

M3A & MAH Series

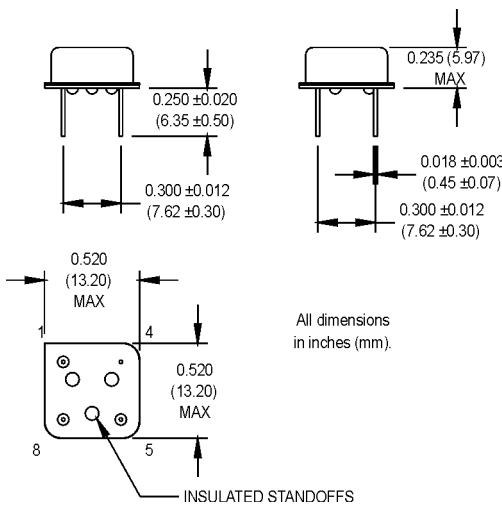
8 pin DIP, 5.0 or 3.3 Volt, AC MOS/TTL, Clock Oscillators



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 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 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

	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}	3.135	3.3	3.465	V	M3A
			4.75	5.0	5.25	V	MAH
	Input Current	I _{dd}		30	50	mA	M3A
				70	90	mA	MAH
	Symmetry (Duty Cycle)		(See Ordering Information)				
	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	V _{oh}	90% V _{dd}			V	AC MOS Load
		V _{dd} -0.5			V	TTL Load	
Logic "0" Level	V _{ol}			10% V _{dd}	V	AC MOS Load	
				0.5	V	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 ⁻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 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.

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