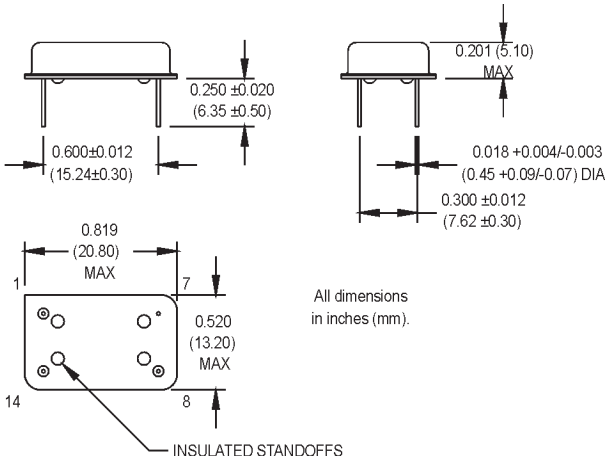
MA Series

14 pin DIP, 5.0 Volt, ACMOS/TTL, Clock Oscillator



All dimensions in inches (mm).

Ordering Information

MA 1 3 F A D -R 00.0000 MHz

Product Series

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 ACMOS/TTL
- B: 45/55 TTL
- C: 45/55 ACMOS

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)

* 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	ΔF/F	(See Ordering Information)				
	Operating Temperature	TA	(See Ordering Information)				
	Storage Temperature	Ts	-55		+125	°C	
	Input Voltage	Vdd	4.75	5.0	5.25	V	
	Input Current	Idd		70	90	mA	@ 50 Ω Load
	Symmetry (Duty Cycle)		(See Ordering Information)				See Note 1
	Load				50	Ω	See Note 2
	Rise/Fall Time	Tr/Tf			2	ns	See Note 3
	Logic "1" Level	Voh	90% Vdd Vdd -0.5			V V	ACMOS Load TTL Load
	Logic "0" Level	Vol			10% Vdd 2.4	V V	ACMOS 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		+260°C for 10 secs. max.				
	Hermeticity		Per MIL-STD-202, Method 112 (1 x 10^{-8} atm.cc/s of helium)				
	Solderability		Per EIAJ-STD-002				

1. Symmetry is measured at 1.4 V with TTL load, and at 50% Vdd with ACMOS 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% Vdd and 90% Vdd with ACMOS load.