

ISSUE 7; September 2024

Description

- Standard 5 x 3.2mm crystal oscillators
Ceramic package with a seam sealed metal lid, hermetically sealed
Please see our CFPS-9 or CFPS-12 for a 3.3 or 5.0V version of this package
Please see our CFPS-67 for a low current draw version of this package



Frequency Parameters

- Frequency 1.8MHz to 125.0MHz
- Frequency Stability $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 3\text{ppm}$ max per year

Electrical Parameters

- Supply Voltage 2.5V $\pm 5\%$

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF
- Logic '1' (>70% VS) to pad 1 enables oscillator output.
Logic '0' (<30% VS) to pad 1 disables oscillator output and oscillator output goes to the high impedance state.
No connection to pad 1 enables oscillator output.
Standby Current: 10 μ A max.

Environmental Parameters

- 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).
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

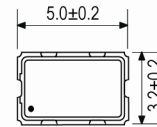
- RoHS Terminations NiAu
- RoHS Reflow 260degC 10s

Ordering Information

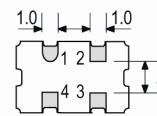
- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- Example
10.0MHz CFPS-37
CMOS $\pm 50\text{ppm}$ -10 to 70C 2.5V



Outline (mm)

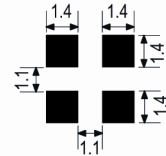


Pad Connections
1. Standby Operation
2. GND
3. Output
4. +Vs

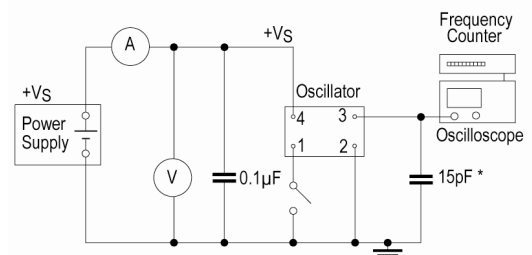


Underside View

Solder Pad Layout



Test Circuit



* Inclusive of jigging & equipment capacitance

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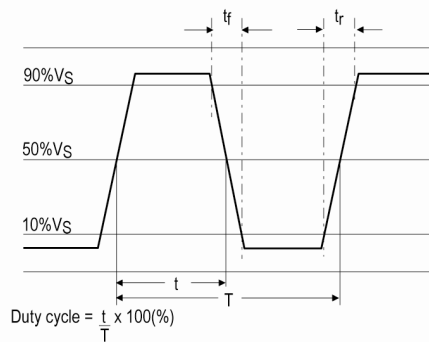
Compliance

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

Packaging Details

- Pack Style: *BLANK Tape & reel in accordance with EIA-481
Standard Pack Quantity: 1,000
Quantities below the standard reel size to be supplied on cut tape

Wave Form



Electrical Specification - maximum limiting values 2.5V $\pm 5\%$

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.8MHz	32.0MHz	-10 to 70	± 25.0	10	5	45/55%
		-40 to 85	± 50.0	10	5	45/55%
32.000001MHz	50.0MHz	-10 to 70	± 25.0	20	5	45/55%
		-40 to 85	± 50.0	20	5	45/55%
50.000001MHz	80.0MHz	-10 to 70	± 25.0	20	5	40/60%
		-40 to 85	± 50.0	20	5	40/60%
80.000001MHz	125.0MHz	-10 to 70	± 25.0	30	4	40/60%
		-40 to 85	± 50.0	30	4	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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