

# VOLTAGE CONTROLLED OSCILLATOR

**TOM9310**  
470 - 570 MHz

## Available as:

TOM9310, 4 Pin TO-8 (T4)  
TON9310, 4 Pin Surface Mount (SM3)  
TOP9310, 4 Pin Flatpack (FP4)  
BXO9310, Connectorized Housing (H1)

## Features

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

## Specifications

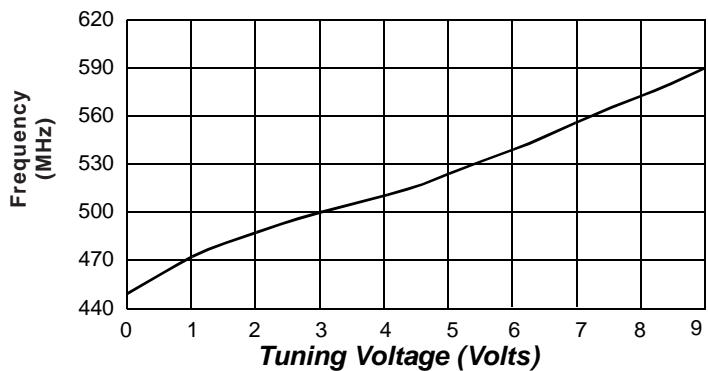
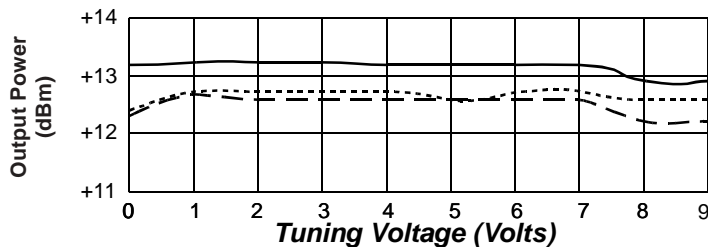
| CHARACTERISTIC                     | TYPICAL<br>Ta = 25 °C | MIN/MAX<br>Ta = -55 °C to +85 °C |
|------------------------------------|-----------------------|----------------------------------|
| Frequency                          | 470 - 570 MHz         | 470 - 570 MHz                    |
| Output Power (dBm)                 | +12                   | +10 Min.                         |
| Power Flatness (dB)                | ±0.25                 | ±0.5 Max.                        |
| Tuning Voltage Range (v)           | 1 to 10               | 0 to 15                          |
| Tuning Voltage Sensitivity (MHz/V) | 25                    | 10 Min.                          |
| Harmonics (dBc)                    | -17                   | -12 Max.                         |
| Spurious (dBc)                     | <-80                  | -80 Max.                         |
| 3dB Modulation BW,<br>Zg = 50 Ohms | ---                   | 5MHz Min.                        |
| Pushing (MHz/V)                    | 0.5                   | 1.0 Max.                         |
| Pulling (MHz); 12 dB RL            | 12                    | 20 Max.                          |
| Frequency Drift (MHz/°C)           | 0.125                 | 0.25 Max.                        |
| Power Vdc                          | +9                    | +9                               |
| mA                                 | 16                    | 20 Max.                          |

## Maximum Ratings

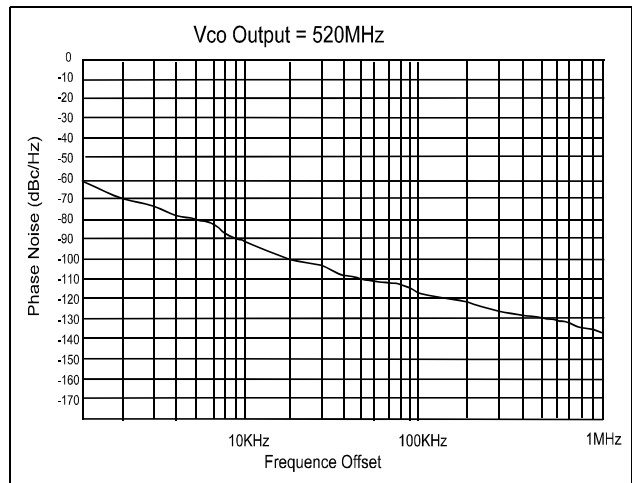
Ambient Operating Temperature ..... -55°C to + 100 °C  
Storage Temperature ..... -62°C to + 125 °C  
Case Temperature ..... + 125 °C  
DC Voltage ..... + 15 Volts  
Maximum DC Tuning Voltage ..... + 15 Volts  
Minimum DC Tuning Voltage ..... 0 Volt

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 -110dBc/Hz.



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