Model 385/386
Low Cost SM VCXO

Features:

- Frequency Range up to 100.0 MHz
- Surface Mount Package
- Low Cost
- ACMOS/TTL Compatible
- Optional Disable Feature
- Standard Frequencies

The CTS Reeves Model 385/386 is a small size VCXO, which uses ASIC Technology to achieve superior cost performance in a true SMT Package. Used in Phase Lock Loop Applications, its small size means more application flexibility. The Model 385/386 is useful in almost any VCXO application. The Model 386 disable feature is perfect for automated testing.

Electrical Specifications: (Vcc = +5.0V ±10%, Load = 30 pF)

Parameter	Symbol	Min	Max	Unit
Operating Supply Current*	IDD		85	mA
Output Voltage Levels				
Logic '1' Level (I_{OH}= 8 mA)	VOH	0.9*Vcc		Volts
Logic '0' Level (I_{OL}= -8 mA)	VOL		0.4	Volts
Output Transition Times				
Rise Time	Tr		5.0	nSeconds
Fall Time	Tf		5.0	nSeconds
Output Duty Cycle (below 100 MHz)	SYM	45	55	%
Output Duty Cycle (above 100 MHz)	SYM	40	60	%
Period Jitter (pk-pk)			200 0.01	pS Unit Interval
Start Up Time			10.0	mSeconds
Output Clock Frequency	fo	1.65	160	MHz

* Supply Current varies with Frequency and Load. Consult Factory with specific requirements.

Voltage Control Specifications (+25°C)

Parameter	Symbol	Min	Nominal	Max	Unit
Control Voltage	Vc	0.5	2.5	4.5	Volts
Deviation Range		100	125	150	±PPM
Average Tuning Sensitivity		50	62.5	75	PPM/V
Linearity			4	10	%
Transfer Function			Positive		
Input Impedance		50			KOhms
Modulation Roll-off		10	15		kHz

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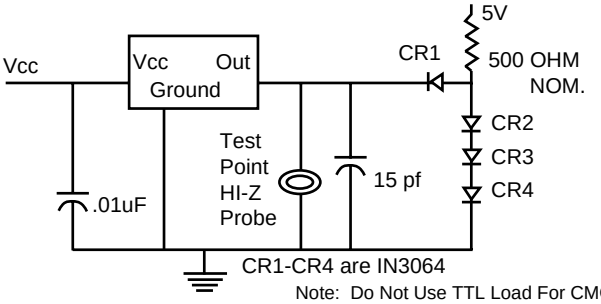
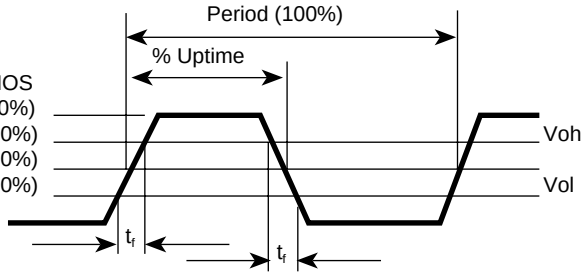
Equivalent Test Load: 5 TTL LOADS

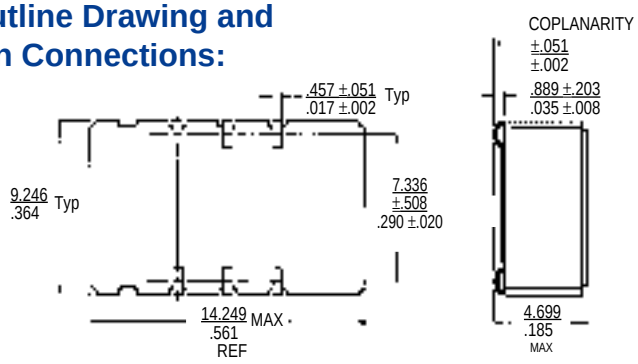


Note: Do Not Use TTL Load For CMOS Measurements

Waveform Conditions:



Outline Drawing and Pin Connections:



Pin Description

PIN	FUNCTION
1	V CONTROL
2	OEH (OPTIONAL Model 386
3	CASE/CKT GND
4	OUTPUT
5	N/C
6	Vcc

Environmental Specifications:

Shock:
2000 G's 0.5 mS, 3 shocks per direction, Per MIL-STD-883, Method 2002

Sinusoidal Vibration:
0.06" DA, 10 to 55 Hz and 15 G's, 55 to 2000 Hz, Per MIL-STD-883, Method 2007

Random Vibration:
20 G's rms. 20 to 2000 Hz, Per MIL-STD-883, Method 2026

Moisture:
10 cycles, per MIL-STD-883, Method 1004 (Omit sub-cycle 7)

Seal:
3 x 10^{-8} ATM-cc/sec, Per MIL-STD-883, Method 1014, Conditions B1 +B2

Marking Permanency:
Per MIL-STD-883, Method 2015

Electro-Static Discharge:
Per MIL-STD-883, Method 3016 2KV Class 1 (Sensitivity)

Attachment Method:
Per MIL-STD-202, Method 210 Condition K (250°C ±5°C maximum peak, 90 to 120 seconds over 183°C)

Configuring The Part Number...

Model/Lead Options		
85A	Std Output	J-Lead
85B	Std Output	Loadless
86A	Tristate Output	J-Lead
86B	Tristate Output	Leadless

Frequency Tolerance
3 = ±0.005% (±50 ppm)
5 = 0.0025% (±25 ppm)

Op. Temp. Range
C = 0°C to +70°C
I = 40°C to +85°C

Factory Use
AA = Standard

Frequency (M represents decimal)
_M_ _ _ _ _ (8M192000 FOR 8.192000 MHz)
_ _M_ _ _ _ (16M38400 FOR 16.38400 MHz)
_ _ _M_ _ _ (155M5200 for 155.5200 MHz)

* Inclusive of initial tolerance at time of shipment, changes in supply voltage, load, temperature, and first year aging.

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