

# VOLTAGE CONTROLLED OSCILLATOR

## TOM9319

170 - 300 MHz

### Available as:

TOM9319, 4 Pin TO-8 (T4)  
TON9319, 4 Pin Surface Mount (SM3)  
BXO9319, Connectorized Housing (H1)

### Features

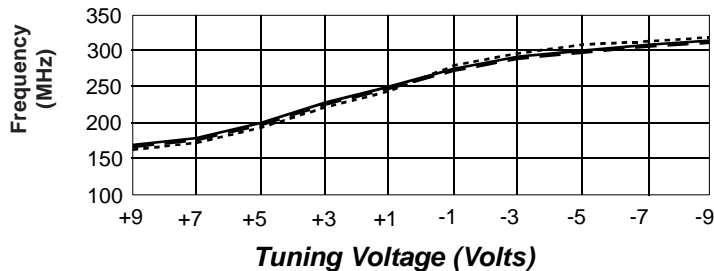
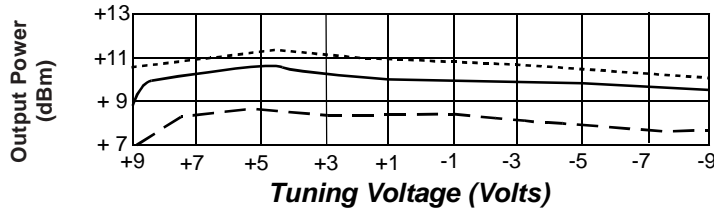
- Modulation Sensitivity Ratio: 1.7:1 Typical
- 3 dB Modulation Bandwidth: 4 MHz (50 ohm source)
- Operating Case Temp. -55 °C to + 100 °C
- Screening to the tables of MIL-STD-883 available

### Specifications

CHARACTERISTIC	TYPICAL Ta = + 25 °C	MIN/MAX Ta = -55 °C to + 100 °C
Frequency	170 - 300 MHz	170 - 300 MHz
Output Power (dBm)	+10	+8 Min.
Power Flatness (dBm)	±0.5	±1.0 Max.
Tuning Voltage Range (V)	+8 to -4	+9 to -9
Tuning Voltage Sensitivity (MHz/V)	10	5 Min.
Harmonics (dBc)	-15	-8 Max.
Spurious (dBc)	<-70	-70 Max.
Phase Noise @ 10 KHz	-78	-75 Max.
@ 100 KHz (dBc/Hz)	-108	-105 Max.
Pushing (MHz/V)	2.0	4.0 Max.
Pulling (MHz); 12 dB RL	4.0	8.0 Max.
Frequency Drift (MHz/°C)	0.05	0.05 Max.
Power Vdc	+12	+12
mA	34.0	45.0 Max.

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

### Typical Performance Data



Legend ——— +25 °C - - - - +100 °C - - - - -55 °C

### 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 ..... - 11 Volts

V <sub>t</sub> (V)	f <sub>o</sub> (MHz)	Δf (MHz)	P <sub>o</sub> (dBm)	2H (dBc)	3H (dBc)
+11	136.0		+ 5.5	-18	-23
+10	152.0	16.0	+ 7.2	-19	-20
+9	162.8	10.8	+ 8.4	-20	-17
+8	171.0	8.2	+ 9.8	-21	-15
+7	179.5	8.5	+10.0	-22	-14
+6	188.4	8.9	+10.2	-21	-14
+5	200.6	12.2	+10.3	-18	-14
+4	213.7	13.1	+10.3	-18	-14
+3	227.0	13.3	+10.3	-17	-14
+2	239.2	12.2	+10.2	-18	-14
+1	250.9	11.7	+10.0	-20	-14
0	261.7	10.8	+ 9.8	-21	-14
-1	271.4	9.7	+ 9.9	-23	-14
-2	279.7	8.3	+ 9.8	-24	-14
-3	287.2	7.5	+ 9.7	-26	-14
-4	293.6	6.4	+ 9.6	-26	-14
-5	299.2	5.6	+ 9.5	-27	-14
-6	304.2	5.0	+ 9.5	-27	-14
-7	308.8	4.6	+ 9.4	-24	-15
-8	312.8	4.0	+ 9.4	-24	-15
-9	316.2	3.4	+ 9.4	-23	-15
-10	319.1	2.9	+ 9.4	-23	-14
-11	321.4	2.3	+ 9.4	-23	-14

