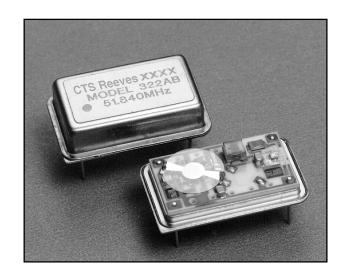


#### **Features:**

- Frequency Range 1 to 100 MHz
- Low Cost
- Internal SMT Construction
- HCMOS/TTL Compatible
- 14 Pin DIP Compatible Package
- Standard Frequencies

The CTS Reeves Model 322 is a low cost VCXO, enclosed in a 14 Pin DIP Package for use in Phase Lock Loop Applications. It's small size means more application flexibility. The Model 322 is available with a variety of pullability and stability options and is useful in almost any VCXO application. Low noise means superior jitter performance in communication applications.



## **Electrical Specifications:**

Parameter	Frequency Range (MHz)			
T dramotor	1.0 to < 12	12 to < 25	25 to < 30	30 to < 100
Supply Voltage Maximum	7 Vdc			
Operating	5 Vdc ±5%			
Current (ma.)₁	35	25	35	75
Output Type	HCMOS	TTL	TTL	HCMOS
Fanout₁	5 TTL (25pf)			
Rise and Fall Times₁	< 7 ns	< 7 ns	< 5 ns	< 3 ns
0.8 Vdc to +2.4 Vdc	< 7 115			
Aging 1st Year₁	3	4	5	7
(PPM) 10 Years₁	12	12	15	18
Duty Cycle in %	50 ±5	50 ±10	50 ±10	50 ±10
Voltage Stability₁	5	5	5	6
PPM Over Supply Range				
Start Up Time (ms.)	10	10	8	8
Control Voltage	0.5 to 4.5 Vdc			
Input Impedance	100 K Minimum			
Linearity A, B, & C Deviation		±10% of Best	Straight Line	
D Deviation		±20% of Best	Straight Line	
Deviation Response at -3 dB	10 kHz Min.			
Deviation Slope Positive				

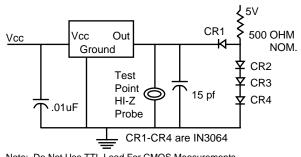
Notes: 1 - Values stated in the table are maximum

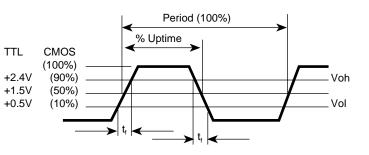
- 2 Frequency Stability is referred to the frequency at +25°
- 3 Center Frequency occurs between +0.5 Vdc. & +4.5 Vdc.



### **Equivalent Test Load:**

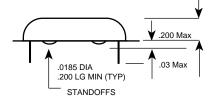
# Waveform Conditions:

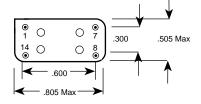




Note: Do Not Use TTL Load For CMOS Measurements

# Outline Drawing and Pin Connections:





## **Pin Connections**

PIN	FUNCTION
1	AFC
7	Case/CKT GND
8	Output
14	+5 VDC

## **Mechanical Specifications:**

#### Case:

Metal, hermetically sealed

#### Leads:

Nickel plated with solder coating, or gold plated

#### Seal:

Resistance weld

#### **Fine Leak Test:**

Mass spectrometer leak rate less than 5x10-8 atmosphere-cc/sec of helium

Model Type 322 -

#### Solderability:

95% solder coverage, using RMA flux 63 Sn / 37 Pb solder at +245°C ±5°C

#### Temperature:

Operating: See Chart Storage: -55 to 125°C

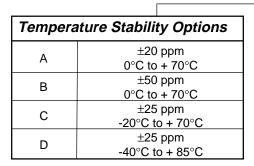
#### Vibration:

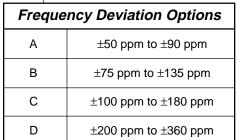
20 G's rms, 20 to 2000 Hz

#### **Mechanical Shock:**

1000 G's 5ms pulse (3 shock/plane)

## **Ordering Information:**





MO

Frequency in MHz