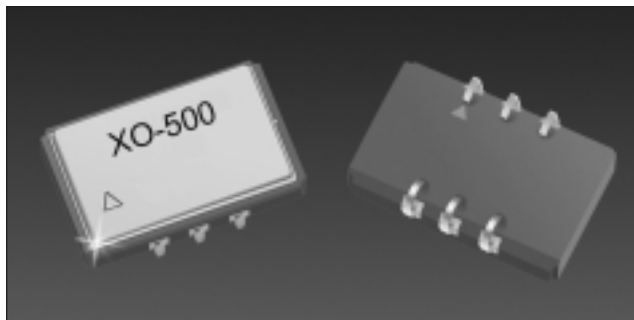


# Crystal Clock Oscillators (XO's)

## XO-500 (J-Type) PECL Output



### Description:

Low jitter capable, PECL output XO in a 14 mm x 9 mm SMD package.

### Features

- Output Frequencies from 15 MHz to 200 MHz
- +3.3 or +5 volt options
- Small 14 mm x 9 mm J-type Package
- Complementary PECL Output
- Low phase noise and custom options
- 0/70°C or -40/85°C operating temperature
- Enable/Disable

### Electrical Performance

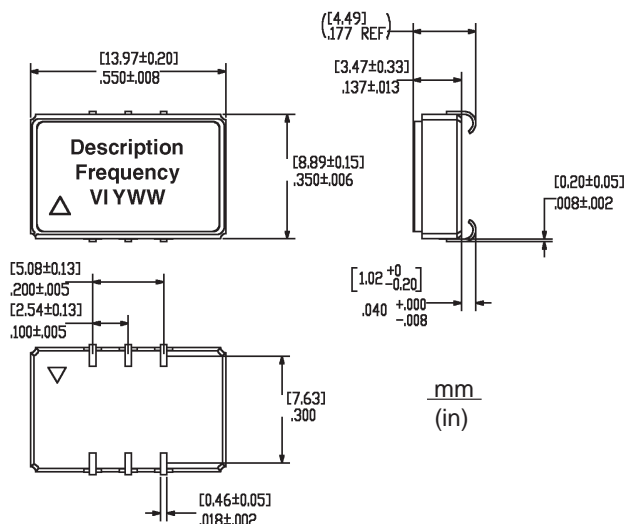
Parameter	Characteristics
Frequency:	15 MHz to 200 MHz
Package Size:	13.97 x 8.89 x 4.49mm (0.55" x 0.35" x 0.177")
Supply Voltage <sup>1</sup> :	3.3 Vdc ±5%, 5 Vdc ±5%
Supply Current:	<65 mA
Output Type:	Complementary PECL
Output Level:	0/70°C V <sub>OH</sub> V <sub>CC</sub> -1.025 min., V <sub>CC</sub> -0.880 max. 0/70°C V <sub>OL</sub> V <sub>CC</sub> -1.810 min., V <sub>CC</sub> -1.620 max. -40/85°C V <sub>OH</sub> V <sub>CC</sub> -1.085 min., V <sub>CC</sub> -0.880 max. -40/85°C V <sub>OL</sub> V <sub>CC</sub> -1.830 min., V <sub>CC</sub> -1.555 max.
Rise/Fall Time t <sub>r</sub> /t <sub>f</sub> <sup>2</sup> :	<1 ns (20% to 80%)
Symmetry (Duty Cycle):	50/50 ±5%
Temperature Stability:	<b>C-205</b> = ±20 ppm over 0°C to +70°C <b>C-325</b> = ±32 ppm over 0°C to +70°C <b>C-505</b> = ±50 ppm over 0°C to +70°C <b>F-505</b> = ±50 ppm over -40°C to +85°C <b>F-104</b> = ±100 ppm over -40°C to +85°C
Aging:	<20 ppm for 10 years
Jitter (12 kHz - 20 MHz bw):	0.5 ps rms typical, <1ps rms @ 155.52 MHz
Storage Temperature:	-55°C to +125°C

1. Power supply bypass is required and a 0.1uF in parallel with a 0.01uF high frequency capacitor is recommended.  
 2. Transition times are measured from 20% to 80% of a full 10K ECL level swing.

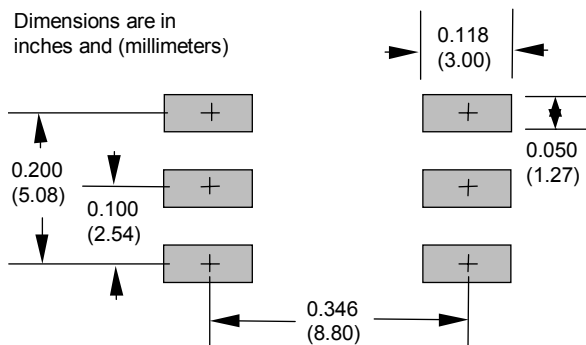
# Crystal Clock Oscillators (XO's)

## XO-500

### Outline Drawing



### Recommended Solder Pad Layout



### Pin Out Information

Pin	Symbol	Function
1	E/D	Output Disable option
2	N/C	No Connect
3	GND	Case, Ground.
4	Output	Output
5	C <sub>Output</sub>	Complementary Output
6	V <sub>CC</sub>	Supply Voltage (5 V or 3.3V ±5%)

- By setting pin 1 high, the outputs are disabled and output on pin 4 is held low while Complementary output on pin 5 is held high. Output is enabled by setting pin 1 at <math>V\_{CC} - 1.6V</math>.

### Standard Frequencies

19.44 MHz	38.88 MHz	77.76 MHz
78.125 MHz	82.944 MHz	100.000 MHz
125.00 MHz	139.264 MHz	155.52 MHz
156.25 MHz	161.1328 MHz	166.6286 MHz
167.3316 MHz	177.7371 MHz	

XO

### Ordering Information

