

M3A & MAH Series

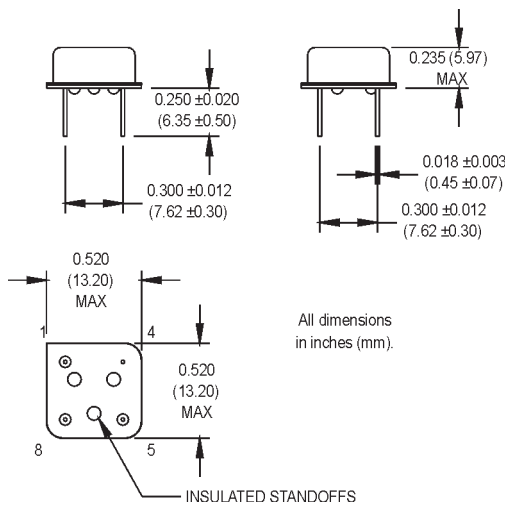
8 pin DIP, 5.0 or 3.3 Volt, ACMOS/TTL, Clock Oscillators



Ordering Information

	M3A/MAH	1	3	F	A	D	-R	00.0000 MHz
Product Series								
M3A = 3.3 Volt								
MAH = 5.0 Volt								
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 Flash 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 Tri-state
4	Circuit/Case Ground
5	Output
8	+Vdd

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	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	3.135 4.75	3.3 5.0	3.465 5.25	V V	M3A MAH
	Input Current	Idd		30 70	50 90	mA mA	M3A MAH
	Symmetry (Duty Cycle)		(See Ordering Information)				See Note 1
	Load				50	Ω	See Note 2
	Rise/Fall Time	Tr/Tf					
	M3A			1	2.5	ns	See Note 3
	MAH				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 0.5	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 ⁻⁵ 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 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% V_{dd} and 90% V_{dd} with ACMOS 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.

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