

# VOLTAGE CONTROLLED OSCILLATOR

## TOM9100

900 - 1400 MHz

### Available as:

TOM9100, 4 Pin TO-8 (T4)  
 TON9100-3, 4 Pin Surface Mount (SM3)  
 TOP9100-4, 4 Pin Flatpack (FP4)  
 BXO9100, Connectorized Housing (H1)

### Features

- Low Noise Bipolar Transistor
- Broad Tuning Range
- Operating Case Temp. -40 °C to + 85 °C
- Environmental Screening available

### Specifications

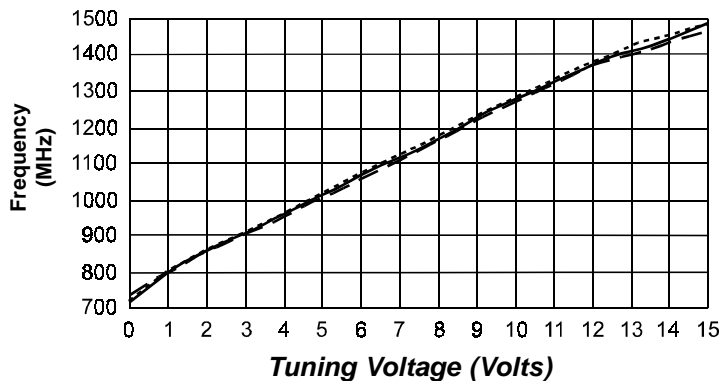
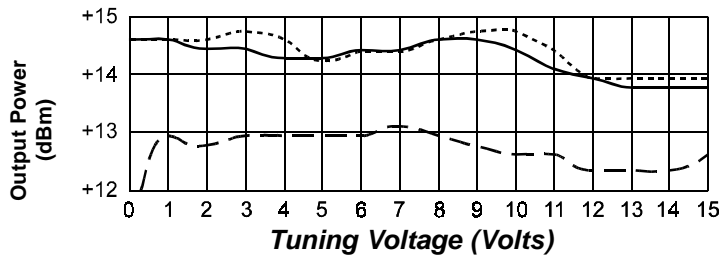
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	900 - 1400 MHz	900 - 1400 MHz
Output Power (dBm)	+13	+11.0 Min.
Power Flatness (dB)	±0.4	±0.6 Max.
Tuning Voltage Range (v)	1 to 12	1 to 15
Tuning Voltage Sensitivity (MHz/V)	50	30 Min.
Harmonics (dBc)	<-20	-12 Max.
Spurious (dBc)	<-80	-80 Max.
Phase Noise @ 100 KHz (dBc/hz)	-112	- Max.
Pushing (MHz/V)	<2	3.0 Max.
Pulling (MHz); 12 dB RL	30	40.0 Max.
Frequency Drift (MHz/°C)	0.15	0.3 Max.
Power Vdc	+12	+12
mA	22	25.0 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 Volt

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

### Typical Performance Data



Legend ----- + 25 °C ----- +85 °C - - - - -40°C

V <sub>t</sub> (V)	f <sub>0</sub> (MHz)	Δf (MHz)	P <sub>o</sub> (dBm)	2H (dBc)	3H (dBc)
0.0	729.6		+14.6	-15.0	-15.3
1.00	801.0	71.4	+14.6	-18.5	-17.0
2.00	859.5	58.6	+14.4	+25.5	-17.8
3.00	911.6	52.1	+14.4	-31.2	-19.0
4.00	962.1	50.5	+14.3	-27.8	-20.0
5.00	1013.9	51.7	+14.3	-25.2	-20.7
6.00	1068.5	52.8	+14.4	-23.3	-21.0
7.00	1118.3	52.8	+14.4	-23.3	-22.2
8.00	1172.7	53.4	+14.6	-23.3	-23.2
9.00	1224.8	52.2	+14.6	-22.8	-24.8
10.00	1277.5	52.7	+14.4	-22.0	-27.2
11.00	1328.3	48.8	+14.1	-20.0	-30.7
12.00	1371.9	45.6	+13.9	-20.2	-34.8
13.00	1411.8	39.9	+13.8	-20.7	-36.5
14.00	1445.5	33.6	+13.8	-21.0	-37.2
15.00	1477.3	31.8	+13.8	-21.3	-37.3



2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 •••• FAX 215-464-4001

10/04/00