XO327 OSCILLATOR

Low Power Clock Oscillator 32.768kHz

FEATURES

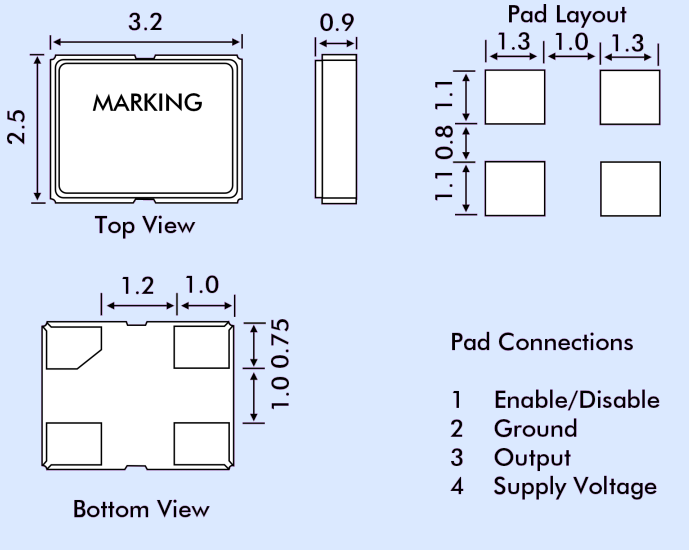
- **Micro-miniature 3.2mm x 2.5mm package**
- **Exceptionally low supply current <1.5uA at 3.3V supply**
- **Wide supply voltage range, 1.5 Volts to 5.5 Volts**
- **Tristate function to conserve power**
- **Stable and clean CMOS output**

RoHS

DESCRIPTION

XO327 oscillators are produced in a micro-miniature outline package and provide 32.768kHz with low power consumption, typically 1.5 μA 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.

OUTLINE & DIMENSIONS



SPECIFICATION

Frequency:	32.7680kHz
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
Storage Temperature:	-55° to +125°C
Input Voltage:	+1.5 V to +5.5 VDC
Absolute Supply Voltage:	+1.5 V to +5.5 VDC
Input Current:	1.5μA (3.3 VDC, -40° to +85°C, without load.
Stand-by Current (Pad 1 = VIL):	250nA max.
Output (-40° to +85°C)	
Symmetry:	40/60% at½ Vdd level (CL=15pF)
Rise and Fall Times:	200ns max (CL = 15pF) (10% to 90% VDD levels)
"0" Level (VOL):	0.4V max. (CL = 15pF @ 25°C)
"1" Level (VOH):	VDD-0.4 V min. (CL = 15pF @ 25°C)
Load:	15 pF max. (CMOS)
Disable Delay Time:	100 ns max.
Enable Delay Time:	1 second max.
Start-up Time:	1 second max.
Ageing:	±5ppm max. at +25°±3°C for first year.
Reflow Soldering Conditions:	+255°C ±5°C for 10 seconds +170°C for 1 to 2 minutes (Preheating)
Environmental:	Lead free and RoHS Compliant

ENABLE/DISABLE CONTROL

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

PART NUMBER

XO327 oscillators part numbers are ordered with this part number:

32.7680kHz XO327

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