VECTRON INTERNATIONAL
A DOVER COMPANY

PX-400
Clock Oscillator



Features

- Low Profile
- 3 Point Mount Crystal
- Frequency Range: 1 HZ to 200 MHZ
- Previous Model: CO-401/402, CO-441/442, CO-431/451, CO-432/452

Applications

Performance Specifications

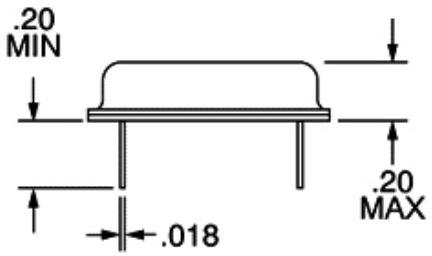
Parameter	Min	Typ	Max	Units	Condition
Frequency Stabilities[1]					
vs. operating temperature range (referenced to +25°C)	-5 -10 -25 -50 -50 -100 -300		+5 +10 +25 +50 +50 +100 +300	ppm ppm ppm ppm ppm ppm ppm	0… +50°C 0… +50°C 0… +70°C (standard) -55… +85°C -55… +125°C -55… +125°C -55… +200°C (custom number required)
Initial tolerance	-50 -25 -15 -10 -1		+50 +25 +15 +10 +1	ppm ppm ppm ppm ppm	@ +25°C @ +25°C @ +25°C @ +25°C Set via external capacitor (custom number required)
vs. aging / 1 year vs. aging / year (following years)	-3 -2		+3 +2	ppm ppm	after 30 days of operation
Supply Voltage (Vs)					
Supply voltage (Standard)	4.75	5.0	5.25	VDC	
Supply voltage (Option)	3.135	3.3	3.465	VDC	below 20 MHz
Supply voltage		-5.2			@< 45 mA to 110 MHz, @< 70 mA above 110 MHz
Supply voltage		-4.5			@< 60 mA

Performance Specifications

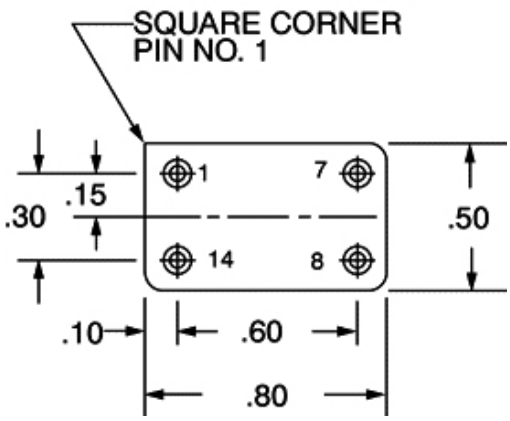
Parameter	Min	Typ	Max	Units	Condition
RF Output					
Signal	ACMOS, HCMOS				
Signal	TTL				
"0" Level			0.4	V	
"1" Level	2.4			V	
Rise/Fall Time	 2		15 5	ns ns	@ (0.5-2.4V), <= 20 MHZ @ (0.5-2.4V), > 20 MHZ
Symmetry	45 40		55 60	% %	@+1.5 V, < 4 MHZ @+1.5 V, >= 4 MHZ

Screen Testing of Above Models				
SCREEN TEST	MIL-STD-883 METHOD	Standard	Options	
		CLASS X	CLASS B	CLASS S
Stabilization Bake (150°C)	—	X	X	Class S screen test requirements include 24 hour additional bake-out, 80 hour additional burn-in, thermal shock, PIND test and radiographic inspection in addition to Class B Screening. Has major cost impact.
Seal Test (Gross and Fine)	1014, Cond A2	X	X	
Temperature Cycling (Thermal Shock)	1010, Cond B		X	
Burn-in, operating 160 hours @125°C	—		X	
Acceleration (5000g in Y1 axis)	2001, Cond A		X	

Outline Drawing / Enclosure

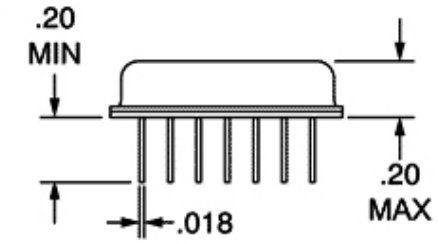


Dimensions in inches

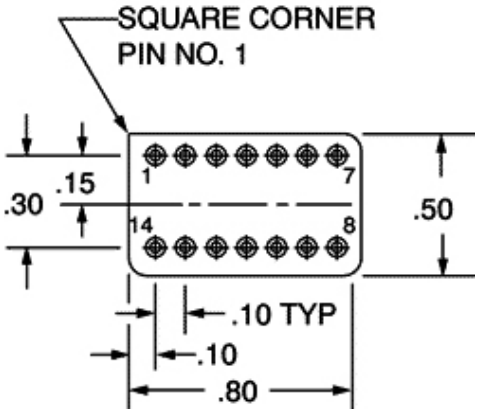


Type A (4 pin)		
Code	Height "H"	Pin Length "L"
0	0.2	0.2

Type A (14 pin)		
Code	Height "H"	Pin Length "L"
1	0.2	0.2



Pin Connections (TTL, CMOS)	
1	No Connect
7	Ground
8	Output
14	Supply



Pin Connections (ECL, PECL)	
1	No Connect
7	Supply
8	Output
14	Ground

Ordering Information

PX - 400 0 - A A T - F K X S - 10M0000000

Product Family
PX: PXO

Package
13 x 20 mm

Height
0: A 0.2" (4 pin)
1: A 0.2" (14 pin)

Supply Voltage
D: 5 Vdc
E: 3.3 Vdc
N: -5.2 Vdc
R: -4.5 Vdc

RF Output Code
A: HCMOS, ACMOS
B: TTL
C: ECL, PECL, LVPECL

Temperature Range
A: -55°C to +85°C
C: -55°C to +125°C
P: 0°C to +50°C
T: 0°C to +70°C

Accuracy Code
B: ±10ppm
D: ±15ppm
F: ±25ppm
K: ±50ppm

Stability Code
A: ±5ppm
B: ±10ppm
F: ±25ppm
K: ±50ppm
S: ±100ppm

Enable Code
X: No Option

Screening Option
S: "S" Level screening
B: "B" Level screening
X: No Screening

Frequency

Notes:
1. Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2. Unless other stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
3. Phase noise degrades with increasing output frequency.
4. Subject to technical modification.
5. Contact factory for availability.

For Additional Information, Please Contact

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