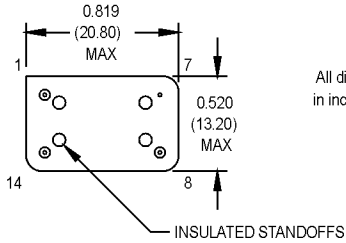
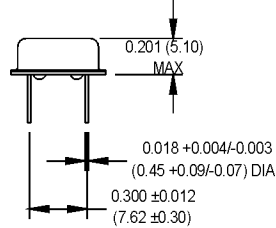
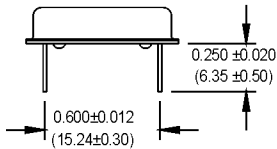
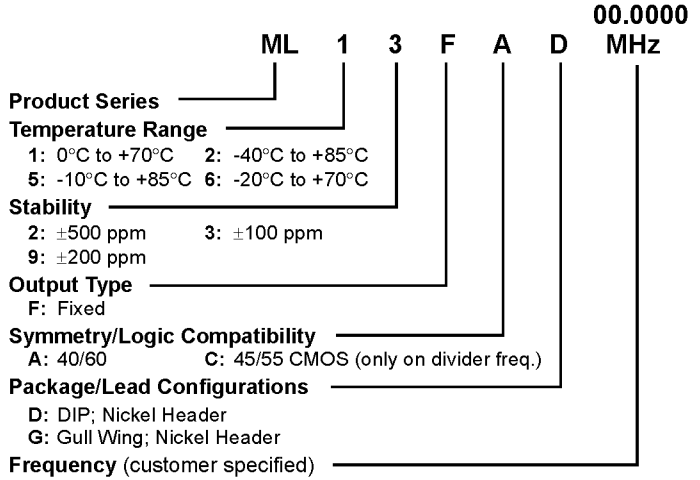


ML Series Micropower CMOS Oscillators



All dimensions in inches (mm).

Ordering Information



See page 90 for gull wing configuration.

Pin Connections

PIN	FUNCTION(S)
1	N/C
7	Circuit/Case Ground
8	Output
14	+Vdd

Divider Output Frequencies

2048 Hz	128 Hz	4 Hz
1024 Hz	64 Hz	2 Hz
512 Hz	32 Hz	
256 Hz	8 Hz	

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	2 Hz	32.768	32.768	kHz	
	Frequency Stability	$\Delta F/F$	(See Ordering Information)				
	Operating Temperature	T _A	(See Ordering Information)				
	Storage Temperature	T _S	-55		+125	°C	
	Input Voltage	V _{cc}		5.0		V	Except as Noted
	Input Current ¹	I _{dd}			15	μA	V _{dd} = 3.0 V
					25	μA	V _{dd} = 5.0 V
					35	μA	V _{dd} = 6.0 V
	Symmetry (Duty Cycle)		40	50	60	%	½ V _{dd}
	Load ²				15	pF	
	Rise/Fall Time ³	Tr/Tf			150	ns	
	Logic "1" Level	V _{oh}	80% V _{dd}			V	
Logic "0" Level	V _{ol}			20% V _{dd}	V		
Startup Time	T _s			10	ms		
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Reflow Solder Conditions	260°C for 10 s max. Or 230°C for 90 s max.					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

- Supply current for divided output is slightly higher than listed.
- See load circuit diagram #2 on page 92.
- Rise/Fall times are measured between 10% V_{dd} and 90% V_{dd}.

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