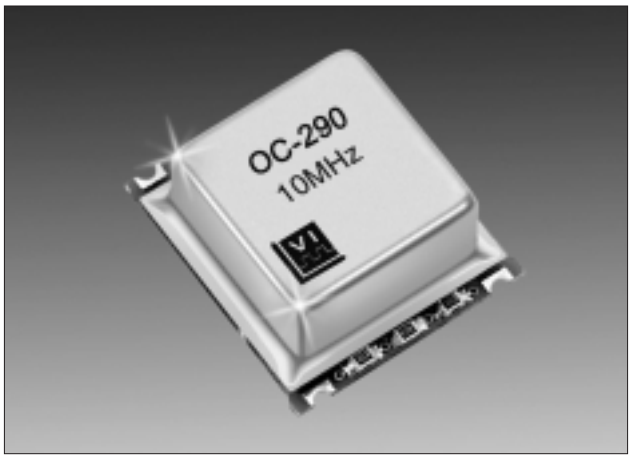
OC-290



Description:

Small SMD OCXO with tight stability.
AT and SC-cut versions available.

Features

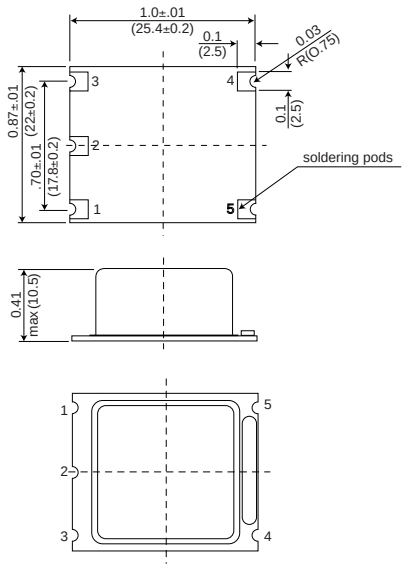
- **5 MHz, 10 MHz, 13 MHz standard.**
  Other frequencies available from 2 to 80 MHz
- **Stability as low as ±5 x 10^{-8} over 0°C to 50°C**
- **Aging: 1 x 10^{-9} per day**
- **Package: 25.4 x 22 x 10.5 mm**
- **Supply voltage: +3.3 or +5.0 V**

Performance Characteristics

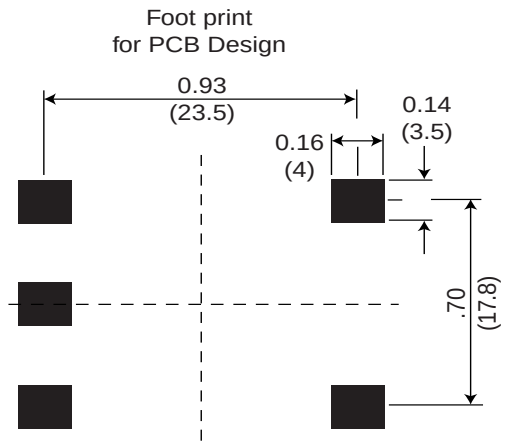
Parameter	Characteristic
Frequency:	10, 12.8, 16.384, 19.44, 20, 24.576, 20.48, 32.768, 38.88, 40 and 77.76 MHz Available from 2 MHz to 80 MHz
Package Size:	25.4 x 22.0 x 10.5 mm (1.0" x 0.9" x 0.42")
Supply Voltage (Vdd):	**C** = 5 Vdc ±5% **D** = 3.3 Vdc ±5% (Other supply voltages are available upon request)
Supply Current:	<5W peak at turn-on, <1.25W stabilized @ 25ºC (Temp Range **B** & **D**) <5W peak at turn-on, <1.5W stabilized @ 25ºC (Temp Range **F**)
Output Type:	HCMOS, LVHCMOS Sinewave +0 dBm / 50 ohm 10 TTL
Standard Stability Options: **Note:** Not all stabilities are available with all frequency/output combinations. Please consult factory.	**B - 508** = ±5x10^{-8} over 0ºC to +50ºC **B - 758** = ±7.5x10^{-8} over 0ºC to +50ºC ***B - ST3** = Stratum 3 over 0ºC to +50ºC **D - 758** = ±7.5x10^{-8} over-20ºC to +70ºC **D - 107** = ±1.0x10^{-7} over -20ºC to +70ºC ***D -ST3** = Stratum 3 over -20ºC to +70ºC **F -107** = ±1.0x10^{-7} over -40ºC to +85ºC ***F -ST3** = Stratum 3 over -40ºC to +85ºC **F -507** = ±5.0x10^{-7} over -40ºC to +85ºC ***STRATUM 3 per GR-1244-CORE Table 3-1** Total Stability: <4.6 x 10^{-6} for all causes and 10 years vs. Holdover: <3.2 x 10^{-7} for all causes and 24 hours vs. Temperature: <2.8 x 10^{-7} peak to peak
Stability vs. Supply:	<5 pb for a 1% change in Supply Voltage
Aging:	**A**: 1 x 10^{-8}/day, 2x10^{-6}/year **C**: 1 x 10^{-9}/day, 3x10^{-7}/year **B**: 3 x 10^{-9}/day, 1x10^{-6}/year **N**: PTR Stratum 3
Electrical Frequency Adjust:	10 x 10^{-6} typical range (with Aging **A** or **B**) 2 x 10^{-6} typical range (with Aging **C**) (with **F**; no frequency adjustment)
Initial Accuracy @ +25ºC:	±1.5 ppm max after reflow

OC-290

Outline Drawing



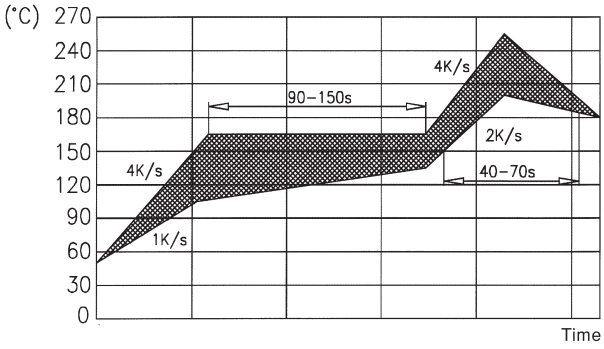
Pad Layout



Pin Out Information

1	Control voltage VC
2	Reference voltage output V_{REF}
3	Supply voltage V_B
4	RF-output
5	Ground, case

Recommended Soldering Profile



Ordering Information

OC – **290** – **C** **A** **C** – **508** **C** **A** – **10.0** **MHz**

Product Family
OC = OCXO

Package
290 = 25.4X22 mm SMD package

Input
C = 5.0V ±5%
D = 3.3V ±5%

Output
A = HCMOS, LVHCMOS
B = 10 TTL
G = Sinewave

Temperature Range
B - 508 = ±5x10^{-8} over 0ºC to +50ºC
B - 758 = ±7.5x10^{-8} over 0ºC to +50ºC
***B - ST3** = Stratum 3 over 0ºC to +50ºC
D - 758 = ±7.5x10^{-8} over-20ºC to +70ºC
D - 107 = ±1.0x10^{-7} over -20ºC to +70ºC
***D -ST3** = Stratum 3 over -20ºC to +70ºC
F -107 = ±1.0x10^{-7} over -40ºC to +85ºC
***F -ST3** = Stratum 3 over -40ºC to +85ºC
F -507 = ±5.0x10^{-7} over -40ºC to +85ºC

Aging
A = 1 x 10^{-8}/day, 2 x 10^{-6}/year
B = 3 x 10^{-9}/day, 1 x 10^{-6}/year
C = 1 x 10^{-9}/day, 3 x 10^{-7}/year
N = PTR Stratum 3

Electrical Frequency Adjust
A: 10 x 10^{-6} typical range (with Aging **A** or **B**) or
2 x 10^{-6} typical range (with Aging **C**)
F: Fixed frequency. See initial accuracy.

Frequency
2 MHz to 80 MHz