

ISSUE 6; April 2016

### Description

- Standard 5 x 3.2 crystal oscillator. Ceramic package with a seam sealed metal lid, hermetically sealed. Please see our CFPS-9 for a 3.3V version of this package. Please see our CFPS-37 for a 2.5V version of this package. Fast Make capability: CFPP-12 programmable oscillator as the nearest equivalent fast make model.

### Frequency Parameters

- Frequency: 500.0kHz to 100.0MHz
- Frequency Stability:  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Supply Voltage: 5.0V  $\pm 0.5\text{V}$

### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

### Output Details

- Output Compatibility: CMOS
- Drive Capability: 15pF 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

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

### Ordering Information

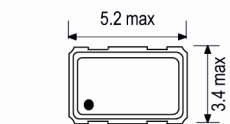
- Frequency\*
- Model\*
- Output
- Frequency Stability\*
- Operating Temperature Range\*
- Supply Voltage
- Example:
  - 10.0MHz CFPS-12
  - CMOS  $\pm 50\text{ppm}$  -10 to 70C 5.0V

### Compliance

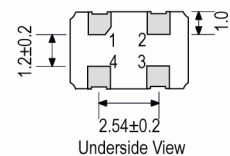
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



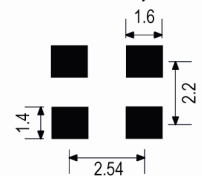
### Outline (mm)



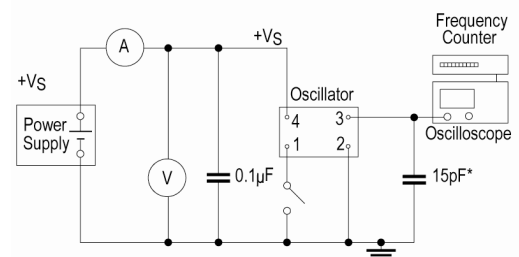
- Pad Connections
- Standby Operation
  - GND
  - Output
  - +VS



### Solder Pad Layout



### Test Circuit



\* Inclusive of jiggging and equipment capacitance

### Sales Office Contact Details:

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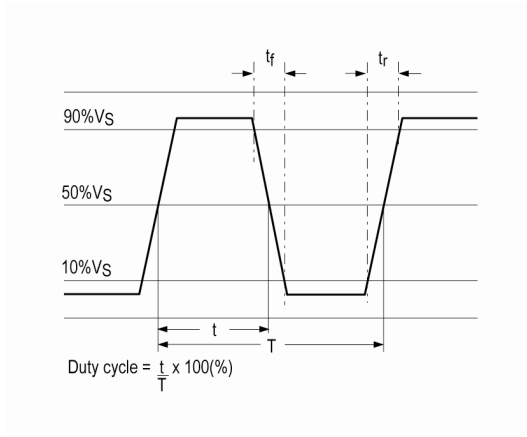
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**Packaging Details**

- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: Cutt      In tape, cut from a reel  
Pack Size: 1
- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 100

**Wave Form**



**Electrical Specification - maximum limiting values 5.0V ±0.5V**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
500.0kHz	9.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	10 10	40/60%
10.0MHz	19.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	10 10	40/60%
20.0MHz	31.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	10 10	40/60%
32.0MHz	49.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	6 6	40/60%
50.0MHz	79.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	50 50	5 5	40/60%
80.0MHz	100.0MHz	-10 to 70 -40 to 85	±25.0 ±25.0	60 60	5 5	40/60%

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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