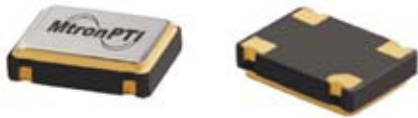
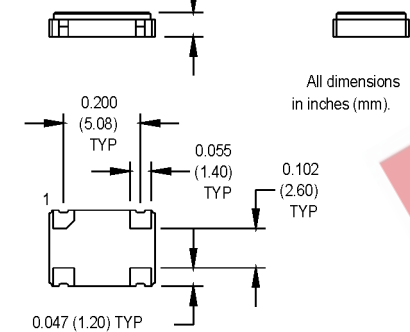
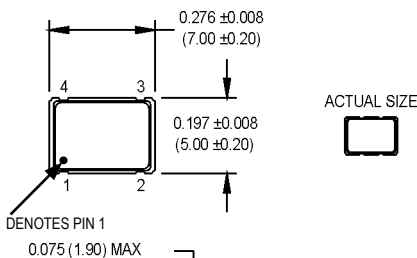


# M2250 Series

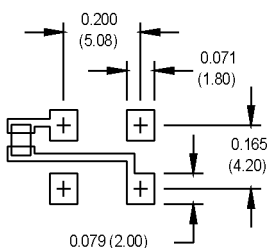
## 5x7 mm, 2.5 Volt, HCMOS/TTL, Clock Oscillator



- 2.5 Volt Operation
- Standby Option
- High density boards, low power circuits, portable test sets



SUGGESTED SOLDER PAD LAYOUT



**NOTE:** A capacitor of value 0.01  $\mu$ F or greater between Vdd and Ground is recommended.

Ordering Information		00.0000 MHz						
Product Series	M2250	1	3	T	C	N		
Temperature Range	1: 0°C to +70°C	2: -40°C to +85°C						
Stability	3: $\pm$ 100 ppm	4: $\pm$ 50 ppm						
	5: $\pm$ 35 ppm	6: $\pm$ 25 ppm						
Output Type	F: Fixed	Q: Standby Function						
	T: Tristate							
Symmetry/Logic Compatibility	A: 40/60 TTL/HCMOS							
	C: 45/55 HCMOS							
Package/Lead Configurations	N: Leadless							
Frequency (customer specified)								

### Pin Connections

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	1.0		125	MHz	See Note 1
	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>	2.375	2.5	2.625	V	
	Input Current	I <sub>dd</sub>			30	mA	
	Standby Current				10	$\mu$ A	Standby Mode
	Symmetry (Duty Cycle)		(See Ordering Information)				
	Load				15/10	pF/TTL	
	Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>			6	ns	Ref. 0.25 - 2.25 V
	Logic "1" Level	V <sub>oh</sub>	90% V <sub>dd</sub>			V	HCMOS Load
	Logic "0" Level	V <sub>ol</sub>			10% V <sub>dd</sub>	V	HCMOS Load
	Cycle to Cycle Jitter			8	15	ps RMS	1 Sigma
	Standby/Tristate Function		Input Logic "1" or floating; output active Input Logic "0"; output 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	See "Figure 2" on page 147					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-5</sup> atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

1. Not all frequencies are available. Please contact factory for availability.

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