

MOEH & MOEZ Series – Euro Package 5 Pin OCXO



- Oven Controlled Oscillator
- 1.0 MHz to 150.0 MHz Available
- SC Crystal Option
- RoHS Option Available
- $\pm 2\text{ppb}$ to $\pm 500\text{ppb}$



Frequency Range		1.000MHZ to 150.000MHZ		
Stability				
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)		
Supply and Reference Voltages				
Supply Voltage (V_{dd})		+3.30 VDC $\pm 5\%$	+5.00 VDC $\pm 5\%$	+12.00 VDC $\pm 5\%$
Supply Current	Steady State	540 mA	360 mA	150 mA
	Warm Up	1000 mA	720 mA	650 mA
Reference Voltage (Output)		+3.00 VDC $\pm 5\%$	+4.00 VDC $\pm 5\%$	4.00 VDC $\pm 5\%$
Output				
HCMOS				
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		
SINEWAVE				
Amplitude		See Part Number Guide for Options		
Spurious (Harmonics)		-20 dBc		
Spurious (Non Harmonics)		-80 dBc		
Load		50 Ω		
Electronic Frequency Control				
Control Voltage Range		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		100k Ω typ		
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

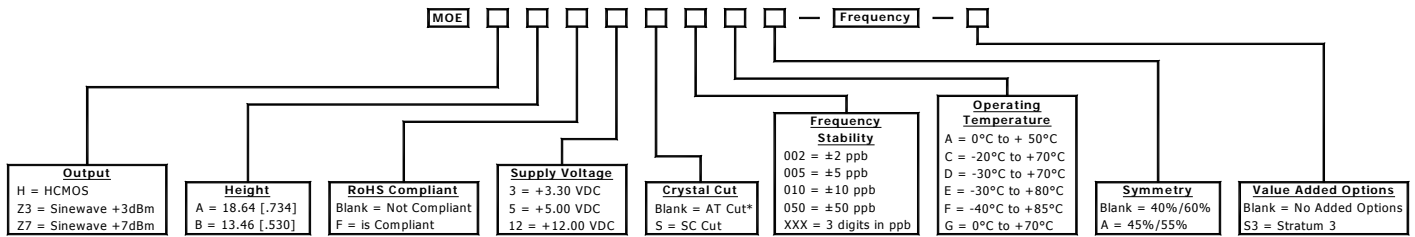


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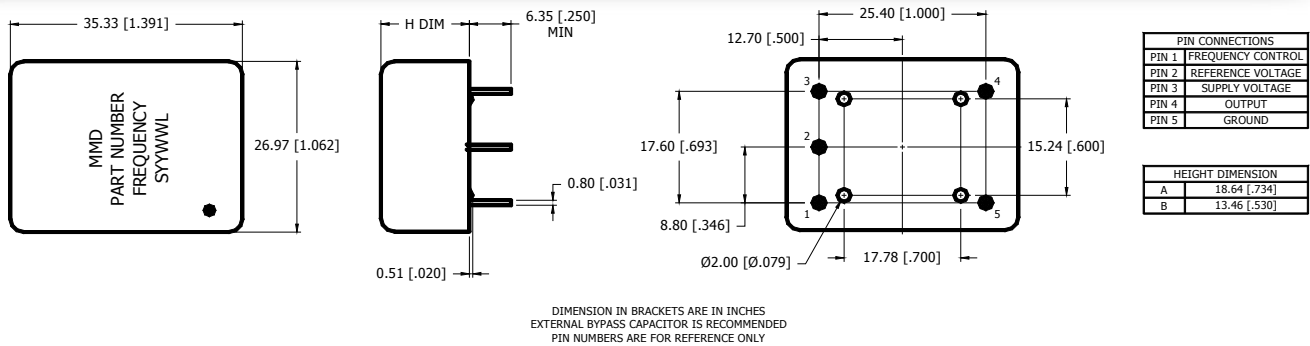
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Part Number Guide



Please Consult with MMD Sales Department for any other Parameters or Options
*AT Cut Crystal cannot be used in all Temperature/Stability options

Mechanical Details



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 (per sales order)	
Line 3 = Frequency Output (per sales order)	
Line 4 = SYYWWL	
S	= Internal Code
YY	= YY = Year, 2 numerical digits that represents the last 2 digits of the year of manufacture.
WW	= WW = Week, 2 numerical digits that represents the week of the year that the OCXO was manufactured.
L	= Denotes RoHS Compliant
Pin 1 Designator	



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