

CFPS-31 SMD CLOCK OSCILLATORS

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Description

- 1.8V surface mount oscillator in a ceramic package, with a hermetically sealed metal lid

Package Outline

- 7 x 5mm

Frequency Range

- 1.8 to 160MHz

Output Compatibility & Load

- Tri-state CMOS
- Drive Capability 15pF max

Frequency Stabilities

- $\pm 25\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$ (inclusive of supply voltage and output load variations over the operating temperature range)

Operating Temperature Ranges

- 10 to 70°C (CFPS-31)
- 40 to 85°C (CFPS-31I)

Storage Temperature Range

- 55 to 125°C

Tri-state Operation

- Logic '1' (> 70% Vs) to pad 1 enables oscillator output
- Logic '0' (< 30% Vs) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output

Standby Current

- 10 μ A max

Start-Up Time

- 10ms max

Environmental

- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine wave)
- Vibration: MIL-STD-202F, Method 204D, Test Condition D20G, frequency range 10-2000Hz, 4 hrs for X, Y & Z axes, (total 12 hrs)

Marking Includes

- Model Number + Frequency

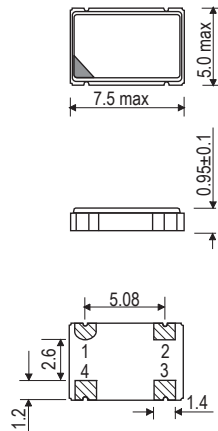
Packaging

- Bulk or Tape and Reel

Minimum Order Information Required

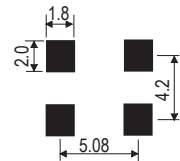
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability

Outline (mm)

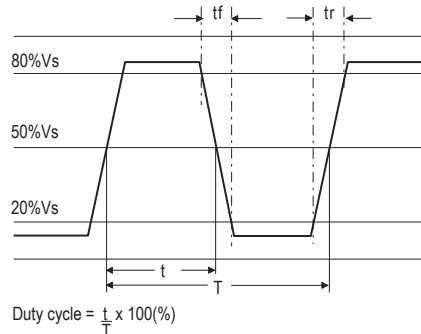


- Pad Connections
1. Enable/Disable
 2. GND
 3. Output
 4. +Vs

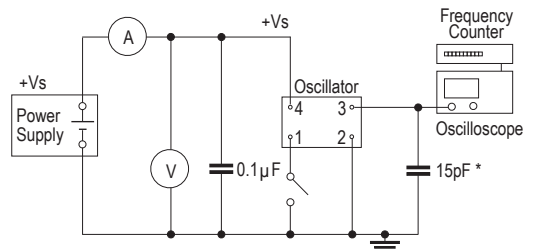
Solder pads layout



Output Waveform



Test Circuit



* Inclusive of jigging and equipment capacitance

Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (20-80%)	Fall Time (tf) (80-20%)	Duty Cycle	Model Number
1.8 to 32.0MHz	±25ppm, ±50ppm, ±100ppm	1.8V ±5%	7mA	5.0ns	5.0ns	40/60%	CFPS-31 CFPS-311
>32.0 to 80.0MHz			15mA	3.5ns	3.5ns		
>80.0 to 125.0MHz			25mA				
>125.0 to 160.0MHz			35mA	3.0ns	3.0ns		

Ordering Example 24MHz CFPS-31 | C

Frequency _____

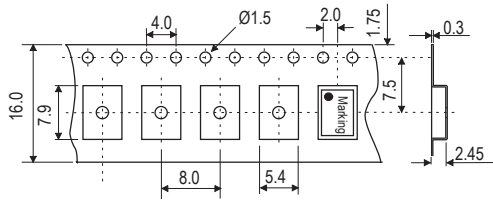
Model No. _____

Operating Temperature Code: I = -40 to 85°C; not applicable for -10 to 70°C _____

Frequency Stability: A = ±25ppm; B = ±50ppm; C = ±100ppm _____

Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practice the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

Tape (mm)



Reel (mm)

