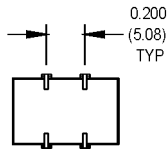
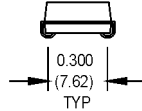
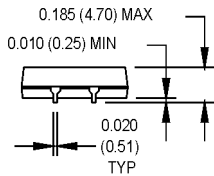
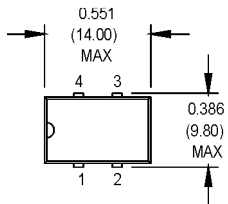
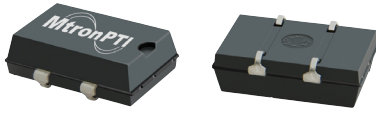


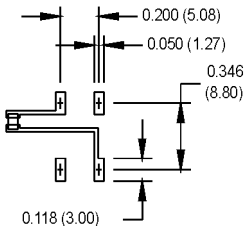
M3R Series

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

	M3R	1	3	F	A	J	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
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

	Electrical Specifications						
	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
	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	Tr/Tf			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
	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)

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.

Revision: 8-21-07

MtronPTI Lead Free Solder Profile

