

# VOLTAGE CONTROLLED OSCILLATOR

**TOM9313**  
1000 - 1800 MHz

**Available as:**

- TOM9313, 4 Pin TO-8 (T4)
- TON9313, 4 Pin Surface Mount (SM3)
- TOP9313, 4 Pin Flatpack (FP4)
- BXO9313, Connectorized Housing (H1)

**Features**

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

**Specifications**

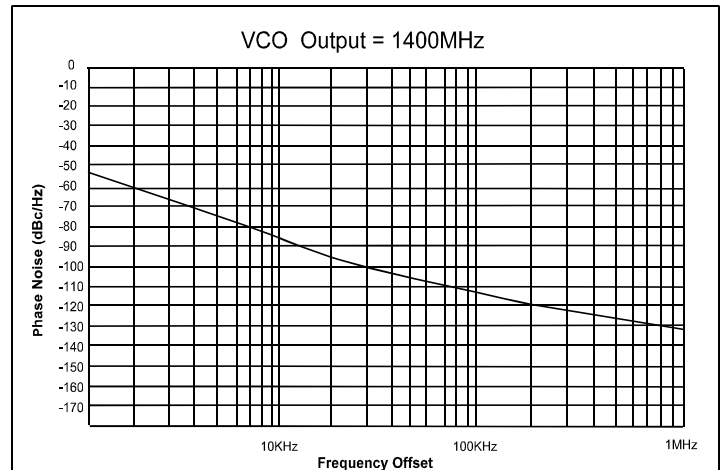
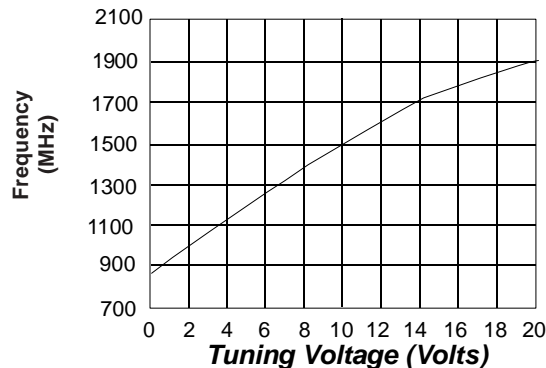
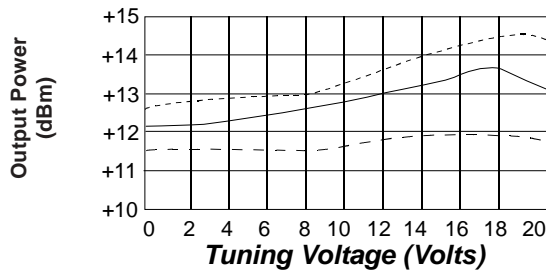
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to + 85 °C
Frequency	1000 - 1800 MHz	1000 - 1800 MHz
Output Power (dBm)	12	10 Min.
Power Flatness (dB)	±1.0	±2.0 Max.
Tuning Voltage Range (v)	1 to 18	0 to 20
Tuning Voltage Sensitivity (MHz/V)	50	25 Min.
Harmonics (dBc)	-15	-10
Spurious (dBc)	<-80	-60 Max.
3dB Modulation BW, Zg = 50 Ohm	---	15 MHz Min.
Pushing (MHz/V)	10	15 Max.
Pulling (MHz); 14dB RL	15	30 Max.
Frequency Drift (MHz/°C)	---	.30 Max.
Power Vdc	+15	+15
mA	19	25

**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 -110 dBc/Hz.

Legend ——— + 25 °C - - - - +85°C - - - - -54 °C



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