

# VOLTAGE CONTROLLED OSCILLATOR

## TOM9324

### 2200 - 2500 MHz

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

### Features

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

### Specifications

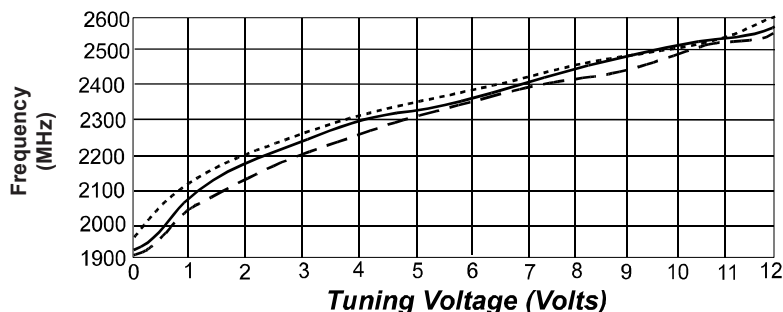
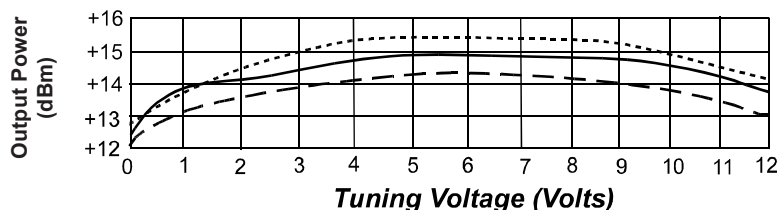
CHARACTERISTIC	TYPICAL Ta = +25°C	MIN/MAX Ta = -54°C to +85 °C
Frequency	2200 - 2500 MHz	2200 - 2500 MHz
Output Power (dBm)	+14.0	+12.5 Min.
Power Flatness (dBm)	±0.25	±0.5 Max.
Tuning Voltage Range (V)	2 to 11	1 to 13
Tuning Voltage		
Sensitivity (MHz/V)	35.0	25.0 Min.
Harmonics (dBc)	-25	-20 Max.
Spurious (dBc)	<-80	<-80 Max.
Phase Noise		
@ 100 KHz (dBc/Hz)	-105	-100 Max.
Pushing (MHz/V)	>2.0	5.0 Max.
Pulling (MHz); 24 dB RL	>9.0	20.0 Max.
Frequency Drift (MHz/°C)	±0.05	±0.2 Max.
Power		
Vdc	+15	+15
mA	29.0	32.0 Max.

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

### Absolute Maximum (No Damage) 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

### Typical Performance Data



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

V <sub>t</sub> (V)	f <sub>o</sub> (MHz)	P <sub>f</sub> (MHz)	P <sub>o</sub> (dBm)	2H (dBc)	3H (dBc)
0.00	1931.1		+12.4	-15	-29
1.00	2081.1	150.0	+13.7	-17	-31
2.00	2161.9	80.8	+14.3	-21	-30
3.00	2230.5	68.6	+14.6	-26	-35
4.00	2281.8	51.2	+14.9	-28	-35
5.00	2325.3	43.5	+15.0	-29	-34
6.00	2366.5	41.3	+15.0	-26	-33
7.00	2405.4	38.9	+14.8	-25	-35
8.00	2440.9	35.5	+14.7	-25	-37
9.00	2474.9	34.0	+14.8	-25	-38
10.00	2507.8	32.9	+14.4	-26	-39
11.00	2539.4	31.6	+14.1	-27	-40
12.00	2570.8	31.2	+13.8	-28	-39
13.00	2602.8	32.0	+13.3	-28	-40

