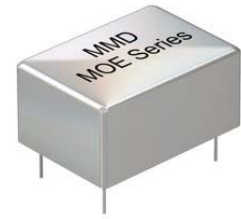


# MOEH and MOEZ Series / Euro Package, 5 Pin OCXO



- Standard CO-08 OCXO Euro Package
- Wide Frequency Range
- SC Cut Crystal Option Available
- Custom Options Available



## ELECTRICAL SPECIFICATION:

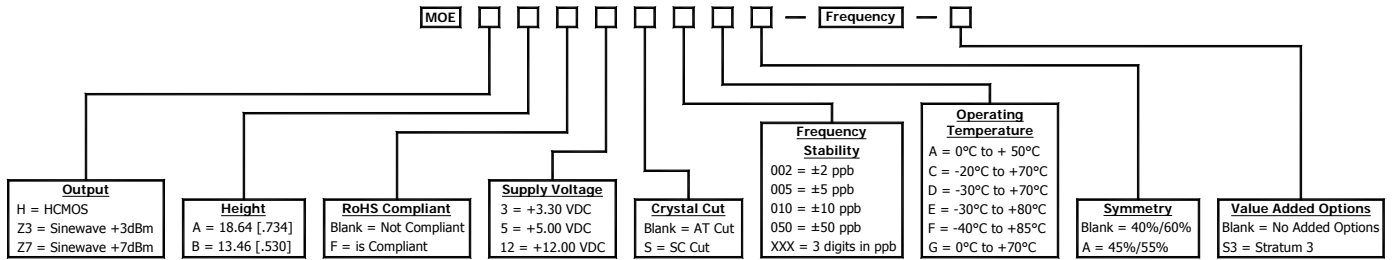
<b>Frequency Range</b>		1.000MHZ to 150.000MHZ		
<b>Stability</b>				
Frequency at +25°C at time of shipment		±10 ppb at +25°C with $V_{nom}$ on Pin 1		
Frequency vs. Ambient		See Part Number Guide for Options		
Frequency vs. Voltage		Less than ±5 ppb for 5% change in Supply Voltage		
Frequency vs. Load		Less than ±5 ppb for 5% change in Load		
Frequency vs. Time	AT Cut	±1.0 ppm per year after 30 days		
	SC Cut	±0.1 ppm per year after 30 days		
Warm Up		3 min at +25°C to ±1.0 ppm of final frequency (1 hr reading)		
<b>Supply and Reference Voltages</b>				
Supply Voltage ( $V_{dd}$ )		+3.30 VDC ±5%	+5.00 VDC ±5%	+12.00 VDC ±5%
Supply Current	Steady State	540 mA	360 mA	150 mA
	Warm Up	1000 mA	720 mA	650 mA
Reference Voltage		+3.00 VDC ±5%	+4.00 VDC ±5%	4.00 VDC ±5%
<b>Output</b>				
HCMOS		+3.30 VDC ±5%	+5.00 VDC ±5%	+12.00 VDC ±5%
Logic "0" (max)		+0.33 VDC	+0.50 VDC	+0.50 VDC
Logic "1" (min)		+2.97 VDC	+4.50 VDC	+4.50 VDC
Symmetry (50% of Waveform)		See Part Number Guide for Options		
Load		15pF		
<b>Sinewave</b>				
Amplitude		See Part Number Guide for Options		
Spurious (Harmonics)		-20 dBc		
Spurious (Non Harmonics)		-80 dBc		
Load		50Ω		
<b>Electronic Frequency Control</b>				
Control Voltage Range		+3.30 VDC ±5%	+5.00 VDC ±5%	+12.00 VDC ±5%
		0.00 to +3.30 VDC	0.00 to + 5.00 VDC	0.00 to + 5.00 VDC
$V_{nom}$ (Pin 1)		+1.65 VDC	+2.50 VDC	+2.50 VDC
Total Frequency Change	AT Cut	±1.0 ppm typ		
	SC Cut	±0.6 ppm min		
Slope		Positive		
Input Impedance		100kΩ typ		

QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY DNV  
ISO 9001:2008

MMD Components, 30400 Esperanza, Rancho Santa Margarita, CA, 92688  
Phone: (949) 709-5075, Fax: (949) 709-3536, [www.mmdcomp.com](http://www.mmdcomp.com)  
Sales@mmdcomp.com

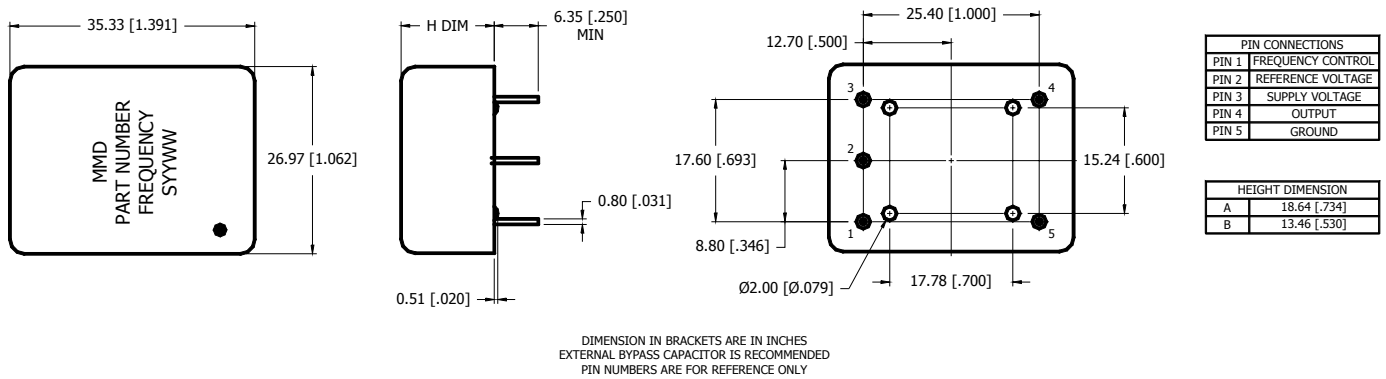
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**PART NUMBER GUIDE:**



Please Consult with MMD Sales Department for any other Parameters or Options

**MECHANICAL DETAIL:**



**ENVIRONMENTAL/MECHANICAL SPECIFICATION:**

Shock	MIL-STD-883, Meth 2002, Cond B
Solderability	MIL-STD-883, Meth 2003
Vibration	MIL-STD-883, Meth 2007, Cond A
Gross Leak Test	MIL-STD-883, Meth 1014, Cond C
Fine Leak Test	MIL-STD-883, Meth 1014, Cond A
MSL	Level 1 per IPC/JEDEC'S J-STD-20

**MARKING DETAIL:**

Line 1 = MMD  
Line 2 = MMD Part Number  
Line 3 = Frequency Output  
Line 4 = Data Code  
S = Internal Code  
YYWW = 4 Digit Date Code (Year / Month)  
L = Denotes RoHS Compliant  
Black dot to denote Pin 1

**PHASE NOISE:**

Phase Noise at 10.000MHZ	SC Cut Crystal	AT Cut Crystal
10 Hz	-110 dBc	-100 dBc
100 Hz	-130 dBc	-110 dBc
1 kHz	-140 dBc	-135 dBc
10 kHz	-155 dBc	-140 dBc

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