

# VOLTAGE CONTROLLED OSCILLATOR

**TOM9306**  
250 - 500 MHz

## Available as:

TOM9306, 4 Pin TO-8 (T4)  
TON9306, 4 Pin Surface Mount (SM3)  
TOP9306, 4 Pin Flatpack (FP4)  
BXO9306, Connectorized Housing (H1)

## Features

- Low Noise Bipolar Transistor
- Broad Tuning Range
- Operating Case Temp. -55 °C to + 85 °C
- Environmental Screening available

## Specifications

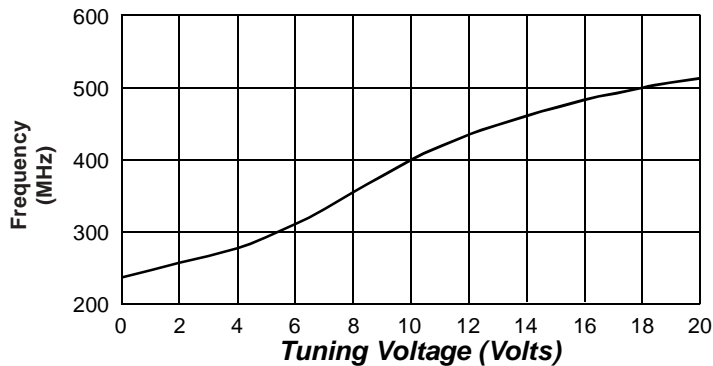
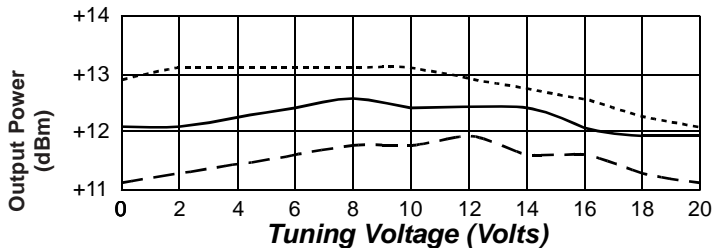
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to + 85 °C
Frequency	250 - 500 MHz	250 - 500 MHz
Output Power (dBm)	+12	+10.0 Min.
Power Flatness (dB)	±0.4	±1.0 Max.
Tuning Voltage Range (v)	1 to 18	0 to 20
Tuning Voltage Sensitivity (MHz/V)	15	5 Min.
Harmonics (dBc)	-17	-10 Max.
Spurious (dBc)	<-80	-80 Max.
3dB Modulation BW, Zg = 50 Ohms	---	4 MHz Min.
Pushing (MHz/V)	1	3.0 Max.
Pulling (MHz); 12 dB RL	3	8.0 Max.
Frequency Drift (MHz/°C)	---	0.05 Max.
Power Vdc	+15	+15
mA	15	20.0 Max.

## Maximum Ratings

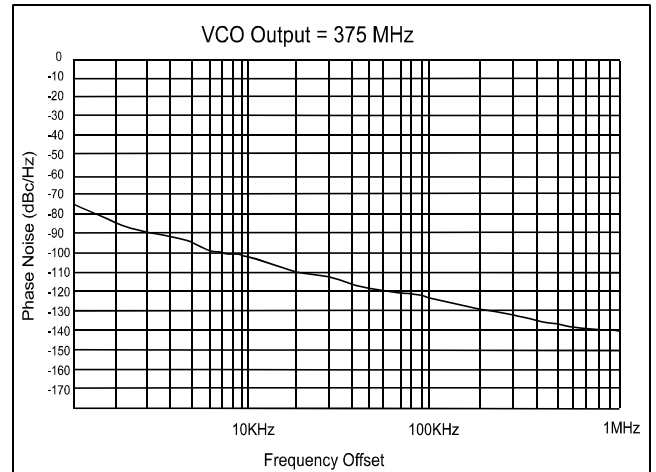
Ambient Operating Temperature ..... -55°C to + 100 °C  
Storage Temperature ..... -62°C to + 125 °C  
Case Temperature ..... + 125 °C  
DC Voltage ..... + 20 Volts  
Maximum DC Tuning Voltage ..... + 20 Volts  
Minimum DC Tuning Voltage ..... 0 Volts

Note: Care should always be taken to effectively ground the case of each unit.

## Typical Performance Data



Legend ——— +25 °C    - - - - +85 °C    ······ -55 °C



### Notes:

1. Phase Noise is measured using the Aeroflex PN9000.
2. Worst case phase noise @ 100KHz offset across frequency range and temperature extremes is -120dBc/Hz.



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 02/15/05

www.SpectrumMicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001