



# Model XO5083-118sR

## Oven Controlled Crystal Oscillator

### RoHS Compliant

#### Electrical Specifications (typical)

**Nominal Frequency ( $F_0$ ):** 10.0MHz

#### Frequency Stability:

Initial Frequency accuracy (at the time of shipment measured at 25°C, 5V  $V_{CC}$  and  $V_{TUNE}$ : 2.048V): +/- 34ppb

Over Temperature:  $\leq \pm 20$ ppb

Aging (after 30-days power on)

Daily Aging:  $\leq \pm 0.5$ ppb typical

90-day Aging:  $\leq \pm 20$ ppb typical

Yearly Aging:  $\leq \pm 50$ ppb typical

vs Supply ( $\pm 5\%$  change in  $V_S$ ):  $\leq \pm 2$ ppb

STS (Root Allan Variance,  $\tau=1$ -sec):  $1 \times 10^{-11}$  typical

#### Frequency Adjustment

Method: External Voltage, 0V<sub>DC</sub> to +4.1V<sub>DC</sub>

Range:  $\pm 1$ ppm typical

$V_{REF}$ : 4.1V<sub>DC</sub> typical

1mA max.,

Linearity: < 10%

Slope: Positive

#### Output (Sinewave)

Level: +4.7dBm minimum, +6.2dBm maximum

Load: 50 $\Omega \pm 10\%$

#### SSB Phase Noise (static conditions, typical)

-125dBc/Hz @ 10Hz offset

-145dBc/Hz @ 100Hz offset

-155dBc/Hz @ 1kHz offset

-160dBc/Hz @ 10kHz offset

#### Warm Up Time @ 25°C

To within  $1 \times 10^{-7}$  of the frequency at 1-hour: < 3-min.

#### Power

Supply Voltage ( $V_S$ ): +5.0V<sub>DC</sub>,  $\pm 5\%$

Power Consumption @ 25°C Steady State: 1.5W typ.

Power Consumption at Turn-on: < 4.0W

#### Environmental

Temperature Range

Operating: -40°C to +85°C

Storage: -45°C to +90°C

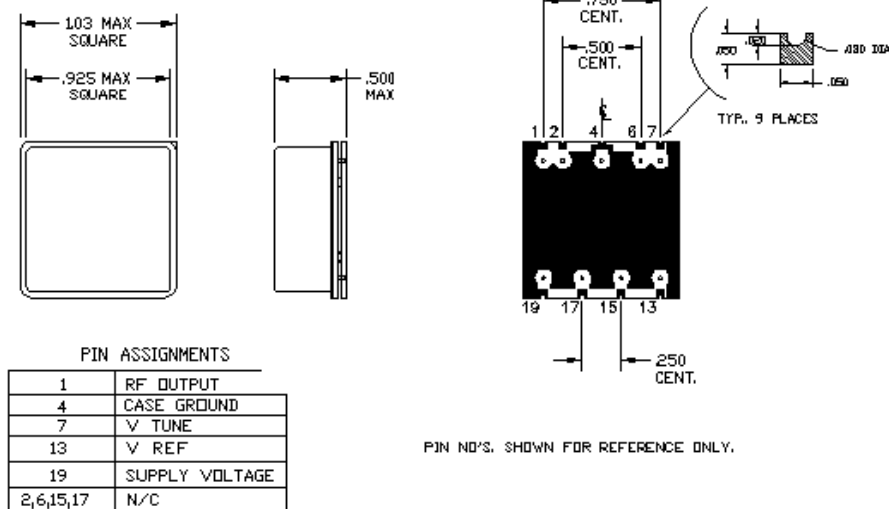


Figure 1 – XO5083-118sR Outline Drawing

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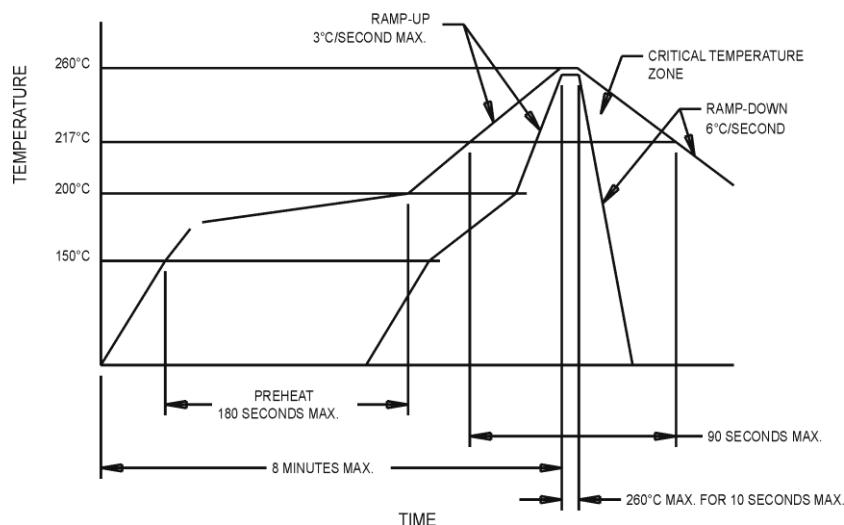


Figure 2 – XO5083-067sR Recommended Reflow Profile

#### Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
02/08/19	A	DPD	Original Release App. Eng Note: Same as -067sr except tighter initial tolerance of +/- 34ppb at the time of shipment

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