



## Description

- Standard 3.2 x 2.5mm crystal oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed
- Model CFPS-39
- Model Issue number 4

## Frequency Parameters

- Frequency 50.0MHz
- 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  $20.00\text{mA}$

## Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $5.0\text{ns}$  max
- Duty Cycle  $45/55\%$

## 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  
Start-Up Time:  $10\text{ms}$  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  $12\text{hrs}$ )

## Compliance

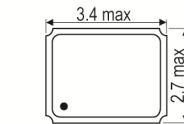
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

## Packaging Details

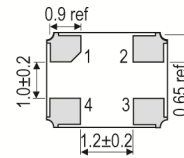
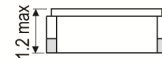
- Pack Style: Reel Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Alternative packing option available



## Outline (mm)

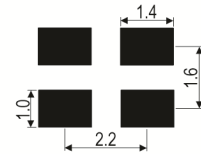


- Pad Connections
- Standby Operation
  - GND
  - Output
  - +Vs

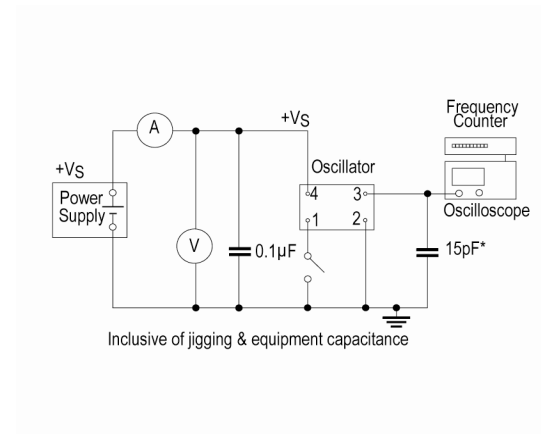


Underside View

## Solder Pad Layout



## Test Circuit



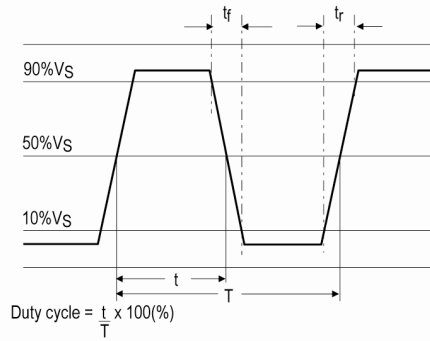
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**Wave Form**



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