

**Features:**

- European Standard Package
- Low Aging Rate
- Precision Resonator
- Precision Temperature Stability
- Surface Mount Construction
- Low Cost

The use of an innovative thermal/mechanical design with precision resonators makes this ovenized oscillator series ideal for GPS, communications, and instrumentation applications. With a variety of options, the Model 101 is the workhorse of the CTS Reeves family of OCXOs.

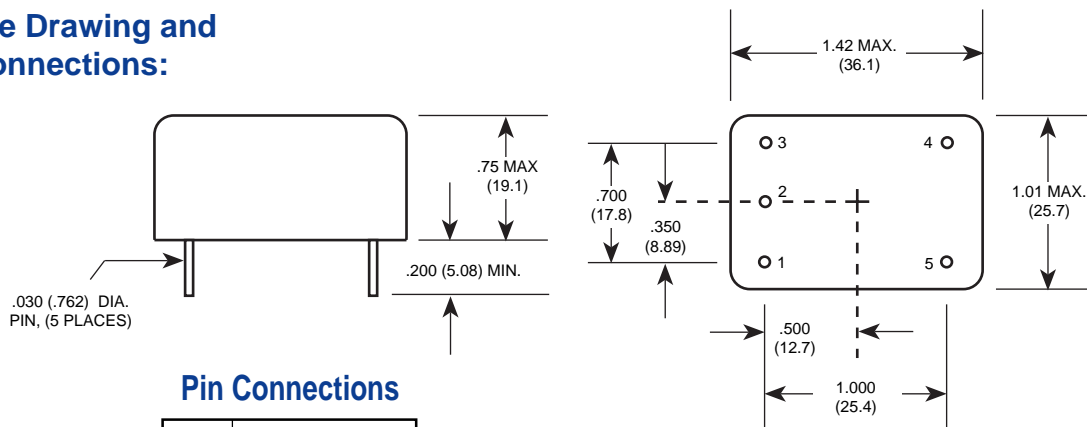


**Electrical Specifications:**

<i>Parameter</i>	<i>Frequency Range (MHz)</i>	
	5.0 to 50 MHz	
Supply Voltage (Vdd) Operating	5 Vdc ±5% (OSC) 12 Vdc ±5% (Oven)	
Supply Current (@ 0°C) Warm Steady State (Typ. @ 25°C)	7.6 watts Max. .75 watts	
Output T S	TTL Compatible Sine°, dbm Min.	
Load T / S	1 to 5 TTL / 50 ohms	
Rise & Fall Time (.4 to 2.4 Volts)	10 ns Max.	
Warm-up (@ 25°C) Ref. to Freq. at 1 hr.	±1 x 10 <sup>-7</sup> / 5 Min. ±1 x 10 <sup>-8</sup> / 30 Min.	
Phase Noise (Typical) (1 Hz BW @ 10 MHz)	Offset	Level (dBc)
	10 Hz	-100
	100 Hz	-135
	1 kHz	-140
	10 kHz	-155
Electrical freq. adjust (Positive slope)	Sufficient for 10 yrs Aging (Range is ±3 ppm Typical)	

www.ctsreeves.com Support

### Outline Drawing and Pin Connections:



### Pin Connections

PIN	FUNCTION
1	Freq. Adjust (NC)
2	V ref
3	+12 Vdc
4	Output
5	Case/Ckt. Gnd.

Dimensions in inches (millimeters)

### Mechanical Specifications:

#### Case:

CRS, Hot Tin Dipped

#### Leads:

Nickel plated with solder coating

#### Seal:

Solder seal

#### Leak Test:

Leak rate less than  $5 \times 10^{-5}$  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:  $-55^{\circ}$  to  $85^{\circ}\text{C}$

#### Vibration:

10 G's rms, 20 to 2000 Hz

#### Mechanical Shock:

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

### Ordering Information:

#### Model Type 101

Temp. Range		Stability		Aging		Freq. Adjust.		Output Type		Freq. in MHz	
<b>Temp Stability</b>		$\pm 5 \times 10^{-9}$	$\pm 1 \times 10^{-8}$	$\pm 2 \times 10^{-8}$	$\pm 5 \times 10^{-8}$	$\pm 1 \times 10^{-7}$	<b>1<sup>st</sup> Year Aging Code</b>		<b>Freq. Adjust Code</b>		
Temp Range	Code	A	B	C	D	E	$\pm 0.5$ ppm	A	Electrical	E	
0° to 50° C	A	X	X	X	X	X	$\pm 0.3$ ppm	B	Mechanical	M	
0° to 70° C	B		X	X	X	X	$\pm 0.1$ ppm	C			
-30° to 70° C	C			X	X	X	$\pm 0.05$ ppm	D			
-40° to +85° C	D				X	X			<b>Output Code</b>		
									TTL	T	
									Sine	S	

Note: Not all Options are Available at all Frequencies. Consult Factory for Details.