OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY5 Series

36.1x 27.2 x 13mm

Pb RoHS Compliant

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	ºC	
Frequency Stability					
-55º C to +85ºC			±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 ºC			±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	ºC	
Aging					
Daily			±1.0	ppb	
First Year			±100	ppb	
10-Years			±500	ppb	
Spectral Content					
Spurious Response			-70	dBc	
Harmonics			-30	dBc	

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tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

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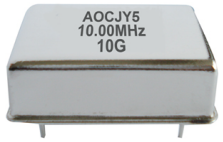
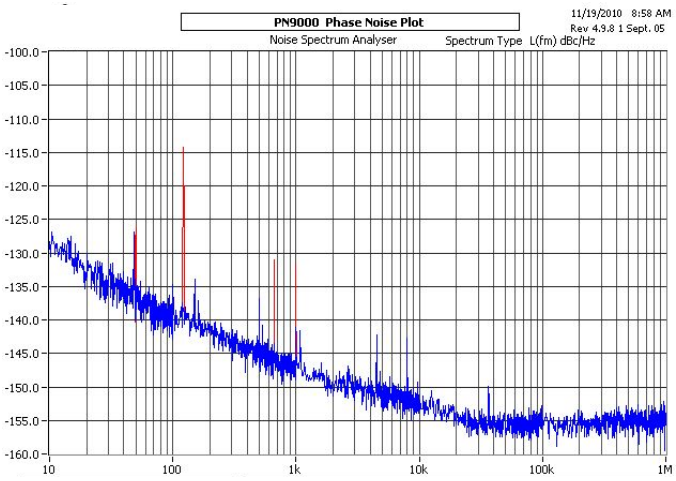


36.1x 27.2 x 13mm

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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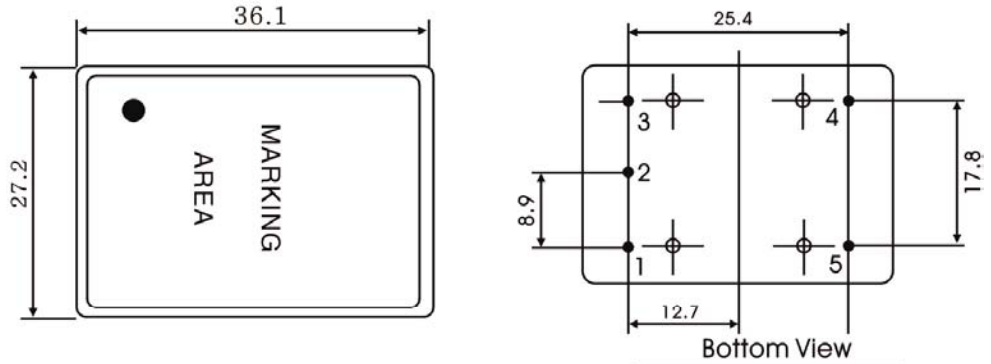
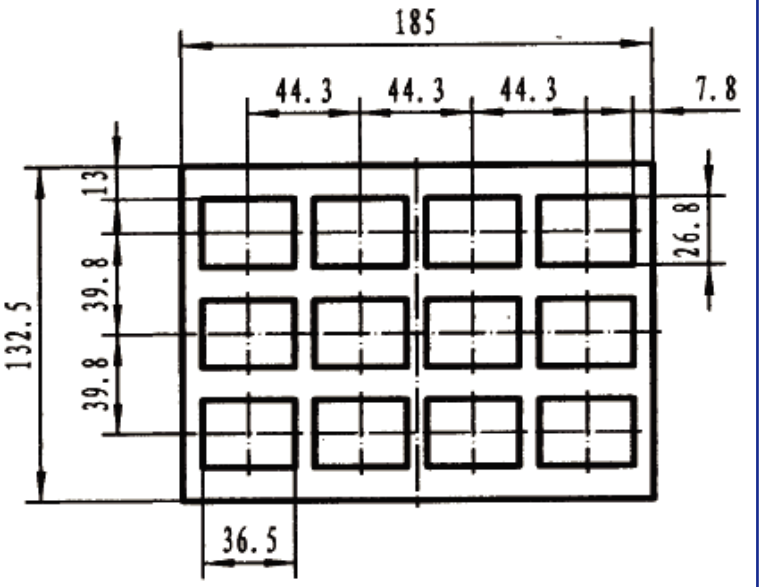
OUTLINE DIMENSIONS



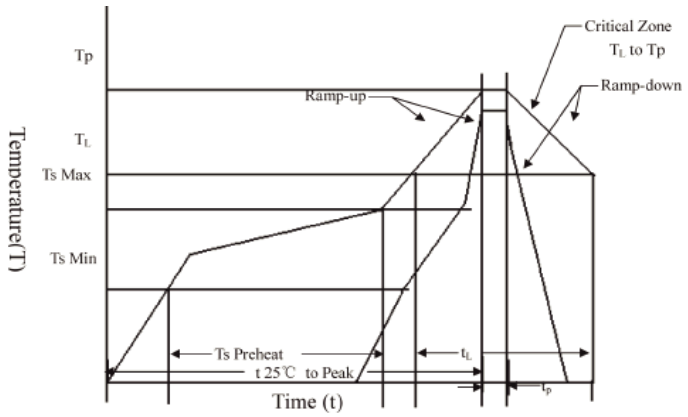
PIN	FUNCTION:
1	Control Voltage/NC
2	Reference Voltage/NC
3	Power supply
4	R F OUT
5	GND

Unit:mm

PACKAGING 22 pcs/tray



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.