

# VOLTAGE CONTROLLED OSCILLATOR

**TOM9307**  
300 - 600 MHz

## Available as:

- TOM9307, 4 Pin TO-8 (T4)
- TON9307, 4 Pin Surface Mount (SM3)
- TOP9307, 4 Pin Flatpack (FP4)
- BXO9307, Connectorized Housing (H1)

## Features

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

## Specifications

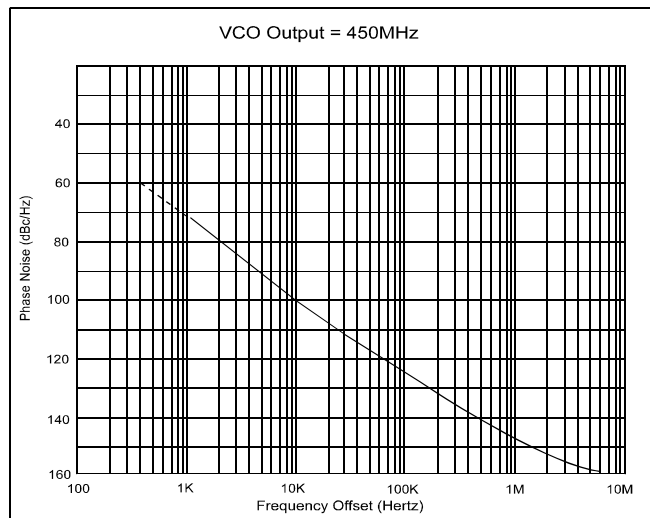
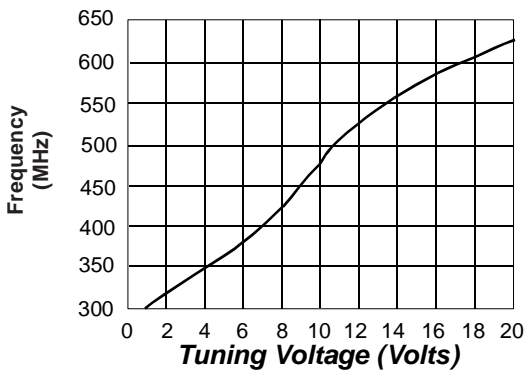
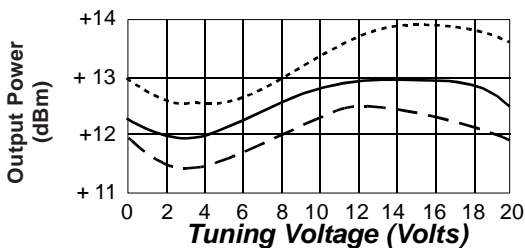
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = - 55 °C to + 85 °C
Frequency	300 - 600 MHz	300 - 600 MHz
Output Power (dBm)	+12	+10 Min.
Power Flatness (dB)	±1	±2.0 Max.
Tuning Voltage Range (v)	1 to 17	0 to 20
Tuning Voltage Sensitivity (MHz/V)	20	5 Min.
Harmonics (dBc)	-15	-10 Max.
Spurious (dBc)	<-80	-80 Max.
3dB Modulation BW, Zg = 50 Ohm	---	8MHz Min.
Pushing (MHz/V)	2	4 Max.
Pulling (MHz); 12dB RL	5	15 Max.
Frequency Drift (MHz/°C)	---	-.05 Max.
Power	Vdc	+15
	mA	17
		25 Max.

## Maximum Ratings

Ambient Operating Temperature ..... -54°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



### Notes:

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

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



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