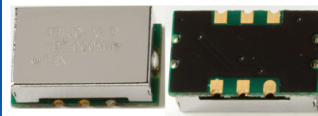




**THE DATASHEET OF
ABLJO-187.500MHZ-T**



LOW JITTER CRYSTAL OSCILLATOR



14.3 X 8.7 X 5.5 mm

ABLJO

RoHS/RoHS II Compliant and Pb free



FEATURES:

- High "Q", 3rd Overtone Crystal Technology
- Ultra Low Jitter performance 0.10 ps Max. (12kHz to 20MHz)
- Standard LVC MOS RF Output
- Wide Operating Temperature (-40°C to +85°C) standard
- ±40 ppm Max. All inclusive Stability (including Aging) over 10-years
- (17) Standard Frequencies between 80MHz & 200MHz
- 9x14mm RoHS Compliant SMT package

APPLICATIONS:

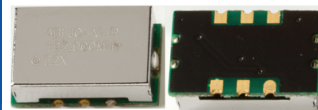
- Avionics
- COTS - Military communications
- Low Phase Noise Signal Sources
- High Definition TV
- Test & Measurement
- Ultra Low Jitter RF Communication Circuitry

STANDARD SPECIFICATIONS

Parameters	Minimum	Typical	Maximum	Units	Notes
RF Output Frequency Range	80.00		200.00	MHz	
Standard Available Frequencies	80.00MHz, 81.920MHz, 92.160MHz, 96MHz, 98.304MHz, 100MHz, 106.250MHz, 120MHz, 122.880MHz, 125MHz, 150MHz, 155.520MHz, 156.250MHz, 160MHz, 184.32MHz, 187.5MHz, and 200MHz				
Supply Voltage	3.135	3.300	3.465	Volts	
Current Drain					
80MHz ~ 99.999MHz			25.00	mA	
100MHz ~ 149.999MHz			30.00	mA	
150MHz ~ 200MHz			40.00	mA	
Waveform	LVC MOS				
V _{OH}	0.9*V _{dd}			Volts	
V _{OL}			0.1*V _{dd}	Volts	
Symmetry	45	50	55	%	
Rise & Fall Times			3.0	ns	
Operating Temperature Range	-40		+85	°C	
Frequency Stability					
Over (-40° C to +85°C)			±25.00	ppm	
ALL effects, including Aging			±40.00	ppm	
Storage Temperature Range	-40		+85	°C	
Aging					
First Year			±2.00	ppm	
5-Years			±5.00	ppm	
10-Years			±7.00	ppm	
Phase Noise (156.25MHz Carrier)					V _{dd} =3.3V
@ 10 Hz offset		-73		dBc/Hz	
@ 100 Hz offset		-107		dBc/Hz	
@ 1,000 Hz offset		-134		dBc/Hz	
@ 10,000 Hz offset		-148	-140	dBc/Hz	
@ 100,000 Hz offset		-154	-150	dBc/Hz	
@ 1,000,000 Hz offset		-158	-150	dBc/Hz	
Integrated RMS Phase Jitter (12kHz ~ 20MHz BW)		75	100	Femto Seconds	0.10 ps Max.



LOW JITTER CRYSTAL OSCILLATOR



14.3 X 8.7 X 5.5 mm

ABLJO

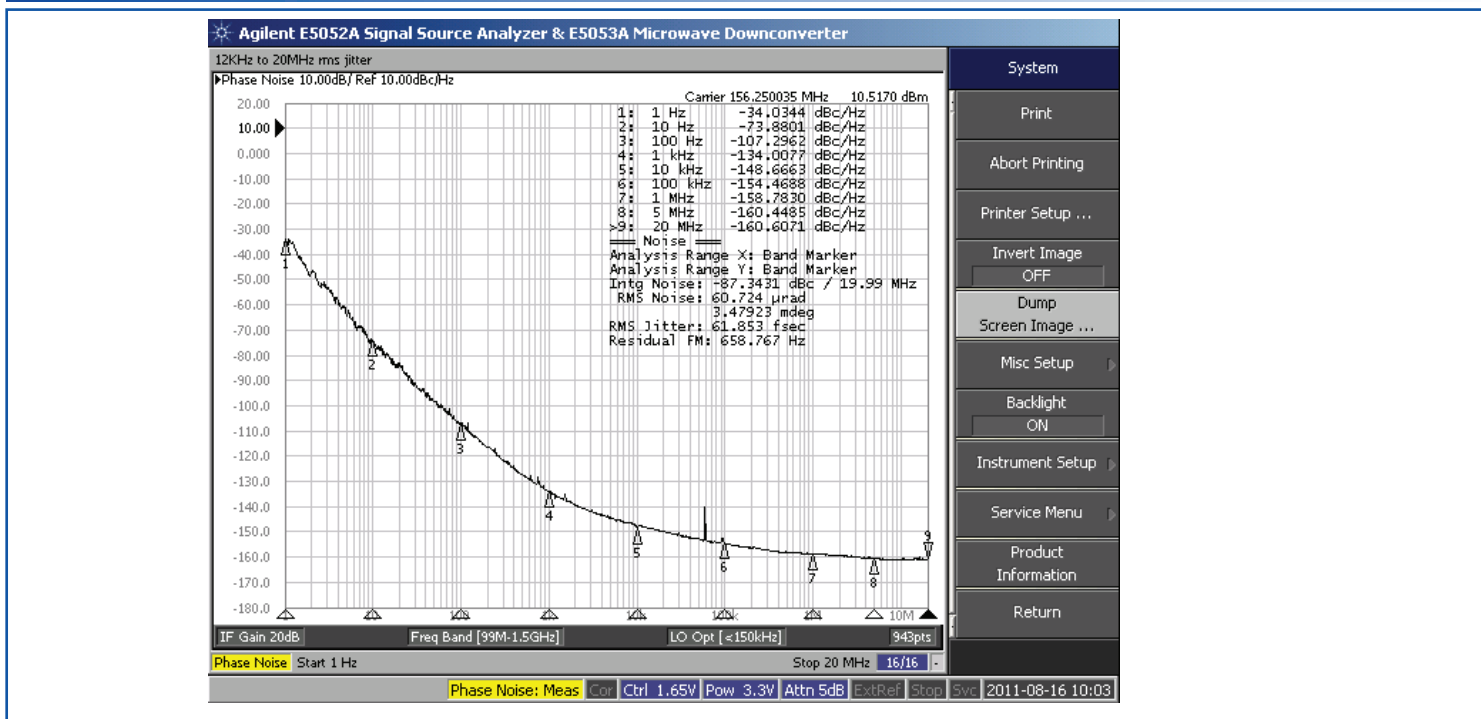
RoHS/RoHS II Compliant and Pb free



STANDARD SPECIFICATIONS - continued

Parameters	Minimum	Typical	Maximum	Units	Notes
Electrical Frequency Adjustment					
Control Voltage Range (Vc)	0.0		3.30	Volts	
Frequency Pull Range	±45.00			ppm	
Frequency Pull Slope		Positive			
Control Voltage Port Impedance	10			kΩ	
Center Control Voltage	1.45	1.65	1.85	Volts	
Control Port Linearity			±10	%	

TYPICAL PHASE NOISE PERFORMANCE @ 156.25MHZ CARRIER



OPTIONS AND PART IDENTIFICATION:

ABLJO - [] - Frequency (MHz) - [] []

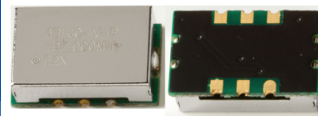
Frequency Pull Option

Blank	XO (Fixed Frequency)
V	VCXO (±45 ppm min.)

Tape & Reel Options

Blank	< 250 units on cut tape
T	1,000 units per reel
T2	250 units per reel

LOW JITTER CRYSTAL OSCILLATOR



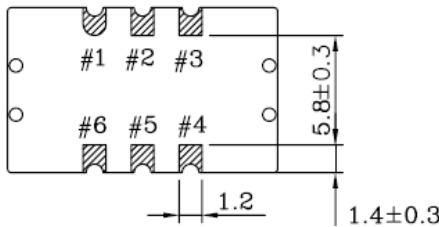
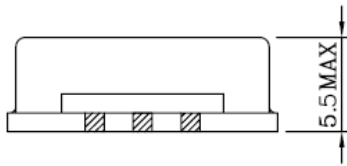
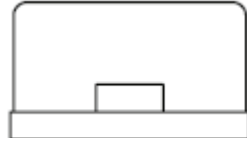
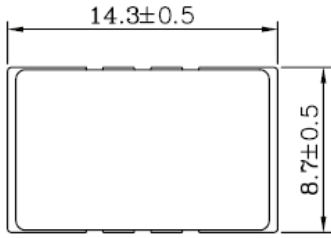
14.3 X 8.7 X 5.5 mm

ABLJO

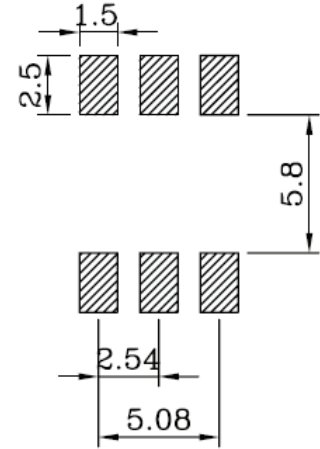
RoHS/RoHS II Compliant and Pb free



OUTLINE DIMENSIONS:



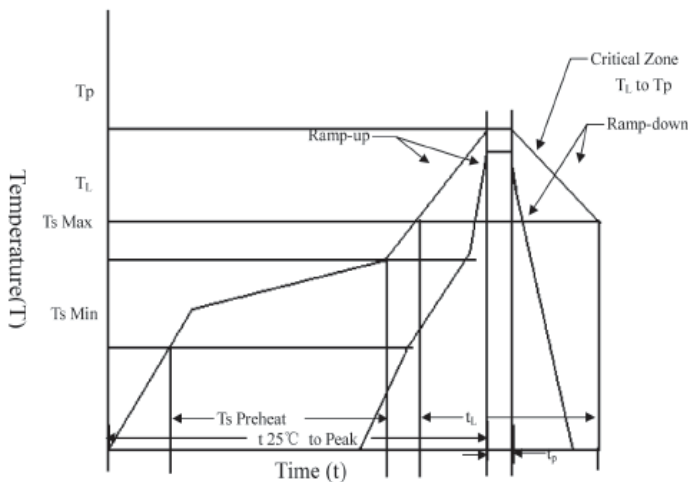
Recommended Soldering Pattern



Pin	Function	
	VCXO	XO
1	Vc	N.C.
2	N.C.	
3	GND	
4	Output	
5	N.C.	
6	Vdd	

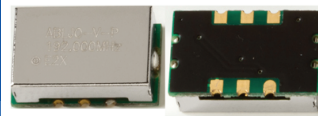
Dimensions: inches (mm)

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.

LOW JITTER CRYSTAL OSCILLATOR



14.3 X 8.7 X 5.5 mm

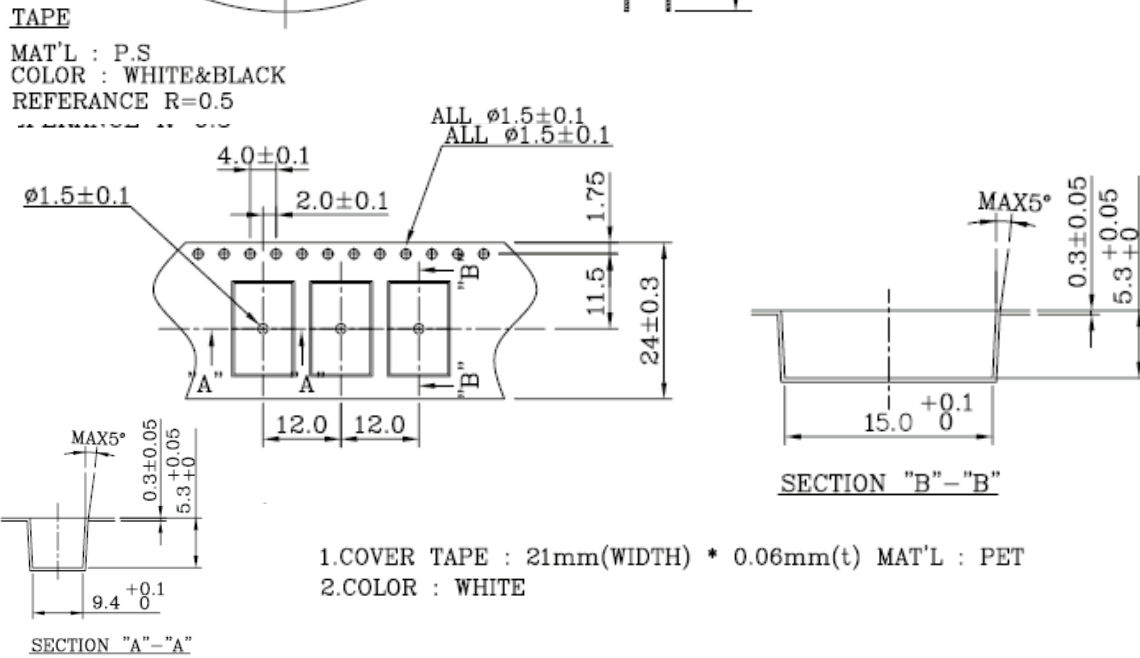
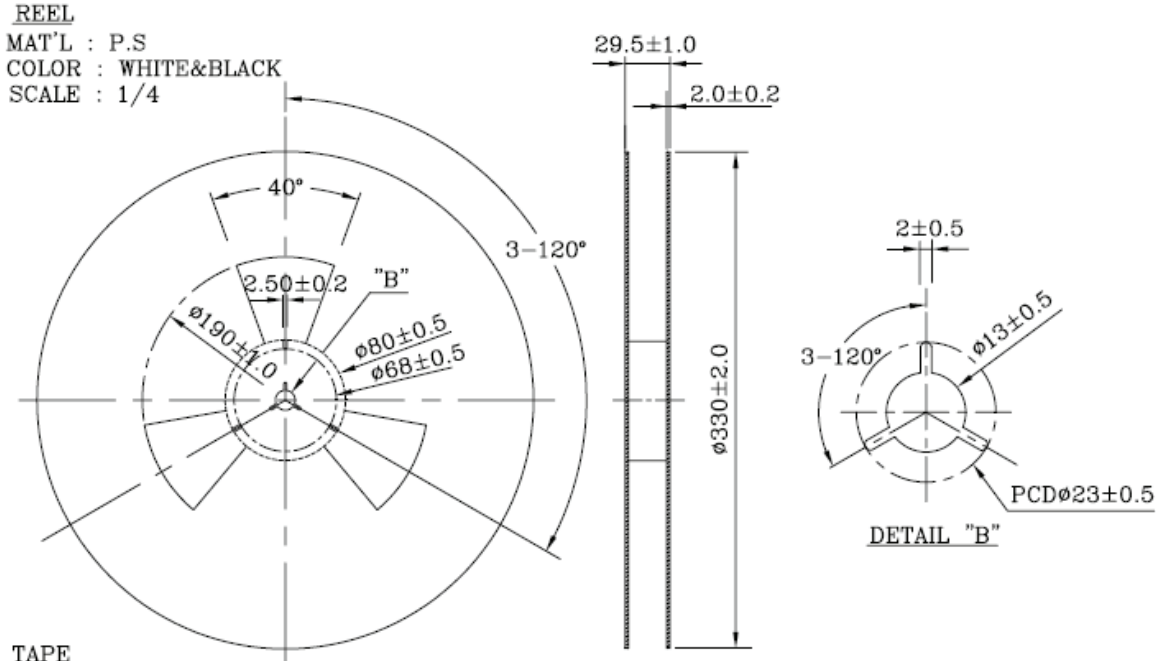
ABLJO

RoHS/RoHS II Compliant and Pb free



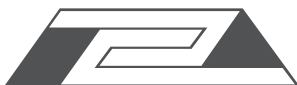
➤ **TAPE & REEL:**

Packaging: (1,000) units per reel standard, (250) units per reel available (option # T2)



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.

ABRACON IS
 ISO9001:2008
 CERTIFIED



ABRACON
 CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 09.05.13**

30332 Esperanza, Rancho Santa Margarita, California 92688

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

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View ABLJO-187.500MHZ-T on WIN SOURCE](#)

 [Abracon LLC Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management