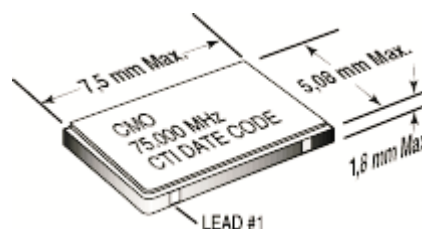


### 3.3V 5x7mm Surface Mount Crystal Clock Oscillators

- CMOS Compatible
- Tri-State Feature for Auto Test Systems
- Tape & Reel Packaging
- $\pm 20$ ppm Available - Please Contact Factory



## ELECTRICAL SPECIFICATIONS

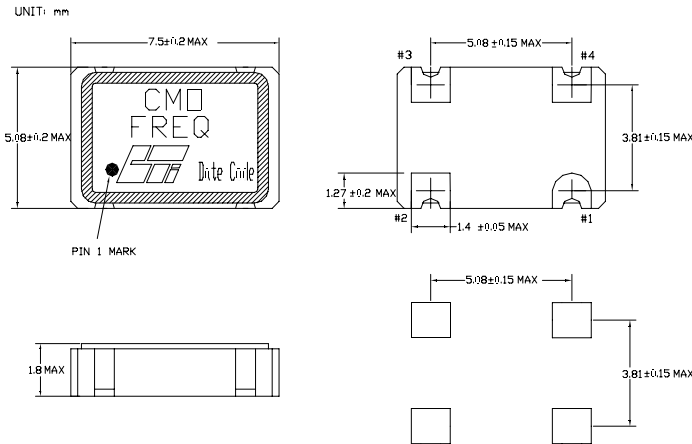
MODEL	CMO3			
Frequency Range (MHz)	1.5 to 156.250			
Frequency Stability (ppm)	Inclusive of calibration, temperature, voltage, load, shock, vibration, aging			
Overall (Typical)	Inclusive of calibration, temperature, voltage, load, shock, vibration, aging			
0°C to 70°C	$\pm 25$			
-40°C to +85°C	$\pm 50$			
Temperature Range (°C)	-40°C to +85°C			
Operating	-40°C to +85°C			
Storage	-40°C to +125°C			
Supply Voltage (V)	+3.3 $\pm 10\%$			
Input Current (mA)	1.5MHz to 35MHz	>35MHz to 50MHz	>50MHz to 100MHz	>100MHz to 156.25MHz
	<10	<15	<25	<30
Symmetry (%) CMOS	45/55			
Transistion Times	1.5MHz to 50MHz		>50MHz to 156.250MHz	
Rise Time (ns)	<5		<3	
Fall Time (ns)	<5		<3	
Load	15pF			
"0" Level (V <sub>OL</sub> )	0.3			
"1" Level (V <sub>OH</sub> )	3.0			
Start up Time (ms)	<10			

## PART NUMBERING GUIDE

**CMO3XXXX** - Specify Frequency

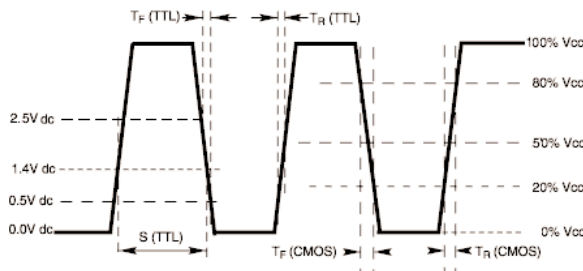
- "Blank" = 0°C to 70°C Operating Temp.
- "M" = -40°C to 85°C Operating Temp.
- "A" =  $\pm 25$ ppm (-40°C to 85°C Excluding Aging)
- "B" =  $\pm 50$ ppm
- "C" =  $\pm 100$ ppm
- "D" =  $\pm 20$ ppm Excluding Aging (Contact Factory)
- "Blank" = Fixed Frequency
- "E" = Tri-State

## 3.3V 5x7mm Surface Mount Crystal Clock Oscillators

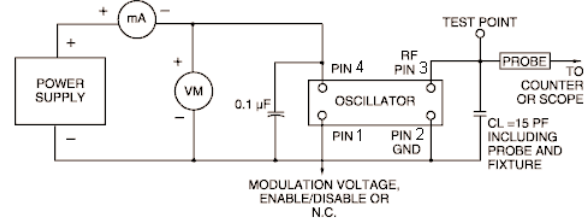


PIN	FUNCTION
1	N/C / Tri-State
2	Ground
3	Output
4	+V <sub>CC</sub>

### OUTPUT WAVEFORM



### TEST CIRCUIT DIAGRAM



### MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS

TEST METHODS	REFERENCE PROCEDURES	DESCRIPTION
Temperature Cycle	MIL-STD-833, Mtd 1010, Cond. B	-55°C to +125°C; Air-to-Air; 100 cycles; 10 min. dwell
Mechanical Shock	MIL-STD-883, Mtd 2002, Cond. B	1500 g's
Vibration	MIL-STD 883, Mtd 2007, Cond. B	20-2000 Hz; 0.06 inch; 15g's; 3 planes
Humidity Steady State	MIL-STD-202, Mtd 103	40°C; 90%-95% R.H.; 56 days
Thermal Shock	MIL-STD-883, Mtd 1011.7 Cond. B	100°C to 0°C; Water-to-Water; 15 cycles
Electrostatic Discharge	MIL-STD-883, Mtd 3015 Class II	2 KV to 4 KV Threshold
Solderability	MIL-STD-883, Mtd 2022.2	Solder dip; Meniscograph Criteria
Hermeticity	MIL-STD-883, Mtd 1014.8, Cond. A1	Mass spectro. 2 x 10 <sup>-8</sup> atmos. CC/sec He
Resistance to Soldering	MIL-STD-202, Mtd 210D, Cond. J	235°C; 30 seconds
Lead Integrity	MIL-STD-883, Mtd 2004.5, Cond. A, B1	Lead tension & bend stress
Marking Permanence	MIL-STD-883, Mtd 2015.8	Resistance to solvents
Life Test	MIL-STD-883, Mtd 1005.6	125°C, powered, 1000 hours minimum