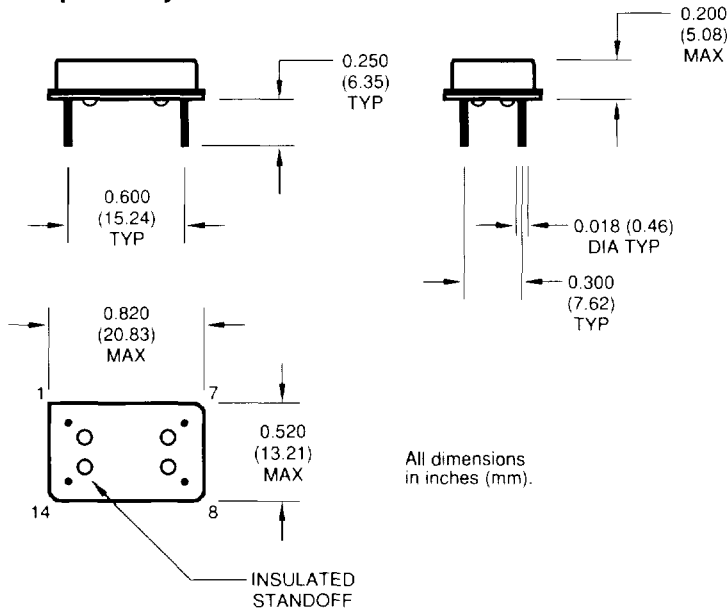


MTO Series TTL Oscillators

Competitively Priced TTL Oscillators



Part Marking and Numbering	MTO	1	3	F	A	D
Product Series	MTO					
Temperature Range	1: 0°C to +70°C 2: -40°C to +85°C 3: -55°C to +105°C 4: -55°C to +125°C 5: -10°C to +85°C 6: -20°C to +70°C 7: 0°C to +85°C					
Stability	1: ± 1000 ppm 2: ± 500 ppm 3: ± 100 ppm 4: ± 50 ppm 5: ± 35 ppm 6: ± 25 ppm 7: + 0/-200 ppm					
Output Type	F: Fixed E: Enable/Disable (3.500 to 26.000 MHz) C: Dual Complementary (3.5000 to 26.000 MHz only)					
Symmetry/Logic Compatibility	A: 40/60 B: 45/55 TTL					
Package/Lead Configurations	D: DIP; Nickel Header G: Gull Wing; Nickel Header					

Pin Connections

Pin	Function
1	N/C Enable/Disable, or $\bar{\phi}$
7	Circuit/Case Ground
8	Output
14	+V _{CC}

ENABLE/DISABLE
 Pin 1 high or floating: clock signal output
 Pin 1 low: output disables to logic "1"

Electrical Specifications

(Standard Operating Conditions 0°C to +70°C; V_{CC} = 5.0 ± 10% VDC)

PARAMETERS	MIN.	TYP.	MAX.	UNITS
Frequency Range	0.220		65.000	MHz
Output Load			10	TTL ¹
Symmetry	40/60		60/40	%
Logic "0" Level				
0.220 to 19.990 MHz			0.4	V
20.000 to 65.000 MHz			0.5	V
Logic "1" Level	2.4	3.6		V
Rise/Fall Time				
0.220 to 3.490 MHz		12	15	ns
3.500 to 19.990 MHz		6	10	ns
20.000 to 65.000 MHz		3	5	ns
Supply Current				
0.220 to 3.490 MHz		37	60	mA
3.500 to 24.990 MHz		18	50	mA
25.000 to 65.000 MHz		27	70	mA

¹- See load circuit #1 on page 32.

Available Stabilities vs Temperature*

T S	1	2	3	4	5	6	7
1	A	A	S	A	A	A	A
2	A	A	A	A	A	A	A
3	A	A	A	A	N	N	A
4	A	A	A	N	N	N	A
5	A	A	A	A	A	A	A
6	A	A	A	A	A	A	A
7	A	A	A	A	A	A	A

*Extended temperature ranges greater than T¹ are not available for the higher frequencies.

A = AVAILABLE S = STANDARD
 N = NOT AVAILABLE

Available Symmetry

FREQ. RANGE	STD.	OPTIONS
0.220 to 10.000	A	B
10.100 to 65.000	A	

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