

SPECIFICATION**COMMERCIALLY AVAILABLE**

ITEM: VOLTAGE CONTROL OSCILLATOR

PART NUMBER: ON-205

Release Date: February 2, 2010

Prepared By:

Revised By:

Revised Date:

Revision Made:

ISSUED	CHECKED	CHECKED	CHECKED	APPROVED
	02/09/2010 SRJ	02/09/2010 BF	06/09/2010 GL	

FILTRONETICS Inc

1. Features:

- Low phase noise
- Hyperabrupt varactor broad tuning bandwidth
- Perfect tuning linearity
- Reliable thin film hybrid construction
- TO-8C、SMO-8C、SP-1、SP-3 packages available
- Operating temperature range: $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$

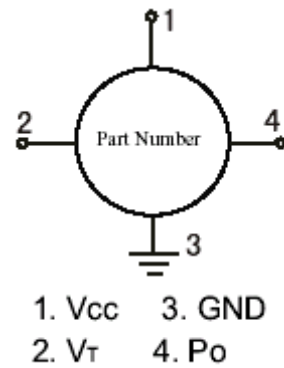
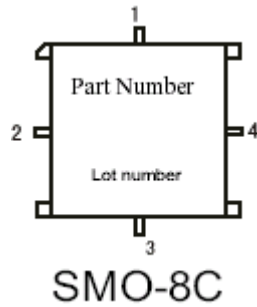
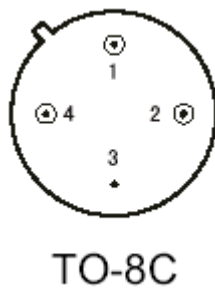
2. Application Notes:

- 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 VTO-8360 of HP

2. Electrical Specifications:

Parameter	Symbol	Unit	Guaranteed	Typical	Test Condition
Frequency Range	$f_L \sim f_H$	MHz	3700~4200	—	$V_T: 0 \sim 15\text{V}$
Power Output	P_o	dBm	≥ 10	12	$V_T=5\text{V}$
Power Output Variation	ΔP_o	dB	$\leq \pm 1.5$	± 1.0	
Tuning Voltage	V_T	V	0~15	—	—
Pushing	K_{VC}	MHz/V	—	3.0	$V_{CC}=11 \sim 13\text{V}, V_T=5\text{V}$
Spurious	R_{fs}	dBc	≤ -70	—	
Harmonics	R_{fn}	dBc	—	-20	
SSB Phase Noise	S_{Φ}	dBc/Hz	—	-87	$V_T=5\text{V}, f_m=10\text{KHz}$
Frequency Drift	Δf	MHz	—	50	$V_T=5\text{V}, T_A: -55 \sim +85^{\circ}\text{C}$
Current	I_{CC}	mA	—	30	—
Tuning Port Capacitance	C_T	pF	—	45	—

3. Mechanical Package:

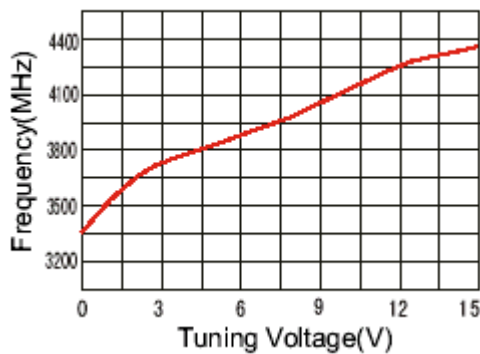


Absolute Rating:

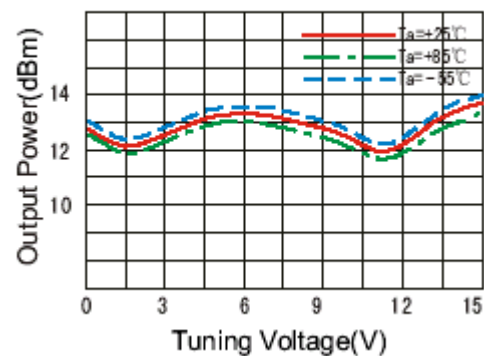
Maximum DC Voltage : +15V
Maximum Tuning Voltage : +30V
Minimum Tuning Voltage : -0.7V
Maximum Storage Temp: +125°C

4. Typical Performance:

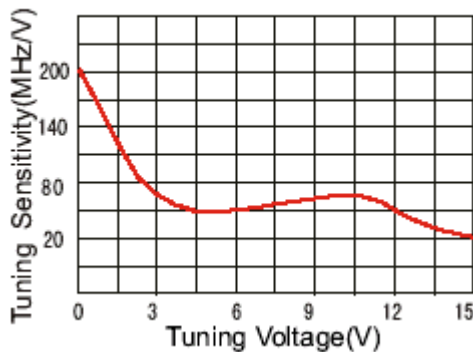
Frequency vs Tuning Voltage



Power Output vs Tuning Voltage



Tuning Sensitivity vs Tuning Voltage



Phase Noise vs Offset Frequency

