

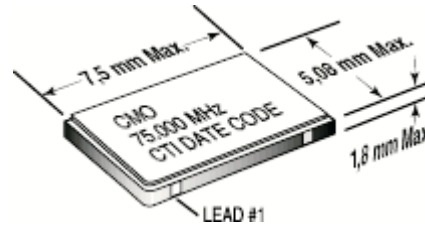
CMO3 Series

5 x 7 mm, 3.3 Volt, CMOS, Clock Oscillator



**THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.
PLEASE REFER TO THE M2 PRODUCT SERIES.**

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



ELECTRICAL SPECIFICATIONS				
MODEL	CMO3			
Frequency Range (MHz)	1.5 to 156.250			
Frequency Stability (ppm)				
Overall (Typical)	Inclusive of calibration, temperature, voltage, load, shock, vibration, aging			
0°C to 70°C	± 25			
-40°C to +85°C	± 50			
Temperature Range (°C)				
Operating	-40°C to +85°C			
Storage	-40°C to +125°C			
Supply Voltage (V)	+3.3 $\pm 10\%$			
Input Current (mA)	1.5 MHz to 20 MHz	>20 MHz to 50 MHz	>50 MHz to 67 MHz	>67 MHz to 156.25 MHz
	<10	<20	<30	<55
Symmetry (%) CMOS	45/55			
Transition Time 20% to 80% Vdd	1.5 MHz to 50 MHz		>50 MHz to 156.250 MHz	
	Rise Time (ns)	<5	<3	
Fall Time (ns)	<5	<3		
Load	15pF			
"0" Level (V_{OL}) max	10% Vdd			
"1" Level (V_{OH}) min	90% Vdd			
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" = ± 25 ppm (-40°C to 85°C Excluding Aging)
	"B" = ± 50 ppm
	"C" = ± 100 ppm
	"D" = ± 20 ppm Excluding Aging (Contact Factory)
[]	"Blank" = Fixed Frequency
	"E" = Tri-State

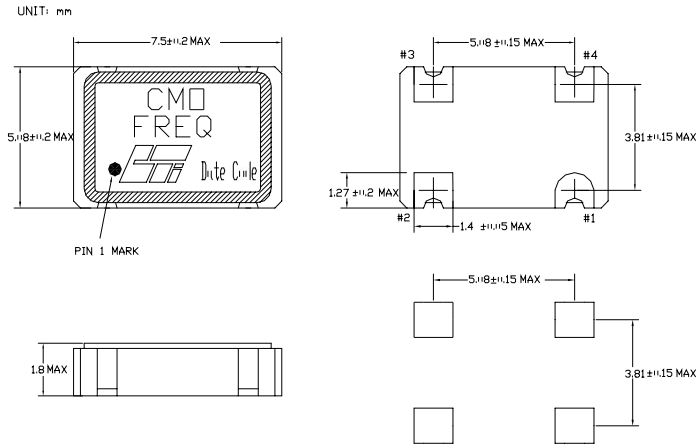
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Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

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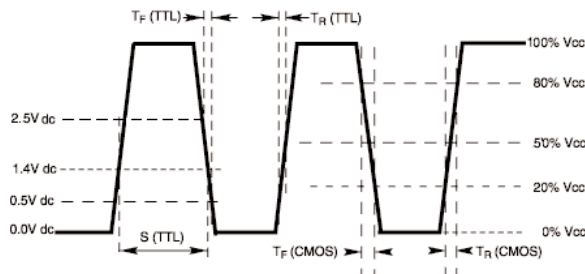
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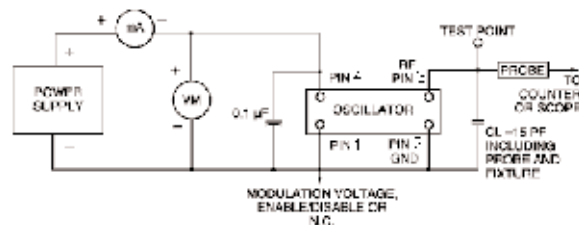


PIN	FUNCTION
1	N/C / Tri-State
2	Ground
3	Output
4	+ V _{CC}

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 ⁻⁸ 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

MtronPTI Lead Free Solder Profile

