

# VOLTAGE CONTROLLED OSCILLATOR

## TOM9008 70-100 MHz

Available as:  
 TOM9008, 4 Pin TO-8 (T4)  
 TON9008, 4 Pin Surface Mount (SM3)  
 BXO9008, Connectorized Housing (H1)

### Features

- Low Noise Bipolar Transistor
- Operating Case Temp. -20 °C to + 60 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta = +25 °C	MIN/MAX Ta = -20°C to +60 °C
Frequency	70 - 100 MHz	70 - 100 MHz
Output Power (dBm)	+10.0	+7.0 Min.
Power Flatness (dBm)	±0.2	±1.0 Max.
Tuning Voltage Range (V)	2 to 10	1 to 20
Tuning Voltage Sensitivity (MHz/V)	4.0	1.0
Harmonics (dBc)	-12	-8 Max.
Spurious (dBc)	< -80	- 80 Max.
Phase Noise @ 100 KHz (dBc/Hz)	-115	-110 Max.
Pushing (MHz/V)	0.2	0.65 Max.
Pulling (MHz); 12 dB RL	1.2	6.0 Max.
Frequency Drift (MHz/°C)	-0.012	-0.035 Max.
Power Vdc	+10	+10
mA	9.5	10.0 Max.

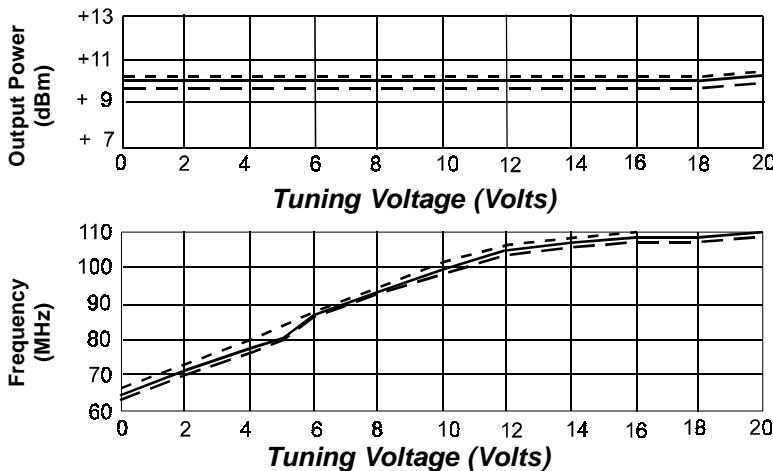
### Maximum Ratings

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

V <sub>t</sub> (V)	f <sub>o</sub> (MHz)	Δf (MHz)	P <sub>o</sub> (dBm)	2H (dBc)	3H (dBc)
0.00	64.0		+ 8.7	-12	- 11
1.00	68.7	4.7	+ 9.9	-12	- 11
2.00	72.1	3.4	+ 9.9	-12	- 12
3.00	75.0	2.9	+ 9.9	-12	- 12
4.00	77.9	2.9	+ 9.9	-12	- 12
5.00	81.3	3.4	+ 9.9	-12	- 12
6.00	85.6	4.3	+ 9.9	-12	- 12
7.00	90.6	5.0	+ 9.9	-12	- 12
8.00	95.4	4.8	+ 9.9	-12	- 12
9.00	99.2	3.8	+ 9.9	-12	- 12
10.00	102.2	3.0	+ 9.8	-12	- 12
11.00	104.7	2.5	+ 9.8	-12	- 12
12.00	106.7	2.0	+ 9.8	-13	- 12
13.00	108.3	1.6	+ 9.7	-12	- 12
14.00	109.6	1.3	+ 9.8	-13	- 12
15.00	110.8	1.2	+ 9.7	-13	- 12
16.00	111.7	0.9	+ 9.7	-13	- 12
17.00	112.5	0.8	+ 9.6	-12	- 12
18.00	113.3	0.8	+ 9.5	-13	- 12
19.00	113.9	0.6	+ 9.5	-13	- 12
20.00	114.4	0.5	+ 9.6	-13	- 12

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

### Typical Performance Data



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



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