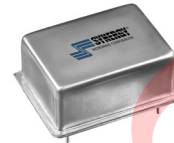


OVEN CONTROLLED CRYSTAL OSCILLATOR

PLUG-IN MODEL: OXO100-1-349

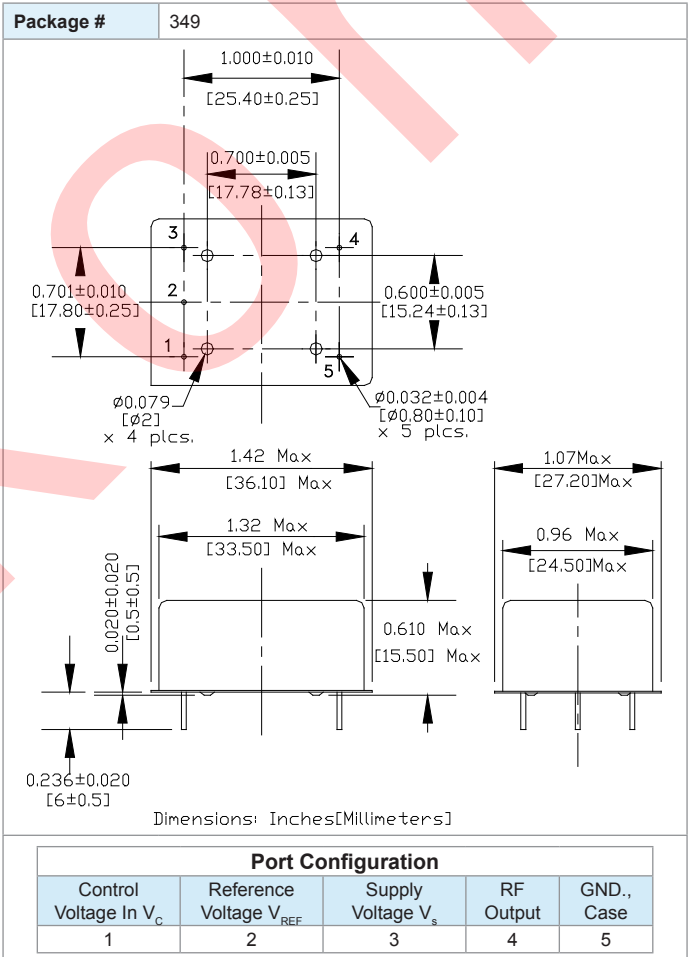
FEATURES:

- ▶ Exceptionally Low Phase Noise
- ▶ Fast Warm-up Time
- ▶ Low Power Consumption
- ▶ Tight Frequency Stability
- ▶ Excellent Long-Term Stability
- ▶ El. Frequency Tuning Input
- ▶ Reference Voltage Output
- ▶ Small CO-8 package



SPECIFICATIONS

Nominal Frequency F_N	100.000 MHz
Initial Frequency Tolerance	
$T_A = +25^\circ\text{C}$, after power on for 30 min.	$\leq \pm 2 \times 10^{-7}$
Frequency Stability	
Within operating range	$\leq \pm 5 \times 10^{-8}$
vs. supply voltage changes $V_S \pm 5\%$	$\leq \pm 1 \times 10^{-8}$
vs. load changes 50 Ohm $\pm 5\%$	$\leq \pm 5 \times 10^{-9}$
Aging (after 30 days of continuous operation)	
Per day	$\leq \pm 2 \times 10^{-9}$
Per Year	$\leq \pm 1 \times 10^{-7}$
15 Years	$\leq \pm 7 \times 10^{-7}$
Frequency Tuning Range	
	$\geq \pm 1.5$ ppm
Tuning Voltage Range V_C	
	0 to 10 V
Reference Voltage Output V_{REF}	
	$+10 \text{ V} \pm 5\%$
Supply Voltage V_S	
	$+12.0 \text{ V} \pm 5\%$
Supply Current I_S	
Steady State @ $+25^\circ\text{C}$	$\leq 150 \text{ mA}$
During Warm-up	$\leq 400 \text{ mA}$
Warm Up Time	
To $dF/F_0 < \pm 1 \times 10^{-7}$ referred to F_0 after 1 hour	$\leq 5 \text{ min.}$
Output signal type	
	Sine wave
Initial output level	
	$\geq 7 \text{ dBm}$
Output load impedance:	
	50 Ohm $\pm 10\%$
Harmonics:	
	$\leq -30 \text{ dBc}$
Spurious (100 Hz to 5 MHz)	
	$\leq -100 \text{ dBc}$
Typical Phase Noise	
10 Hz	-100 dBc/Hz
100 Hz	-130 dBc/Hz
1 kHz	-153 dBc/Hz
10 kHz	-165 dBc/Hz
100 kHz	-170 dBc/Hz
Temperature Ranges	
Operating	$-40^\circ\text{C} \dots +70^\circ\text{C}$
Storage	$-40^\circ\text{C} \dots +85^\circ\text{C}$

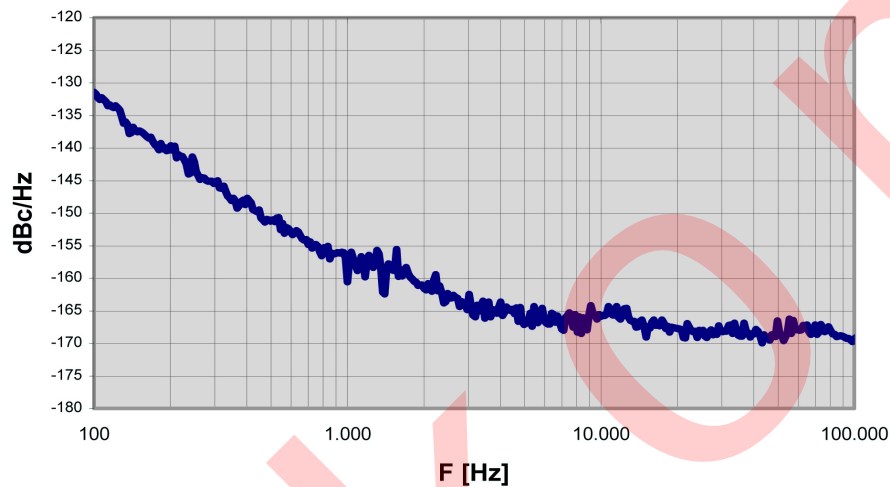


OVEN CONTROLLED CRYSTAL OSCILLATOR

PLUG-IN MODEL: OXO100-1-349

PERFORMANCE PLOTS

Phase Noise 100.000 MHz OCXO



Frequency vs. Temp. 100.000 MHz OCXO

