

Low Power Clock Oscillator

32.768kHz

FEATURES

- Micro-miniature 3.2mm x 2.5mm package
- Exceptionally low supply current <1.5uA at 3.3V supply
- Wide supply voltage range, 1.5 Volts to 5.5 Volts
- Tristate function to conserve power
- Stable and clean CMOS output



XO327 oscillators are produced in a micro-miniature outline package and provide 32.768kHz with low power consumption, typically 1.5 μ A at 3.3 Volts, less for lower supply voltages. Additionally, to conserve power the oscillator has a Tristate function implemented by default. The oscillator can be supplied with any voltage from 1.5 Volts to 5.5 Volts. The XO327 oscillator is an ideal choice for a wide range of battery powered, hand held equipment.

SPECIFICATION

32.7680kHz Frequency: Frequency Tolerance at 25°C Supply = 3.3V: +30 to -10ppm Frequency Stability over Temperature -20° to +70°C : +30 ppm to -90 ppm (@25°C) -40° to +85°C: +30 ppm to -130 ppm (@25°C) Operating Conditions **Operating Temperature:** -40° to +85°C -55° to +125°C Storage Temperature: +1.5 V to +5.5 VDC Input Voltage: Absolute Supply Voltage: +1.5 V to +5.5 VDC Input Current: $1.5\mu A$ (3.3 VDC, -40° to +85°C, without load. Stand-by Current (Pad 1 = VIL): 250nA max. Output (-40° to +85°C) 40/60% at 1/2 Vdd level (CL=15pF) Symmetry: Rise and Fall Times: 200ns max (CL = 15pF) (10% to 90% VDD levels) "0" Level (VOL): $0.4V \text{ max. } (CL = 15pF @ 25^{\circ}C)$ "1" Level (VOH): VDD-0.4 V min. (CL = 15pF @ 25°C)15 pF max. (CMOS) **Disable Delay Time:** 100 ns max. **Enable Delay Time:** 1 second max. Start-up Time: 1 second max. ± 5 ppm max. at +25° ± 3 °C for Ageing: first year. +255°C ±5°C for 10 seconds **Reflow Soldering Conditions:** +170°C for 1 to 2 minutes (Preheating)

ENABLE/DISABLE CONTROL

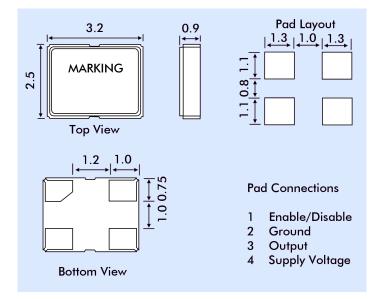
Environmental:

Pad 1	Pad 3
90% Vdd min.	Output (Vdd)
10% Vdd max.	High Impedance





OUTLINE & DIMENSIONS



PART NUMBER

XO327 oscillators part numbers are ordered with this part number:

32.7680kHz XO327

Lead free and RoHS Compliant