

ISSUE 7; May 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-40 programmable oscillator is the nearest equivalent fast make model.



Frequency Parameters

- Frequency: 1.0MHz to 54.0MHz
- Frequency Stability: $\pm 20.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

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

Operating Temperature Ranges

- 20 to 70°C
- 40 to 85°C

Output Details

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

Output Control

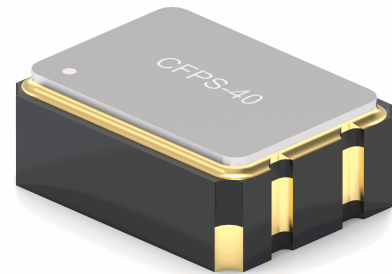
- Standby Operation:
 - Logic '1' (>70% Vs) to pad 1 enables oscillator output
 - Logic '0' (<30% Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
 - No connection to pad 1 enables oscillator output
 - Standby Current: 10µA max

Environmental Parameters

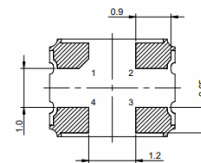
- Storage Temperature Range: -55 to 125°C
- Drop Test: in accordance with JIS-C0044; The specimen is measured for its frequency before the test. It is then dropped from a height of 75cm or more as a free fall object onto a hard wooden plate of 30mm or more in thickness.
- Vibration: MIL-STD-883F : 2007.3, Test Condition: Peak acceleration: 20g Frequency range: (20Hz~2000Hz), Peak to peak amplitude: 1.52mm, Sweep time: 20 minute/axis, Perpendicular total test time: 4 hours

Manufacturing Details

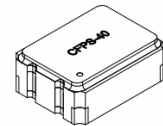
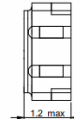
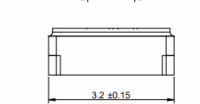
- RoHS Terminations: NiAu
- RoHS Reflow: 260°C max for 30s max



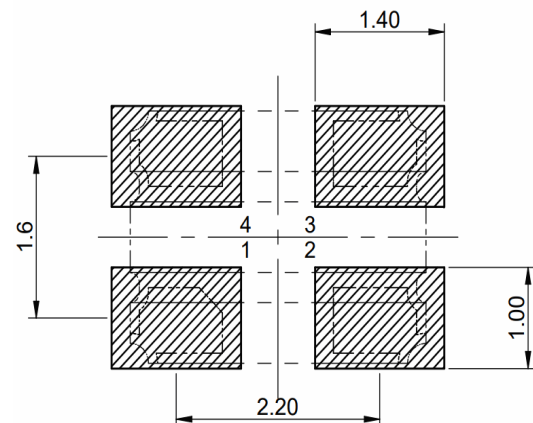
Outline (mm)



Pad No.	Pad Connection
1	Enable/Disable
2	GND
3	Output
4	+Vs



Recommended Solder Pad Layout



Sales Office Contact Details:

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Ordering Information

- Frequency*
Model*
Output
Frequency Stability*
Operating Temperature Range*
Supply Voltage
(*minimum required)
- Example
10.0MHz CFPS-40
CMOS ± 50 ppm -10 to 70°C 2.5V

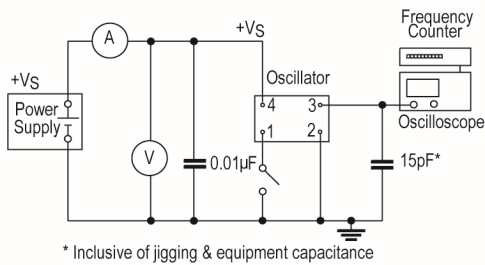
Compliance

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

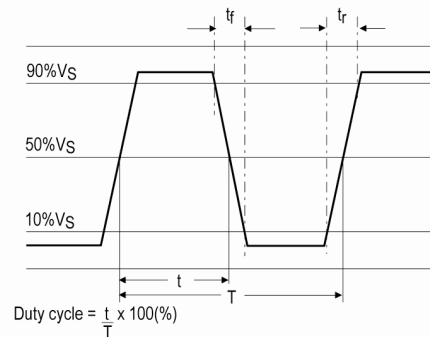
Packaging Details

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

Test Circuit



Wave Form



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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	%
1.0MHz	9.999999MHz	-20 to 70	\pm 20.0	6	5	40/60
		-40 to 85	\pm 20.0	6	5	40/60
10.0MHz	19.999999MHz	-20 to 70	\pm 20.0	7	5	40/60
		-40 to 85	\pm 20.0	7	5	40/60
20.0MHz	31.999999MHz	-20 to 70	\pm 20.0	8	5	40/60
		-40 to 85	\pm 20.0	8	5	40/60
32.0MHz	54.0MHz	-20 to 70	\pm 20.0	20	5	40/60
		-40 to 85	\pm 20.0	20	5	40/60

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