

# VOLTAGE CONTROLLED OSCILLATOR

## TOM9302

### 50 - 100 MHz

**Available as:**  
 TOM9302, 4 Pin TO-8 (T4)  
 TON9302, 4 Pin Surface Mount (SM3)  
 TOP9302, 4 Pin Flatpack (FP4)  
 BXO9302, Connectorized Housing (H1)

### Features

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

### Specifications

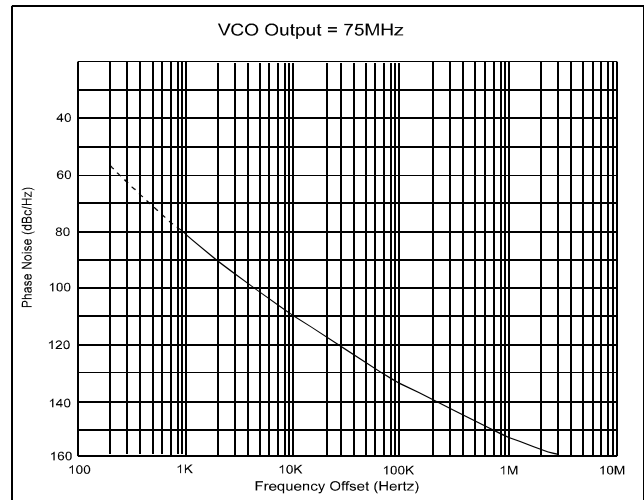
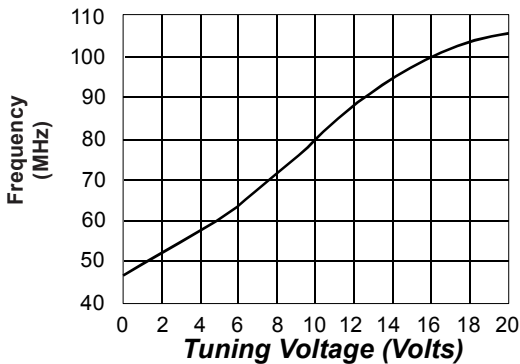
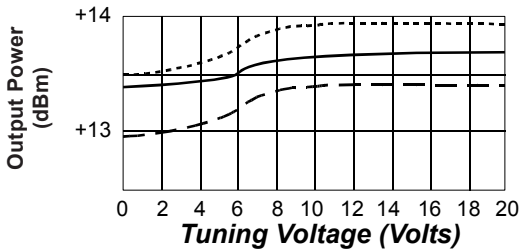
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to + 85 °C
Frequency	50 - 100 MHz	50 - 100 MHz
Output Power (dBm)	+12	+10 Min.
Power Flatness (dB)	±1.0	±1.5 Max.
Tuning Voltage Range (v)	1 to 17	0 to 20
Tuning Voltage Sensitivity (MHz/V)	4	1.5 Min.
Harmonics (dBc)	-15	-10 Max.
Spurious (dBc)	<-80	-80 Max.
3dB Modulation BW, Zg = 50 Ohm	---	.3 MHz Min.
Pushing (MHz/V)	.5	1.5 Max.
Pulling (MHz); 12dB RL	3	5.0 Max.
Frequency Drift (MHz/°C)	---	.05 Max.
Power Vdc	+15	+15
mA	14	18 Max.

### Absolute Maximum (No Damage) 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 -130 dBc/Hz.

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



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