

5Vdc • HCMOS/ TTL COMPATIBLE FULL-SIZE DIP CRYSTAL CLOCK OSCILLATORS



20.2 x 12.6 x 5.08 mm

ACO



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	
ABRACON P/N	ACO Series
Frequency:	320kHz to 200MHz
Operating temperature:	- 0°C to + 70°C (see options)
Storage temperature:	- 55°C to + 125°C
Frequency Stability:	± 100ppm max. (see option)
Supply voltage (Vdd):	5.0Vdc ± 10%
Symmetry at 1/2Vdd for HCMOS or at 1.4Vdc for TTL	45/55% max. for F < 50MHz 40/60% max. for F ≥ 50MHz (see options)
Rise and Fall Times(Tr/Tf):	10 ns max. for F ≤ 24MHz 5 ns max. for F > 24MHz, 10 ns max. for F > 24MHz (50pF output load)
Output load:	10 TTL or 15 pF for F < 80MHz 5 TTL or 15 pF for F ≥ 80MHz
Output Voltage:	VOH = 0.9*Vdd min. VOL = 0.1*Vdd max.
Tri State Function (option A):	"1" (VIH ≥ 2.2 Vdc) or open: Oscillation "0" (VIL < 0.8V): Hi Z
Start-up-time:	10 ms max
Opnt Disable/ Enable time:	100 ns max. (for Option "-A" ONLY)
Input current:	30 mA max. for F ≤ 24 MHz 45 mA max. for F < 50 MHz 70 mA max. for F < 80 MHz 85 mA max. for F ≥ 80 MHz

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ACO - Frequency - - - - - - - -

Operating Tem. Range	
I	0°C to +50°C
D	-10°C to +60°C
E	-20°C to +70°C
F	-30°C to +70°C
N	-30°C to +85°C
L	-40°C to +85°C

Symmetry	
S	45/55 %
T1	47.5/52.5 %

Value Added	
G	Gull Wing
G3	Gull Wing
Q30	0.30(7.62)
Q25	0.25(6.35)
Q20	0.20(5.08)
Q15	0.15(3.81)
Q10	0.10(2.54)

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

Tristate	
A	Tristate Function

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

* Temp orption I, D, and E only.

ABRACON IS
ISO9001:2008
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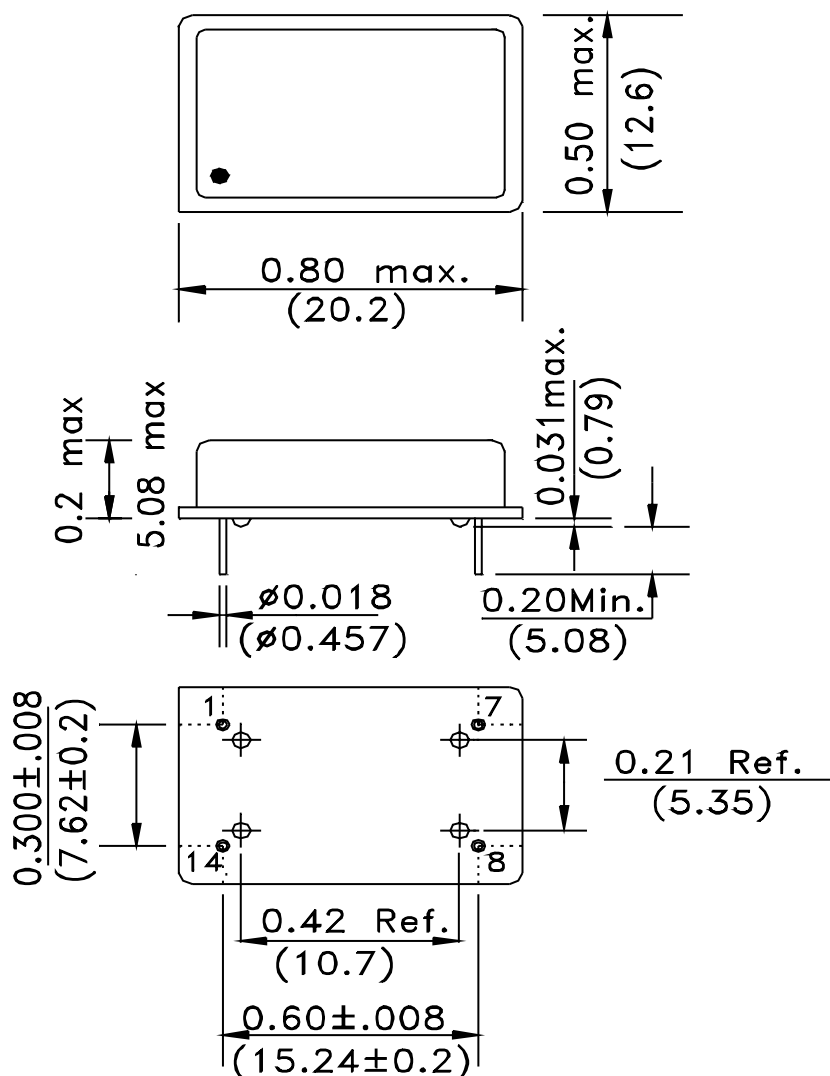
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OUTLINE DRAWING:



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

PIN	FUNCTION
1	NC or Tristate
7	GND/Case
8	Output
14	VDD

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

Dimensions: Inches (mm)

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