

Voltage Controlled Crystal Oscillators (VCXOs)

VC08



Description:

- Stability up to $\pm 10 \times 10^{-6}$
- Control Voltage Range $\pm 200 \times 10^{-6}$ Max
- TTL/HCMOS Output
- 8PIN Package
- SDH/SONET
- ATM
- WLL
- Measurement Equipment
- PLL Circuits

Performance Characteristics

Parameter		Condition	VC08	
Frequency Range	F_0		1.544MHz~50.000MHz	
Frequency Stability		All Condition	See Next Table	
Operating Temperature Range	T_{OPR}		See Next Table	
Linearity			$\pm 10\%$	
Supply Voltage	V_{DD}		B: +5.0VDC $\pm 10\%$	A: +3.3VDC $\pm 10\%$
Supply Current	I_{DD}	$1.544M \leq F_0 < 10M$	10mA Max	7mA Max
		$10M \leq F_0 < 26M$	20mA Max	15mA Max
		$26M \leq F_0 < 50M$	25mA Max	20mA Max
Output Load			A: TTL 15pF C: CMOS 15pF D: CMOS 50pF	
Output Duty		1.4V or $1/2V_{DD}$	45%~55%	
Control Voltage Range			See Ordering Information	
Frequency Stability	Supply Voltage change	$\pm 5\%$	$\pm 3 \times 10^{-6}$	
	Load change	$\pm 10\%$	$\pm 3 \times 10^{-6}$	
	Aging		$\pm 3 \times 10^{-6}/\text{year}$	
Rise Time	T_r	0.4V~2.4V	10nS Max	
		$10\%V_{DD} \sim 90\%V_{DD}$		
Fall Time	T_f	2.4V~0.4V	10nS Max	
		$90\%V_{DD} \sim 10\%V_{DD}$		
Output Level	"0"Level	V_{OL}	0.4V Max or $10\%V_{DD}$	
	"1"Level	V_{OH}	2.4V Min or $90\%V_{DD}$	
Start-Up Time	T_s		10mS Max	
Vc Input Impedance			100K Ω	
Storage Temperature Range	T_{STG}		-55°C~+125°C	
Package			DIP8	

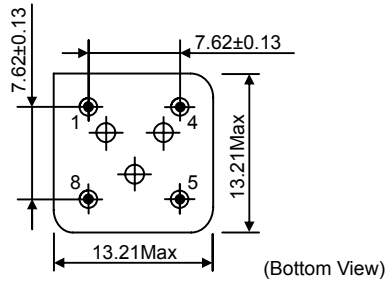
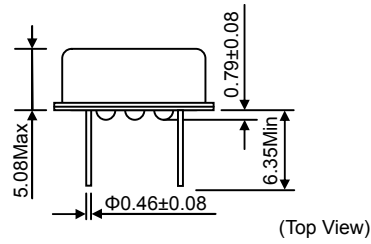
Frequency Stability Over Temperature Range

Temperature Range	Frequency Stability			
	O: $\pm 10 \times 10^{-6}$	P: $\pm 15 \times 10^{-6}$	R: $\pm 25 \times 10^{-6}$	T: $\pm 50 \times 10^{-6}$
A: 0°C~+50°C	●	●	●	●
B: -10°C~+60°C	●	●	●	●
C: -20°C~+70°C	●	●	●	●
G: -40°C~+85°C			●	●

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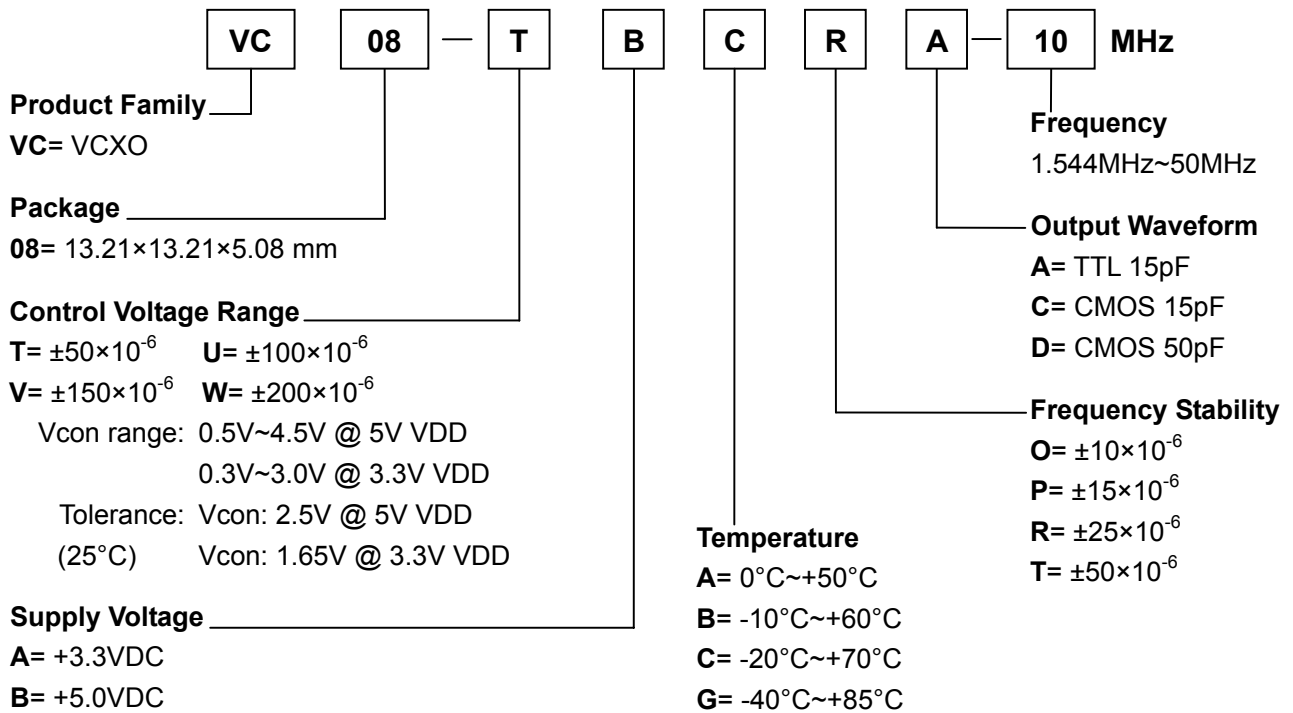
VC08

Outline Drawing (mm)



PIN	FUNCTION
#1	VC
#4	GND
#5	OUTPUT
#8	+DC

Ordering Information



Ordering Example

VC08-TBCRA-10MHz

VCXO / Pulling Range: $\pm 50 \times 10^{-6}$ / +5.0VDC / -20°C~+70°C / Frequency Stability: $\pm 25 \times 10^{-6}$ / TTL 15pF / 10MHz