

# ECXO-2432-125.000M



**ECLIPTEK**  
CORPORATION

**PLEASE NOTE:** Due to the inherent proprietary nature of custom part numbers, certain parameters are intentionally excluded from this specification sheet.

**ECXO-2432 -125.000M**

Series  
EclipseTek Custom Oscillator

Nominal Frequency  
125.000MHz

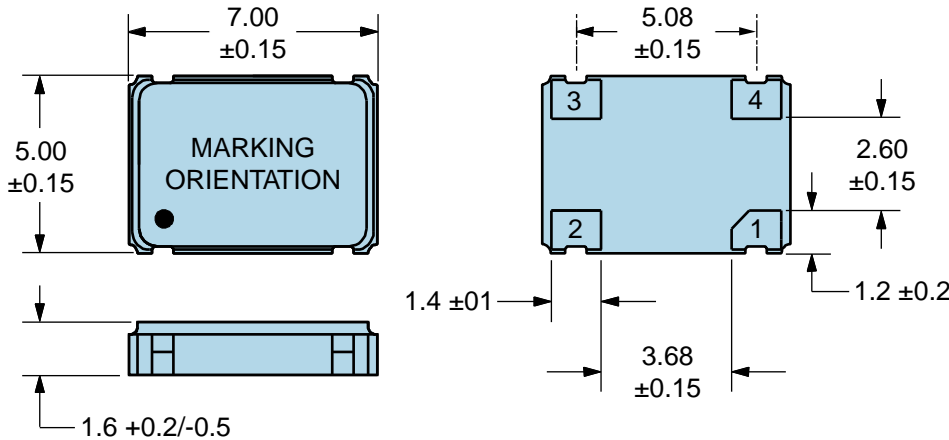
## ELECTRICAL SPECIFICATIONS

|                   |            |
|-------------------|------------|
| Nominal Frequency | 125.000MHz |
|-------------------|------------|

## ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

|                              |                                       |
|------------------------------|---------------------------------------|
| Fine Leak Test               | MIL-STD-883, Method 1014, Condition A |
| Gross Leak Test              | MIL-STD-883, Method 1014, Condition C |
| Mechanical Shock             | MIL-STD-202, Method 213, Condition C  |
| Resistance to Soldering Heat | MIL-STD-202, Method 210               |
| Resistance to Solvents       | MIL-STD-202, Method 215               |
| Solderability                | MIL-STD-883, Method 2003              |
| Temperature Cycling          | MIL-STD-883, Method 1010              |
| Vibration                    | MIL-STD-883, Method 2007, Condition A |

## MECHANICAL DIMENSIONS (all dimensions in millimeters)



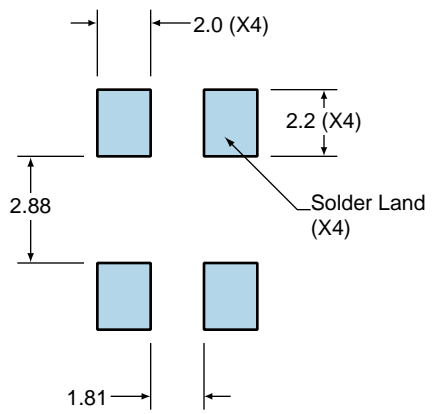
| PIN | CONNECTION         |
|-----|--------------------|
| 1   | Tri-State          |
| 2   | Ground/Case Ground |
| 3   | Output             |
| 4   | Supply Voltage     |

| LINE | MARKING   |
|------|---|
| 1    | <b>ECXO2432</b>   |
| 2    | <b>XXYYZ</b><br>XX=EclipseTek Manufacturing Designator<br>Y=Last Digit Of Year<br>ZZ=Week of Year |

# ECXO-2432-125.000M

## Suggested Solder Pad Layout

All Dimensions in Millimeters



All Tolerances are  $\pm 0.1$

## Recommended Solder Reflow Methods



### High Temperature Infrared/Convection

|  |   |
|--|---|
| <b>T<sub>s</sub> MAX to T<sub>L</sub> (Ramp-up Rate)</b> | 3°C/second Maximum                                |
| <b>Preheat</b>   |   |
| - Temperature Minimum (T <sub>s</sub> MIN)               | 150°C   |
| - Temperature Typical (T <sub>s</sub> TYP)               | 175°C   |
| - Temperature Maximum (T <sub>s</sub> MAX)               | 200°C   |
| - Time (t <sub>s</sub> MIN)                              | 60 - 180 Seconds                                  |
| <b>Ramp-up Rate (T<sub>L</sub> to T<sub>p</sub>)</b>     | 3°C/second Maximum                                |
| <b>Time Maintained Above:</b>                            |   |
| - Temperature (T <sub>L</sub> )                          | 217°C   |
| - Time (t <sub>L</sub> )                                 | 60 - 150 Seconds                                  |
| <b>Peak Temperature (T<sub>p</sub>)</b>                  | 260°C Maximum for 10 Seconds Maximum              |
| <b>Target Peak Temperature (T<sub>p</sub> Target)</b>    | 250°C +0/-5°C                                     |
| <b>Time within 5°C of actual peak (t<sub>p</sub>)</b>    | 20 - 40 seconds                                   |
| <b>Ramp-down Rate</b>                                    | 6°C/second Maximum                                |
| <b>Time 25°C to Peak Temperature (t)</b>                 | 8 minutes Maximum                                 |
| <b>Moisture Sensitivity Level</b>                        | Level 1   |
| <b>Additional Notes</b>                                  | Temperatures shown are applied to body of device. |

## Recommended Solder Reflow Methods



### Low Temperature Infrared/Convection 240°C

|  |  |
|--|--|
| <b><math>T_S</math> MAX to <math>T_L</math> (Ramp-up Rate)</b> | 5°C/second Maximum                                     |
| <b>Preheat</b>   |  |
| - Temperature Minimum ( $T_S$ MIN)                             | N/A  |
| - Temperature Typical ( $T_S$ TYP)                             | 150°C  |
| - Temperature Maximum ( $T_S$ MAX)                             | N/A  |
| - Time ( $t_S$ MIN)  | 60 - 120 Seconds                                       |
| <b>Ramp-up Rate (<math>T_L</math> to <math>T_P</math>)</b>     | 5°C/second Maximum                                     |
| <b>Time Maintained Above:</b>                                  |  |
| - Temperature ( $T_L$ )  | 150°C  |
| - Time ( $t_L$ )   | 200 Seconds Maximum                                    |
| <b>Peak Temperature (<math>T_P</math>)</b>                     | 240°C Maximum  |
| <b>Target Peak Temperature (<math>T_P</math> Target)</b>       | 240°C Maximum 1 Time / 230°C Maximum 2 Times           |
| <b>Time within 5°C of actual peak (<math>t_p</math>)</b>       | 10 seconds Maximum 2 Times / 80 seconds Maximum 1 Time |
| <b>Ramp-down Rate</b>  | 5°C/second Maximum                                     |
| <b>Time 25°C to Peak Temperature (t)</b>                       | N/A  |
| <b>Moisture Sensitivity Level</b>                              | Level 1  |
| <b>Additional Notes</b>  | Temperatures shown are applied to body of device.      |

### Low Temperature Manual Soldering

185°C Maximum for 10 seconds Maximum, 2 times Maximum. (Temperatures shown are applied to body of device.)

### High Temperature Manual Soldering

260°C Maximum for 5 seconds Maximum, 2 times Maximum. (Temperatures shown are applied to body of device.)