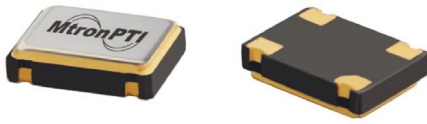


M2180 Series

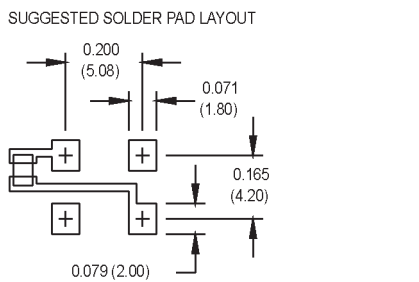
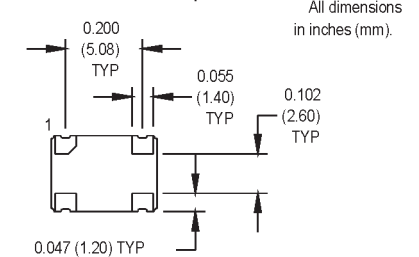
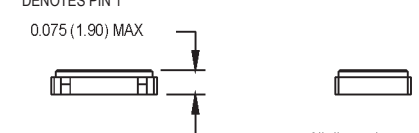
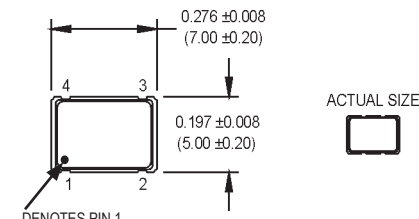
5x7 mm, 1.8 Volt, HCMOS/TTL, Clock Oscillator



- 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 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)	

M2180Sxxx - Contact factory for datasheet.



All dimensions in inches (mm).

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	µA	Standby Mode
	Symmetry (Duty Cycle)		(See Ordering Information)				
	Load				30/10	pF/TTL	
	Rise/Fall Time	Tr/Tf			10	ns	Ref. 10% - 90% V _{dd}
					6	ns	Ref. 10% - 90% V _{dd}
	Logic "1" Level	V _{oh}	90% V _{dd}			V	HCMOS Load
	Logic "0" Level	V _{ol}			10% V _{dd}	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					
	Max Soldering Conditions	See solder profile, Figure 1					
	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.

TTL Load - see load circuit diagram #1. HCMOS Load - see load circuit diagram #2.

NOTE: A capacitor of value 0.01 µF or greater between V_{dd} and Ground is recommended.