


**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 20.0MHz
- Frequency Stability  $\pm 25.00\text{ppm}$
- 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  $12.000\text{mA}$

**Output Details**

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $5.0\text{ns}$  max
- Duty Cycle  $45/55\%$
- Start-Up Time:  $10\text{ms}$  max.  
 $0.7\text{ms}$  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:  $1000\text{G}$ ,  $0.5\text{ms}$ ,  $1/2$  sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D:  $20\text{g}$  ( $10\text{Hz}$ - $2000\text{Hz}$ ),  $4\text{hrs}$  in 3 mutually perpendicular planes (total  $12\text{hrs}$ )

**Manufacturing Details**

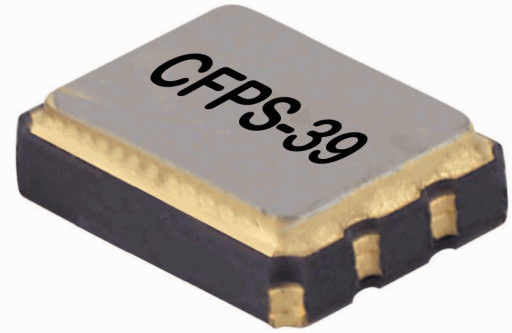
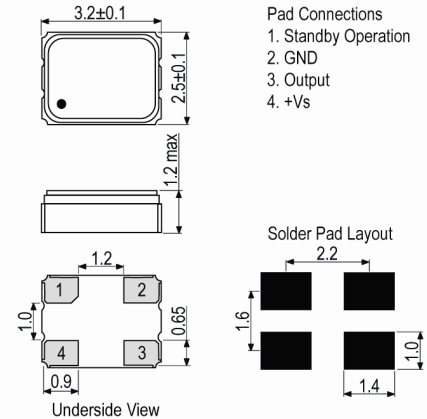
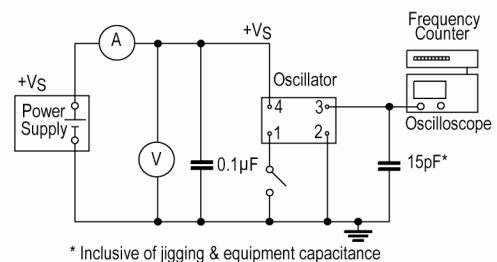
- RoHS Terminations NiAu
- RoHS Reflow Temp  $260\text{degC}$  max for  $10\text{s}$  max

**Compliance**

- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

- Pack Style: *Cutt* In tape, cut from a reel  
 Pack Size: 100
- *Alternative packing option available*


**Outline (mm)**

**Test Circuit**

**Sales Office Contact Details:**

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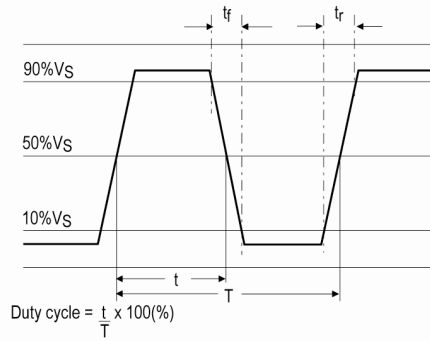
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**Wave Form**



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