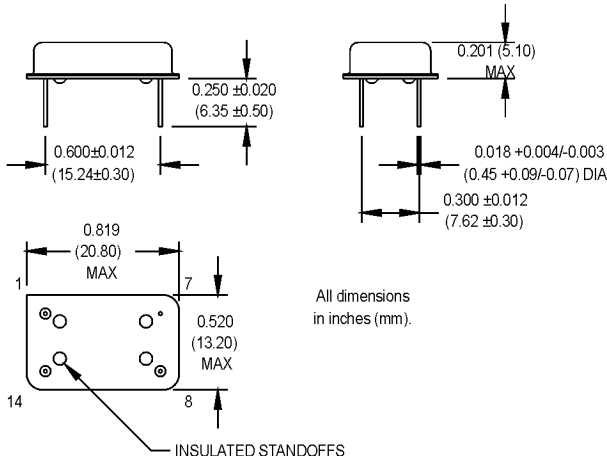


# M3E Series

## 14 pin DIP, 3.3 Volt, ECL/PECL, Clock Oscillator



### Ordering Information

	M3E	1	3	X	Q	D	-R	00.0000	MHz
<b>Product Series</b>									
<b>Temperature Range</b>									
1:	0°C to +70°C	2:	-40°C to +85°C						
5:	-10°C to +85°C	6:	-20°C to +70°C						
7:	0°C to +85°C								
<b>Stability</b>									
1:	±1000 ppm	2:	±500 ppm						
3:	±100 ppm	4:	±50 ppm						
5:	±35 ppm	6:	±25 ppm						
*8:	±20 ppm								
<b>Output Type</b>									
X:	Single Output	Z:	Dual Output						
<b>Symmetry/Logic Compatibility</b>									
P:	45/55% PECL	Q:	40/60% PECL						
<b>Package/Lead Configurations</b>									
A:	DIP; Gold Flash Header	D:	DIP; Nickel Header						
G:	Gull Wing; Nickel Header	X:	Gull Wing; Gold Flash Header						
<b>RoHS Compliance</b>									
Blank:	non-RoHS compliant part								
-R:	RoHS compliant part								
<b>Frequency (customer specified)</b>									

\*Contact factory for availability.

### Pin Connections

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition	
Electrical Specifications	Frequency Range	F	1.5		155.52	MHz		
	Frequency Stability	$\Delta F/F$	(See Ordering Information)					See Note 1
	Operating Temperature	T <sub>A</sub>	(See Ordering Information)					
	Storage Temperature	T <sub>s</sub>	-55		+125	°C		
	Input Voltage	V <sub>cc</sub>	3.15	3.3	3.45	V		
	Input Current	I <sub>ee</sub> /I <sub>cc</sub>			100	mA		
	Symmetry (Duty Cycle)		(See Ordering Information)					V <sub>cc</sub> -1.3 V level
	Load		50 Ω to V <sub>cc</sub> -2V or Thevenin Equivalent					See Note 2
	Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>			2.5	ns	See Note 3	
	Logic "1" Level	V <sub>oh</sub>	V <sub>cc</sub> -1.02			V		
	Logic "0" Level	V <sub>ol</sub>			V <sub>cc</sub> -1.63	V		
	Cycle to Cycle Jitter			13	25	ps RMS	1 Sigma	
	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 <sup>-8</sup> atm.cc/s of helium)						
Solderability		Per EIAJ-STD-002						

1. Calibration, deviation over temperature, shock, vibration, and aging.
2. Internally terminated outputs. See load circuit diagram #5.
3. Rise/Fall times are measured between V<sub>cc</sub> -1.02 V and V<sub>cc</sub> -1.63 V.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

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