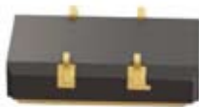
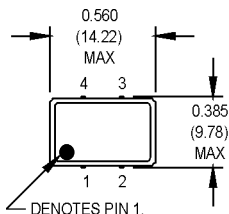


M8R Series

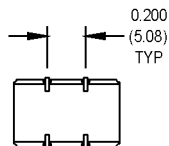
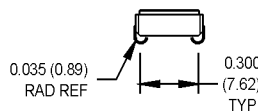
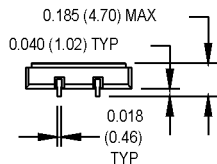
9x16 mm, 3.3 Volt, HCMOS/TTL, Clock Oscillator



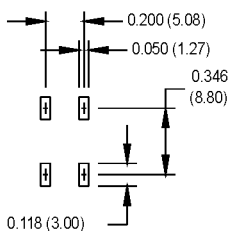
These are non-PLL based high frequency oscillators intended for applications that require low phase jitter. For frequencies 80.000 MHz and below, please see the M8S series.



All dimensions in inches (mm).



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

PIN	FUNCTION
1	N/C or Tri-state
2	Ground
3	Output
4	+Vdd

Ordering Information

Product Series	M8R	1	3	F	A	J	-R	00.0000 MHz
Temperature Range	1: 0°C to +70°C	2: -40°C to +85°C	5: -10°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 CMOS/TTL	C: 45/55 CMOS						
Package/Lead Configurations	J: J Lead (Gold Flash Leads)							
RoHS Compliance	Blank: non-RoHS compliant part	-R: RoHS compliant part						
Frequency (customer specified)								

*Consult Factory for availability

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	Frequency Range	F	80.001		125	MHz	
	Frequency Stability	ΔF/F	(See Ordering Information)				
	Operating Temperature	T _A	(See Ordering Information)				
	Storage Temperature	T _s	-55		+125	°C	
	Input Voltage	V _{dd}	3.15	3.3	3.45	V	
	Input Current	I _{dd}			50	mA	
	Symmetry (Duty Cycle)		(See Ordering Information)				See Note 1
	Load		2 TTL or 15 pF				See Note 2
	Rise/Fall Time	Tr/Tf			4	ns	See Note 3
	Logic “1” Level	V _{oh}	90% V _{dd} V _{dd} -0.5			V V	HCMOS load TTL load
	Logic “0” Level	V _{ol}			10% V _{dd} 0.5	V V	HCMOS load TTL load
	Cycle to Cycle Jitter			5	20	ps RMS	1 Sigma
Tri-state Function		Pin 1 logic “1” or floating; output active Pin 1 logic “0”; output disables to high-Z					
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Reflow Solder Conditions	240°C for 10 s 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% V_{dd} with HCMOS load.

2. TTL load - see load circuit diagram #1. HCMOS load - see load circuit diagram #2.

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 HCMOS load

MtronPTI Lead Free Solder Profile

