

# HALF-SIZE DIP LOW VOLTAGE 5.0V CRYSTAL CLOCK OSCILLATOR

ACH Series



**RoHS**  
Compliant



12.7 x 12.7 x 5.6mm

## FEATURES:

- Wide frequency range.
- HCMOS and TTL compatible.
- Tight symmetry option.
- Tri-state Enable / Disable function.

## APPLICATIONS:

- Microprocessors.
- Digital circuit.

## STANDARD SPECIFICATIONS:

| PARAMETERS                   |                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------|
| ABRACON P/N                  | ACH Series                                                                                                       |
| Frequency:                   | 32.768kHz to 200MHz                                                                                              |
| Operating temperature:       | 0°C to +70°C                                                                                                     |
| Storage temperature:         | - 55°C to + 125°C                                                                                                |
| Frequency Stability:         | ± 100ppm max. (see options)                                                                                      |
| Supply voltage (Vdd):        | 5.0Vdc ± 10%                                                                                                     |
| Symmetry:                    | 45/55% max. for F<50MHz<br>40/60% max. for F>=50MHz (see options)                                                |
| Rise and Fall Times(Tr/Tf):  | 40ns max. for 32.768kHz ≤ F < 2MHz<br>10ns max. for 2MHz ≤ F ≤ 24MHz<br>5ns max. for F>24MHz                     |
| Output load:                 | 10 TTL or 15 pF for F<80MHz<br>5 TTL or 15 pF for F>=80MHz                                                       |
| Output Voltage:              | VOH = 0.9 * VDD min.<br>VOL = 0.1*VDD max.                                                                       |
| Tri-state Function:          | "1" (VIH ≥ 2.2 Vdc) or open: Oscillation<br>"0" (VIL < 0.8V): Hi Z                                               |
| Start-up-time:               | 10 ms max                                                                                                        |
| Output Disable/ Enable time: | 100 ns max. (for Option "-A" ONLY)                                                                               |
| Input current:               | 30 mA max. for F < 24 MHz<br>45 mA max. for F < 50 MHz<br>70 mA max. for F < 80 MHz<br>85 mA max. for F ≥ 24 MHz |

## OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ACH - Frequency - □ - □ - □ - □ - □ - □ - □

| Temperature Options |                |
|---------------------|----------------|
| 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 |

| Freq. Stability |              |
|-----------------|--------------|
| Y               | ±10 ppm max. |
| J               | ±20 ppm max. |
| R               | ±25 ppm max. |
| K               | ±30 ppm max. |
| H               | ±35 ppm max. |
| C               | ±50 ppm max. |

| Symmetry Options |                     |
|------------------|---------------------|
| S                | 45/55% @ 1/2Vdd     |
| T                | 47.5/52.5% @ 1/2Vdc |
| S1               | 45/55% @ 1.4Vdc     |
| T1               | 45.5/52.5% @ 1.4Vdc |

| Tristate Enable Funct |                   |
|-----------------------|-------------------|
| A                     | Tristate Function |

| 50pF Option |      |
|-------------|------|
| 50          | 50pF |

| Packaging |      |
|-----------|------|
| Blank     | Tube |
| TY        | Tray |

| Value Added Option |                  |
|--------------------|------------------|
| G                  | Gull Wing        |
| G2                 | Gull Wing        |
| GHT                | Gull Wing Reflow |
| 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)       |



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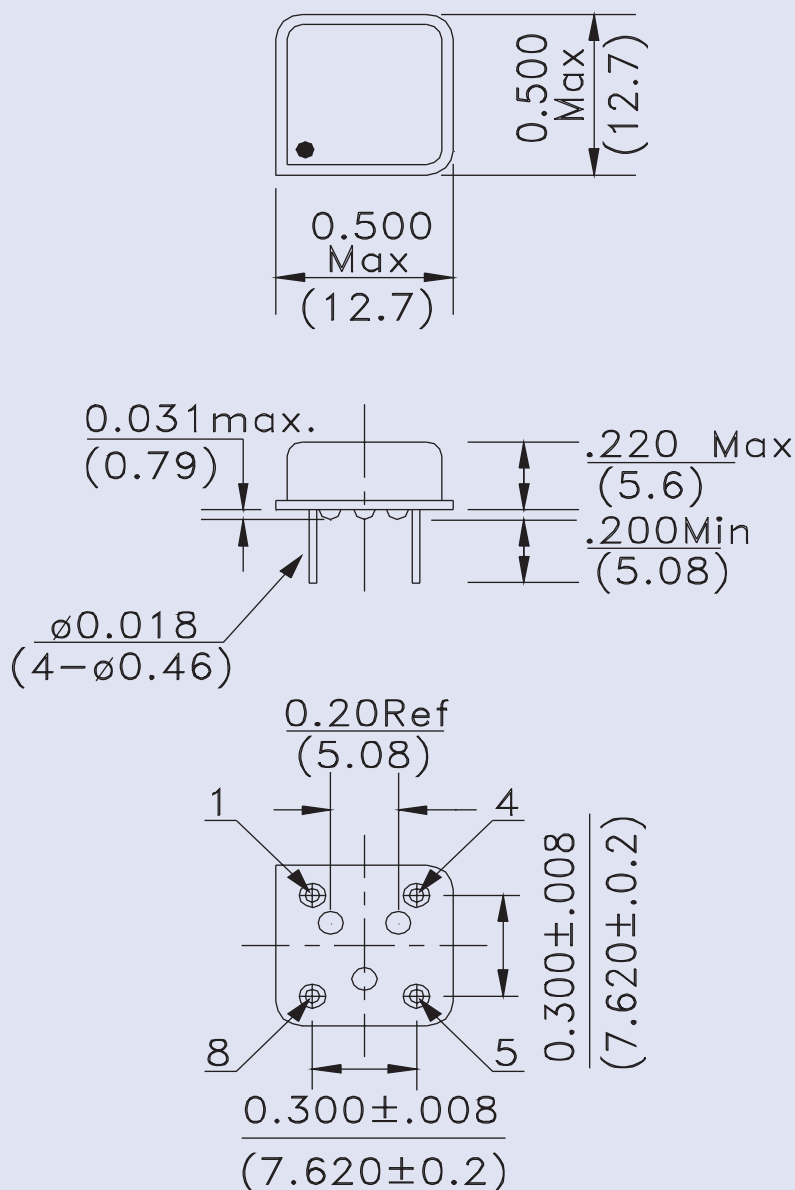


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12.7 x 12.7 x 5.6mm

## OUTLINE DIMENSIONS:



| PIN | FUNCTION                |
|-----|-------------------------|
| 1   | NC or Tri-state Enable/ |
| 4   | GND/Case                |
| 5   | Output                  |
| 8   | VDD                     |

Dimensions: inches (mm)

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