



AMO-HC Series Surface Mount Clock Oscillators

TTL or CMOS Compatible

 f_o : 1.5 to 72 MHz

FEATURES

- 1) Built in 0.01 μ F decoupling capacitor
- 2) 45/55 symmetry standard
- 3) J-leaded
- 4) Tristate output disable function
- 5) Hermetically sealed crystal
- 6) IR reflow solderable
- 7) Frequency range: 1.5 to 72 MHz
- 8) Max. operating temperature range: -40 to +85°C
- 9) Frequency stability: 100 ppm (-10 to +70°C)
- 10) Output compatibility: TTL (10 gates) or CMOS (50pF)
- 11) Aging: ± 5 ppm/year

HOW TO ORDER

AMO-HC 1 - TS E - 40.0000M R

① ② ③ ④ ⑤ ⑥

- ① AVX surface mount HCMOS clock
- ② Frequency stability: 1 = 100ppm (standard)
- ③ Output level/Duty cycle:
TS = TTL compatible, 45 to 55%
CS = CMOS compatible, 45 to 55%
- ④ Enable/Disable: E = Tristate output (standard)
- ⑤ Frequency (Popular frequencies, MHz):
1.8432, 14.31818, 16.0000, 20.0000,
24.0000, 32.0000, 40.0000, 50.0000
- ⑥ Packaging:
R = tape and reel
T = magazine



ENVIRONMENTAL SPECIFICATIONS

- 1) Shock: 5000 G's
- 2) Vibration: 20 G's, Harmonic motion
- 3) Humidity: 85°C, 85%RH biased for 1000 hours
- 4) Life test: 125°C biased for 1000 hours
- 5) Random drop: 40 inches
- 6) IR reflow solderable: 245°C for 30 sec.

SPECIFICATIONS (AMO-HC)

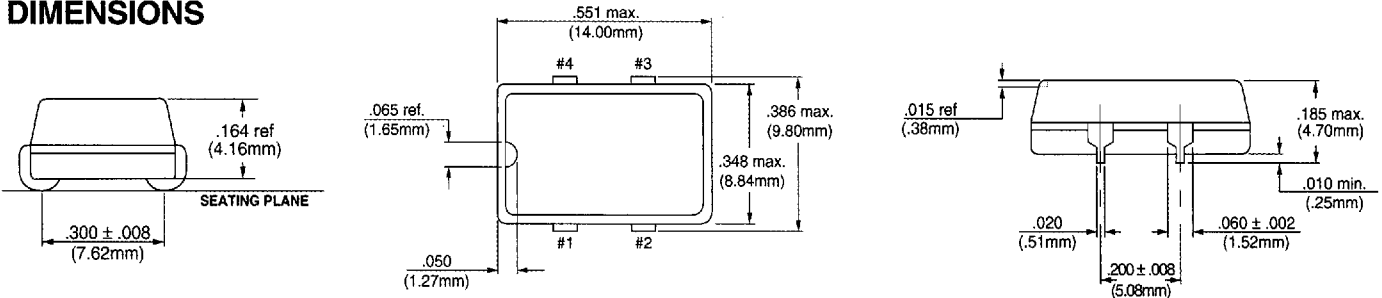
Classification	Code	Condition	TTL compatible o/p		CMOS compatible o/p	
Frequency	f_o		1.5-30MHz	30-72MHz	1.5-30MHz	30-72MHz
Stability	$\Delta f/f_o$	-10 to +70°C	± 100 ppm		± 100 ppm	
Temperature	T_{OP}	Operating	-40 to +85°C		-40 to +85°C	
	T_{STOR}	Storage	-55 to +125°C		-55 to +125°C	
Input Voltage	V_{DD}	Max rating	-0.3 to +7.0V		-0.3 to +7.0V	
		Operating	5.0V $\pm$ 0.5V		5.0V $\pm$ 0.5V	
Input Current	I_{DD}	Output disabled	25mA	35mA	25mA	35mA
		Output disabled	15mA	20mA	15mA	20mA
Duty Cycle	T_D	See waveform	45% to 55%		45% to 55%	
Output Voltage	V_{OH}	Minimum	+2.4V		V_{DD} -0.4V	
	V_{OL}	Maximum	+0.4V		+0.4V	
Output Load		Maximum	10TTL		50pF	
Input Voltage	V_{IH}	Minimum	+2.0V		+2.0V	
	V_{IL}	Maximum	+0.8V		+0.8V	
Rise Time	T_R	Maximum	5.0nS		7.0nS	
Fall Time	T_F	Maximum	5.0nS		7.0nS	
Start Up Time		Maximum	10mS		10mS	
Enable Time		Maximum	100nS		100nS	
Aging		Maximum	± 5 ppm/year		± 5 ppm/year	
IR Reflow		Maximum	245°C for 30sec		245°C for 30sec	

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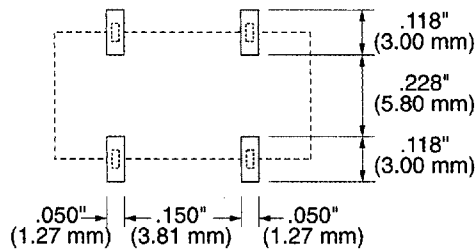
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DIMENSIONS



SOLDER PAD LAYOUT



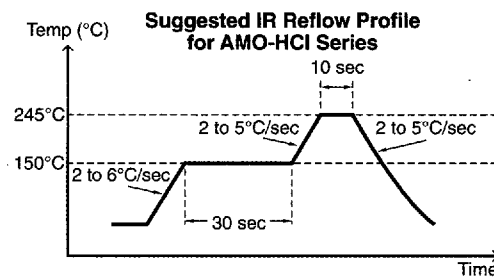
PIN CONNECTION

1	Output Enable or N.C.
2	GND
3	Output
4	V _{DD}

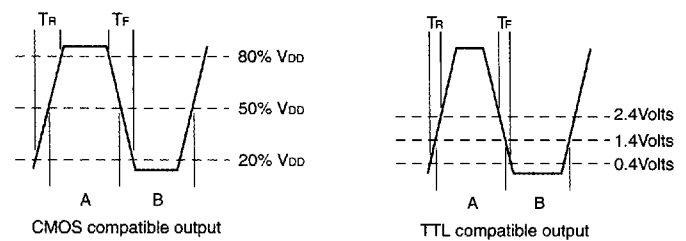
ENABLE/DISABLE FUNCTION CHART

Pin 1	Pin 8
High or Open	Oscillation
Low	High Impedance

SOLDER PROFILE

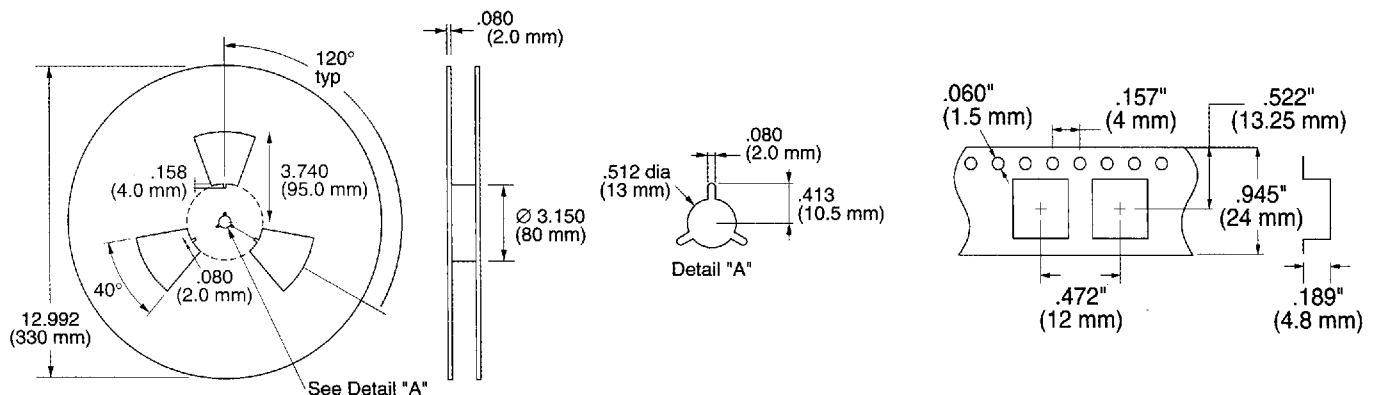


OUTPUT WAVEFORMS



$$\text{Duty cycle} = A/(A+B) \times 100\%$$

TAPE AND REEL DIMENSIONS (24 mm) 1000 pcs/reel



MAGAZINE 35 pcs/mag