



# Model XO5083-028R Oven Controlled Crystal Oscillator

*Full RoHS Compliance*

## Electrical Specifications (typical)

**Nominal Frequency (F<sub>0</sub>):** 10.0MHz

**Frequency Stability**

- Over Temperature:  $\leq \pm 10$  ppb
- Daily Aging:  $\leq \pm 0.50$  ppb
- Yearly Aging:  $\leq \pm 0.1$  ppm
- 10-Year Aging:  $\leq \pm 1$  ppm
- vs Supply:  $\leq \pm 2$  ppb/percent change

**Frequency Adjustment**

- Method: External Voltage, 0V<sub>DC</sub> to +10.0V<sub>DC</sub>
- Range: Sufficient for 10 years aging
- Modulation Bandwidth: 10Hz typical
- Input Impedance:  $> 20K\Omega$
- Slope: Positive

**Output (Sinewave)**

- $\geq +7$  dBm
- Load: 50 $\Omega$ ,  $\pm 10\%$

**Warm Up Time @ 25°C** (relative to 2 hrs after turn-on following 24 hrs off) to within 0.1ppm of final frequency: 3.0 minutes

**Acceleration Sensitivity:**  $< \pm 1$  ppb/g

**Harmonics:**  $\leq -30$ dBc (no spurious)

**Oscillator Disable (TTL/CMOS Level Input)**

- Z<sub>IN</sub>,  $> 10K\Omega$
- Pin 6 LOW (or Floating): Oscillator ENABLED
- Pin 6 HIGH: Oscillator DISABLED

**SSB Phase Noise (typical)**

- 130dBc/Hz @ 10Hz offset
- 152dBc/Hz @ 100Hz offset
- 160dBc/Hz @ 1kHz offset
- 165dBc/Hz @ 10kHz offset
- 165dBc/Hz @ 100kHz offset

**Power**

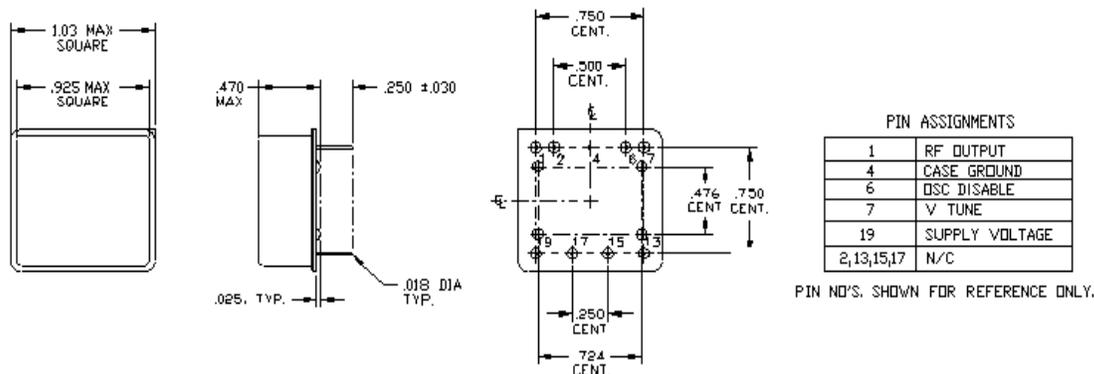
- Supply Voltage: +12.0V<sub>DC</sub>,  $\pm 5\%$
- Power Consumption @ 25°C Steady State: 1.0W typ.
- Power Consumption at turn-on:  $\leq 3.6$ W

**Temperature Range**

- Operating: 0°C to +70°C
- Storage: -20°C to +85°C

**Mass:**  $< 20$ -grams

*Note: Device is not reflow compatible hand solder only*



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