

VC05-Series Specifications



5.00L x 3.20W x 1.27H (mm)

PDI VC05-Series Voltage Controlled Crystal Oscillator (VCXO) ensure a precise frequency under demanding circumstances. With ultra-low phase noise, low jitter, and excellent performance in high vibration environments, this VCXO is offered in both standard and custom frequencies. PDI provides quick-turn sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **VC-0-5-25000X-C-B-B-3-R-X***

ENABLE

T = Tri-State
(6-Pad Only)
0 = No/Connect

FREQUENCY

00500X-99999X =
0.500 MHz –
99.000 MHz
C10000-C16000 =
100.000 MHz –
160.000 MHz

OUTPUT

C = TTL/CMOS
O = LVCMOS

FREQUENCY STABILITY

B = +/-25
(Temp A & B)
C = +/-50
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

PACKAGE

R = Tape & Reel

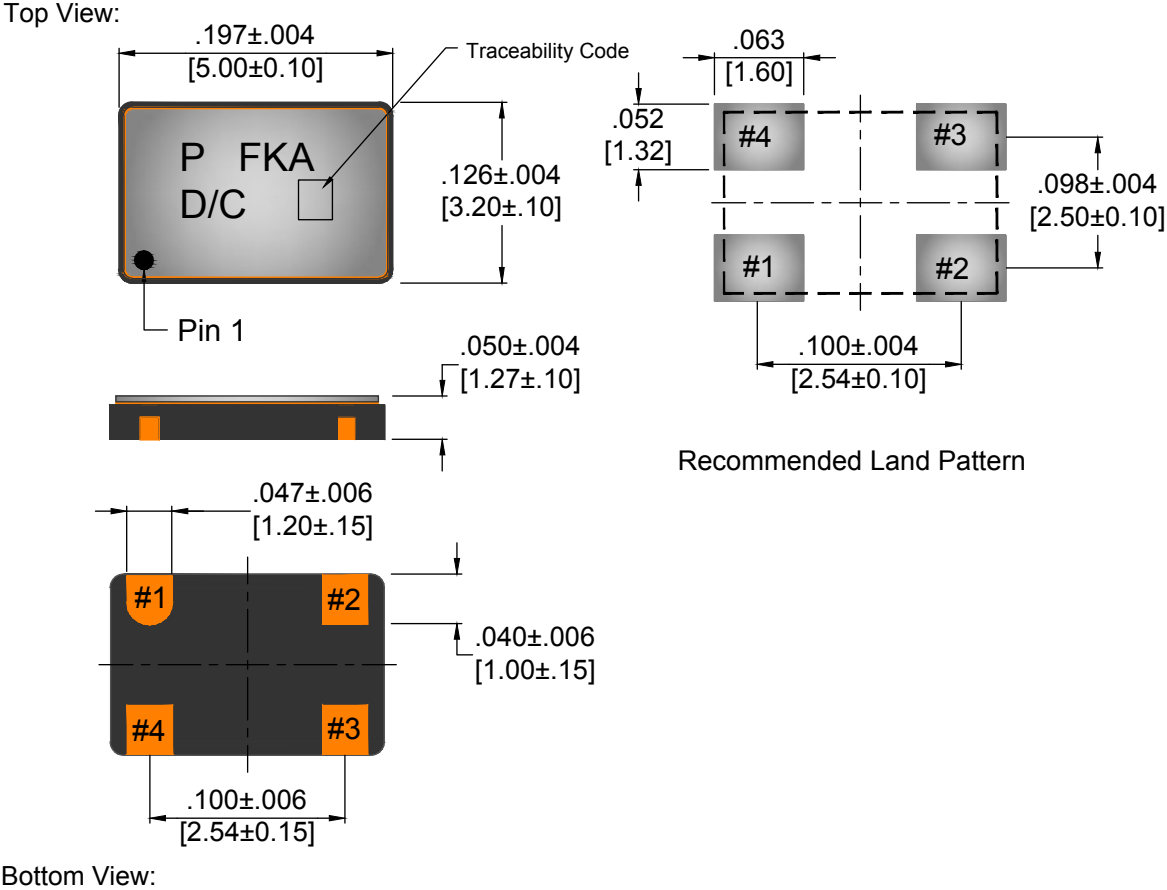
*(X) for standard or assigned for customization.


Parameter	Frequency Range*1			Units	
	0.5000 to 30.0000	30.0001 to 70.0000	70.0001 to 160.0000	MHz	
Frequency Stability*1	Temp Range A and B			±25	ppm
	All Temp Ranges			±50	
Frequency Adjustment	Voltage Control Range			10 to 90	%Vcc
	Tuning Sensitivity			80 ±20	ppm/V
	Slope			Monotonic and Positive*2	
	Linearity (Max.)			10	%
	Input Impedance (Min.)			50k	Ohm
	Modulation Bandwidth (Min.)			25	kHz
Temperature Range*1	Operating			Per Option	
	Storage			-55 to +125	
Supply Voltage*1	Vcc			Per Option	
Supply Current	3.3V	20	25	40	mA
	5.0V	25	30	45	
Load (Max.)	3.3V	15			pF
	5.0V	25			
Rise/Fall Times (Max.)	3.3V	10	5		ns
	5.0V				
Logic "1" (Min.)	TTL/CMOS	2.4			Vdc
	HCMOS	90			%Vcc
Logic "0" (Max.)	TTL/CMOS	0.4			Vdc
	HCMOS	10			%Vcc
Tri-State	High (≥ 70% Vcc) or Open	Enable			
	High (≤ 30% Vcc)	Disable			
Typical Phase Noise	At 10 Hz	-78	-63	-48	dBc/Hz
	At 100 Hz	-103	-88	-73	
	At 1 kHz	-136	-121	-106	
	At 10 kHz	-143	-133	-127	
	At 100 kHz	-146	-143	-140	

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PIN	CONNECTION
1	Voltage Control
2	Ground/Case
3	Output
4	Supply Voltage



 <p>RoHS Compliant EU 2002/95/EC Precision Devices, Inc.</p>	<p>*1 Not all Frequency/Temperature/Voltage combinations are available. *2 Increasing control voltage increases output frequency.</p>	<p>NOTES: Terminals are Au. Other options are available, please consult factory. All product is supplied RoHS and REACH compliant. Product can be supplied on Tape and Reel, on reels of 1,000 units. Not all Frequency/Temperature combinations are available. Decimal XXX = ± .008, XX = ± .020 Metric [XXX = ± .20], [XX = ± .50] Specifications subject to change without notice, last updated 4/1/13.</p>
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VC05-Series 5.00 x 3.20 x 1.27 (mm)

1. Material: Black Conductive Polystyrene or equivalent.
2. 10 Sprocket Hole pitch cumulative tolerance of ± 0.008 .
3. Camber in compliance with EIA 481.
4. Empty pockets: Trailing end (Minimum) 200 mm. and Leading end (Minimum) 400 mm.
5. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

