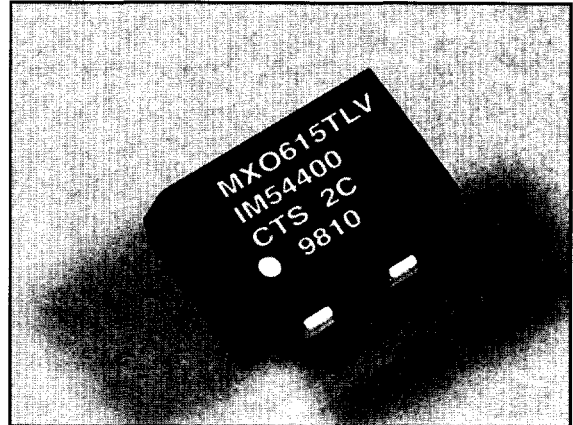


**Features:**

- Frequency Range 1 to 60 MHz
- Surface Mount
- Tristate Output Available
- ASIC Based Design
- CMOS/TTL Compatible
- 14 Pin DIP Compatible Package



The CTS Reeves Model MXO615 is a Surface Mount Oscillator for use in all types of clocking applications. The Tristate output is ideal for automated test or frequency switching applications. Encased in a plastic package, the Model MXO615 is able to drive CMOS loads for more design flexibility. The ASIC design provides a reduced parts count for better reliability.

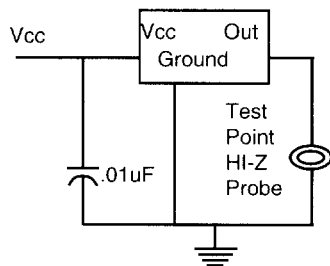
**Electrical Specifications:**

PARAMETER	SYMBOL	MINIMUM		TYPICAL		MAXIMUM		UNITS	
		5V	3.3V	5V	3.3V	5V	3.3V		
Center Frequency	F <sub>0</sub>	1.0				60		MHz	
Operating Temperature Range	T	-20				70		°C	
		-40				85			
Frequency Stability						±50, ±100		PPM	
Supply Voltage	VDD	4.5	2.97	5.0	3.3	5.5	3.63	VDC	
Supply Current	IDD	1.0 MHz to 20 MHz				15	10	mA	
		>20 MHz				50	35	mA	
Output Levels (CMOS)	VOH	4.5		2.97				V	
		VOL				0.5		0.33	V
Transition Times	Rise Time (1.0 MHz to 20 MHz)					8	10	ns	
	Fall Time (1.0 MHz to 20 MHz)					8	10	ns	
	Rise Time (>20 MHz)					5	6	ns	
	Fall Time (>20 MHz)					5	6	ns	
Output Symmetry	SYM	45		49/51		55		ns	
Fanout						10TTL/50pF			
Storage Temperature	T <sub>s</sub>	-40				+125		°C	
3-State (input to pin 1)	Output Active	3-state	4.0	2.0					V
	Output in High-impedance State	3-state					0.8	0.5	V

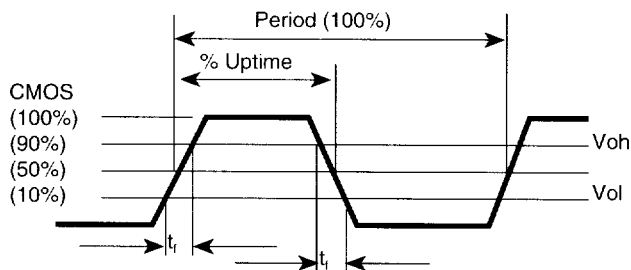
**Tristate Truth Table**

Pin 1 (Enable)	Pin 3 (Output)
Floating (No Connect)	Enabled (Oscillating)
Logic 1	Enabled (Oscillating)
Logic 0	Disabled (Tristate)

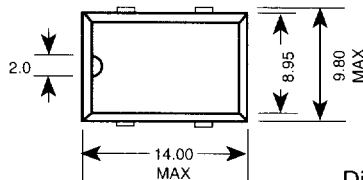
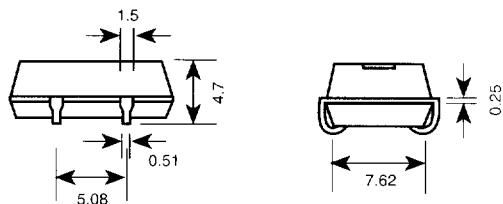
### Equivalent Test Load:



### Waveform Conditions:



### Outline Drawing and Pin Connections:



PIN	FUNCTION
1	NC (OE)
2	GND
3	Out
8	Vcc

Dimensions in mm

### Environmental Characteristics:

Storage Temperature: ..... -55°C to +125°C  
 Temperature Cycle: ..... 25 cycles, -55°C to +125°C  
 per MIL-STD-883, Method 1010  
 Constant Acceleration: ..... 5000g's, 0.5mS, 3 shocks per direction,  
 per MIL-STD-883, Method 2002  
 Sinusoidal Vibration: ..... 0.06" D.A., 10 to 55 Hz and  
 30g's, 55 to 2000 Hz, 3 cycles per direction,  
 per MIL-STD-883, Method 2007  
 Random Vibration: ..... 20G<sup>rms</sup>, 20 to 2000 Hz, per MIL-STD-883, Method 2026  
 Lead Integrity: ..... per MIL-STD-883, Method 2004 conditions B1 and B2  
 Hermeticity: ..... 3 x 10<sup>4</sup> ATM-cc/sec, per MIL-STD-883,  
 Method 1014 conditions B1 and B2  
 Moisture Resistance: ..... 10 cycles, per MIL-STD-883,  
 Method 1014 with step 7 subcycle omitted

Corrosion Resistance: ..... 24 hours, per MIL-STD-883,  
 Method 1009 condition A  
 Solderability: ..... per MIL-STD-883, Method 2003 or MIL-STD-202,  
 Method 208. Except 1 hr. Pre-conditioning  
 Quality: ..... In accordance with MIL-1-45208  
 Resistance to Soldering Heat: ..... per MIL-STD-202, Method 210  
 conditions A and C  
 Marking Permanence: ..... per MIL-STD-883, Method 2015  
 Thermal Resistance: ..... per MIL-STD-883, Method 1012.1  
 Electrostatic Discharge Sensitivity: ..... per MIL-STD-883, Method 3015  
 ECL output models-> 4KV (Class 2- not sensitive)  
 CMOS output models-> 2KV (Class 1 - not sensitive)  
 Steady-State Life: ..... 1000 hrs. @ 125°C per MIL-STD-883,  
 Method 1005, disregarding frequency shift  
 Frequency Aging: ..... <10 ppm shift in 30 days @ 85°C ambient

### Configuring The Part Number...

