

# FULL SIZE DIP LOW VOLTAGE 5.0V CRYSTAL CLOCK OSCILLATOR



20.2 x 12.6 x 5.08 mm

ACO

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable



RoHS  
Compliant

## FEATURES:

- Wide frequency range.
- HCMOS and TTL compatible.
- Tight symmetry option.
- Tristate Enable/Disable options.
- Fast rise and fall times.
- Anti-Static packaging tube.

## APPLICATIONS:

- Provide clock signals for microprocessors and digital circuits.
- High output drive capability applications.

## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes	
Frequency Range	0.320		200.000	MHz		
Operating Temperature	0		+70	°C	See options	
Storage Temperature	-55		+125	°C		
Overall Frequency Stability	-100		+100	ppm	See options	
Supply Voltage (Vdd)	4.5	5.0	5.5	V		
Input Current	32.000kHz ~ 24.000MHz		30	mA		
	24.001MHz ~ 49.999MHz		45			
	50.000MHz ~ 79.999MHz		70			
	80.000MHz ~ 200.000MHz		85			
Symmetry @ 1/2Vdd for HCMOS or @ 1.4Vdc for TTL	320.000kHz ~ 49.999MHz	45		55	%	See options
	50.000MHz ~ 200.000MHz	40		60		
Rise and Fall Time (Tr/Tf)	320.000kHz ~ 24.000MHz			10	ns	
	24.001MHz ~ 200.000MHz			5		
	24.001MHz ~ 200.000MHz (50pF output load)			10		
Output Load	32.000kHz ~ 79.999MHz			15	pF	See options
				10	TTL	
	80.000MHz ~ 200.000MHz			15	pF	
				5	TTL	
Output Voltage	VOH	0.9*Vdd			V	
	VOL			0.1*Vdd	V	
Tri-state Function (Option A)	VIH	2.2		----	V	"1" or Open: Oscillation
	VIL			0.8	V	"0": Output disable (Hi Z)
Output Enable time				4	ms	For option A only
Output Disable time				100	ns	For option A only

\* Overall frequency stability includes initial tolerance and temperature stability.

# FULL SIZE DIP LOW VOLTAGE 5.0V CRYSTAL CLOCK OSCILLATOR



ACO

Moisture Sensitivity Level (MSL) – This product is Hermetically



## PART IDENTIFICATION: (left blank if standard)

ACO- MHz------

Frequency in MHz
e.g. 24.576MHz
14.31818MHz
26.000MHz

Pin form
G: Gull Wing
G3: Gull Wing
Q25: 0.25" (6.35)
Q20: 0.20" (5.08)
Q15: 0.15" (3.81)

Operating Temp.
I: 0°C ~ +50°C
D: -10°C ~ +60°C
E: -20°C ~ +70°C
F: -30°C ~ +70°C
N: -30°C ~ +85°C
L: -40°C ~ +85°C

Freq. Stability
J*: ± 20 ppm
R: ± 25 ppm
K: ± 30 ppm
H: ± 35 ppm
C: ± 50 ppm

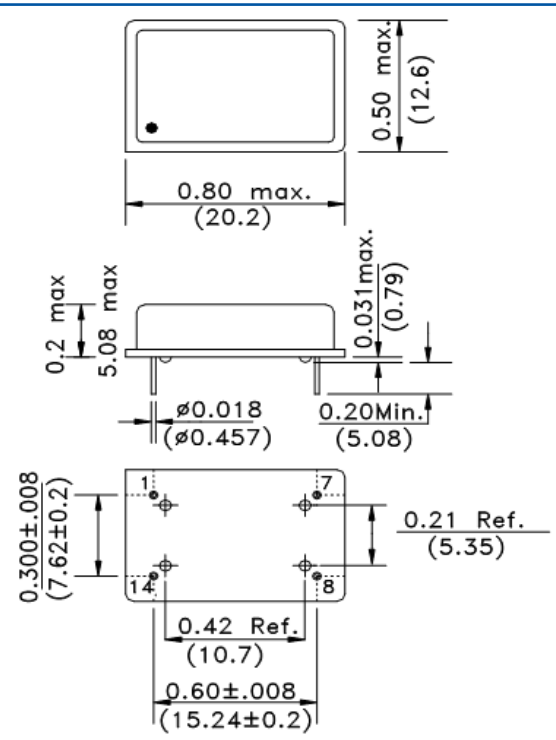
Symmetry
S: 45/55%
T1: 47.5/52.5%

Tri-state
A: Tri-state on pin 1

Output Load
50: 50pF (25≤F≤100MHz only)

\* Temp option I, D, E only

## OUTLINE DIMENSIONS:



The height of the package vary depending on the frequency >100MHz. Please contact ABRACON for the height information for F>100MHz.

Pin	Function
1	Tri-State/NC
7	Case GND
8	Output
14	Vdd

Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 7 and 14.

Dimensions: inches (mm)

Packaging  
25pcs /tube

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.



2 Faraday, Suite# B | Irvine | CA 92618 Revised: 01.20.16  
Ph. 949.546.8000 | Fax. 949.546.8001  
Visit [www.abracon.com](http://www.abracon.com) for Terms and Conditions of Sale