

ISSUE 6; July 2024

Description

- Surface mount 3.2 x 2.5mm crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid. Fast Make capability: CFPP-41 programmable oscillator is the nearest equivalent fast make model.



Frequency Parameters

- Frequency: 2.0MHz to 125.0MHz
- 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: 1.8V $\pm 5\%$

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: CMOS
- Drive Capability: 15pF max
- Output Low Vol: 10% Vs max
- Output High Voh: 90% Vs min

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
- Start-Up Time: 10ms 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)

Manufacturing Details

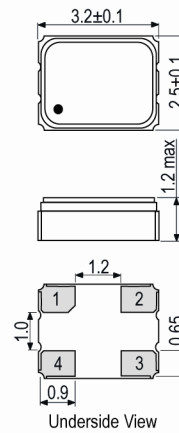
- RoHS Terminations: NiAu
- RoHS Reflow: 260degC max for 10s max

Ordering Information

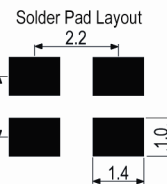
- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage (*minimum required)
- Example: 10.0MHz CFPS-41 CMOS $\pm 50\text{ppm}$ -10 to 70C 1.8V



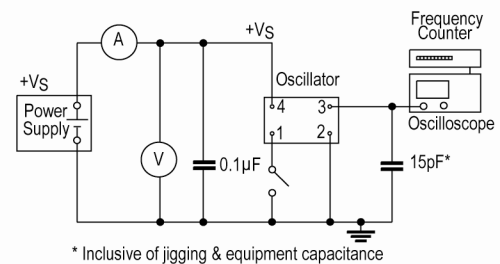
Outline (mm)



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



Test Circuit



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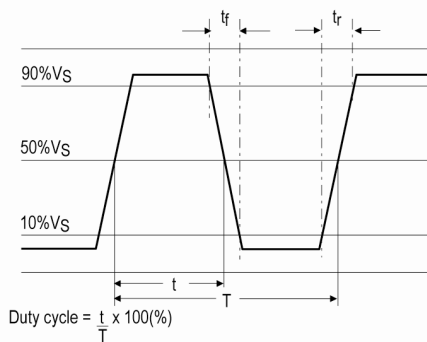
Compliance

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

Packaging Details

- Pack Style: Cutt In tape, cut from a reel
Standard Pack Quantity: 100
- Pack Style: RL3K Tape & reel in accordance with EIA-481
Standard Pack Quantity: 3,000

Wave Form



Electrical Specification - maximum limiting values 1.8V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
2.0MHz	9.999999MHz	-10 to 70	±25.0	5	7	40/60%
		-40 to 85	±25.0	5	7	40/60%
10.0MHz	19.999999MHz	-10 to 70	±25.0	6	7	40/60%
		-40 to 85	±25.0	6	7	40/60%
20.0MHz	31.999999MHz	-10 to 70	±25.0	6	6	40/60%
		-40 to 85	±25.0	6	6	40/60%
32.0MHz	50.0MHz	-10 to 70	±25.0	15	6	40/60%
		-40 to 85	±25.0	15	6	40/60%
50.000001MHz	125.0MHz	-10 to 70	±25.0	25	6	40/60%
		-40 to 85	±25.0	25	6	40/60%

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