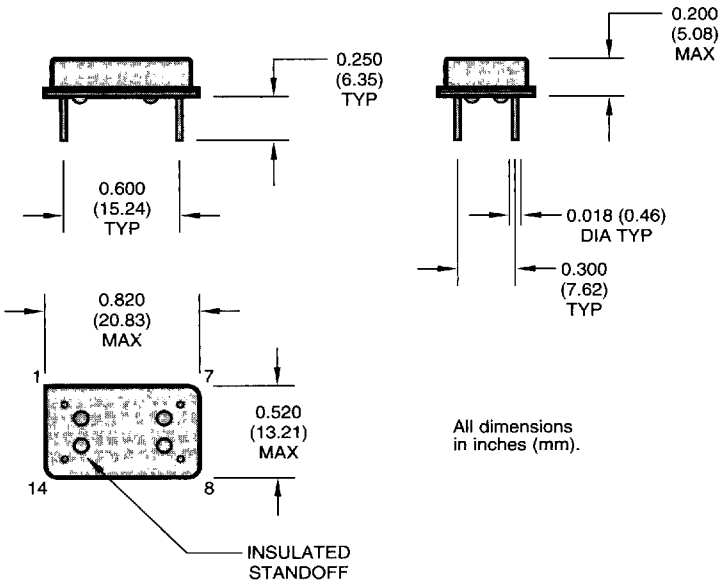
MZO Series NMOS Oscillators

MZO Series NMOS Clock Oscillators With Optional TTL Auxiliary Outputs



All dimensions in inches (mm).

Part Marking and Numbering MZO 1 7 D A D

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 Copatibility
A — 40/60

Package/Lead Configurations
D — DIP; Nickel Header
G — Gull Wing; Nickel Header

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	S
2	A	A	A	A	A	A	A
3	A	A	A	A	N	N	A
4	A	A	A	A	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

A = AVAILABLE *S = STANDARD*
N = NOT AVAILABLE

Electrical Characteristics

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

	NMOS Load		NMOS/TTL Load				
	Pin 8 NMOS		Pin 1 TTL		Pin 8 NMOS		
PARAMETERS	**MIN.**	**MAX.**	**MIN.**	**MAX.**	**MIN.**	**MAX.**	**UNITS**
Frequency Range	1.75	12.0	3.5	12.0	1.75	6.0	MHz
Output Load		150 pF[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 40. 2- See load circuit #3 on page 40
**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.*