

Features:

- Frequency Range 1.0 to 50.0 MHz
- Stabilities as low as $\pm 5 \times 10^{-7}$
- Low Profile (.350 high)
- Internal SMT Construction
- HCMOS/TTL Compatible
- Electrical Frequency Adjust
- 16 Pin DIL Hermetic Sealed Package

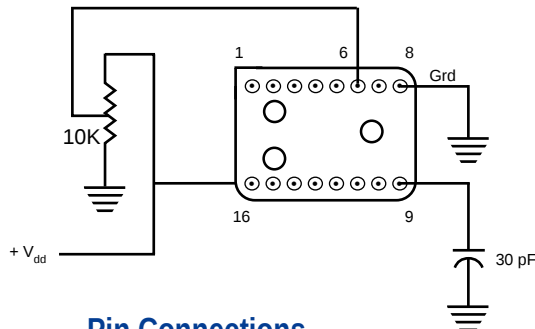


The CTS Reeves Model 531 is a high stability hybrid TCXO housed in a 16 pin DIL package that is only .350 inches high. There are a variety of temperature and stability options to choose from. Useful as a reference oscillator in digital synthesizers. The electrical frequency adjust allows for easy tuning and calibration.

Electrical Specifications:

Parameter	Frequency Range (MHz)	
	1-20 MHz	20-50 MHz
Supply Current (mA)	25 Max.	50 Max.
Supply Voltage (Vdd)	5V $\pm 5\%$	
Output Type	HCMOS/TTL	
Symmetry	50% $\pm 10\%$ HCMOS/TTL, 50% $\pm 5\%$ HCMOS	
Logic "0" Level	TTL (.5 Vdc), HCMOS (10% Vdd)	
Logic "1" Level	TTL (Vdd - .5), HCMOS (90% Vdd)	
Rise/Fall Time	5.0 nS Max (5 TTL), 10 nS Max. (30 pF HCMOS)	
Aging	± 1.0 ppm/year Max.	
Stability	See Chart	
Frequency Adjust	± 5 ppm Min.	
Adjust Voltage (Pin 6)	0.5 to 4.5V	

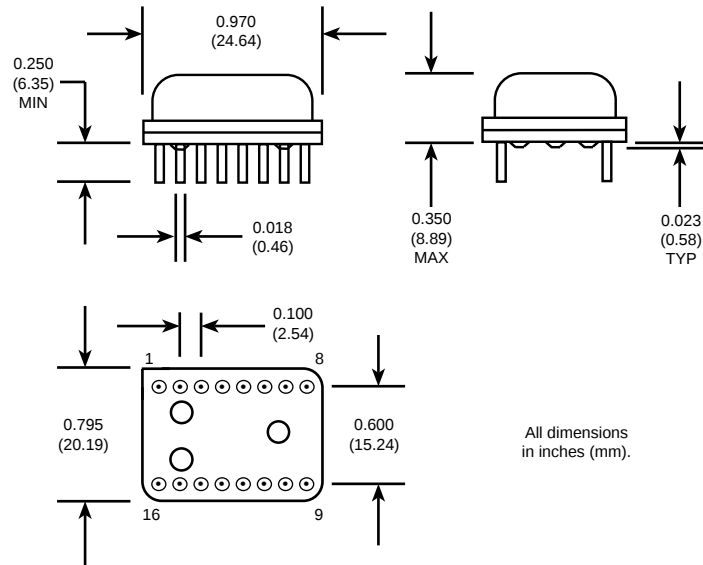
Test Circuit:



Pin Connections

PIN	FUNCTION
6	CONTROL VOLTAGE
8	GND.
9	OUTPUT
16	+Vdd 5V

Outline Drawings:



Mechanical Specifications:

Case:

Metal, hermetically sealed

Leads:

Nickel plated with solder coating

Seal:

Resistance weld

Leak Test:

Leak rate less than 5×10^{-8}
atmosphere-cc/sec of helium

Solderability:

95% solder coverage, using RMA flux
63 Sn / 37 Pb solder at $+245^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Temperature:

Operating: See chart

Storage: -55° to 85°C

Vibration:

10 G's rms, 20 to 2000 Hz

Mechanical Shock:

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

Ordering Information:

Model Type 531

Temperature

Stability

Frequency in MHz

Temperature - Stability Options						
Temp. Range	T \ S	A	B	C	D	E
A	0° to 50°	X	X	X	X	X
B	0° to 70°		X	X	X	X
C	-20° to 70°		X	X	X	X
D	-30° to 75°			X	X	X
E	-40 to 85°			X	X	X

Temperatures in $^{\circ}\text{C}$.
Stability in ppm