

ISSUE 5; July 2024

Description

- Low supply current crystal oscillators
Ceramic package with a seam sealed metal lid, hermetically sealed
Please see our CFPS-9 package for standard 5 x 3.2 oscillators

Frequency Parameters

- Frequency 1.8MHz to 50.0MHz
- 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 $3.3\text{V} \pm 5\%$
- Standby Current: $1\mu\text{A}$ max

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 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°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

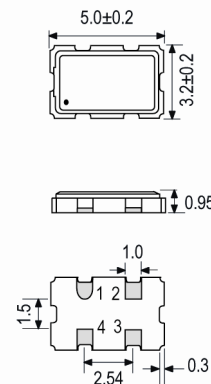
- RoHS Terminations NiAu
- RoHS Reflow 260°C 10s

Ordering Information

- Frequency*
Model*
Output
Frequency Stability*
Operating Temperature Range*
Supply Voltage
(*minimum required)
- Example
20.0MHz CFPS-69
CMOS $\pm 50\text{ppm}$ -10 to 70°C 3.3V

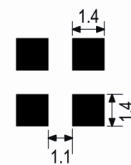


Outline (mm)

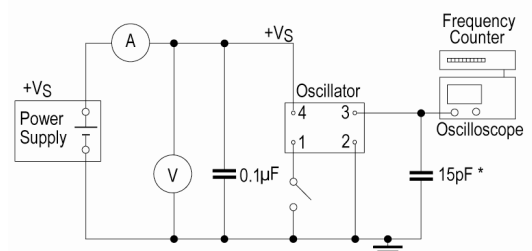


Pad Connections
1. Standby Operation
2. GND
3. Output
4. +VS

Solder Pad Layout



Test Circuit



* Inclusive of jigging and equipment capacitance

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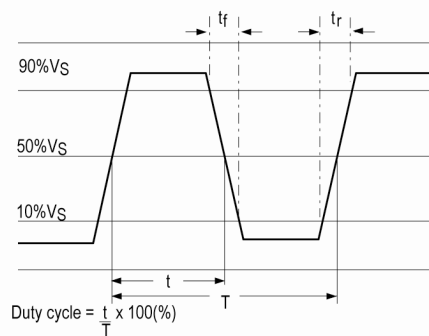
Compliance

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

Packaging Details

- Pack Style: Cutt In tape, cut from a reel
Standard Pack Quantity: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481
Standard Pack Quantity: 1,000

Wave Form



Electrical Specification - maximum limiting values 3.3V $\pm 5\%$

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.8MHz	31.999999MHz	-10 to 70	± 25.0	4.5	12	45/55%
		-40 to 85	± 50.0	4.5	12	45/55%
32.0MHz	50.0MHz	-10 to 70	± 25.0	6	12	45/55%
		-40 to 85	± 50.0	6	12	45/55%

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