

Features

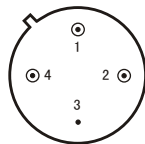
- Low phase noise
- Perfect tuning linearity 1.5:1
- Reliable thin film hybrid construction
- Custom frequency range 20~400MHz available
- TO-8D、SMO-8D packages available
- Operating temperature range: -55°C~+85°C

Specifications($T_A=25^{\circ}C, V_{CC}=+12V$)

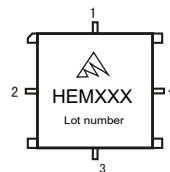
| Parameter | Symbol | Unit | Guaranteed | Typical | Test Condition |
|-------------------------|----------------|--------|----------------|-----------|---------------------------------------|
| Frequency Range | $f_L \sim f_H$ | MHz | 50~100 | - | $V_T: 0 \sim 15V$ |
| Power Output | P_o | dBm | ≥ 13 | 15 | $V_T=10V$ |
| Power Output Variation | ΔP_o | dB | $\leq \pm 1.5$ | ± 1.0 | $f_{L-H}: 50 \sim 100MHz$ |
| Tuning Voltage | V_T | V | 0~15 | - | - |
| Pushing | K_{VC} | MHz/V | - | 0.5 | $V_{CC}=11 \sim 13V, V_T=10V$ |
| Spurious | R_{is} | dBc | ≤ -70 | - | $f_{L-H}: 50 \sim 100MHz$ |
| Harmonics | R_{fn} | dBc | - | -10 | $f_{L-H}: 50 \sim 100MHz$ |
| SSB Phase Noise | S_{ϕ} | dBc/Hz | - | -122 | $V_T=10V, f_m=10KHz$ |
| Frequency Drift | Δf | MHz | - | 4 | $V_T=10V, T_A: -55 \sim +85^{\circ}C$ |
| Current | I_{CC} | mA | - | 30 | - |
| Tuning Port Capacitance | C_T | pF | - | 1000 | - |

Absolute Ratings

- Maximum DC Voltage : +15V
- Maximum Tuning Voltage : +30V
- Minimum Tuning Voltage : -0.7V
- Maximum Storage Temp: +125°C



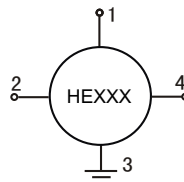
TO-8D



SMO-8D

Application Notes

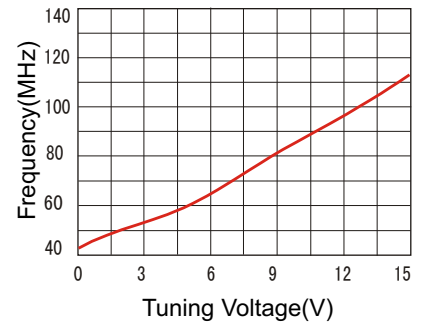
- 1.This device is only an oscillator;an external buffer amplifier or isolator is required to lower the frequency pulling
- 2.See assembly section for mounting information
- 3.ESD observe handing precautions
- 4.Equivalent to HV17T-1 of Magnum



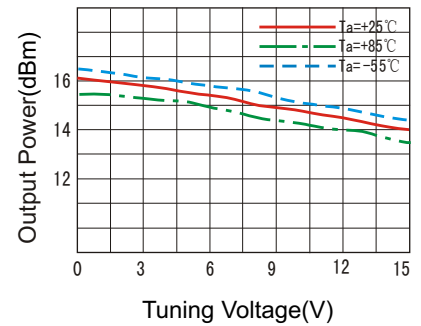
1. Vcc 3. GND
2. VT 4. Po

Typical Performance

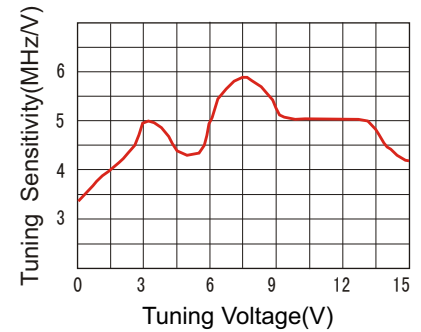
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

