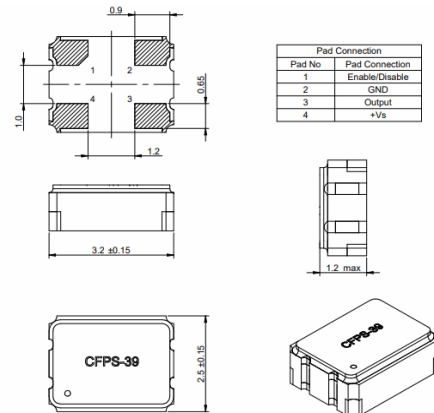
- Storage Temperature Range: -55 to 125°C
- Shock: Half Sine shock pulse with peak acceleration 500g; Pulse duration: 0.3ms
- Vibration: MIL-STD-202 Method 204. 5g for 20 minutes, 12 cycles in each of the 3 orientations, 10 - 2000 Hz. As per Table 11 of AEC-Q200.

**Manufacturing Details**

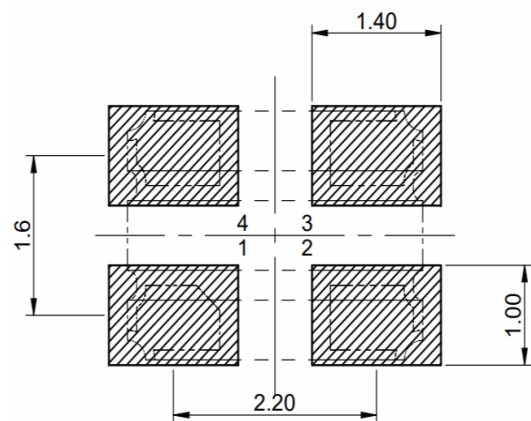
- RoHS Terminations NiAu
- RoHS Reflow Temp 260°C max for 10s max



**Outline (mm)**



**Recommended Solder Pad Layout**



**Sales Office Contact Details:**

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**Customer Part:**

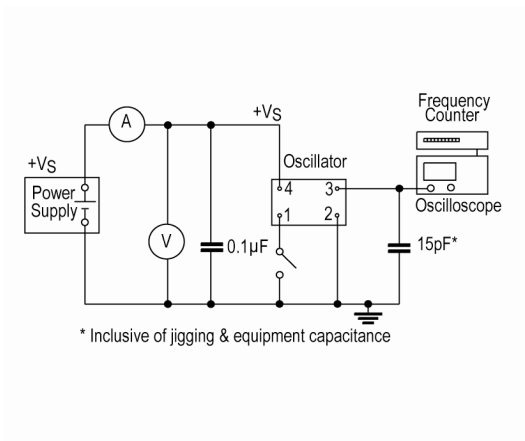
**Compliance**

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

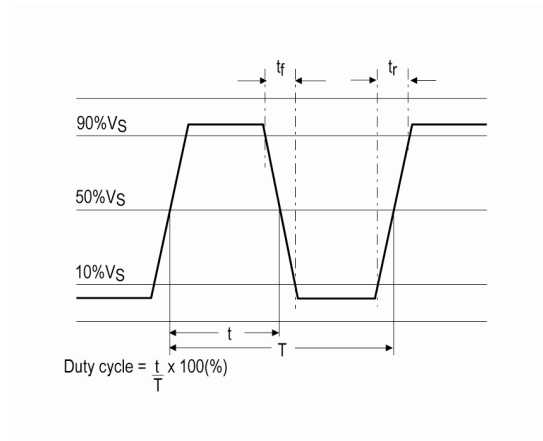
**Packaging Details**

- Tape & reel in accordance with EIA-481  
Quantities below the standard reel size to be supplied on cut tape.  
Standard Quantity: 3,000 Pieces

**Test Circuit**



**Waveform**



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