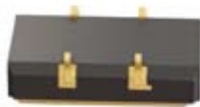
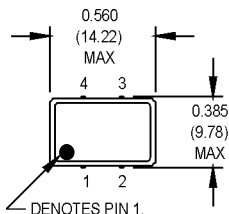


M8R Series

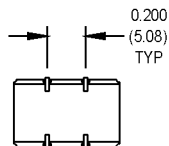
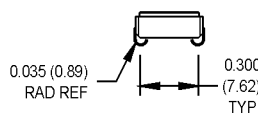
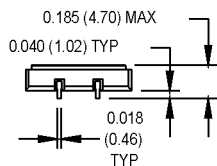
9x16 mm, 3.3 Volt, HCMOS/TTL, Clock Oscillator



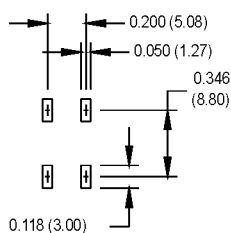
These are non-PLL based high frequency oscillators intended for applications that require low phase jitter. For frequencies 80.000 MHz and below, please see the M8S series.



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

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Frequency Range	F	80.001		125	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}	3.15	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	T _r /T _f			4	ns	See Note 3
Logic "1" Level	V _{oh}	90% V _{dd}			V	HCMOS load
		V _{dd} -0.5			V	TTL load
Logic "0" Level	V _{ol}			10% V _{dd}	V	HCMOS load
				0.5	V	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				
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

