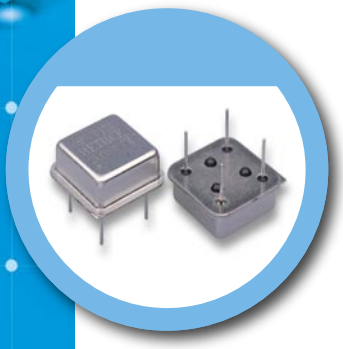
RoHS Compliant Optional

VH Type Voltage Controlled Crystal Oscillator



FEATURE

1. Typical 12.8 × 12.8 × 5.0 mm, standard package & 8-Pin dual in line.
2. CMOS circuit TTL/ CMOS compatible.
3. Hermetically sealed metal case.
4. Tight symmetry (45 to 55%) available.
5. Good linearity (<10%).
6. Packing: 50pcs per Tray.

ORDERING INFORMATION

Select option

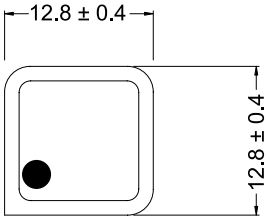
VCXO	Package (mm)	Supply Voltage (V)	Freq. Stability /Pulling Range (ppm)	Temp. Range (°C)	Output LOgic and Symmetry		Oscillator Mode	Appearance	Lead Free	Dash	Freq. (MHz)
	12.8 x 12.8	Through Hole T : 5.0 E : 2.8~3.3 Gull Wing G: 5.0 F : 2.8~3.3	M : ±25/±15/±100 G : ±35/±20/±100 P : ±50/±20/±100 R : ±50/±20/±150 T : ±25/±15/±150	C : -20~+70 D : -30~+80 L : -40~+85		50±5%	-A : AT Fundamental NOT SELECTABLE BY CUSTOMER	N : Normal	F : RoHS Compliant L : Not RoHS Compliant		XX.XXXXXX
					10TTL 15pF	A					
					CMOS 15pF	J					
					CMOS 50pF	F					

V H ☐ U ☐ ☐ ☐ ☐ ☐ ☐ ☐ — ☐

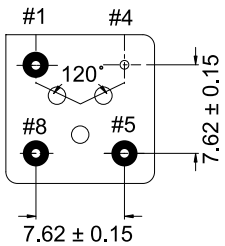
Example VHTUPCJANL-10.000000
VCXO H-TYPE; VDD: 5V; Freq. Stability: ±50ppm, Freq. Tolerance: ±20ppm, Pulling Range: ±100ppm; Temp. Range: -20°C to +70°C; CMOS 15pF, Duty: 50±5%; AT Fundamental; Normal Appearance; Not RoHS Compliant; Freq. 10.000000MHz.
* Not all combinations of options are available.

OUTLINE DRAWING

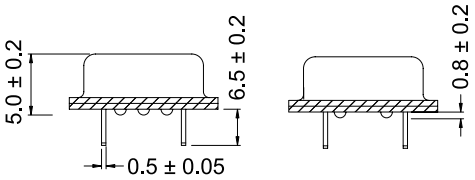
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



Pin	Function
#1	VCON
#4	GND
#5	Output
#8	VDD

UNIT : mm

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C) \ Freq Stab/ Tolerance/ Pulling		M: ± 25/ ± 15/ ± 100	G: ± 35/ ± 20/ ± 100	R: ± 50/ ± 20/ ± 150	T: ± 25/ ± 15/ ± 150
C	-20~ +70	△	○	○	△
D	-30~ +80	×	○	○	×
L	-40~ +85	×	○	○	×

○:Standard △:Available (case by case) ×:Not available

ELECTRICAL SPECIFICATION

Parameter	Min.		Max.		Unit
	5.0	3.3	5.0	3.3	V
Supply Voltage Variation(V_{DD}) 5%	4.75	3.13	5.25	3.47	V
Frequency Range	2.5		45		MHz
Operating Temp. Range	Refer to Ordering Information				°C
Frequency Stability *	Refer to Ordering Information				ppm
Frequency Stability					
Vs Supply Voltage (±5%) change	–		±3		ppm
Vs Load (±10%) change	–		±3		
Vs Aging	–		±1		ppm / year
Pulling Range	±60	±60	±150	±120	ppm
Control Voltage Range	0.5	0.3	4.5	3.0	V
Supply Current					
2.5000MHz ≦ Fo < 10.000MHz	–		10	7	mA
10.000MHz ≦ Fo < 15.000MHz	–		15	10	
15.000MHz ≦ Fo < 26.000MHz	–		20	15	
26.000MHz ≦ Fo < 45.000MHz	–		25	20	
Output Level (TTL/CMOS)					
Output High (Logic "1")	90% V_{DD} or 2.4V		–		V
Output Low (Logic "0")	–		10% V_{DD} or 0.4V		
Duty	40%		60%		
Linearity					
Pulling Range ≦ 100ppm	–		10		%
Pulling Range > 100ppm	–		15	–	
Modulation Bandwidth (BW)	10		–		KHz
Vc Input Impedance	50		–		KΩ
Start Time	–		2		mSec
Storage Temp. Range	-55		125		°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

* Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, load variation, aging, shock, and vibration.

VCXO