

# CFPS-302, 303 CLOCK OSCILLATORS

ISSUE 5; 20 NOVEMBER 2008 - RoHS 2002/95/EC

## Description

- 8-pin DIL compatible resistance welded enclosure, hermetically sealed with glass to metal seal

## Fast Make Capability

- Please see CFPP-303 series Programmable Oscillators for nearest equivalent fast make parts

## Package Outline

- 8-pin DIL

## Frequency Range

- 500kHz to 125MHz

## Output Compatibility & Load

- HCMOS/LSTTL
- Drive Capability 15pF max or 10LSTTL
- Non tri-state (CFPS-302)
- Tri-state (CFPS-303)

## Frequency Stabilities

- $\pm 25$ ppm,  $\pm 50$ ppm,  $\pm 100$ ppm (over operating temperature range)

## Operating Temperature Range

- 0 to 70°C (CFPS-302, -303)
- 40 to 85°C (CFPS-302I, -303I)

## Storage Temperature Range

- 55 to 125°C

## Tri-state Operation (CFPS-303, -303I)

- No connection or Logic '1' to pin 1 enables oscillator output
- Logic '0' to pin 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
- Maximum 'pull-down' resistance required to disable output = 20k $\Omega$
- Disable current 50 $\mu$ A typical

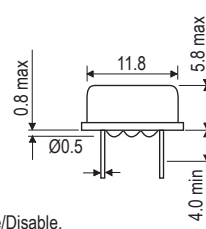
## Environmental

- Terminal Strength: 0.91kg max force perpendicular to top and bottom
- Hermetic Seal: not to exceed  $1 \times 10^{-8}$  mBar litres of Helium leakage
- Solderability: MIL-STD-202E, Method 208C
- Vibration: 10 to 55Hz 0.76mm displacement, sweep 60 seconds, duration 2 hours
- Rapid Change of Temperature over Operating Temperature Range: 10 cycles
- Shock: 981m/s<sup>2</sup> for 6ms, three shocks in each direction along the three mutually perpendicular planes

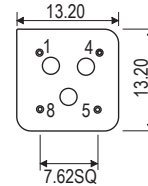
## Marking Includes

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

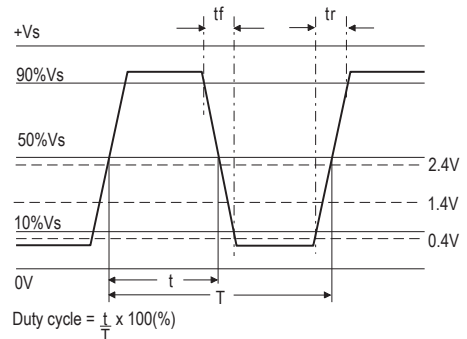
## Outline (mm)



- Pin Connections
- N/C or Enable/Disable.
  4. GND
  5. Output
  8. +Vs



## Output Waveform



## Packaging

- Bulk

## Minimum Order Information Required

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

CLOCK  
OSCILLATORS

### Electrical Specifications - maximum limiting values

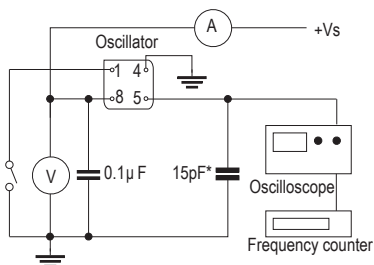
Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr)	Fall Time (tf)	Duty Cycle	Model Number
500.0kHz to <20.0MHz	±25ppm, ±50ppm, ±100ppm	3.3V ±0.33V	10mA	10ns	10ns	40/60%	CFPS-302, 302I, 303, 303I
20.0MHz to <25.0MHz			20mA				
25.0MHz to 40.0MHz			25mA	6ns	6ns		
>40.0MHz to <70.0MHz				30mA	3ns		
70.0MHz to <125.0MHz							

Ordering Example 22.0MHz CFPS-302 B  
 Frequency \_\_\_\_\_  
 Model number: -302 = Non tri-state, -303 = Tri-state  
 Operating Temperature Code: I = -40 to 85°C Not applicable for 0 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.

CLOCK OSCILLATORS

### Test Circuit



\*Inclusive of jigging and equipment capacitance

Note: Pin 1 = No connection on non tri-state models