



Model XO5083-067sR

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): +/- 100ppb

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): 1×10^{-11} typical

Frequency Adjustment

Method: External Voltage, 0V_{DC} to +4.1V_{DC}

Range: ± 1 ppm typical

V_{REF} : 4.1V_{DC} 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 1×10^{-7} of the frequency at 1-hour: < 3-min.

Power

Supply Voltage (V_S): +5.0V_{DC}, $\pm 5\%$

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

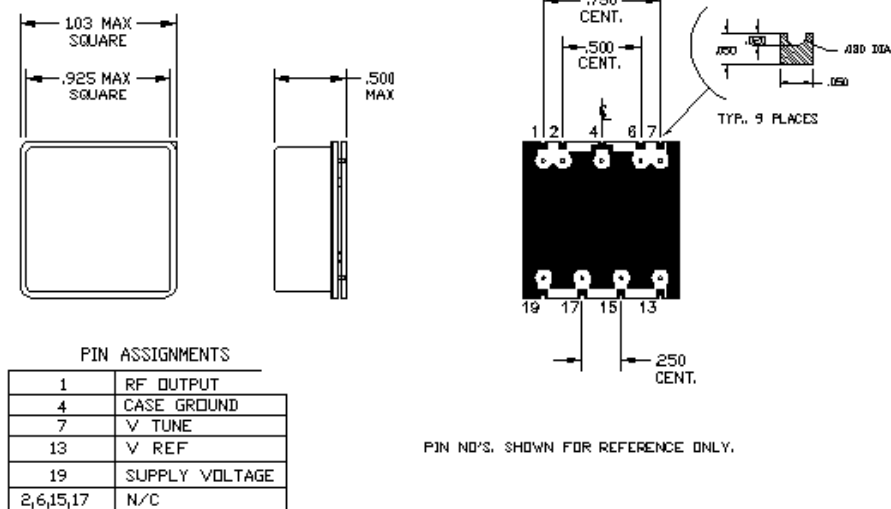


Figure 1 – XO5083-067sR Outline Drawing

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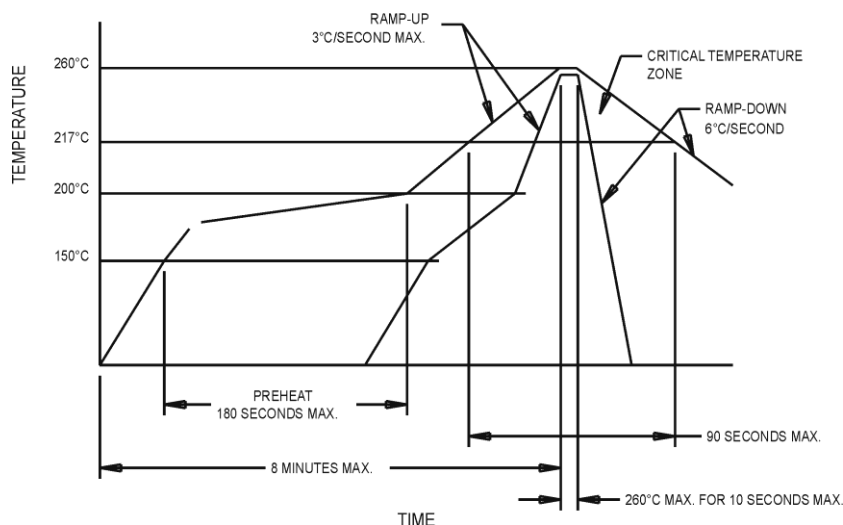


Figure 2 – XO5083-067sR Recommended Reflow Profile

Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
01/17/17	B	DPD	Initial Frequency accuracy (at the time of shipment measured at 25C, 5V Vcc and Vtune: 2.048V): +/- 100ppb
01/08/14	A	BRM	Modified the Output Level specification to +4.7dBm minimum, +6.2dBm maximum to meet customer's request for a min/max specification.
01/14/13	5	BRM	Modified the Output Level specification to +5dBm minimum at the customer's request
12/12/12	4	BRM	Added a 90-day Aging specification at customer request.
10/16/12	3	BRM	Corrected a typographical error in the STS specification point from the erroneous 1×10^{-12} to the correct 1×10^{-11}
05/09/12	2	BRM	Added maximum current draw notation in the V_{REF} specification point
04/09/12	1	BRM	Corrected model # typographical errors in Figure 1 & Figure 2 text.
03/29/12	0	BRM	Original Release

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