

Voltage Controlled Oscillator

Low Noise Bipolar Transistor

Model TOM9327

2200 to 2300 MHz

Features

- Low Noise Bipolar Transistor
- Linear Tuning
- Operating Case Temp. -30 °C to +55 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta = +25 °C	MIN/MAX Ta = -30°C to +55 °C
Frequency	2200 - 2300 MHz	2200 - 2300 MHz
Output Power (dBm)	+7.0	+5.0 Min.
Power Flatness (dBm)	±0.75	±1.0 Max.
Tuning Voltage Range (V)	1.0 to 6.0	0.0 to 7.5
Tuning Voltage Sensitivity (MHz/V)	25.0	15.0 Min.
Harmonics (dBc)	-30	-20 Max.
Spurious (dBc)	<- 80	<- 80 Max.
Phase Noise @ 100 KHz (dBc/Hz)	-105	-100 Max.
Pushing (MHz/V)	5.0	9.0 Max.
Pulling (MHz); 12 dB RL	40.0	55.0 Max.
Frequency Drift (MHz/°C)	-0.35	-1.0 Max.
Power Vdc	+5	+5
mA	27.0	30.0 Max.

Maximum Ratings

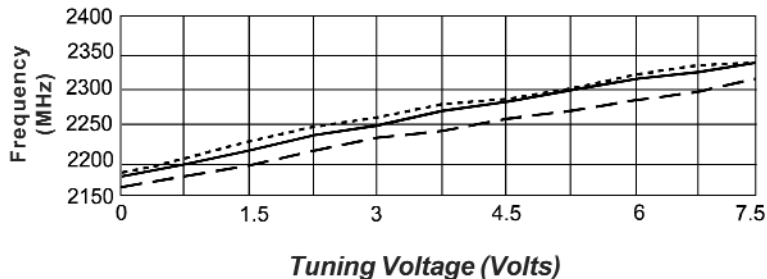
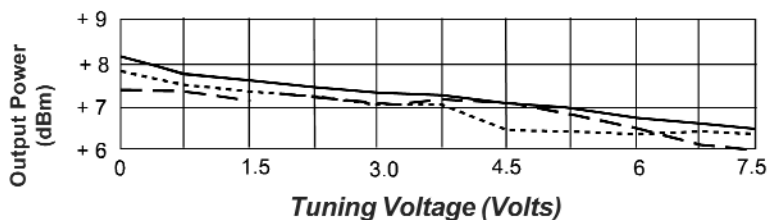
Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 10 Volts
 Maximum DC Tuning Voltage + 15 Volts
 Minimum DC Tuning Voltage 0 Volts

Packaging Options (see Appendix)

TOM9327, 4 Pin TO-8 (T4)
 TON9327, 4 Pin Surface Mount (SM3)
 BXO9327, Connectorized Housing (H1)

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

Typical Performance Data



V _t (V)	f _o (MHz)	Δf (MHz)	P _o (dBm)	2H (dBc)	3H (dBc)
0.00	2174.1		+8.16	-27.42	-47.99
0.50	2188.9	29.5	+7.96	-27.40	-46.30
1.00	2204.4	31.0	+7.84	-27.51	-45.04
1.50	2215.5	22.2	+7.73	-27.61	-45.67
2.00	2226.3	21.5	+7.61	-27.73	-43.75
2.50	2236.4	20.3	+7.51	-27.97	-43.75
3.00	2246.8	20.7	+7.42	-28.23	-41.77
3.50	2257.4	21.3	+7.29	-28.25	-42.60
4.00	2269.9	25.0	+7.24	-28.32	-43.13
4.50	2279.4	19.0	+7.07	-28.48	-43.07
5.00	2289.9	21.0	+7.04	-29.09	-43.61
5.50	2300.0	20.2	+6.86	-29.32	-45.22
6.00	2310.0	20.0	+6.86	-29.97	-45.42
6.50	2320.9	21.8	+6.79	-30.81	-44.75
7.00	2329.6	17.5	+6.77	-31.03	-46.37
7.50	2337.8	16.2	+6.67	-31.46	-47.62

Legend ——— + 25 °C - - - - - +55 °C - - - - -30 °C

