

Crystal Oscillators

XO14N



Description:

- Stability up to $\pm 5 \times 10^{-6}$
- Tri-State Enable/Disable
- TTL/HCMOS Compatible
- Wide Frequency Range
- 14PIN Full Size
- High Precision and High Reliable Communication Equipment

Performance Characteristics

| Parameter | | Condition | XO14N | |
|-------------------------------|-----------|----------------------------|---|----------------------|
| Frequency Range | F_0 | | 0.252MHz~160.000MHz | |
| Frequency Stability | | All Condition | See Next Table | |
| Operating Temperature Range | T_{OPR} | | See Next Table | |
| Supply Voltage | V_{DD} | | B: +5.0VDC \pm 10% | A: +3.3VDC \pm 10% |
| Supply Current | I_{DD} | 252K $\leq F_0 <$ 24M | 20mA Max | 15mA Max |
| | | 24M $\leq F_0 <$ 50M | 30mA Max | 20mA Max |
| | | 50M $\leq F_0 <$ 160M | 40mA Max | 30mA Max |
| Output Load | | | A: TTL 15pF C: CMOS 15pF B: TTL 50pF D: CMOS 50pF | |
| Stand-by Function (Tri-state) | | | N: Fixed-Frequency without Tri-State Y: Fixed-Frequency with Tri-State | |
| Output Duty | | 1.4V or 1/2 V_{DD} | 45%~55% | |
| Rise Time | T_r | 0.4V~2.4V | 10nS Max | |
| | | 10% V_{DD} ~90% V_{DD} | | |
| Fall Time | T_f | 2.4V~0.4V | 10nS Max | |
| | | 90% V_{DD} ~10% V_{DD} | | |
| Output Level | "0"Level | V_{OL} | 0.4V Max or 10% V_{DD} | |
| | "1"Level | V_{OH} | 2.4V Min or 90% V_{DD} | |
| Start-Up Time | T_s | | 10mS Max | |
| Aging (First Year) | F_a | 25°C \pm 3°C | $\pm 3 \times 10^{-6}$ | |
| Storage Temperature Range | T_{STG} | | -55°C~+125°C | |
| Package | | | DIP14 | |

Frequency Stability Over Temperature Range

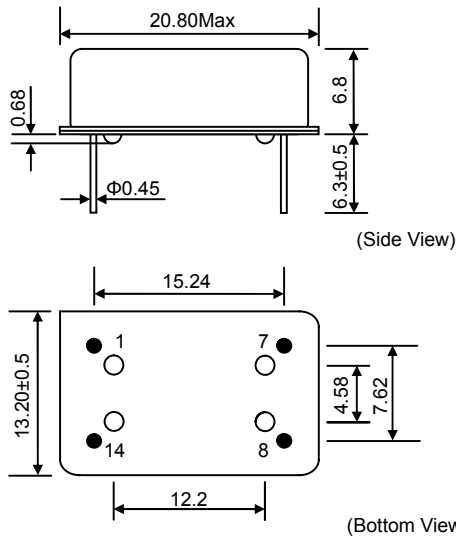
| Temperature Range | Frequency Stability | | | | |
|-------------------|---------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|
| | N: $\pm 5 \times 10^{-6}$ | O: $\pm 10 \times 10^{-6}$ | R: $\pm 25 \times 10^{-6}$ | T: $\pm 50 \times 10^{-6}$ | U: $\pm 100 \times 10^{-6}$ |
| A: 0°C~+50°C | ● | ● | ● | ● | ● |
| B: -10°C~+60°C | | ● | ● | ● | ● |
| C: -20°C~+70°C | | ● | ● | ● | ● |
| G: -40°C~+85°C | | | ● | ● | ● |
| J: -55°C~+125°C | | | | ※ | ※ |

※: Specially designated products.

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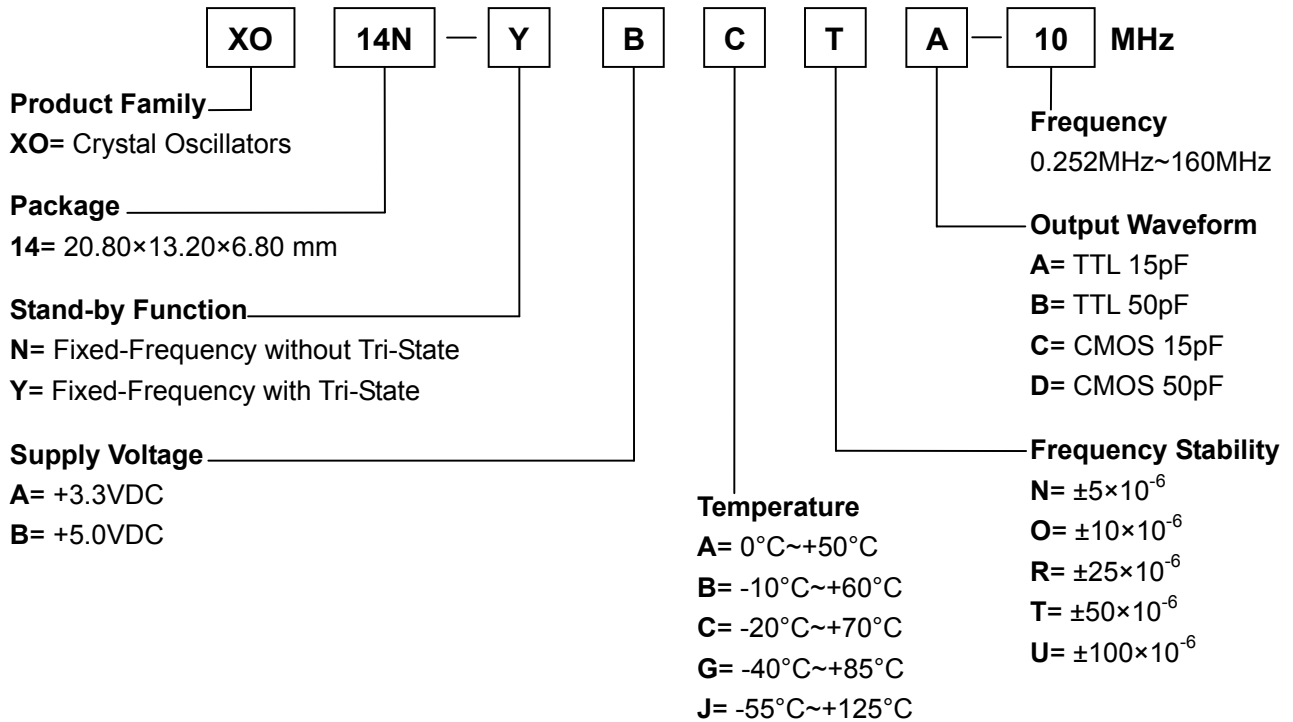
XO14N

Outline Drawing (mm)



| PIN | FUNCTION |
|-----|--------------|
| #1 | NC/TRI-STATE |
| #7 | GND |
| #8 | OUTPUT |
| #14 | +DC |

Ordering Information



Ordering Example

XO14N-YBCTA-10MHz

Crystal Oscillators / Fixed-Frequency with Tri-State / +5.0VDC / -20°C~+70°C / ±50×10⁻⁶ / TTL 15pF / 10MHz