

OC2560 1360 TO 2560 MHz VOLTAGE CONTROLLED OSCILLATOR

Typical Values @ +25 °C	OC2560
Tuning Voltage Limits	0-20 V
Power Output	+10.5 dBm
Power Output Variation	5.9 dB
Standard Size TO-8 Package	

SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency	1360-2560 MHz	1360-2560 MHz	1360-2560 MHz
Tuning Voltage Limits			
Tuning Voltage at low end	0.6 V	0.5 V	0 V
Tuning voltage at high end	17.5 V	19 V	20 V
Power Output (Min.)	+10.5 dBm	+10.0 dBm	+9.5 dBm
Power Flatness[^] (Max.)	5.9 dB	6.2 dB	6.5 dB
Modulation Sensitivity (Min.-Max.)	51 to 123 MHz/V	50 to 130 MHz/V	45 to 140 MHz/V
Modulation Sensitivity Ratio (Max.)	2.4:1	2.6:1	3.1:1
SSB Phase Noise (Max.)			
at 10 kHz offset	-82.0 dBc/Hz	-78.0 dBc/Hz	-75.0 dBc/Hz
at 100 kHz offset	-106.0 dBc/Hz	-105.0 dBc/Hz	-104.0 dBc/Hz
Frequency Drift (Max.)	—	40 MHz	100 MHz
Harmonics (Max.)	-10.0 dBc	-8.0 dBc	-7.0 dBc
Spurious (Max.)	-62.0 dBc	-60.0 dBc	-60.0 dBc
Frequency Pulling (Max.)			
Load VSWR = 1.67:1	29.0 MHz	31.0 MHz	34.0 MHz
Frequency Pushing (Max.)			
V _{dc} ± 0.5 V	4.0 MHz/V	5.0 MHz/V	7.0 MHz/V
Bias Voltage (V_{dc})	15.0 V	15.0 V	15.0 V
DC Current (Max.)	54 mA	58 mA	60 mA

* Specifications are measured in 50-ohm system at +15 Volts bias unless otherwise specified.
[^] Power Flatness is defined as power variation over frequency band at any given temperature.

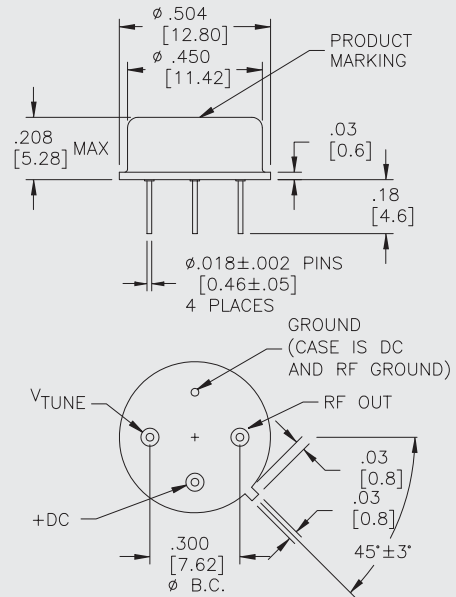
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 °C to +125 °C
Maximum Case Temperature	125 °C
Maximum DC Voltage	+17 V
Maximum Tuning Voltage	+20 V
Burn-In Temperature	+125 °C
Thermal Resistance ¹ (θ _{jc})	+40.1 °C/Watt
Junction Temperature Rise Above Case (T _{jc})	+34.3 °C

¹ Thermal resistance is based on total power dissipation. Ratings based on +25 °C.

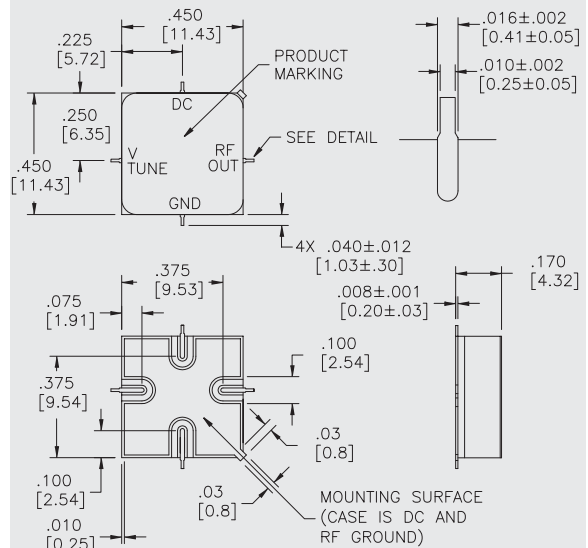
OC2560

TO-8 Package for Oscillators



OS2560

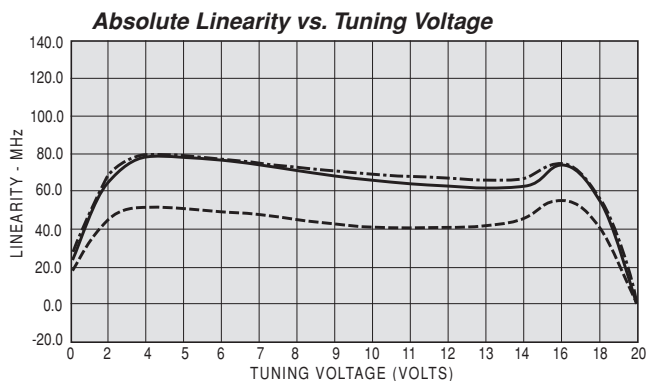
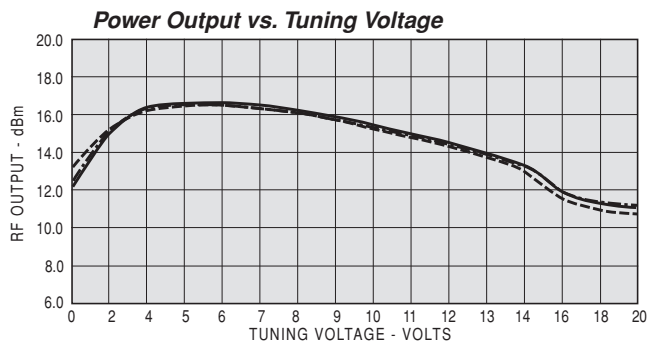
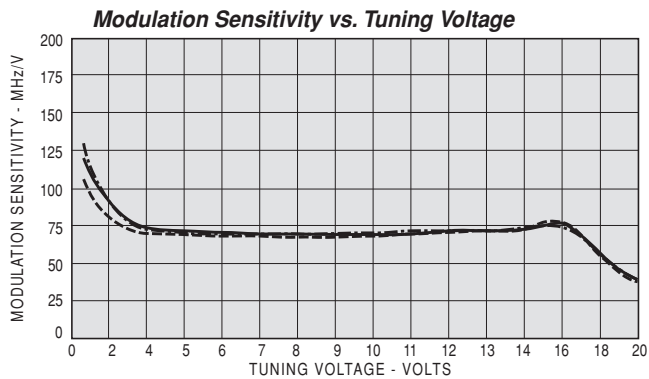
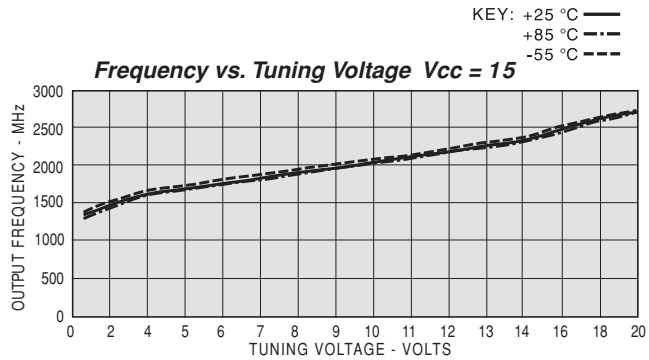
SMT0-8 for Oscillators



DIMENSIONS ARE IN INCHES [MILLIMETERS]

TYPICAL PERFORMANCE

TYPICAL AUTOMATIC TEST DATA



Model: OC2560 Vcc= +15V Vstr mA = 40.211 Vstop mA = 40.789

TUNING VOLTAGE V	FREQ. MHz	POWER dBm	MODULATION SENSITIVITY MHz/V	LINEARITY MHz
0.0	1259.04	10.46	0.00	0.00
0.5	1318.89	12.34	121.17	24.24
1.0	1372.72	13.47	106.44	41.61
1.5	1420.34	14.32	96.26	53.56
2.0	1465.37	14.97	88.93	62.09
2.5	1506.14	15.46	82.58	67.27
3.0	1545.92	15.85	78.60	70.56
3.5	1583.06	16.12	75.19	72.09
4.0	1619.93	16.29	72.76	72.43
4.5	1655.06	16.41	71.23	72.00
5.0	1690.45	16.47	69.80	70.84
5.5	1724.62	16.48	69.25	69.44
6.0	1759.43	16.49	68.73	67.73
6.5	1793.32	16.43	68.63	66.02
7.0	1828.18	16.31	68.83	64.37
7.5	1861.90	16.17	68.30	62.49
8.0	1896.48	15.99	68.22	60.53
8.5	1930.46	15.79	68.87	58.94
9.0	1965.41	15.59	69.02	57.38
9.5	1999.78	15.36	69.58	56.14
10.0	2035.29	15.12	70.16	55.16
10.5	2070.02	14.89	70.24	54.25
11.0	2105.08	14.63	70.98	53.70
11.5	2141.09	14.37	71.12	53.20
12.0	2176.37	14.10	71.56	52.94
12.5	2212.79	13.81	71.85	52.82
13.0	2248.68	13.49	72.64	53.09
13.5	2286.16	13.11	74.00	54.05
14.0	2323.75	12.69	76.14	56.05
14.5	2363.99	12.22	79.43	59.76
15.0	2404.66	11.80	82.34	64.82
15.5	2445.64	11.45	80.87	69.27
16.0	2483.33	11.20	76.57	71.47
16.5	2519.36	11.01	71.05	70.94
17.0	2551.61	10.86	65.29	67.58
17.5	2582.13	10.75	60.30	61.61
18.0	2609.47	10.67	55.29	53.30
18.5	2635.32	10.60	51.06	42.66
19.0	2658.62	10.55	47.21	30.38
19.5	2680.63	10.50	43.39	15.81
20.0	2700.37	10.46	40.03	0.00

