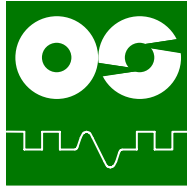


OnSpec Oscillators



OSO-00352-01 100k series PECL VCXO

Positive Emitter Coupled Logic (PECL),
100k series
Voltage Controlled Oscillators up to 500 MHz
Containing PLL multipliers

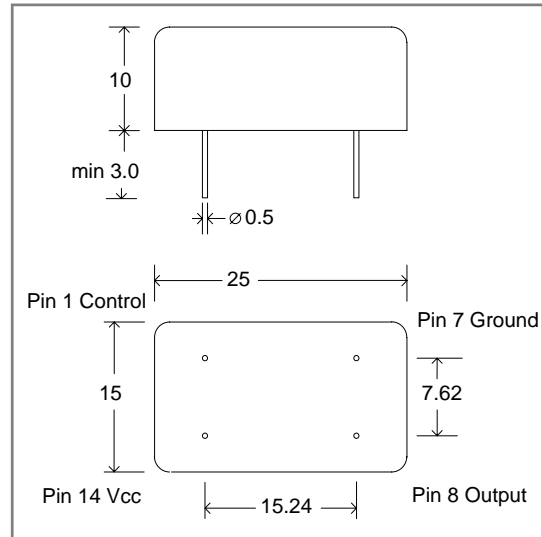
100k Series PECL Output
(10kH series available)

Positive supply, Single Output
3.3 V - 5 V supply

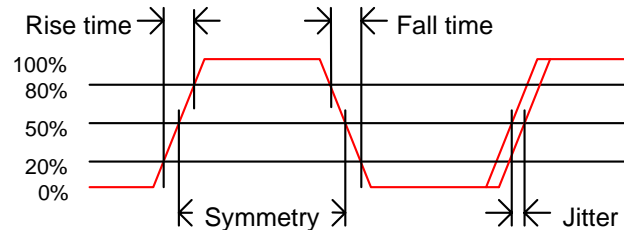
Frequency	50 - 500 MHz
Pulling Range	± 100 ppm
Control Voltage	+0.5 V to +5.0 V
Overall Stability	± 30 ppm
Output	100k series PECL
V_{OH}	3.965 V .. 4.130 V *
V_{OL}	3.170 V .. 3.380 V *
Temperature	0 .. +70°C
Rise & Fall times	700 ps max
20%..80% Symmetry	55/45..45/55%
Cycle-to-Cycle Jitter	30 ps max
Supply Voltage (V_{CC})	3.0 .. 5.5 V
Supply Current	200mA max

These oscillators use Phase Locked Loop (PLL) frequency multipliers, where the output comes from a Voltage Controlled Oscillator (VCO) that is not a crystal oscillator. The VCO is corrected by comparing its frequency to that of the crystal oscillator.

As the output comes from a VCO, the phase noise is not as good as for oscillators with no multipliers or other types of multipliers.



Timing Waveforms



The oscillator characteristics are specified with the output terminated with 50Ω to 3.0 V *.

* Output and termination voltages are quoted with a 5 V supply and will vary 1:1 with supply voltage.

All voltages are referred to the ground pin

The ground pin is connected to the case.

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Dec 2004