

# VN01-Series Specifications



**36.20L x 27.18W x 16.00H (mm)**



PDI VN01-Series Oven Controlled Crystal Oscillators (OCXO) ensures precise frequency under the most demanding circumstances. With ultra-low phase noise, excellent performance in high vibration environments, and double-hermetically sealed quartz crystal, this OCXO can also be made available in custom frequencies. PDI provides fast sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **VN01-12000X-C-R-D-5-XX\***

**FREQUENCY**

**10000X – 20000X =**  
10.000MHz – 20.000MHz

**OUTPUT**

**C = TTL/CMOS**  
**O = LVCMOS**  
**W = Sinewave**

**FREQUENCY STABILITY**

**O = +/-5 PPB**  
**P = +/-10 PPB**  
**Q = +/-20 PPB**  
**R = +/-50 PPB**  
**T = +/-100 PPB**  
**S = Special**

**OPERATING TEMPERATURE**

**A = 0 to +70°C**  
**B = -20 to +70°C**  
**D = -40 to +85°C**  
**S = Special**

**SUPPLY VOLTAGE**

**3 = 3.3**  
**5 = 5.0**  
**12 = 12.0**  
**15 = 15.0**  
**28 = 28.0**

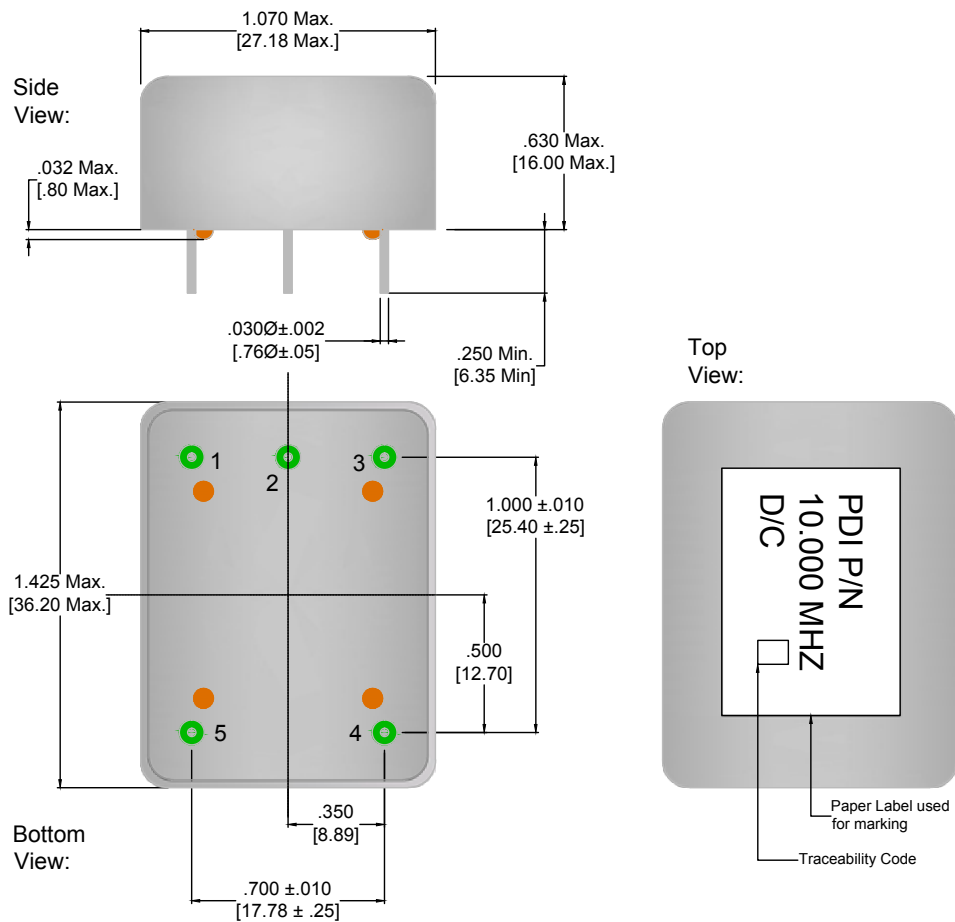
\*(XX) for standard or assigned for customization.

Parameter		Supply Voltage Range (±5%)	Units
		3.3 to 28.0	V
Frequency Range		10.000000 to 20.000000	MHz
Frequency Stability	vs Temperature (Max.)	±5.0 to ±100	ppb
	vs Supply Voltage (Max. for a 5% change)	±2.0	
	vs Load (Max. for a 10% change)	±2.0	
	vs Aging (Max. per year)	±200	
	Calibration (@ +25°C) 3 Minutes After Switch On (Max.)	±100	
Temperature Range	Operating	Per Option	°C
	Storage	-55 to +85	
Frequency Adjustment	Frequency Tuning (Min.)	±500	ppb
	Voltage Control Range	0.0 to Vref	V
	Reference Voltage Output (±2.0%)	+5.0	V
	Slope	Monotonic and Positive	
Supply Power	Linearity (Max.)	10	%
	During 3 Minutes After Switch On (Max.)	5	W
	Steady State @ 25°C (Max.)	1.5	W
Output	TTL/CMOS or LVCMOS	3.3 to 5.0	V
	Sinewave	0.0 to 6.0	dBm
Load (±10%)	TTL/CMOS or LVCMOS	15	pF
	Sinewave	50	Ω
Phase Noise (Typical)	@ 1 Hz	-90	dBc/Hz
	@ 10 Hz	-120	
	@ 100 Hz	-140	
	@ 1 kHz	-150	
	@ 10 kHz	-150	

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PIN	CONNECTION
1	EFC or No Connect
2	Vref or No Connect
3	Ouput
4	Ground/Case
5	Supply Voltage



**NOTES:**

All product supplied in anti-static packaging.  
 All product is supplied *RoHS* and *REACH* compliant.  
 All tests are performed in Still Air test conditions, unless otherwise stated.  
 Not all Frequency/Temperature combinations are available.  
*Decimal* XXX =  $\pm .008$ , XX =  $\pm .020$  *Metric* [XXX =  $\pm .20$ ], [XX =  $\pm .50$ ]  
 Specifications subject to change without notice, last updated 4/1/13.