

# VOLTAGE CONTROLLED OSCILLATOR

**TOM9311**  
550 - 850 MHz

**Available as:**

- TOM9311, 4 Pin TO-8 (T4)
- TON9311, 4 Pin Surface Mount (SM3)
- TOP9311, 4 Pin Flatpack (FP4)
- BXO9311, Connectorized Housing (H1)

**Features**

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

**Specifications**

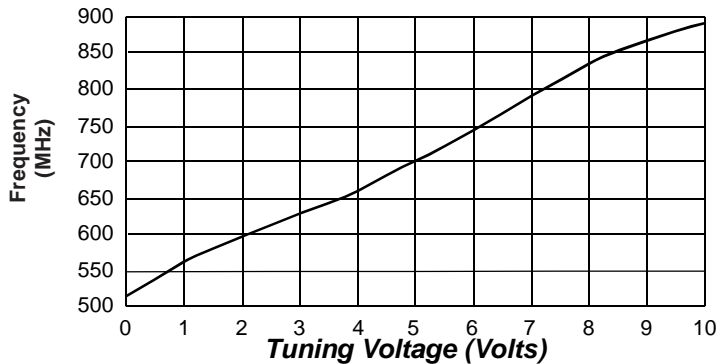
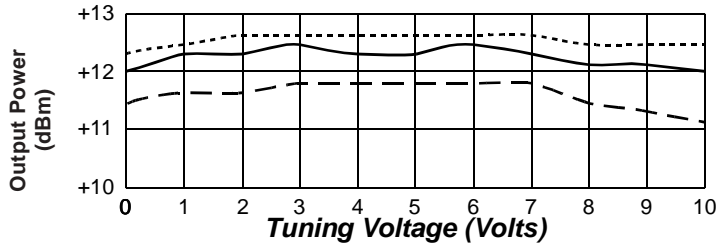
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	550 - 850 MHz	550 - 850 MHz
Output Power (dBm)	+12	+10 Min.
Power Flatness (dB)	±0.3	±1.0 Max.
Tuning Voltage Range (v)	1 to 10	0 to 12
Tuning Voltage Sensitivity (MHz/V)	30	20 Min.
Harmonics (dBc)	-20	-15 Max.
Spurious (dBc)	<-80	-80 Max.
Phase Noise @ 100 KHz (dBc/Hz)	---	5MHz Min.
Pushing (MHz/V)	3	4.0 Max.
Pulling (MHz); 20 dB RL	10	15.0 Max.
Frequency Drift (MHz/°C)	0.3	0.7 Max.
Power Vdc	+12	+12
mA	35	40 Max.

**Maximum Ratings**

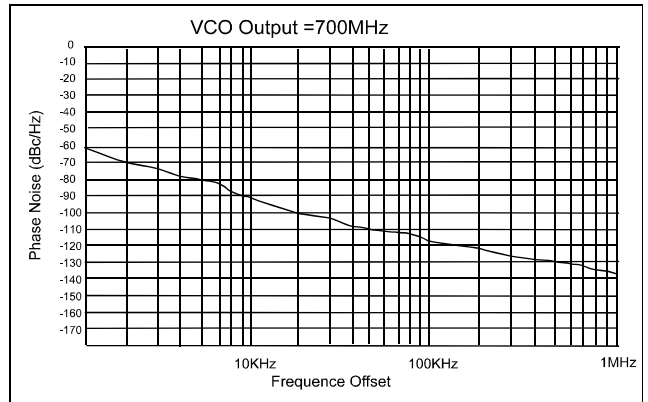
- Ambient Operating Temperature ..... -55°C to + 100 °C
- Storage Temperature ..... -62°C to + 125 °C
- Case Temperature ..... + 125 °C
- DC Voltage ..... + 20 Volts
- Maximum DC Tuning Voltage ..... + 20 Volts
- Minimum DC Tuning Voltage ..... 0 Volt

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 Aerofles PN9000.
2. Worst case phase noise @ 100KHz offset across frequency range and temperature extremes is - 100 dBc/Hz.

