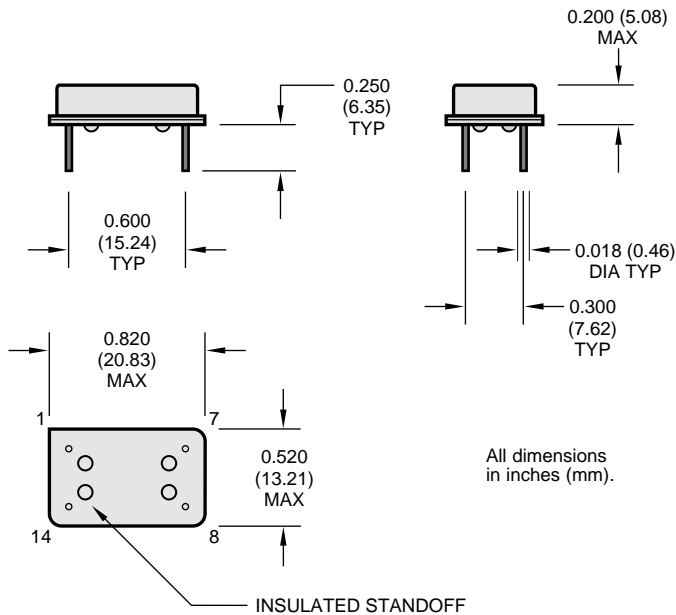


MZO Series NMOS Oscillators



MZO Series NMOS Clock Oscillators With Optional TTL Auxiliary Outputs



Part Marking and Numbering	MZO	1	7	D	A	D	00.0000	MHz
Product Series	MZO							
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 D: Dual (NMOS + TTL output at 2x f)							
Symmetry/Logic Compatibility	A: 40/60							
Package/Lead Configurations	D: DIP; Nickel Header G: Gull Wing; Nickel Header							
Frequency (customer specified)								

Pin Connections

PIN	FUNCTION
1	N/C or optional TTL output
7	Circuit/Case Ground
8	NMOS Output
14	+V _{cc}

Available Stabilities vs Temperature

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

A = AVAILABLE S = STANDARD
N = NOT AVAILABLE

Electrical Specifications

(Standard Operating Conditions 0°C to 70°C; V_{cc} = 5.0 ±10% V DC)

PARAMETERS	NMOS Load		NMOS/TTL Load				UNITS
	Pin 8 NMOS		Pin 1 TTL		Pin 8 NMOS		
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
Frequency Range	1.75	12.0	3.5	12.0	1.75	6.0	MHz
Output Load		150pF ²		10 TTL ¹		150 pF ²	pF/TTL
Symmetry *	40/60	60/40	40/60	60/40	45/55	55/45	%
Logic "0" Level		0.45		0.5		0.45	V
Logic "1" Level	V _{cc} - 0.4		2.4		V _{cc} - 0.4		V
Rise/Fall Time**		20		10		20	ns
Supply Current		100		110		110	mA

1- See load circuit #1 on page 63. 2- See load circuit #3 on page 63.

*Symmetry is measured at 1.4 V with TTL load, and at V_{dd}/2 with HCMOS load.

**Rise/fall times are measured between 0.5 V and 2.4 V with TTL load, and between 10% V_{dd} and 90% V_{dd} with HCMOS load.

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