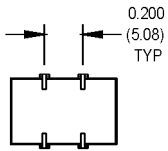
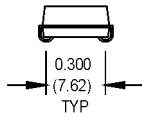
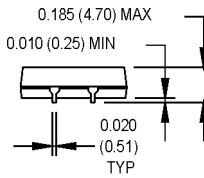
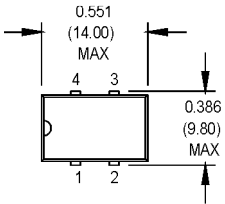
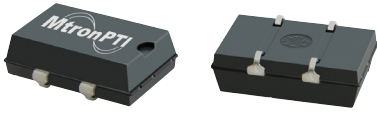


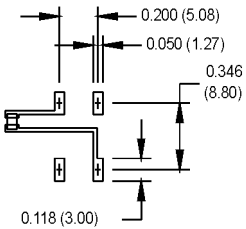
M3R Series

9x14 mm, 3.3 Volt, HCMOS/TTL, Clock Oscillator



All dimensions in inches (mm).

SUGGESTED SOLDER PAD LAYOUT



NOTE: A capacitor of value 0.01 μ F or greater between Vdd and Ground is recommended.

Ordering Information

Product Series	M3R	1	3	F	A	J	00.0000	MHz
Temperature Range								
1:	0°C to +70°C							
2:	-40°C to +85°C							
6:	-20°C to +70°C							
Stability								
3:	± 100 ppm							
4:	± 50 ppm							
6:	± 25 ppm*							
Output Type								
F:	Fixed							
T:	Tristate							
Symmetry/Logic Compatibility								
A:	40/60 TTL/HCMOS							
C:	45/55 HCMOS							
Package/Lead Configurations								
J:	J Lead							
Frequency (customer specified)								

*0°C to 70°C only
M2008Sxxx - Contact factory for datasheet.

Pin Connections

PIN	FUNCTION
1	N/C or Tristate
2	Ground
3	Output
4	+Vdd

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes	
Electrical Specifications	Frequency Range	F	1		80	MHz		
	Operating Temperature	T _A	(See ordering information)					
	Storage Temperature	T _s	-55		+125	°C		
	Frequency Stability	$\Delta F/F$	(See ordering information)					
	Aging							
	1st Year		-5		+5	ppm		
	Thereafter (per year)		-5		+5	ppm		
	Input Voltage	V _{dd}	3.0	3.3	3.6	V		
	Input Current	I _{dd}			15	mA	1.000 to 27.000 MHz	
					20	mA	27.001 to 50.000 MHz	
					40	mA	50.001 to 80.000 MHz	
	Output Type						HCMOS/TTL	
	Load				15	pF	See Note 1	
	Symmetry (Duty Cycle)		(See ordering information)					50% V _{dd} level
	Logic "1" Level	V _{oh}	90% V _{dd}			V	HCMOS Load	
Logic "0" Level	V _{ol}			10% V _{dd}	V	HCMOS Load		
Output Current				± 4	mA			
Rise/Fall Time	T _r /T _f			8	ns	See Note 2		
Tristate Function		Input Logic "1" or floating: output active Input Logic "0": output disables to high-Z						
Start up Time				10	ms			
Random Jitter	R _j		5	12	ps RMS	1-Sigma		
Environmental	Mechanical Shock	MIL-STD-202, Method 213, C (100 g's)						
	Vibration	MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)						
	Thermal Cycle	MIL-STD-883, Method 1010, B (-55°C to +125°C, 15 min dwell, 10 cycles)						
	Hermeticity	MIL-STD-202, Method 112						
	Solderability	Per EIAJ-STD-002						
Max Soldering Conditions	See solder profile, Figure 1							

1. HCMOS load - see Load Circuit Diagram #2.
2. Rise/Fall times are measured between 10% V_{dd} and 90% V_{dd} with HCMOS load.
3. TTL output drive capability is 2 TTL (10 LS-TTL)

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

MtronPTI Lead Free Solder Profile



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