

7 x 5mm High Frequency HCMOS Oscillator 125MHz to 200MHz

FEATURES

- Industry-standard 7.0 x 5.0mm package
- Frequency Range 125MHz to 200MHz
- High frequency range at low cost
- Supply voltage 3.3Volts
- Tristate function to conserve power

DESCRIPTION

XOV91 series oscillators are designed to provide a high quality HCMOS output at high frequencies from 125MHz to 200MHz. Phase and period jitter are kept within low limits. An enable/disable function is standard and the oscillator may also be specified with a power down function.

SPECIFICATION

Frequency Range:	125.01MHz to 200.0MHz
Output Logic:	HCMOS
Phase Jitter:	3.5ps typical
RMS Period Jitter:	4.0ps typical
Frequency Stability	
Commercial:	±25ppm to ±100ppm -10° to +70°C
Industrial:	±25ppm to ±100ppm -40° to +85°C
Input Voltage:	+3.3VDC ±5%
Output Voltage	
High '1':	+2.97V minimum
Low '0':	+0.33 V maximum
Rise/Fall Time:	0.25ns typical, 0.5ns max. (20%Vdd to 80%Vdd)
Current Consumption:	45mA typical (with 15pF load)
Load:	15pF
Start-up Time:	5ms typical, 10ms maximum
Duty Cycle:	50% ±5% (Measured at Vdd-1.3V)
Input Static	
Discharge Protection:	2kV maximum
Ageing:	±2ppm per year maximum

ABSOLUTE MAXIMUM RATINGS

Permanent damage may occur if units are operated beyond specified limits.

Supply Voltage:	+4.6 VDC max.
Input Voltage Vi:	Vss-0.5 min., Vdd +0.5V max.
Input Voltage Vo:	Vss-0.5 min., Vdd +0.5V max.

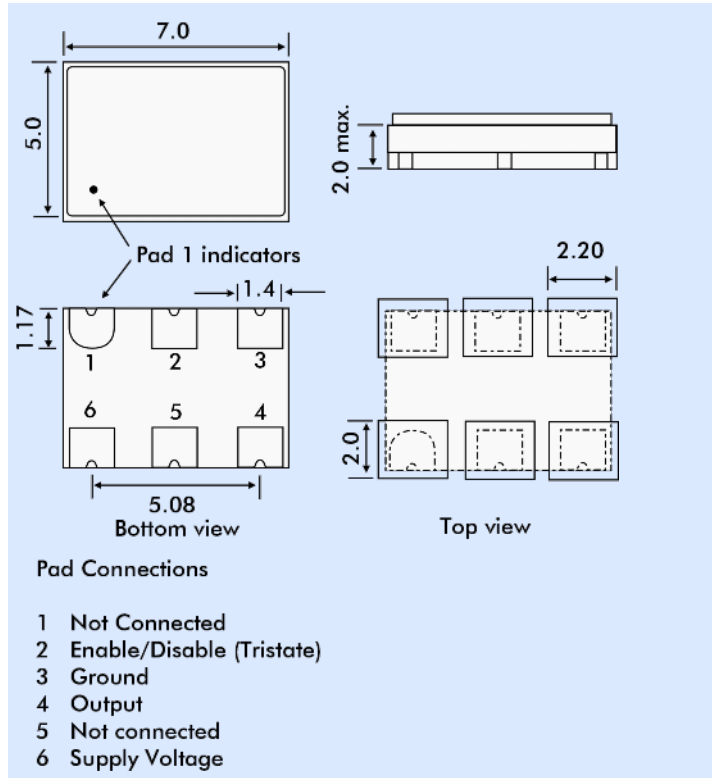
PART NUMBER SCHEDULE

Example: **200.00MHz XOY91050UCTA**

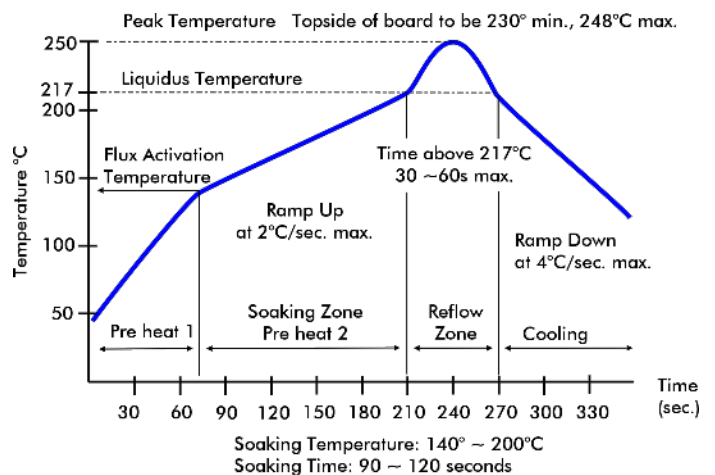
Frequency	← 200.00MHz
Series Designation	← XOY91
Stability	← 050
100 = ±100ppm	
050 = ±50ppm	
025 = ±25ppm	
Output Universal (CMOS/TTL)	← U
Operating Temp. Range	← C
C = Commercial	
(-10°~70°C)	
I = Industrial	
(-40°~+85°C)	
T=Tristate (enable/disable) P= Powerdown	← T
Supply Voltage	← A
A = 3.3 Volts	



OUTLINE & DIMENSIONS



SOLDER TEMPERATURE PROFILE



TRISTATE FUNCTION

DISABLE	Output is disabled when Pad 1 is taken below 0.3 Vcc referenced to ground Oscillator continues to run while disabled.
ENABLE	Oscillator is enabled when Pad 1 is taken above 0.7 Vcc referenced to ground.
POWER DOWN	Available by special request: Oscillator shuts down when disabled. Longer time to enable.