

Features

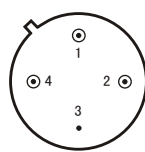
- Low phase noise
- Hyperabrupt varactor octave bandwidth
- Perfect tuning linearity
- Reliable thin film hybrid construction
- TO-8C、SMO-8C packages available
- Operating temperature range: -55°C ~ +85°C

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

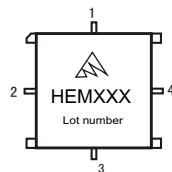
Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	$f_L \sim f_H$	MHz	500 ~ 1000	—	$V_T: 0 \sim 20\text{V}$
Power Output	P_o	dBm	≥ 13	14	$V_T=10\text{V}$
Power Output Variation	ΔP_o	dB	$\leq \pm 1.5$	—	$f_{L-H}: 500 \sim 1000\text{MHz}$
Tuning Voltage	V_T	V	0 ~ 20	—	—
Pushing	K_{VC}	MHz/V	—	2.0	$V_{CC}=11 \sim 13\text{V}, V_T=10\text{V}$
Spurious	R_{fs}	dBc	≤ -70	—	$f_{L-H}: 500 \sim 1000\text{MHz}$
Harmonics	R_{fn}	dBc	—	-10	$f_{L-H}: 500 \sim 1000\text{MHz}$
SSB Phase Noise	S_ϕ	dBc/Hz	—	-105	$V_T=10\text{V}, f_m=10\text{KHz}$
Frequency Drift	Δf	MHz	—	18	$V_T=10\text{V}, T_A: -55 \sim +85^\circ\text{C}$
Current	I_{CC}	mA	—	30	—
Tuning Port Capacitance	C_T	pF	—	90	—

Absolute Ratings

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



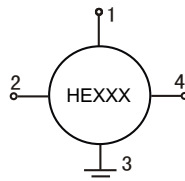
TO-8C



SMO-8C

Application Notes

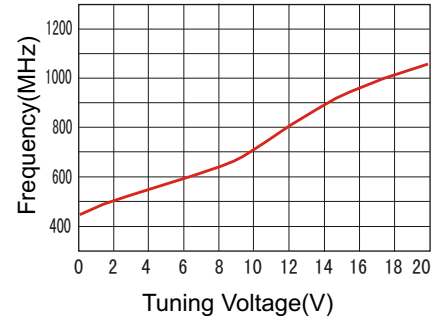
1. This device is only an oscillator; an external buffer amplifier or isolator is required to lower the frequency pulling
2. See assembly section for mounting information
3. ESD observe handling precautions
4. Equivalent to MTO-8060 of HP



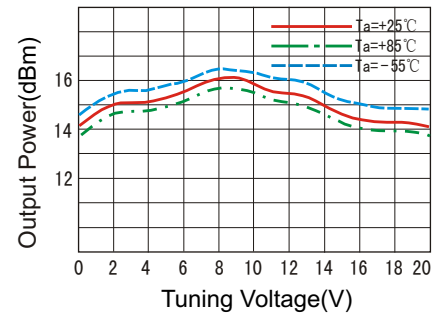
1. V_{CC} 3. GND
2. V_T 4. P_o

Typical Performance

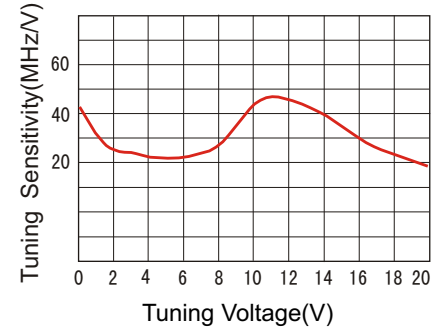
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

