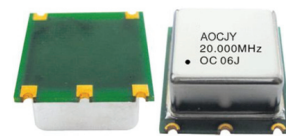


SMD OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY Series



RoHS
Compliant



25.4 x 22.1 x 12.7 mm

FEATURES:

- 25.4 x 22.1 x 12.7 mm True SMT- RoHS Compliant Reflow-able Package
- SC-Cut, High "Q" resonator based design
- Either Sinewave or CMOS RF output
- Available with ± 30 ppb over -40°C to $+75^{\circ}\text{C}$ operating temperature Range
- Tighter Stabilities to ± 5.0 ppb over 0°C to $+50^{\circ}\text{C}$ also available
- Exceptional long-term Aging of ± 500 ppb over 10-Year Product Life
- Excellent close-in phase noise (-130 dBc/Hz Typical @100 Hz offset from 10MHz carrier)

APPLICATIONS:

- Cellular Infrastructure
- Radar Systems
- Test & Measurement Equipment
- GPS Tracking with precision hold-over accuracy
- WiMax / WLAN

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N:	AOCJY Series
Frequency range:	10.00 MHz to 100.00 MHz CMOS Output 10.00 MHz to 100.00 MHz Sinewave Output (please contact Abracon for > 80.00MHz resonant frequency)
Standard Available frequencies:	10.00, 12.80, 13.00, 16.384, 20.00, 26.00, 38.40, 38.88, 40.00, 100.00 MHz
Operating temperature:	0°C to $+50^{\circ}\text{C}$ (see options)
Frequency Stability vs. Temperature 0°C to $+50^{\circ}\text{C}$: -20°C to $+70^{\circ}\text{C}$: -40°C to $+75^{\circ}\text{C}$:	± 5.00 ppb max. Standard ± 10.00 ppb max. Option "E" ± 30.00 ppb max. Option "F"
Frequency Stability vs. Supply Voltage Voltage ($\pm 5\%$ Vdd): Warm-up (@ 25°C):	± 20 ppb Max. $\leq \pm 100$ ppb Max. (in < _3 minutes @ $+25^{\circ}\text{C}$)
Aging: Daily aging (after 30 days): Yearly aging: 10-Years aging:	± 1.0 ppb ± 100 ppb ± 500 ppb
Supply voltage (Vdd):	3.3Vdc $\pm 5\%$ (see options)
Reference voltage(Vref): {Available as an output to facilitate oscillator tuning}	$+2.80\text{V} \pm 0.20\text{V}$ (For Vdd= $+3.3\text{V}$ version) $+4.50\text{V} \pm 0.20\text{V}$ (For Vdd= $+5.0\text{V}$ version)
Power @ turn on:	3.60 Watts Max.
Steady state @ 25°C :	1.40 Watt Max.
Output load:	15pF (for LVCMOS output) 50 Ω (for Sinewave output)
Output Voltage (LVCMOS):	VOH = $0.9 * \text{Vdd min.}$ VOL = $0.1 * \text{Vdd max.}$
Output Voltage (Sinewave):	2.0 dBm min.
Rise & Fall Times (LVCMOS):	5ns max.
Duty Cycle (LVCMOS):	45%/55% Typ.
Control voltage range:	0 to Vdd
Frequency pull range:	± 0.70 ppm Min.
Frequency pull slope:	Positive
Center control voltage:	Vdd/2 ± 0.5 Volts
Control voltage port impedance:	10k Ω min.
Spurious reponse:	-70dBc
Phase noise (10MHz carrier):	-90dBc Typ. (@ 1 Hz) -100dBc Typ. (@10 Hz) -130dBc Typ. (@100 Hz) -140dBc Typ. (@1,000 Hz) -150dBc Typ. (@10,000 Hz)

ABRACON IS
ISO9001:2008
CERTIFIED



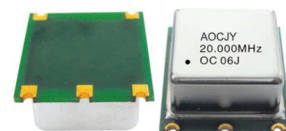
Visit www.abracon.com for Terms & Conditions of Sale **Revised: 12.01.10**
30332 Esperanza, Rancho Santa Margarita, California 92688
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25.4 x 22.1 x 12.7 mm

OPTIONS AND PART IDENTIFICATION (Left blank if standard)

AOCJY - - MHz -

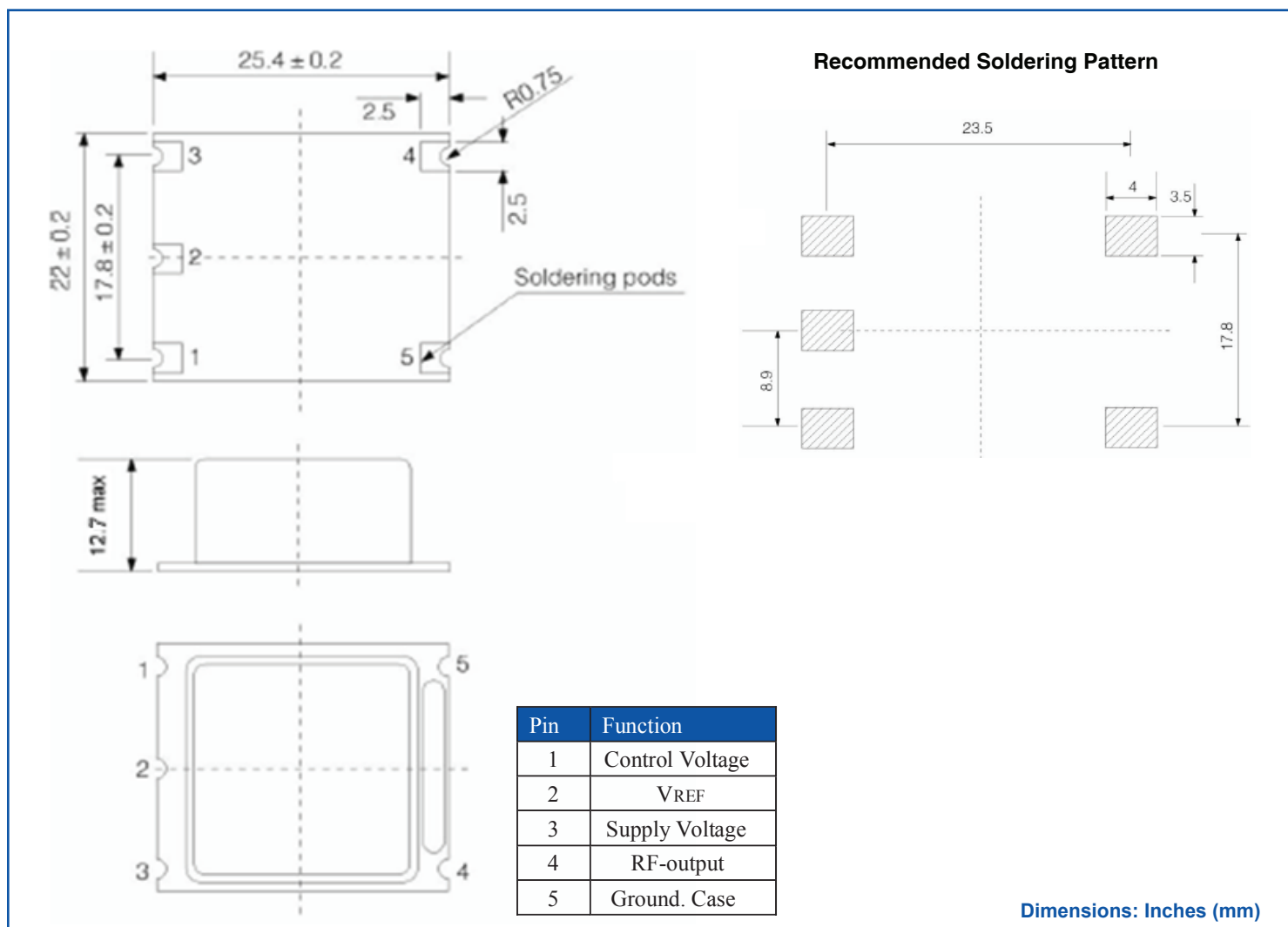
Vdd (V)
Blank: 3.3±5%
A: 5.0±5%

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

Operating Temp.
Blank: ± 5.0 ppb/0°C ~ +50°C
E: ± 10.0 ppb/-20°C ~ +70°C
F: ± 30.0 ppb/-40°C ~ +75°C

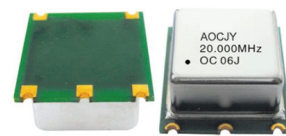
RF Output
Blank: CMOS
SW: Sinewave

OUTLINE DIMENSIONS



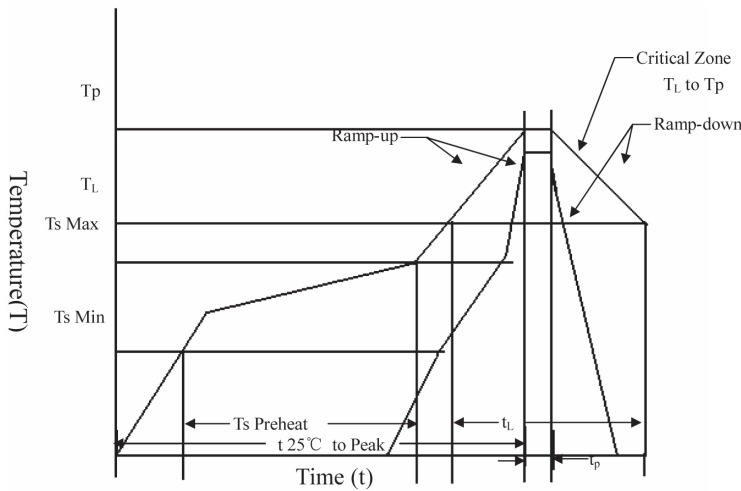
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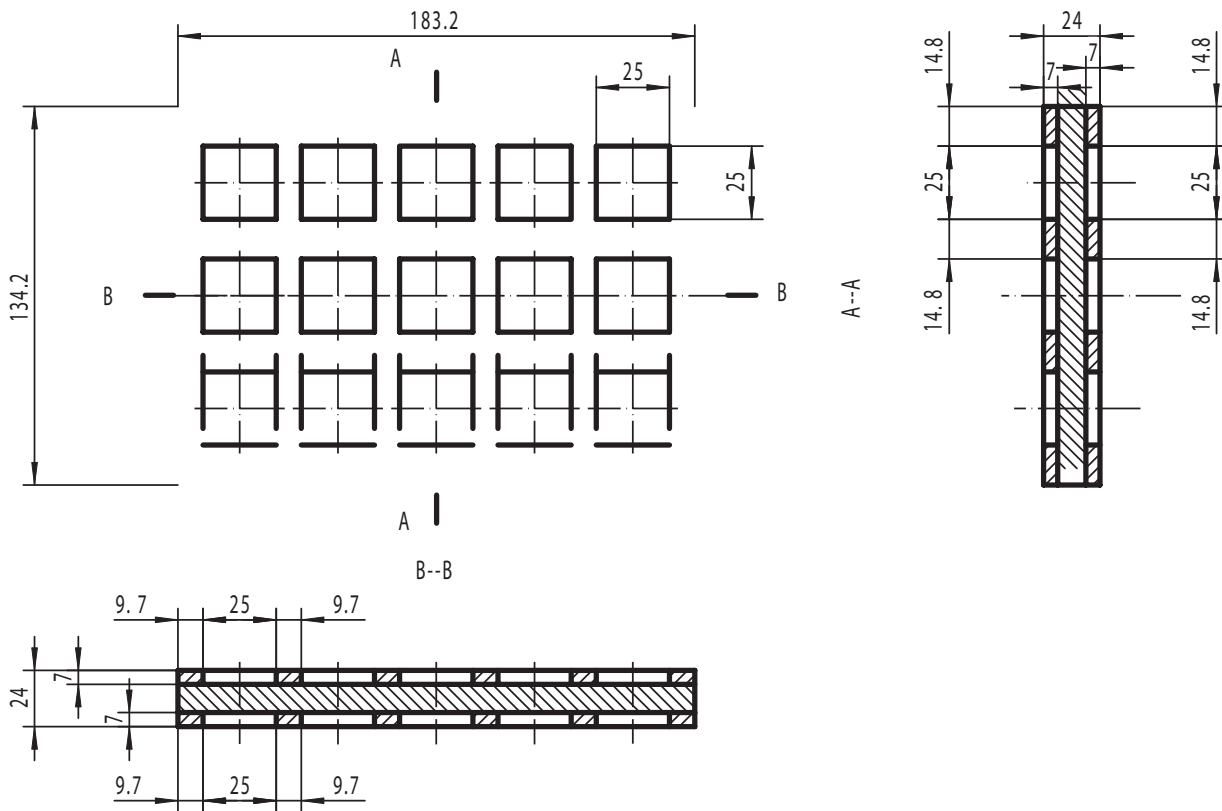
25.4 x 22.1 x 12.7 mm

REFLOW PROFILE:



T_S max to T_L (Ramp-up Rate)	3°C/second max.
Preheat	
Temperature Min. (T_S Min.)	150°C
Temperature Typical (T_S Typ.)	175°C
Temperature Max. (T_S Max.)	200°C
Time (t_s)	60 ~ 180 seconds
Ramp-up rate (T_L to T_p)	3°C/second max.
Time Maintained Above:	
--Temperature (T_L)/Time (T_L)	217°C/60 ~ 150 seconds
Peak Temperature (T_p)	250°C max. for 10 seconds
Target Peak Temperature (T_p Target)	250°C +0/-5°C
Time within 5°C of actual peak (t_p)	20 ~ 40 seconds
Ramp-down Rate	6°C/second max.
Tune 25°C to Peak Temperature (t)	8 minutes max.

PACKAGING: 15 pcs/tray



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.

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