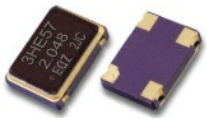
7.0 x 5.0 x 1.4mm SMD Clock Oscillator 312kHz to 160MHz

FEATURES

- Robust industry standard proven clock oscillator design
- Tri-state function available
- Supply Voltage 1.0, 1.2, 1.8, 2.5 or 3.3 Volts
- 15pF Load Capability
- Wide range of frequency options available



APPLICATIONS

- CPU, Graphics, Multimedia, A/V clocks
- MPEG/DVD/HDTV clocks
- Laser engine pixel / Set-top clocks
- OC-3, OC-12, OC-48 and OC-192 clocks
- SONET SDH / ATM clocks
- Fast Ethernet and Gigabit Ethernet clocks
- NTSC / PA? Encoder / decoder clocks
- PLL / Synthesizer clocks
- Fibre Channel and ADSL clocks

ELECTRICAL SPECIFICATION

Model Number	XO91 Series					
Output Logic	CMOS					
Supply Voltage V_{DD}	1.0V±5%	1.2V±5%	1.8 V ±5%	+2.5 V ±5%	+3.3 V ±5%	+5.0 V ±10%
Frequency Range	750kHz~ 50MHz	750kHz~ 50MHz	312kHz~ 160MHz	312kHz~ 160MHz	312kHz~ 160MHz	No longer available
Logic High "1" (90% of V_{DD} min.)	0.9V	0.9V	1.62V	2.25V	2.97V	
Logic Low "0" (10% of V_{DD} max)	0.1V	0.1V	0.18V	0.25V	0.33V	
Rise/Fall Time (Tr)	6ns max.	6ns max.	7 ns max.	7ns max.	10ns max.	
	Measured between 10% ~ 90% of wave form (CL = 15pF)					
Load	15pF					
Start-up Time	1.0 ~ 32.0MHz : 5ms (max) ; 32.0 ~ 160.0MHz : 10ms (max)					
Duty Cycle	Standard: 50%±10% ; Option 50% ±5% (Add "S" after the part number for this option)					
Enable/Disable	Enable/Disable function on Pad 1 is standard for XO91 series oscillators					

OPERATING TEMPERATURE RANGE

Frequency Stability Standard Values (If non-standard desired, ask for availability)	Frequency Stability over Operating Temperature Range			
	Commercial (-10° ~ +70°C)	±25ppm	±50ppm	±100ppm
	Industrial (-40° to +85°C)	±25ppm	±50ppm	±100ppm

Storage Temperature	-55° to +125°C
Ageing at 25°C	±3ppm maximum for first year
Solder Profile	260°C max.

Issue 4

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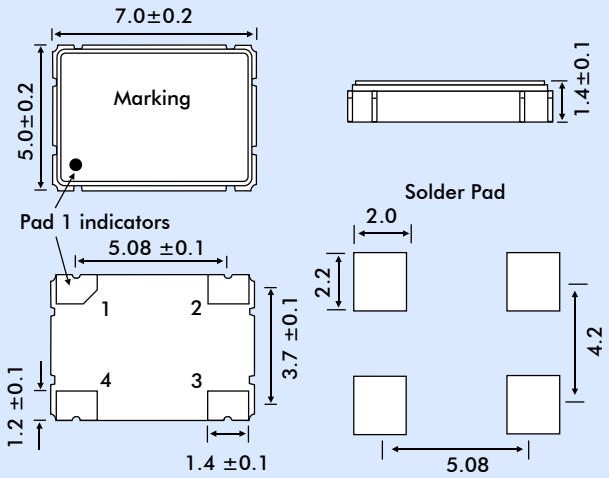
CURRENT CONSUMPTION

Supply Voltage	Frequency Range	Current Consumption (mA max.)
1.0V	<25MHz	4
	25MHz ~ 50MHz	5
1.2V	<25MHz	4
	25MHz ~ 50MHz	5
1.8V	<25MHz	5
	1.5MHz ~ 50MHz	8
	50MHz ~ 100MHz	10
	100MHz ~ 160MHz	15
2.5V	<25MHz	5
	1.5MHz ~ 50MHz	10
	50MHz ~ 100MHz	15
	100MHz ~ 160MHz	20
3.3V	<25MHz	5
	1.5MHz ~ 50MHz	12
	50MHz ~ 100MHz	30
	100MHz ~ 160MHz	35

OUTLINE & DIMENSIONS



Pad Connections:

1: Enable/Disable
2: Ground
3: Output
4: Supply Voltage

ORDERING/PART NUMBER GENERATION

Example: 20.000MHz XO91 050 U I T A

Frequency

Series Designation XO91

Stability
025 = ±25ppm
050 = ±50ppm
100 = ±100pp
(For non-standard value follow same format)

Output CMOS

Operating Temperature Range
C = -10° to +70°C Commercial
I = -40° to +85°C Industrial

Tristate

Supply Voltage
A = 3.3 Volts
B = 2.5 Volts
C = 1.8 Volts
D = 1.2 Volts
F = 1.0 Volts

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