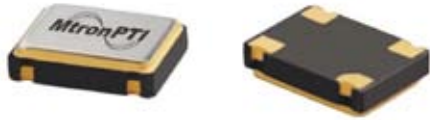


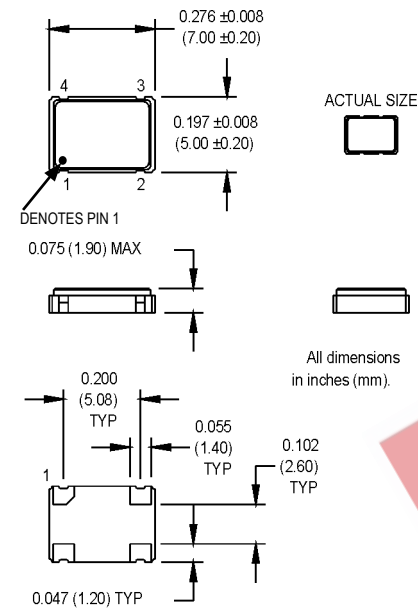
M2180 Series

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



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

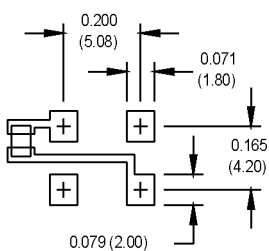
Ordering Information	
Product Series	M2180 1 3 T C N 00.0000 MHz
Temperature Range	1: 0°C to +70°C 2: -40°C to +85°C 6: -20°C to +70°C
Stability	3: ±100 ppm 4: ±50 ppm 5: ±35 ppm 6: ±25 ppm
Output Type	F: Fixed T: Tristate Q: Standby Function
Symmetry/Logic Compatibility	A: 40/60 TTL/HCMOS C: 45/55 HCMOS
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

SUGGESTED SOLDER PAD LAYOUT



NOTE: A capacitor of value 0.01 μ F or greater between Vdd and Ground is recommended.

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition	
Electrical Specifications	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	Vdd	1.62	1.8	1.98	V		
	Input Current	Idd			20	mA		
	Standby Current				10	μ A	Standby Mode	
	Symmetry (Duty Cycle)		(See Ordering Information)					$\frac{1}{2}$ Vdd
	Load				30/10	pF/TTL		
	Rise/Fall Time	T_r/T_f			10	ns	Ref. 10% - 90% Vdd	
					6	ns	Ref. 10% - 90% Vdd	
	Logic "1" Level	Voh	90% Vdd			V	HCMOS Load	
	Logic "0" Level	Vol			10% Vdd	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 ⁻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.