

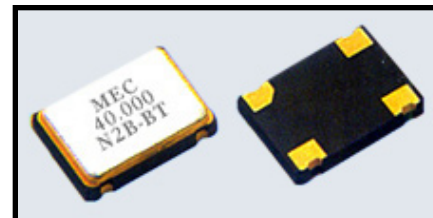
Surface Mount Clock Oscillator

N Series



Seam Sealed Ceramic 7.0 x 5.0 x 1.7 mm with Tri-State Function

(4 Pads)



Features:

- Industry standard
- Ultra small and thin ceramic package
- Suitable for reflow soldering
- Lower noise and current with reduced power consumption
- Built-in C-MOS IC with tri-state function
- Supply voltage of 5V and 3.3V available
- Custom specs are also available

- RoHs Compliant (Pb Free)

Electrical Specifications:

| Parameters | Condition | N1 | N2 | N3 | N4 |
|--|--------------------------|---|--------------|------------|-----------|
| Fan Out Type | | TTL / CMOS | CMOS | 10LSTTL | 10LSTTL |
| Supply Voltage | | 5V | 3.3V | 5V | 3.3V |
| Frequency Range | | 1.554MHz to 150MHz | | | |
| Operating Temperature | | -10°C ~ +70°C; -10°C ~ 60°C; -20°C ~ +70°C; -40°C ~ +85°C | | | |
| Frequency Range Input Current (max.) | 1.544 ~ 31.999MHz (15pF) | 35mA max. | 25mA max. | 30mA max. | 25mA max. |
| | 1.544 ~ 31.999MHz (50pF) | 40mA max. | - | - | - |
| | 32 ~ 150MHz (15pF) | 45mA max. | 40mA max. | 45mA max. | 40mA max. |
| | 32 ~ 150MHz (50pF) | 55mA max. | - | - | - |
| Frequency Stability | All Conditions | ± 25ppm, ± 50ppm, ± 100ppm | | | |
| Symmetry | AT 1/2 Vdd | 40 / 60% Standard (T = 45 / 55% for tight symmetry) | | | |
| Output Voltage | Vol (max.) | 0.4V/0.5V | 0.33V | 0.5V | 0.33V |
| | Vol (min.) | 2.4V/4.5V | 2.97V | 4.5V | 2.97V |
| Rise / Fall Time | AT 0.1Vod - 0.9Vod | 10ns max. | | | |
| Driving Ability | 10 LSTTL Load max. | - | - | 10TTL | 10TTL |
| | CMOS Load max. | 15 pF / 50 pF | 15 pF / 30pF | - | - |
| | TTL Load max. | 10 TTL | - | - | - |
| Start-up Time | Load Range | 10 ms max. (15 pF, or 30pF, or 50pF) | | | |
| E/D Function | Pin #1 Open | PIN #3 Active | | | |
| | Pin #1 >= 2.2V | PIN #3 Active | | | |
| | Pin #1 <= 0.8V | PIN #3 Highz | | | |
| Pad Connection | | PIN #1 E/D | | PIN #3 Out | |
| | | PIN #2 GND | | PIN #4 Vdd | |

Part Numbering System:

N2 B — 25.000 B T

① ② ③ ④ ⑤ ⑥

① Series

| |
|-------------------|
| N1: TTL/CMOS, 5V |
| N2: CMOS, 3.3V |
| N3: 10LSTTL, 5V |
| N4: 10LSTTL, 3.3V |

② Frequency Stability

| Frequency Stability |
|---------------------|
| A: ±100 ppm |
| B: ±50 ppm |
| D: ±25 ppm |
| E: ±20 ppm |

③ Frequency

| Frequency |
|------------|
| Unit : MHz |

5 digits min.

④ Operating Temperature

| Code | Ranges |
|------|---------------|
| Nil | -10°C ~ +70°C |
| A | -10°C ~ +60°C |
| B | -20°C ~ +70°C |
| X | -40°C ~ +85°C |

⑤ Output Symmetry

| Code | Output Symmetry |
|------|-----------------|
| Nil | 40% / 60% |
| T | 45% / 55% |

⑥ Output Load

| Code | Output Load |
|------|-------------|
| 15 | 15pF |
| 30 | 30pF |
| 50 | 50pF |

Remark: Specifications are subject to change without prior notice. Please confirm with our sales engineer.

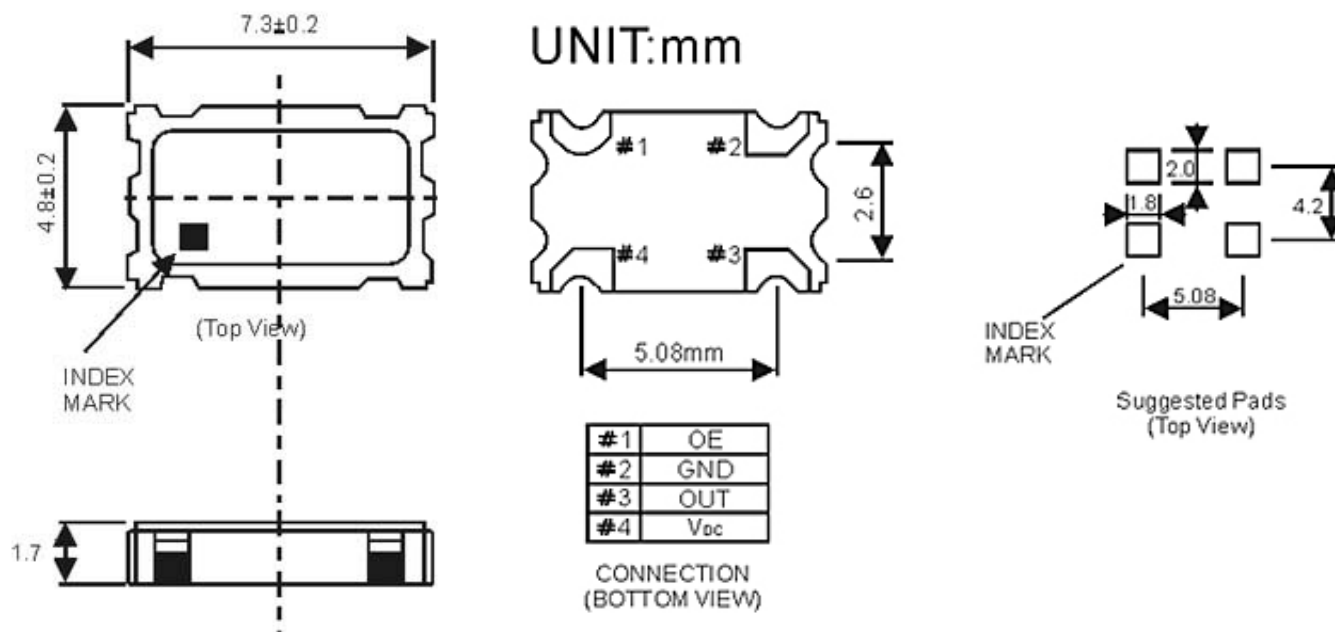
Surface Mount Clock Oscillator

N Series

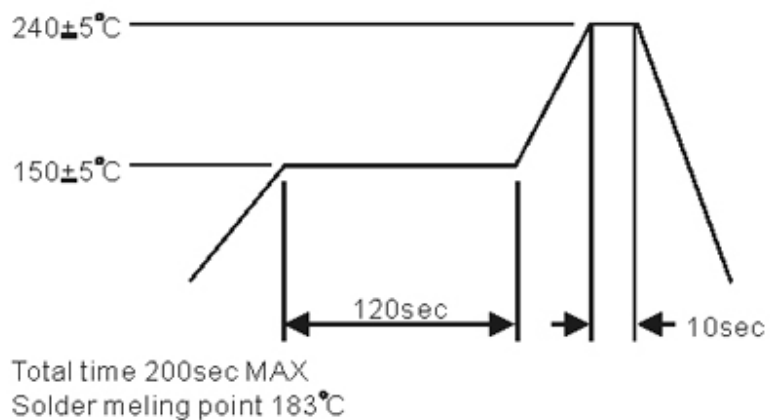


Seam Sealed Ceramic 7.0 x 5.0 x 1.7 mm with Tri-State Function (4 Pads)

Dimensions:



REFLOW CONDITION (EXAMPLE):



Surface Mount Clock Oscillator

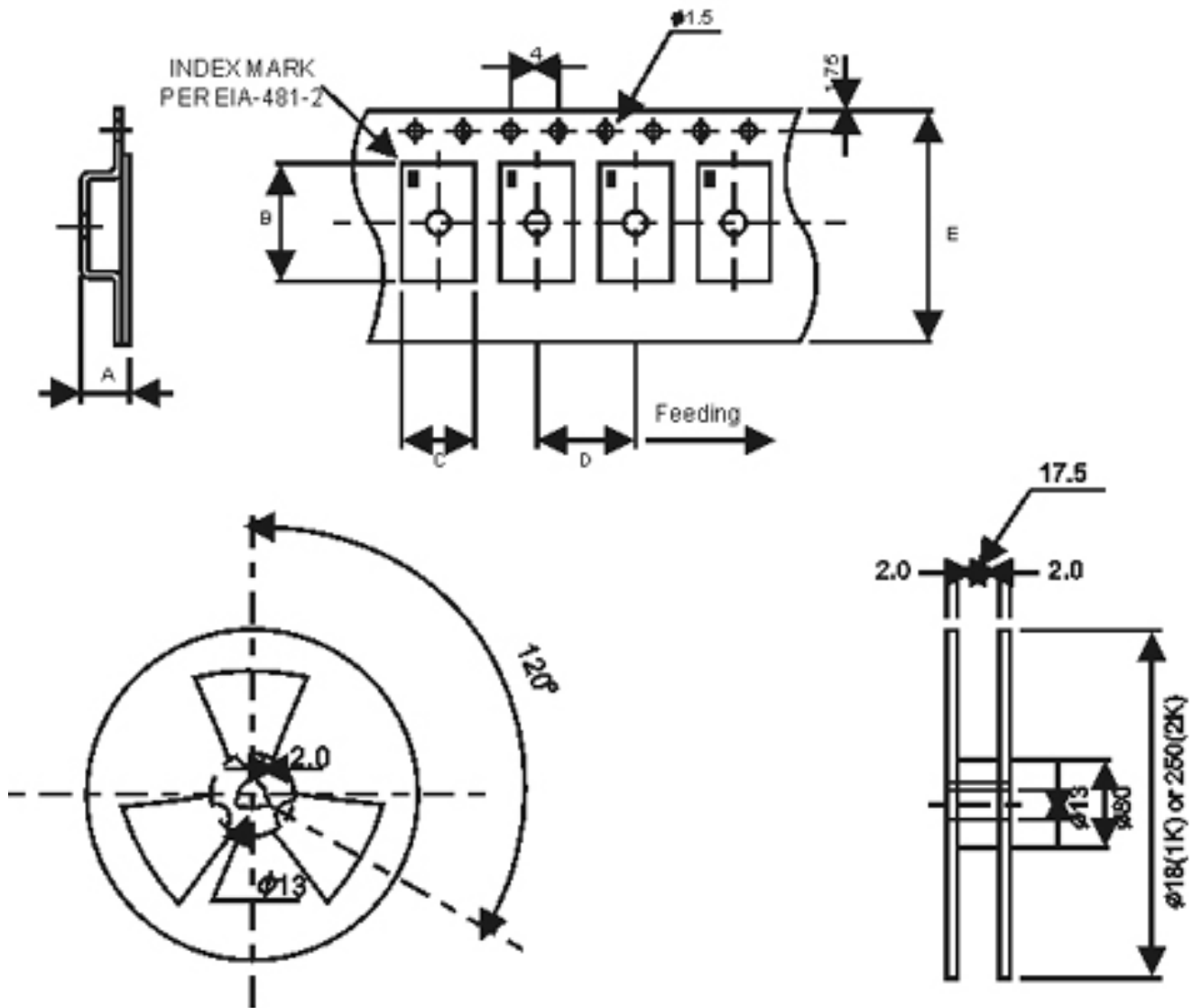
N Series



Seam Sealed Ceramic 7.0 x 5.0 x 1.7 mm with Tri-State Function

(4 Pads)

Packing



| A | B | C | D | E | Pcs/Reel |
|-----|-----|-----|-----|----|----------|
| 1.3 | 6.4 | 3.9 | 8.0 | 16 | 1K or 2K |

REMARK:

1. 230 mm (9.05) minimum leader which consist of carrier and / or cover tape