

ECN/PCN No.: 4617

For Manufacturer			
Product Description: Full Size DIP Low Voltage 5.0V Crystal clock oscillator	Abracon Part Number / Part Series: ACO series	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> ECN <input type="checkbox"/> EOL	<input checked="" type="checkbox"/> Series <input type="checkbox"/> Part Number
Affected Revision: I	New Revision: J	Application:	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety
Prior to Change: Internal Assembly: Plating on Resonator type			
After Change: Internal Assembly: Ceramic SMD mount type			
Cause/Reason for Change: Change of internal assembly type. No form, fit, or function change. Change of internal assembly type. No form, fit, or function change. No affect on external mechanical dimensions or electrical specifications.			
Change Plan			
Effective Date: 3/24/2023	Additional Remarks:		
Change Declaration:			
Issued Date: 3/24/2023	Issued By: <i>Arturo Longoria</i>	Issued Department: Engineering	
Approval: <i>Thomas Culhane</i> Engineering Director	Approval: <i>Reuben Quintanilla</i> Quality Director	Approval: <i>Ying Huang</i> Purchasing Director	
For Abracon EOL only			
Last Time Buy (if applicable): N/A	Alternate Part Number / Part Series: N/A		
Additional Approval:	Additional Approval:	Additional Approval:	
Customer Approval (If Applicable)			
Qualification Status: <div style="text-align: center;"> <input type="checkbox"/> Approved <input type="checkbox"/> Not accepted </div> Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.			
Customer Part Number:		Customer Project:	
Company Name:	Company Representative:	Representative Signature:	
Customer Remarks:			

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.

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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

* Temp option I, D, E only

Symmetry

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

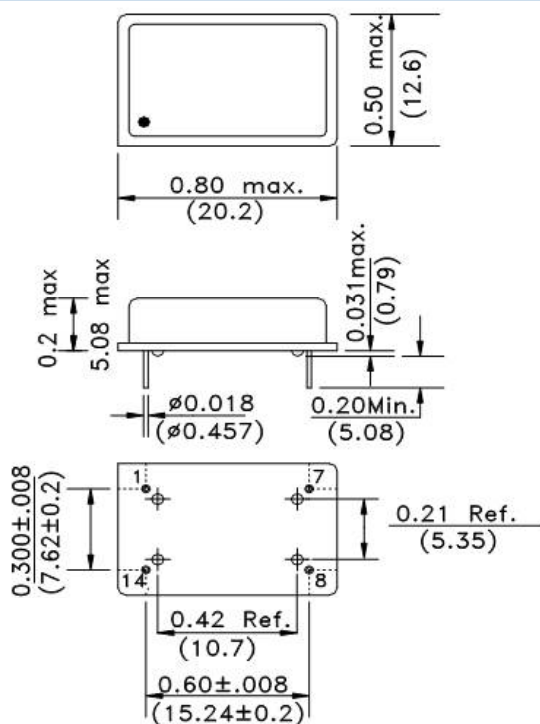
Tri-state

A: Tri-state on pin 1

Output Load

50: 50pF
(25≤F≤100MHz only)

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

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ABRACON IS
ISO9001:2008
CERTIFIED



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