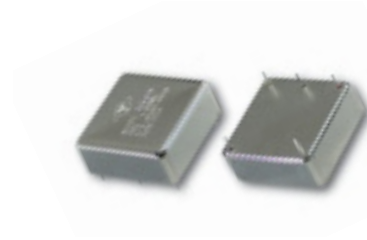


NB Type Oven Controlled Crystal Oscillator

RoHS Compliant Optional

FEATURE

1. Typical 50.8 x 50.8 x 26.2 mm.
2. SC-Cut Crystal
3. Stratum 3E Performance.
4. High stability ; Low Phase Noise.
5. Sine Wave or CMOS output ; Fast Warm-up.



ORDERING INFORMATION

| N | B | A | K | B | D | W | - | N | L | - | ? |
|------|------------------------------|-------------------|---------------------|--|------------------------------------|--|-----------------|---|--|------|------------|
| OCXO | Package (mm) | Supply Voltage(V) | Pulling Range (ppm) | Freq. Stability (ppb) | Temp. Range (°C) | Output Logic and Symmetry | Dash | Pin Out | Lead Free | Dash | Freq.(MHz) |
| | L :50.8 W:50.8 H :26.2 | A:12.0 | K: ±0.2 H: ±0.4 | R: ± 2 A: ± 5 B: ±10 C: ±20 E: ±30 | B: 0~+50 E: 0~+70 D: -30~+70 | Symmetry Output CMOS 15pF Sine Wave | 50±5% J W | N:Normal Please Refer to "OUTLINE DRAWING" | F:RoHS Compliant L:Not RoHS Compliant | | xx.xxxxxx |

Ordering Example: NBAKBDW-NL-5.000000 MHz

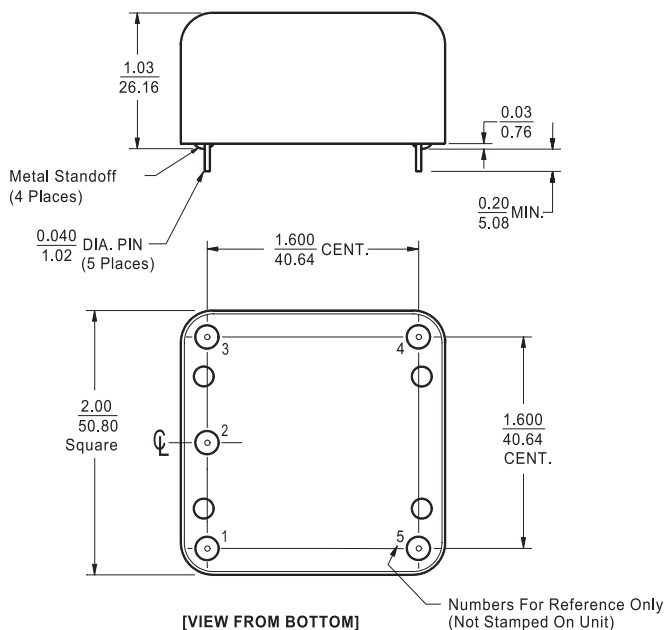
B-TYPE; V_{DD}: 12V; Pulling Range: ±0.2ppm; Freq. Stability: ±10ppb; Temp. Range: -30°C to +70°C; Sine Wave, Pin Out: Normal; Not RoHS Compliant; Freq. 5.000000MHz.

FREQ. STABILITY vs. TEMP. RANGE


| Temp.(°C) | ppb | R: ±2 | A: ±5 |
|-----------|------------|-------|-------|
| B | 0 to +50 | ○ | ○ |
| E | 0 to +70 | △ | ○ |
| D | -30 to +70 | X | ○ |

○:Standard △:Available (case by case) ×:Not available

OUTLINE DRAWING



| Pin | Pin Out |
|-----|-------------------|
| 1 | VCO INPUT |
| 2 | REFERENCE VOLTAGE |
| 3 | R.F. OUTPUT |
| 4 | 0 VOLTS & CASE |
| 5 | +VDC |

| MARK | |
|---|-----------|
|  | |
| MODEL: | BAKBDW |
| Freq.: | 5.000MHz |
| S/N : | 0000-0000 |
| DATE: | 0528 |

UNIT: $\frac{\text{Inch}}{\text{mm}}$

ELECTRICAL SPECIFICATION

| | Min. | Nominal | Max. | Note | Unit |
|--|------|-----------|------------|--|------------|
| Output | | | | | |
| Frequency | | 5.00 | | | MHz |
| Wave Form | | Sine Wave | | | |
| Level | 6.0 | 8.0 | 10.0 | | dBm |
| Load | | 50 | | | Ω |
| Harmonics | | -30 | | | dBc |
| Spurious | | -60 | | | |
| Frequency Stability | | | | | |
| Ambient | | | ± 10 | Reference to +25 °C | ppb |
| Operating Temperature | -30 | | +70 | | °C |
| Aging | | | | | |
| At time of shipment | | | ± 0.5 | | ppb |
| After indefinite storage | | | | | |
| Daily | | | ± 0.5 | After 30 days | ppb |
| Yearly | | | ± 50 | | |
| 10 Years | | | ± 150 | | |
| Voltage | | | ± 2 | VDC $\pm 5\%$ change | ppb |
| Warm-up | | | ± 10 | In 10 minutes @ +25°C (Reference to 4 Hour) | |
| Phase Noise @ 5 MHz | | | | | |
| @ 10 Hz | | | -130 | | dBc |
| @ 100Hz | | | -145 | | |
| @ 1 kHz | | | -150 | | |
| @ 10 kHz | | | -150 | | |
| Electrical Frequency Adjustment | | | | | |
| Range | 0.2 | | 0.4 | | \pm ppm |
| Control | 0.0 | | 5.0 | | V |
| Slope | | Positive | | | |
| Center | 2.0 | 2.5 | 3.0 | Control Voltage at which nominal Frequency occurs at time of shipment | V |
| Input impedance | 100 | | | | k Ω |
| Input Power | | | | | |
| Voltage | 11.4 | 12.0 | 12.6 | | V |
| Current@turn on | | | 6.0 | | W |
| Steady state @25°C | | | 2.0 | | |
| Reference Voltage | | | | | |
| Voltage | 4.75 | 5.0 | 5.25 | | V |
| Load | 9.0 | | ∞ | | k Ω |
| Temperature Stability | | | ± 0.01 | | VDC |

* All aging stabilities are after storage of up to 1 year and apply after 30 days of continuous operation.

The daily aging rate also applies at the time of shipment from factory.

* The Electrical frequency Adjustment Range is sufficient for the life of the oscillator.

Specification subject to change with Frequency.

Available Frequency Range: 5MHz to 80MHz including 5.0, 10.0, 16.384, 19.44, 24.576, and 32.768 MHz.