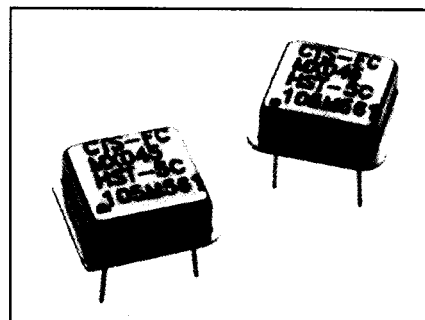


### Features:

- 1 to 105 MHz
- Standard Frequencies in stock
- CMOS/TTL Compatible
- 14 Pin and 8 Pin Size Package
- Available in High Frequencies
- Tristate Option Available
- Optimal Jitter Performance



The CTS Reeves MXO45 is a DIP packaged Clock oscillator offering reliable performance at an economical cost. The reliability means it is perfect for any application. The enhanced stability means it is the perfect choice for today's communications applications that require tight frequency control. Low voltage options are also available (see MXO45LV and MXO45HS LV). Tristate control is also available.

### Electrical Specifications:

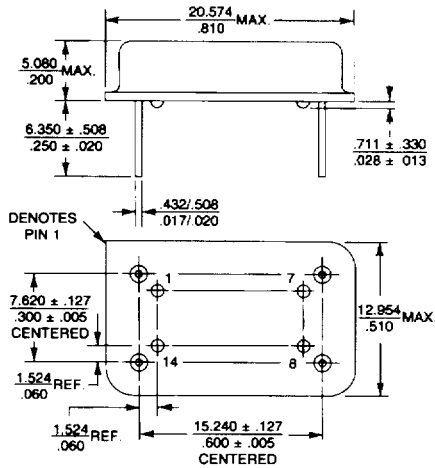
PARAMETER	SYMBOL	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
Frequency (1)	f		1.000		105.561	MHz
Supply Voltage	Vcc	Operating Absolute Maximum	4.5	5.0	5.5 7.0	V
Supply Current	Icc	1.0 to 7.0 MHz >7.0 to 25 MHz >25 to 50 MHz >50 to 70 MHz >70 to 105.561 MHz		5 15 30 40 45	12 25 40 60 85	mA
Output Load		1.0 to 50 MHz >50 to 70 MHz >70 to 105.561 MHz 1.0 to 105.561 MHz			50 30 15 10	pF TTL
Output Voltage	V <sub>OH</sub> V <sub>OL</sub>	CMOS Load TTL Load CMOS OR TTL Load	V <sub>cc</sub> -4 V <sub>cc</sub> -6			V
Output Current	I <sub>OH</sub> I <sub>OL</sub>	V <sub>OH</sub> = 3.9V V <sub>OL</sub> = 0.4V			-16 16	μA
Symmetry	Duty	1.0 to 50 MHz >25 to 70 MHz >70 to 105.561 MHz	45 40 45		55 60 55	%
Rise & Fall Time	T <sub>r</sub> /T <sub>f</sub>	1.0 to 25 MHz >25 to 70 MHz >70 to 105.561 MHz		5 3 2	8 5 3	ns
Output Short-Circuit Current	I <sub>OS</sub>	1 min maximum duration			50	mA
Enable Input V	V <sub>IN</sub>		2.0			V
Enable Input Load	V <sub>IL</sub> C <sub>IN</sub>				0.8 10	pF
Tristate Leakage	I <sub>Z</sub>	V <sub>IL</sub> =0.8V			0.05	mA
Jitter		Peak-Peak		30	50	ps

### Tristate Truth Table

(1) See "Configuring Part Number" for standard frequency tolerances

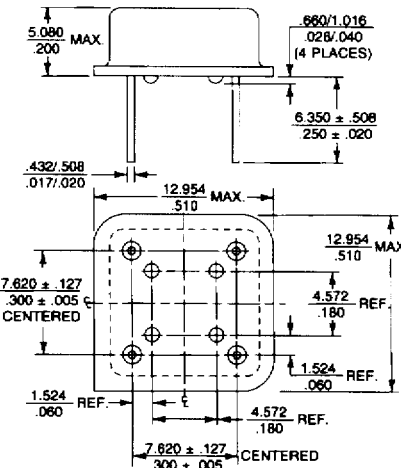
Pin 1 (Enable)	Pin 5 or 8 (Output)
Floating (No Connect)	Enabled (Oscillating)
Logic 1	Enabled (Oscillating)
Logic 0	Disabled (Tristate)

CLOCKS



DIP 14

Key  $\frac{\text{mm}}{\text{in}}$



DIP 8

### 14 Pin DIP Connections

PIN	FUNCTION
1	Output Enable or NC
7	Case/CKT GND
8	Output
14	Vcc

### 8 Pin DIP Connections

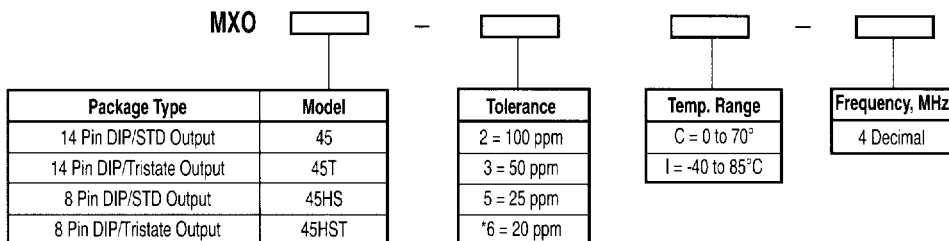
PIN	FUNCTION
1	Output Enable or NC
4	Case/CKT GND
5	Output
8	Vcc

## 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...



\*Available over 0/70°C only