

## Customer Part:



### Description

- Low supply current crystal oscillators  
Ceramic package with a seam sealed metal lid, hermetically sealed
- Model CFPS-69
- Model Issue number 5

### Frequency Parameters

- Frequency 24.0MHz
- 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

### Electrical Parameters

- Supply Voltage  $3.3\text{V} \pm 5\%$
- Current Draw  $4.500\text{mA}$
- Standby Current:  $1\mu\text{A}$  max

### Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $12.0\text{ns}$  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 the oscillator output goes to the high impedance state  
No connection to pad 1 enables oscillator output

### 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  $260\text{degC}$  10s

### Compliance

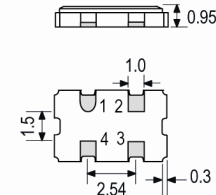
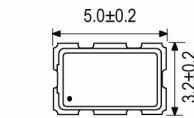
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

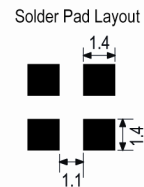
- Pack Style: Bulk Loose in bulk pack  
Standard Pack Quantity: 100
- *Alternative packing option available*



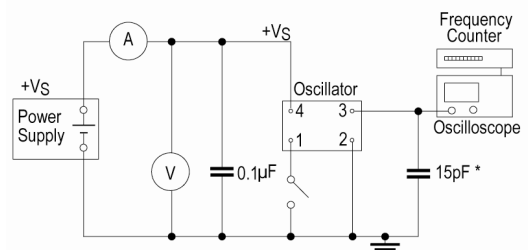
### Outline (mm)



- Pad Connections
1. Standby Operation
  2. GND
  3. Output
  4. +VS



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Sales Office Contact Details:

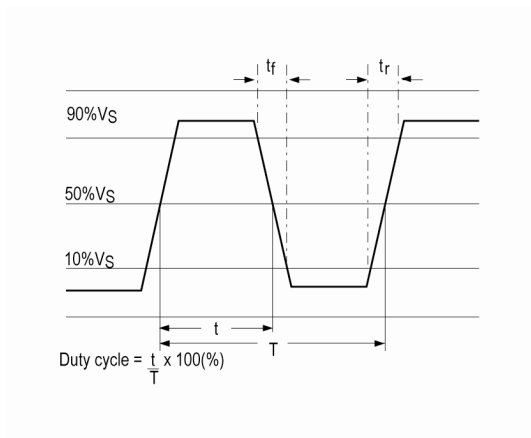
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**Customer Part:**

**Wave Form**



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**Sales Office Contact Details:**

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