

# CFPS-302, -303 Commercial Oscillator

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## Delivery Options

- Please contact our sales office for current leadtimes

## Output Compatibility

- HCMOS/TTL
- Drive Capability: 15pF or 10TTL (<70.0MHz)  
30pF (≥70.0 to 160.0MHz)
- Non tri-state (CFPS-302)
- Tri-state (CFPS-303)

## Package Outline

- 8-pin DIL compatible resistance welded enclosure, hermetically sealed with glass to metal seal. Available over 0 to 70°C (CFPS-302, -303) or -40 to 85°C (CFPS-302I, -303I)

## Standard Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm  
(over operating temperature range)

## Operating Temperature Ranges

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

## Storage Temperature Range

- -55 to 125°C

## Environmental Specification

- Terminal Strength: 0.91kg max. Force perpendicular to top & 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

## Tri-state Operation (CFPS-303)

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

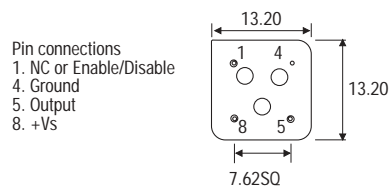
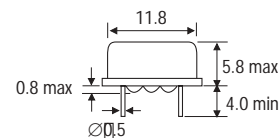
## Marking

- Model number + Operating Temperature Code (if applicable)
- Frequency Stability Code
- Frequency
- Date Code (Year/Week)

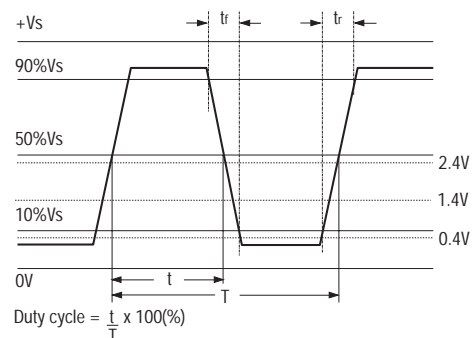
## Minimum Order Information Required

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

## Outline in mm



## Output Waveform - HCMOS/TTL



Electrical Specifications - maximum limiting values when measured in HCMOS test circuit.

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time( $t_r$ )	Fall Time( $t_f$ )	Duty Cycle	Model Number
500.0kHz to 20.0MHz	$\pm 25\text{ppm}$ , $\pm 50\text{ppm}$ , $\pm 100\text{ppm}$	$3.3\text{V} \pm 0.33\text{V}$	10mA	10ns	10ns	40/60%	CFPS-302, -303
> 20.0 to 25.0MHz	$\pm 25\text{ppm}$ , $\pm 50\text{ppm}$ , $\pm 100\text{ppm}$	$3.3\text{V} \pm 0.33\text{V}$	20mA	10ns	10ns	40/60%	CFPS-302, -303
> 25.0 to < 70.0MHz	$\pm 25\text{ppm}$ , $\pm 50\text{ppm}$ , $\pm 100\text{ppm}$	$3.3\text{V} \pm 0.33\text{V}$	20mA	6ns	6ns	40/60%	CFPS-302, -303
70.0 to 160.0MHz	$\pm 25\text{ppm}$ , $\pm 50\text{ppm}$ , $\pm 100\text{ppm}$	$3.3\text{V} \pm 0.33\text{V}$	40mA	3ns	3ns	40/60%	CFPS-302, -303

**Ordering Example**

Frequency 22.0MHz

Model number -302 = Non tri-state & 303 = Tri-state

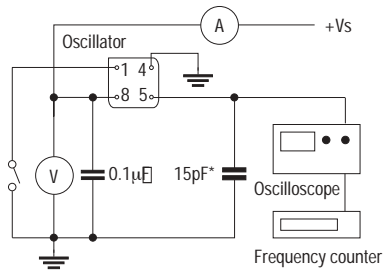
Operating Temperature Code: I = -40 to 85°C Not applicable for 0 to 70°C

Frequency Stability: A =  $\pm 25\text{ppm}$ , B =  $\pm 50\text{ppm}$ , C =  $\pm 100\text{ppm}$

CFPS-302I B

LEADED SPX05

Test Circuit - HCMOS



\*Inclusive of jigging & equipment capacitance  
Note: Pin 1 = No connection on non tri-state models

Test Circuit - TTL

