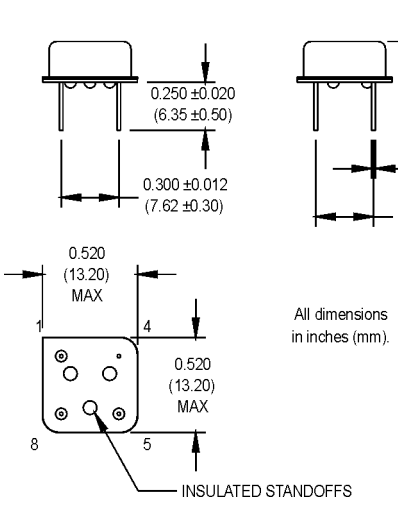
M3EH Series Half-Size ECL/PECL Oscillators

M3EH Series ECL/PECL Clock Oscillators, 10 KH Compatible with Optional Complementary Outputs



All dimensions in inches (mm).

Ordering Information

M3EH 1 3 X A D 00.0000 MHz

Product Series

Temperature Range
- 1: 0°C to +70°C
- 2: -40°C to +85°C
- 5: -10°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
- *8: ±20 ppm

Output Type
- X: Single Output
- Z: Dual Output

Symmetry/Logic Compatibility
- A: 40/60 (std.)
- B: 45/55

Package/Lead Configurations
- A: DIP; Gold Flash Header
- D: DIP; Nickel Header
- G: Gull Wing; Nickel Header
- X: Gull Wing; Gold Flash Header

Frequency (customer specified)

Pin Connections

PIN	FUNCTION(S) (Model Dependent)
1	N/C, Output #2
4	-Vee, Ground
5	Output #1
8	+Vcc

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	1.5		155.52	MHz	
	Frequency Stability	ΔF/F	(See Ordering Information)				See Note 1
	Operating Temperature	TA	(See Ordering Information)				
	Storage Temperature	Ts	-55		+125	°C	
	Input Voltage	Vcc	3.15	3.3	3.45	V	
	Input Current	Iee/Icc		50	90	mA	
	Symmetry (Duty Cycle)		(See Ordering Information)				Vdd -1.3 V level
	Load		50 Ω to Vcc -2V or Thevenin Equivalent				
	Rise/Fall Time	Tr/Tf			2.5	ns	See Note 2
	Logic "1" Level	Voh	Vcc -1.025			V	
	Logic "0" Level	Vol			Vcc -1.63	V	
	Phase Jitter	ϕ J		10	25	ps RMS	Cycle-to-Cycle
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C					
	Vibration	Per MIL-STD-202, Method 201 & 204					
	Wave Solder Conditions	260°C for 10 s max.					
	Hermeticity	Per MIL-STD-202, Method 112 (1 x 10^{-8} atm.cc/s of helium)					
	Solderability	Per EIAJ-STD-002					

1. Calibration, deviation over temperature, shock, vibration, and aging.
2. Rise/Fall times are measured between Vcc -1.025 V and Vcc -1.63 V.

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