

## Features

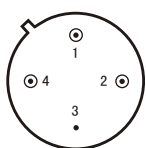
- Built-in buffer amplifier low frequency pulling
- Ultra low phase noise
- Flexible tuning design, custom frequency range  
300~4700MHz available bandwidth 10~30%
- Thin film hybrid construction
- TO-8D、SMO-8D、SP-1 packages available
- Operating temperature range: -55°C~+85°C

## Specifications (T<sub>A</sub>=25°C, V<sub>CC</sub>=+12V)

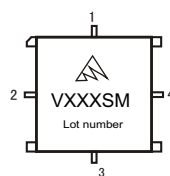
| Parameter               | Symbol          | Unit   | Guaranteed | Typical | Test Condition                                 |
|-------------------------|-----------------|--------|------------|---------|------------------------------------------------|
| Frequency Range         | $f_L \sim f_H$  | MHz    | 2920~3120  | —       | V <sub>T</sub> : 0~15V                         |
| Power Output            | P <sub>O</sub>  | dBm    | ≥10        | 11      | V <sub>T</sub> =5V                             |
| Power Output Variation  | $\Delta P_O$    | dB     | ≤±1.5      | ±1.0    | f <sub>L-H</sub> : 2920~3120MHz                |
| Tuning Voltage          | V <sub>T</sub>  | V      | 0~15       | —       | —                                              |
| Pushing                 | K <sub>VC</sub> | MHz/V  | —          | 3.5     | V <sub>CC</sub> =11~13V, V <sub>T</sub> =5V    |
| Spurious                | R <sub>fs</sub> | dBc    | ≤-75       | —       | f <sub>L-H</sub> : 2920~3120MHz                |
| Harmonics               | R <sub>fn</sub> | dBc    | —          | -20     | f <sub>L-H</sub> : 2920~3120MHz                |
| SSB Phase Noise         | S <sub>Φ</sub>  | dBc/Hz | —          | -100    | V <sub>T</sub> =5V, f <sub>m</sub> =10KHz      |
| Frequency Drift         | $\Delta f$      | MHz    | —          | 45.0    | V <sub>T</sub> =5V, T <sub>A</sub> : -55~+85°C |
| Current                 | I <sub>CC</sub> | mA     | —          | 65      | —                                              |
| Tuning Port Capacitance | C <sub>T</sub>  | pF     | —          | 45      | —                                              |

## Absolute Ratings

Maximum DC Voltage : +15V  
Maximum Tuning Voltage : +25V  
Minimum Tuning Voltage : -0.7V  
Maximum Storage Temp: +125°C



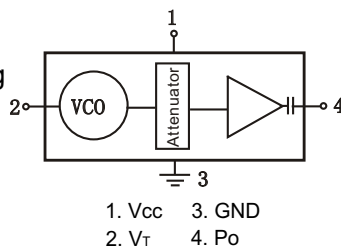
TO-8D



SMO-8D

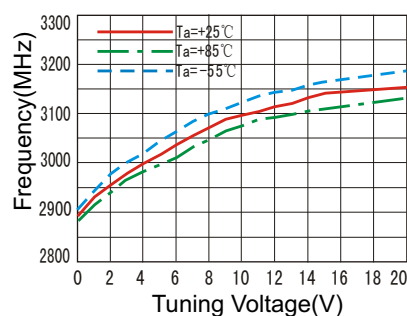
## Application Notes

1. See assembly section for mounting information
2. ESD observe handling precautions

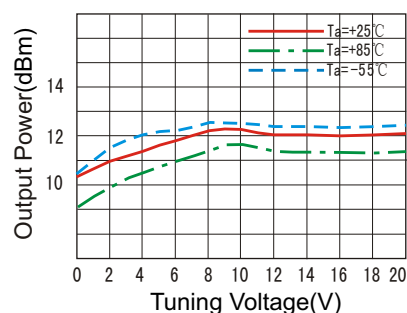


## Typical Performance

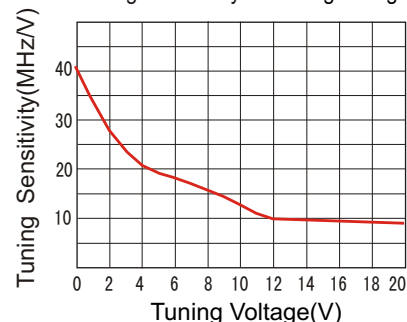
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

