

OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY5 Series



**RoHS
Compliant**



36.1x 27.2 x 13mm

FEATURES:

- 36.1x 27.2 x 13mm Leaded- RoHS Compliant Reflow-able Package
- SC-Cut, High “Q” resonator based design
- Sinewave output into 50Ω
- Available with ± 50 ppb accuracy over -55°C to +85°C temperature range
- Exceptional long-term Aging of ±500 ppb max. over 10-Year Product Life
- Excellent close-in phase noise (-145 dBc/Hz Typical @1kHz offset; 10MHz carrier)

APPLICATIONS:

- COTS Military & Industrial Radios & Timing Circuits
- Cellular Infrastructure
- Radar Systems
- Test & Measurement Equipment
- GPS Tracking with precision hold-over accuracy
- WiMax / WLAN

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
RF Output					
Frequency		10.00		MHz	
Standard Available Frequencies	10.00 MHz				
Waveform					
Sinewave					
Peak Power		7.00		dBm	
Output Load		50		Ω	
Short Term Stability					
		1x10 ⁻¹⁰		/second	Alan Variance
Operating Temperature Range					
	-55		+85	°C	
Frequency Stability					
-55° C to +85°C			±50.00	ppb	
As received frequency @ 25°C ±3°C			±100.00	ppb	@ Vc=2.50Volts
Frequency Stability vs. Supply Voltage (Vdd ± 5%)			±1.00	ppb	
Frequency Stability vs. Load Variation (± 10%)			±1.00	ppb	
Warm-Up @ 25 °C			±100.00	ppb	In ≤ 3-minutes
Power Consumption @ turn on			6.00	Watts	Over operating temperature range
Power Consumption Steady State			2.00	Watts	@ 25°C ±3°C
Power Consumption Steady State			5.00	Watts	Over operating temperature range (-55°C to +85°C)
Supply Voltage (Vdd)	11.40	12.00	12.60	Volts	
Storage Temperature Range	-55		+100	°C	
Aging					
Daily			±1.0	ppb	
First Year			±100	ppb	
10-Years			±500	ppb	
Spectral Content					
Spurious Response			-70	dBc	
Harmonics			-30	dBc	

ABRACON IS
ISO9001:2008
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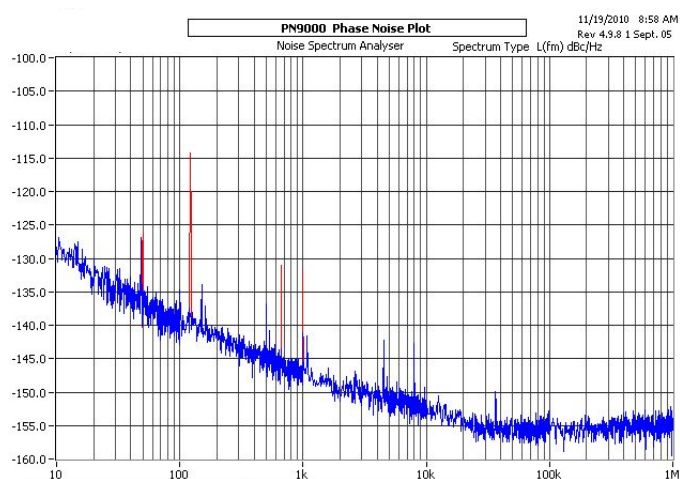


36.1x 27.2 x 13mm

➤ **STANDARD SPECIFICATIONS - continued.**

Parameters	Minimum	Typical	Maximum	Units	Notes
Phase Noise (10MHz Carrier) @ 12V					
@ 1 Hz offset			-90	dBc	
@ 10 Hz offset			-120	dBc	
@ 100 Hz offset			-140	dBc	
@ 1,000 Hz offset			-145	dBc	
@ 10,000 Hz offset			-150	dBc	
@ 100,000 Hz offset			-152	dBc	
Electrical Frequency Adjustment					
Control Voltage Range (Vc)	0.0		5.00	Volts	
Frequency Pull Range	±0.500			ppm	
Frequency Pull Slope		Positive			
Control Voltage Port Impedance	100			kΩ	
Center Control Voltage	2.40	2.50	2.60	Volts	
Control Port Linearity			±10	%	
Reference Voltage (Vdd=12.0V)	4.90	5.00	5.10	Volts	Output @ Pin#2
Storage Temperature	-40		+100	° C	

➤ **TYPICAL PHASE NOISE PERFORMANCE @ 10MHZ CARRIER**



➤ **OPTIONS AND PART IDENTIFICATION (Left blank if standard)**

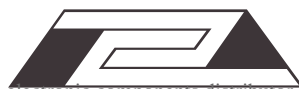
AOCJY5 - MHz

Frequency in MHz
Such as; 10.000 MHz

By default, AOCJY5 OCXO is constructed with the following key specifications:

- i) **Supply Voltage** = **12.00 Volts**
- ii) **Operating Temperature Range** = **-55°C to +85°C**
- iii) **RF Output** = **Pure Sinewave into 50Ω**

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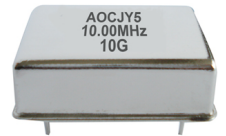
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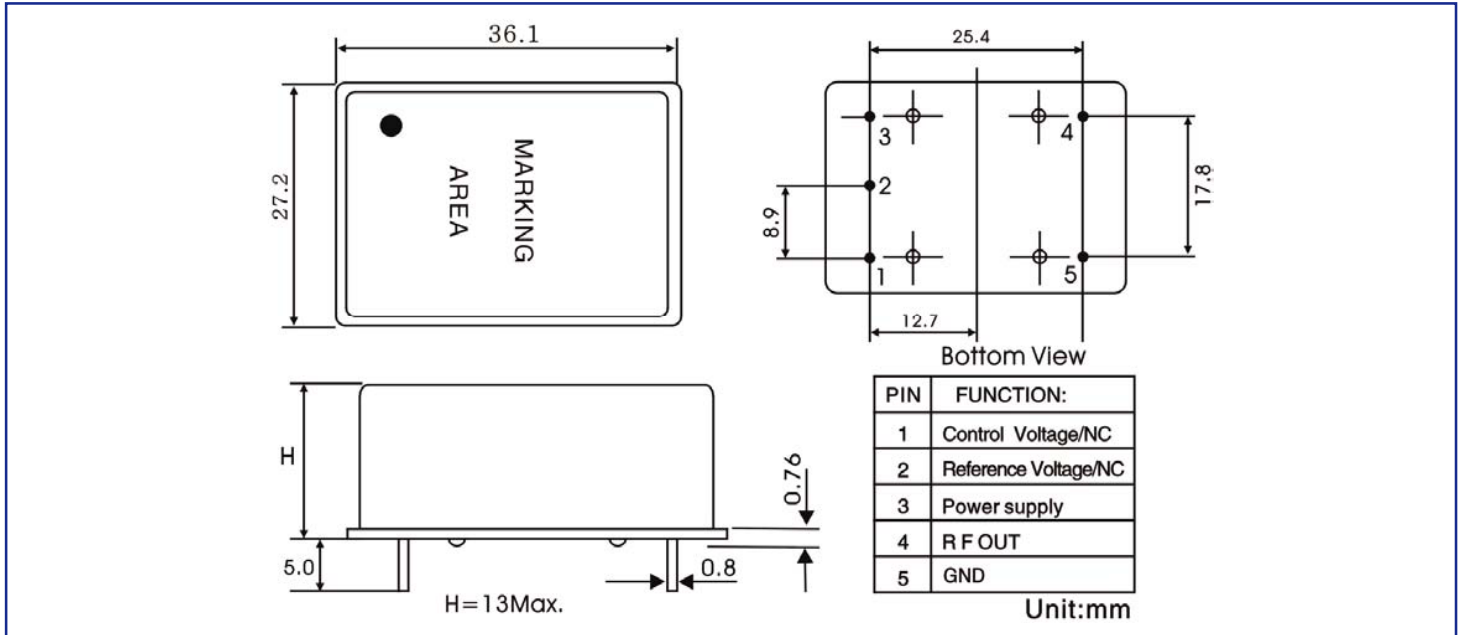


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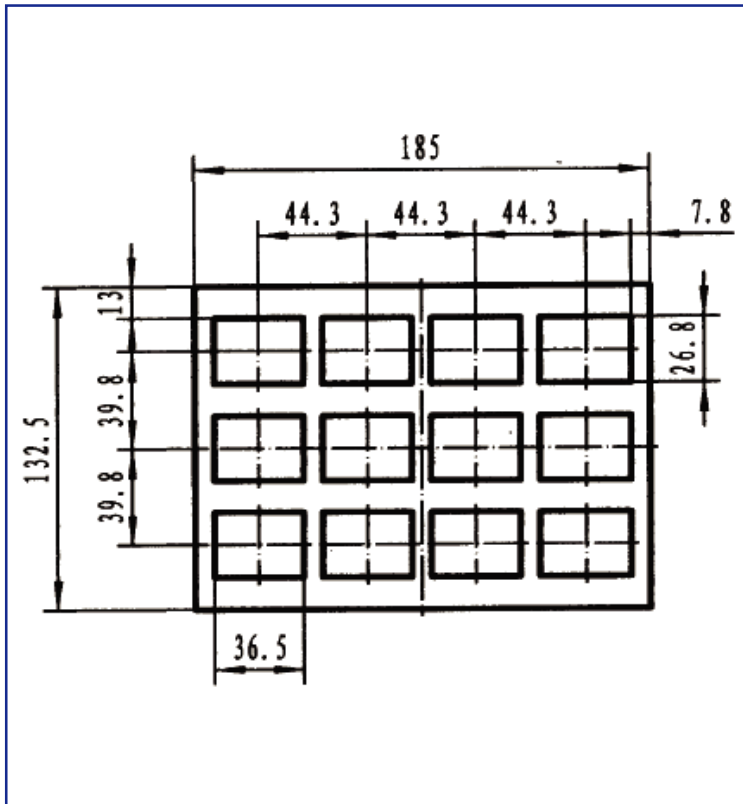


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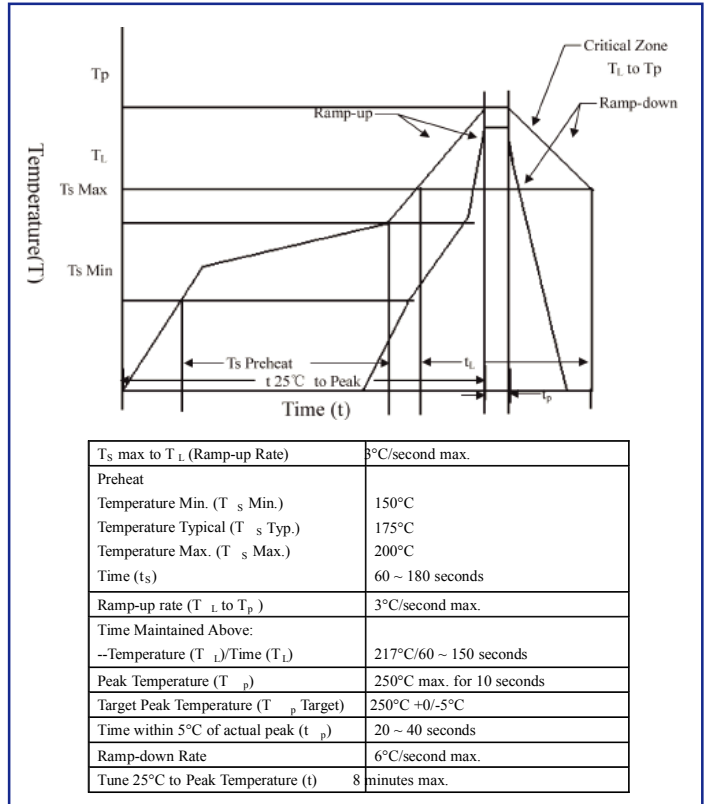
OUTLINE DIMENSIONS



PACKAGING 2 pcs/tray

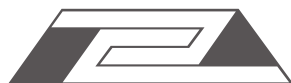


REFLOW PROFILE:



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-dependent 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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