

X series oscillators

XO – Ultra Low Power

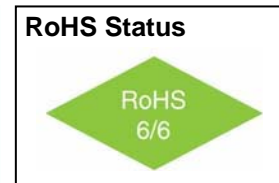
3.2x2.5mm SMD, CMOS



Widely used for the telecommunications, Aerospace, defense and Military Industries.

Features

- > 0.8MHz to 90MHz Frequency Range
- > 2.5V Supply Voltage
- > Tight symmetry
- > Low jitter
- > Low power consumption



Applications

- > Portable Communications
- > Test & Measurement
- > Gigabit Ethernet

Electrical Specifications

| Parameter | Symbol | Condition | Min | Typ | Max | Unit | Note |
|-----------------------|---------------------|---|------------|----------|----------|------|--------------------------------------|
| Frequency Range | F | 2.5V | 0.8 | | 90 | MHz | |
| Frequency Stability | $\Delta F/F$ | Over all conditions of Operating Temperature; Supply Voltage; 10 Years Aging; shock & vibration | ± 10 | ± 25 | ± 50 | ppm | |
| Operating Temperature | T | | -55 | | +125° | °C | |
| Output | | | HCMOS 15pF | | | | |
| Supply Voltage | V _{cc} | | 2.25 | 2.50 | 2.75 | V | |
| Supply Current | I _{cc} MAX | | 8 | | 20 | mA | Max Current across entire temp range |
| TRISTATE | | Output Active Output in High Imp. State | 0.7 | | 0.3 | V | |

Environmental and Mechanical

| Parameter | Specification |
|----------------------|---|
| Mechanical Shock | Per MIL-STD-202, Method 213, Condition E |
| Thermal Shock | Per MIL-STD-883, Method 1011, Condition A |
| Vibration | Per MIL-STD-883, Method 2007, Condition A |
| Soldering Conditions | 260°C for 10s max |
| Hermetic Seal | Per MIL-STD-883, Method 1014, Condition A |

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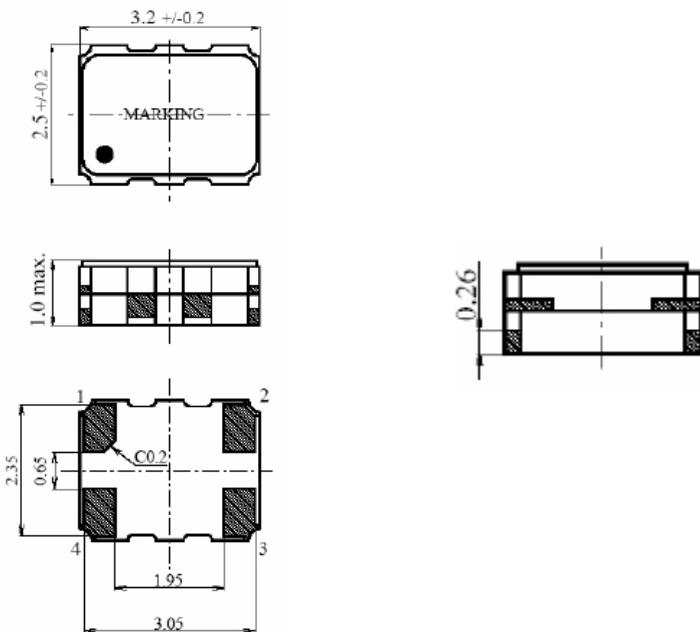
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| Parameter | Symbol | Condition | Min | Typ | Max | Unit | Note |
|---------------------|--------|-------------------------------|---------------------|-----|---------------------|------|------|
| Duty Cycle | | | 45 | 50 | 55 | % | |
| Rise / Fall Time | Tr/Tf | 10% to 90% of V _{DD} | | | 10.0 | ns | |
| Logic "1" Level | Voh | | 90% V _{DD} | | - | V | |
| Logic "0" Level | Vol | | - | | 10% V _{DD} | V | |
| Start up time | | | | | 8 | ms | |
| Jitter | 1σ | 0.8MHz to 20MHz | | | 1 | ps | |
| Storage Temperature | Ts | | -55 | | +125 | °C | |



| Pin # | Connection |
|-------|-----------------|
| 1 | TRISTATE |
| 2 | GND |
| 3 | Output |
| 4 | V _{DD} |

How to Order

