EUROQUARTZ XOA53 Low Frequency Oscillator

5 x 3mm SMD oscillator with AT-Cut Crystal 32.768kHz

FEATURES

- **5 x 3.2mm SMD package with AT-Cut crystal for high stability**
- **Frequency 32.768kHz for real time clock applications**
- **Tristate (Enable/Disable) function as standard**
- **Supply voltage 3.3V, 2.5V or 1.8 Volts**



DESCRIPTION

XOA53miniature oscillators consist of a TTL/CMOS-compatible hybrid circuit together with a miniature AT-Cut quartz crystal packaged in a low-profile, industry-standard ceramic package. The AT-Cut crystal provides high frequency stability but with a low µA current consumption, usually only available with a X-Cut crystal.

SUPPLY VOLTAGE DEPENDANT SPECIFICATION

Supply Voltage (Vdd)	**+1.8VDC**	**+2.5VDC**	**+3.3VDC**
Current Consumption (32.768kHz, 15pF load)	65µA typ., 80µA max.	70µA typ., 90µA max.	75µA typ., 100µA max.
Output Logic HIGH (VOH; IOH= -1.0mA)	1.62 V min.	2.25V min.	2.97V min.
Output Logic LOW (VOL; IOL= -1.0mA)	0.18V max.	0.25V max.	0.33V max.
Rise Time/Fall Time	5.0ns typ., 10ns max.	4.0ns typ., 10ns max.	3.0ns typ., 10ns max.

GENERAL SPECIFICATION

Frequency:	from 10kHz to 100kHz
Supply Voltage:	1.8V or 2.5V±10% or 3.3 Volts ±10%
Output Logic:	HCMOS/LSTTL
Frequency Stability:	±25ppm, ±50ppm or ±100ppm over Operating Temp. Range
Operating Temp. Range:	-10 to +70°C (Commercial) -40 to +85°C (Industrial)
Supply V. vs. Freq. Stability:	±1ppm max.
Output Load: :	15pF
Duty Cycle:	50%±3% tyical, 50%±5% max.
Storage Temperature:	-55° to +125°C
Startup Time:	0.8ms typical 5.0ms max.
Ageing:	±3ppm max. per year
Tristate Function (Pad 1):	Output (Pad 3) is active if Pad 1 is not connected or a voltage to Pad 1 is 'HIGH'. Output is high impedance when 'LOW' or GROUND is applied to Pad 1.
Enable/Disable Time:	Enable: 1ms max., Disab: 0.1µs max.

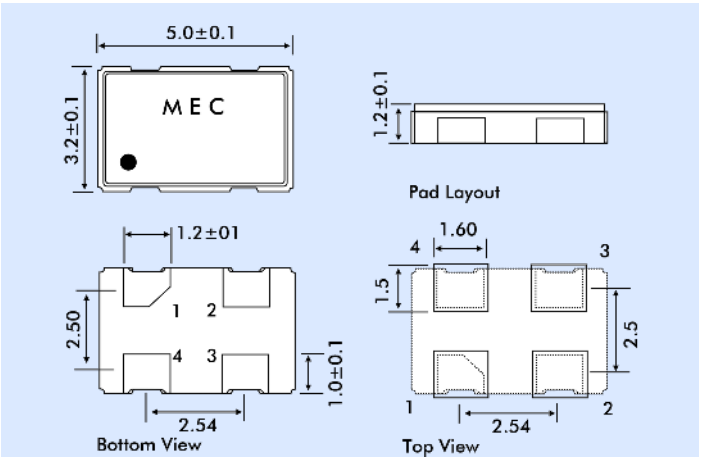
Note: Parameters are measured at ambient temperature of 25°C, supply voltage as stated and a load of 15pF

PART NUMBERING

Example: 32.768kHz XOA53025UCTA

- Frequency
- Series Designation XOA53
- Temperature Stability
  - 025 = ±25ppm
  - 050 = ±50ppm
  - 100 = ±100ppm
- Output CMOS/TTL
- Operating Temperature Range
  - C = Commercial (-10° to +70°C)
  - I = Industrial (-40° to +85°C)
- Tristate Function
- Supply Voltage
  - A = 3.3Volts
  - B = 2.5 Volts
  - C = 1.8 Volts

OUTLINE & DIMENSIONS



Pad Connections:
1. High Enable
2. Ground
3. Output
4. Supply Voltage

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