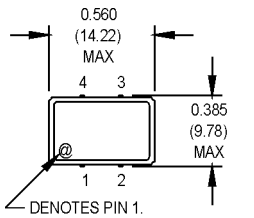


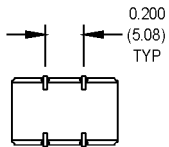
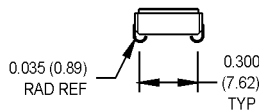
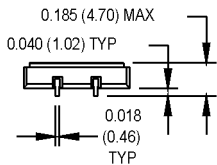
# M7R Series 5.0 Volt HCMOS/TTL Compatible Surface Mount Oscillators



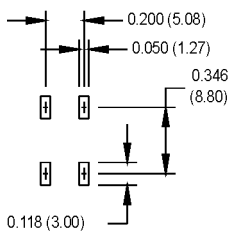
These are non-PLL based high frequency oscillators intended for applications that require low phase jitter. For frequencies 80.000 MHz and below, please see the M7S series.



All dimensions in inches (mm).



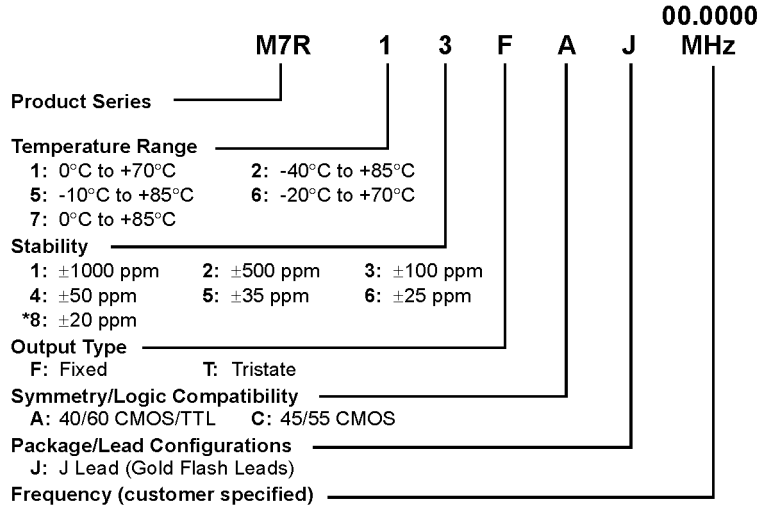
SUGGESTED SOLDER PAD LAYOUT



## Pin Connections

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

## Ordering Information



\*Consult factory for availability.

	Electrical Specifications							
	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 <sub>A</sub>	(See Ordering Information)					
	Storage Temperature	T <sub>s</sub>	-55		+125	°C		
	Input Voltage	V <sub>dd</sub>	4.5	5.0	5.5	V		
	Input Current	I <sub>dd</sub>			90	mA		
	Symmetry (Duty Cycle)		(See Ordering Information)					See Note 1
	Load		10 TTL or 15 pF					See Note 2
	Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>			5	ns	See Note 3	
	Logic "1" Level	V <sub>oh</sub>	90% V <sub>dd</sub>			V	HCMOS load	
			V <sub>dd</sub> -0.5			V	TTL load	
	Logic "0" Level	V <sub>ol</sub>			10% V <sub>dd</sub>	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					
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 <sup>-8</sup> 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<sub>dd</sub> with HCMOS load.
2. TTL load - See load circuit diagram #1 on page 92. HCMOS load - See load circuit diagram #2 on page 92.
3. Rise/Fall times are measured between 0.5 V and 2.4 V with TTL load, and between 10% V<sub>dd</sub> and 90% V<sub>dd</sub> with HCMOS load.

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