

## OCXO, Series

# 25.4 x25.4mm Oven Controlled Crystal Oscillator

## Feature

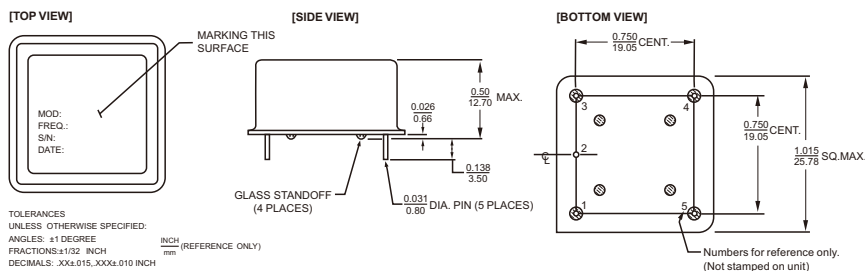
- Typical 25.4 x25.4 x 12.7 mm
- Hermetically Sealed DIP Package
- Low power consumption and high reliability
- SC Cut Crystal



## Electrical Specifications

| Parameter                                           |                                        | 3.3V                 |       |        | 5.0V                 |      |       | Unit   |
|-----------------------------------------------------|----------------------------------------|----------------------|-------|--------|----------------------|------|-------|--------|
|                                                     |                                        | Min.                 | Type  | Max.   | Min.                 | Type | Max.  |        |
| OUTPUT (PIN = “R.F. OUTPUT”)                        |                                        |                      |       |        |                      |      |       |        |
| Frequency                                           |                                        | 5                    |       | 40     | 5                    |      | 40    | MHz    |
| Output Level: LVTTL                                 | Output High                            | 2.4                  |       |        | 2.4                  |      |       | V      |
|                                                     | Output Low                             |                      |       | 0.4    |                      |      | 0.4   | V      |
| Waveform:                                           |                                        | Rectangular          |       |        | Rectangular          |      |       |        |
| Load                                                |                                        |                      | 15    |        |                      | 15   |       | pF     |
| Duty                                                |                                        | 45                   | 50    | 55     | 45                   | 50   | 55    | %      |
| Frequency stability                                 |                                        |                      |       |        |                      |      |       |        |
| Frequency stability                                 | Ambient (0~+70°C/-30~+70°C /-40~+85°C) | ±0.5, ±1,±3, ±5, ±10 |       |        | ±0.5, ±1,±3, ±5, ±10 |      |       | ppb    |
|                                                     | Daily                                  | -0.5                 |       | +0.5   | -0.5                 |      | +0.5  | ppb    |
|                                                     | Yearly                                 | -50                  |       | +50    | -50                  |      | +50   | ppb    |
|                                                     | 10 Years                               | -0.3                 |       | +0.3   | -0.3                 |      | +0.3  | ppm    |
|                                                     | Voltage(±5% change)                    | -0.5                 |       | +0.5   | -0.5                 |      | +0.5  | ppb    |
|                                                     | Short term                             |                      |       | 0.05   |                      |      | 0.05  | ppb/s  |
|                                                     | Load(±5% change)                       | -0.5                 |       | +0.5   | -0.5                 |      | +0.5  | ppb    |
| Warm-up                                             |                                        | -10                  |       | +10    | -10                  |      | +10   | ppb    |
| Phase Noise                                         | 1Hz                                    |                      | -95   | -90    |                      | -95  | -90   | dBc/Hz |
|                                                     | 10Hz                                   |                      | -125  | -120   |                      | -125 | -120  |        |
|                                                     | 100Hz                                  |                      | -140  | -135   |                      | -140 | -135  |        |
|                                                     | 1KHz                                   |                      | -148  | -145   |                      | -148 | -145  |        |
|                                                     | 10KHz                                  |                      | -156  | -155   |                      | -156 | -155  |        |
| 100KHz                                              |                                        |                      | -158  | -155   |                      | -158 | -155  |        |
| ELECTRICAL FREQUENCY ADJUSTMENT (PIN = “VCO INPUT”) |                                        |                      |       |        |                      |      |       |        |
| Tuning Range                                        | VCO @ Min. Voltage                     |                      |       | -0.5   |                      |      | -0.5  | ppm    |
|                                                     | VCO @ Max. Voltage                     | +0.5                 |       |        | +0.5                 |      |       | ppm    |
| Control Voltage                                     | Ordering Information                   | 0                    | +1.65 | +3.3   | 0                    | +2.5 | +5.0  | V      |
|                                                     |                                        | 0                    | +1.4  | +2.8   | 0                    | +2.0 | +4.0  | V      |
| INPUT POWER (PIN = “+VDC”)                          |                                        |                      |       |        |                      |      |       |        |
| Voltage                                             |                                        | +3.135               | +3.3  | +3.465 | +4.75                | +5.0 | +5.25 | V      |
| Current                                             |                                        |                      |       | 1000   |                      |      | 800   | mA     |
| Steady State                                        |                                        |                      |       | 1.3    |                      |      | 1.3   | W      |
| REFERENCE VOLTAGE (PIN = "REFERENCE VOLTAGE")       |                                        |                      |       |        |                      |      |       |        |
| Voltage                                             |                                        | +2.7                 | +2.8  | +2.9   | +3.8                 | +4.0 | +4.2  | V      |
| Storage Temperature                                 |                                        | -55                  |       | +125   | -55                  |      | +125  | °C     |

## DIMENSION(mm)



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

Note:  
1. If the specification does not specify parameters for either PIN3 or PIN4 then that respective PIN is NOT internally CONNECTED.