

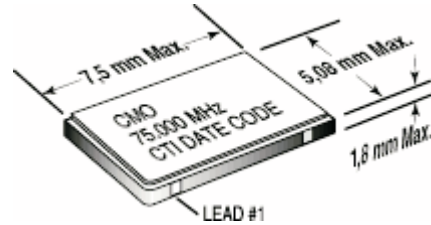
CMO3 Series

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	
CMO3XXXC - 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

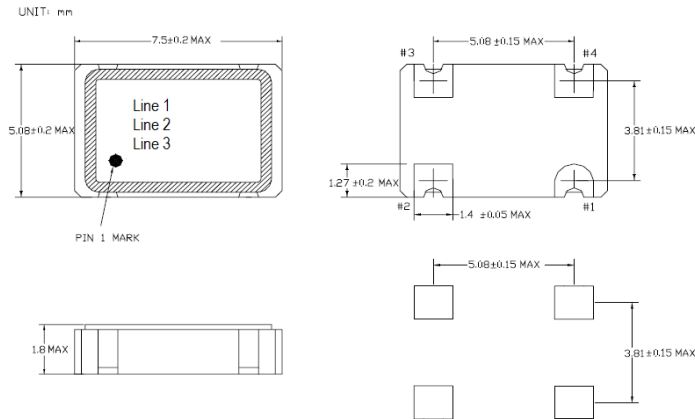
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Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

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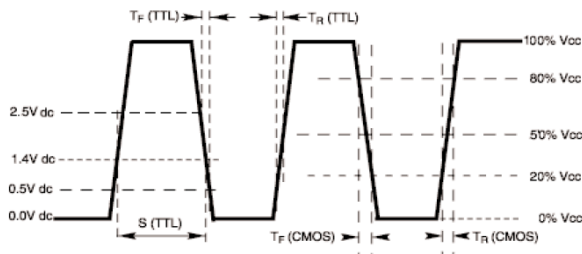


PIN	FUNCTION
1	N/C / Tri-State
2	Ground
3	Output
4	+ V _{CC}

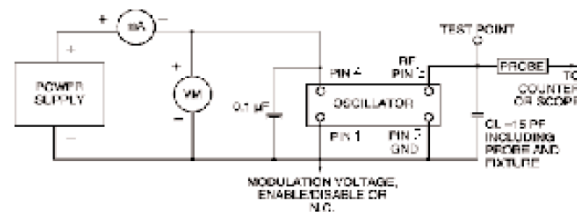
Part Marking	
Line 1	CMO3XXXC
Line 2	FFFMMMM
Line 3	M yy ww vv

Legend	
XXX	See part numbering guide
YY	Last two digits of year
ww	Week number
VV	MtronPTI factory code

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

