

# CFPP-23, -303

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## Delivery Options

- 48 hour fast make service available. Please contact our sales office for details

## Output Compatibility

- Tri-state HCMOS/TTL (5.0V) (CFPP-23, -23I)

Maximum Capacitive Load for:	
TTL $\leq$ 40.0MHz	50pF
TTL $>$ 40.0 to 150.0MHz	25pF
HCMOS $\leq$ 66.0MHz	50pF
HCMOS $>$ 66.0 to 150.0MHz	25pF

- Tri-state HCMOS (3.3V) (CFPP-303, -303I)

Maximum Capacitive Load for:	
HCMOS $\leq$ 40.0MHz	30pF
HCMOS $>$ 40.0 to 133.0MHz	15pF

## Package Outline

- Dual In Line (8 pin DIL)

## Standard Frequency Stabilities

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

## Operating Temperature Range

- 0 to 70°C (CFPP-23, -303)
- 40 to 85°C (CFPP-23I, 303I)

## Storage Temperature Range

- 55 to 125°C

## Tri-state Operation

- 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
- No connection to pin 1 enables oscillator output

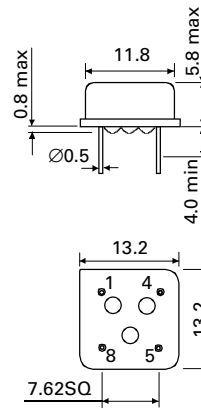
## Marking

- Model number (+ Operating Temperature Code; if applicable, + Frequency Stability Code)
- Frequency

## Minimum Order Information Required

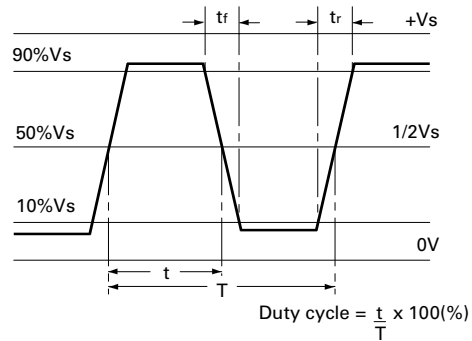
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability

## Outline in mm



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

## Output Waveform



## Solder Conditions

- For typical soldering conditions, please see relevant page in Application Notes

**Electrical Specifications - typical values when measured in HCMOS test circuit.**

Frequency Range	Frequency Stability	Supply Voltage	Supply Current (unloaded)	Rise Time(tr)	Fall Time(tf)	Duty Cycle (CMOS)	Model Number
1.0 to 40.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V ±0.5%	45mA	4ns	4ns	45/55%	CFPP-23, 23I
		3.3V ±0.5%	25mA	4ns	4ns	45/55%	CFPP-303, 303I
>40.0 to 66.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V ±0.5%	45mA	4ns	4ns	45/55%	CFPP-23, 23I
		3.3V ±0.5%	25mA	4ns	4ns	40/60%	CFPP-303, 303I
>66.0MHz to 100.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V ±0.5%	45mA	4ns	4ns	40/60%	CFPP-23, 23I
		3.3V ±0.5%	25mA	4ns	4ns	40/60%	CFPP-303, 303I
>100.0 to 133.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V ±0.5%	45mA	4ns	4ns	40/60%	CFPP-23, 23I
		3.3V ±0.5%	45mA	4ns	4ns	40/60%	CFPP-303, 303I
>133.0 to 150.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V ±0.5%	60mA	4ns	4ns	40/60%	CFPP-23, 23I

**Ordering Example** 20.0MHz CFPP-23 I C

Frequency \_\_\_\_\_

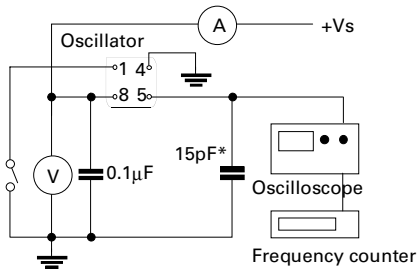
Model Number \_\_\_\_\_

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

Frequency Stability: A = ±25ppm, B = ±50ppm, C = ±100ppm \_\_\_\_\_

Jitter pk-pk (typical)		Jitter pk-pk (max)	
1.0 to 33.0MHz	>33.0MHz	1.0 to 33.0MHz	>33.0MHz
100ps	75ps	250ps	175ps

**Test Circuit - HCMOS**



\*Inclusive of jigging & equipment capacitance