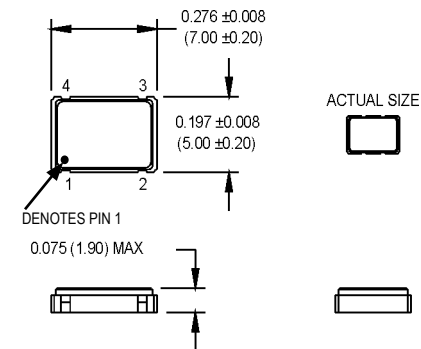


M2180 Series

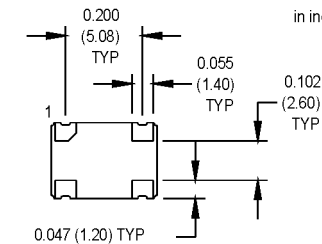
5x7 mm, 1.8 Volt, HCMOS/TTL, Clock Oscillator



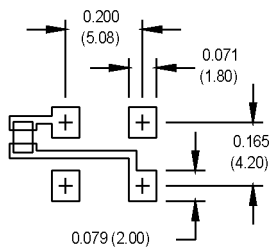
- 1.8 Volt Operation
- Standby Option
- High density boards, low power circuits, portable test sets



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

	M2180	1	3	T	C	N	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							
5: ± 35 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							
N: Leadless							
Frequency (customer specified)							

Pin Connections

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

Electrical Specifications	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	Frequency Range	F	1.0		70	MHz	See Note 1
	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}	1.62	1.8	1.98	V	
	Input Current	I _{dd}			20	mA	
	Standby Current				10	μ A	Standby Mode
	Symmetry (Duty Cycle)		(See Ordering Information)				½ V _{dd}
	Load				30/10	pF/TTL	
	Rise/Fall Time	T _r /T _f			10	ns	Ref. 10% - 90% V _{dd}
	1.000 to 35.328 MHz				6	ns	Ref. 10% - 90% V _{dd}
	35.328 to 70.000 MHz						
	Logic "1" Level	V _{oh}	90% V _{dd}			V	HCMOS Load
	Logic "0" Level	V _{ol}			10% V _{dd}	V	HCMOS Load
Environmental	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					
	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 ⁻⁸ atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

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

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.

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