

# Voltage Controlled Oscillator

## Low Frequency Drift

# Model TOM9324

## 2200 to 2500 MHz

### Features

- Low Frequency Drift
- Operating Case Temp. -54 °C to + 85 °C
- Screening to the tables of MIL-STD-883 available

### Specifications

CHARACTERISTIC	TYPICAL Ta = +25 °C	MIN/MAX Ta = -54°C to +85 °C
Frequency	2200 - 2500 MHz	2200 - 2500 MHz
Output Power (dBm)	+14.0	+12.5 Min.
Power Flatness (dBm)	±0.25	±0.5 Max.
Tuning Voltage Range (V)	2 to 11	1 to 13
Tuning Voltage Sensitivity (MHz/V)	30.0	15.0 Min.
Harmonics (dBc)	-25	-20 Max.
Spurious (dBc)	<-80	<- 80 Max.
Phase Noise @ 100 KHz (dBc/Hz)	-105	-100 Max.
Pushing (MHz/V)	4.0	7.0 Max.
Pulling (MHz); 24 dB RL	30.0	35.0 Max.
Frequency Drift (MHz/°C)	± 0.05	±0.2 Max.
Power Vdc	+15	+15
mA	27.0	30.0 Max.

### Maximum Ratings

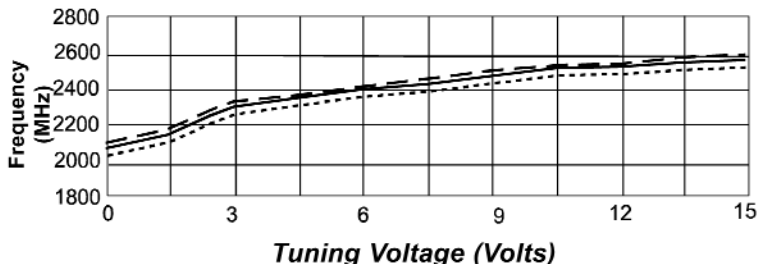
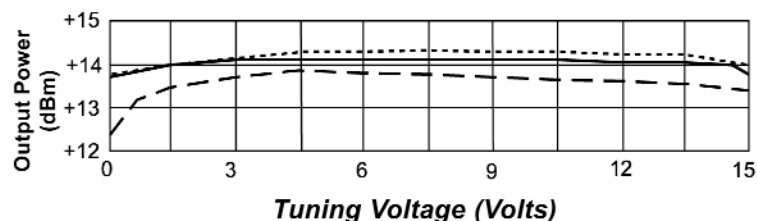
Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 20 Volts  
 Maximum DC Tuning Voltage ..... + 20 Volts  
 Minimum DC Tuning Voltage ..... 0 Volts

### Packaging Options (see Appendix)

TOM9324, 4 Pin TO-8 (T4)  
 TON9324, 4 Pin Surface Mount (SM3)  
 BXO9324, Connectorized Housing (H1)

NOTE: Care should always be taken to effectively ground the case of each unit.

### Typical Performance Data



V <sub>t</sub> (V)	f <sub>o</sub> (MHz)	Df (MHz)	P <sub>o</sub> (dBm)	2H (dBc)	3H (dBc)
0.00	2109.2		+13.8	-29	-56
1.00	2160.8	51.6	+14.2	-28	-53
2.00	2204.6	43.8	+14.0	-27	-52
3.00	2250.4	45.8	+14.2	-25	-49
4.00	2294.6	44.2	+14.3	-25	-47
5.00	2337.5	42.9	+14.3	-25	-46
6.00	2376.9	39.4	+14.3	-25	-50
7.00	2412.0	35.1	+14.3	-25	-49
8.00	2441.9	29.9	+14.2	-25	-50
9.00	2467.0	25.1	+14.2	-25	-46
10.00	2488.5	21.5	+14.1	-25	-48
11.00	2507.0	18.5	+14.1	-25	-48
12.00	2523.1	16.1	+14.1	-25	-44
13.00	2537.0	13.9	+14.0	-25	-43
14.00	2549.3	12.3	+14.0	-25	-43
15.00	2560.2	10.9	+13.9	-25	-43

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

