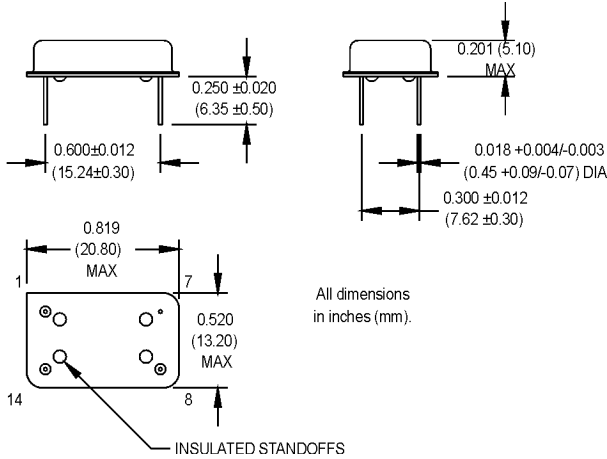


MA Series

14 pin DIP, 5.0 Volt, AC MOS/TTL, Clock Oscillator



Ordering Information

00.0000 MHz

MA 1 3 F A D -R

Product Series MA

Temperature Range

1: 0°C to +70°C	2: -40°C to +85°C
6: -20°C to +70°C	7: 0°C to +85°C

Stability

1: ±1000 ppm	2: ±500 ppm
3: ±100 ppm	4: ±50 ppm
5: ±35 ppm	6: ±25 ppm
*8: ±20 ppm	

Output Type

F: Fixed T: Tristate

Symmetry/Logic Compatibility

A: 40/60 AC MOS/TTL B: 45/55 TTL

C: 45/55 AC MOS

Package/Lead Configurations

A: DIP; Gold Flash Header D: DIP; Nickel Header

G: Gull Wing; Nickel Header X: Gull Wing; Gold Header

RoHS Compliance

Blank: non-RoHS compliant part

-R: RoHS compliant part

Frequency (customer specified) 00.0000 MHz

* Contact factory for availability.

Pin Connections

PIN	FUNCTION
1	N/C or Tristate
7	Circuit/Case Ground
8	Output
14	+Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition	
Electrical Specifications	Frequency Range	F	30		133	MHz		
	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 _{dd}	4.75	5.0	5.25	V		
	Input Current	I _{dd}		70	90	mA	@ 50 Ω Load	
	Symmetry (Duty Cycle)		(See Ordering Information)					See Note 1
	Load				50	Ω	See Note 2	
	Rise/Fall Time	T _r /T _f			2	ns	See Note 3	
	Logic "1" Level	V _{oh}	90% V _{dd}			V	AC MOS Load TTL Load	
	Logic "0" Level	V _{ol}			10% V _{dd} 2.4	V	AC MOS Load TTL Load	
	Cycle to Cycle Jitter			5	15	ps RMS	1 Sigma	
	Tri-State Function		Input Logic "1" or floating; output active Input Logic "0"; output to high-Z					
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C						
	Vibration	Per MIL-STD-202, Method 201 & 204						
	Wave Solder Conditions	See page 147						
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ³ atm.cc/s of helium)						
	Solderability	Per EIAJ-STD-002						

1. Symmetry is measured at 1.4 V with TTL load, and at 50% V_{dd} with AC MOS load.
2. See load circuit diagram #6.
3. Rise/Fall times are measured between 0.5 V and 2.4 V with TTL load, and between 10% V_{dd} and 90% V_{dd} with AC MOS load.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

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