

Programmable - High Performance SMD XO & VCXO

ASG-P Series

Moisture Sensitivity Level (MSL) - This product is Hermetically Sealed and not Moisture Sensitive; therefore MSL = N/A (Not Applicable)



RoHS
Compliant



7.0 x 5.0 x 1.9mm

FEATURES:

- ASG series is a High Performance crystal based oscillator; available either as an XO or a VCXO
- Frequency range from 10MHz to 250MHz with LVCMOS output
- Available from 10MHz to 1.50GHz with LVDS or LVPECL output
- Offered with either 2.50V or 3.30V bias voltage
- Quick turn, 1~5 business days for small quantity orders

APPLICATIONS:

- Networking, SONET/SDH
- WiMax / WLAN
- Computing
- Phase Locked Loops
- Direct Digital Synthesis (DDS)
- DSL/ADSL
- Base Terminal Stations

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range:	V _{dd} = 3.3V	10		1500	MHz	
	V _{dd} = 2.5V	10		1500	MHz	
Operating Temperature:		-40		+85	°C	
Storage Temperature:		-55		+125	°C	
Overall Frequency Stability:		-50		+50	ppm	See Note # 1
Initial Set Tolerance		-5.00	≤ ±1.00	+5.00	ppm	
Stability over operating temperature		-35.00	≤ ±20.00	+35.00	ppm	
Aging @ 25°C over 10-years		-7.00		+7.00	ppm	
Frequency variation over supply voltage change (±5%)		-2.00		+2.00	ppm	
Frequency variation over load variation (15pF ± 5%)		-1.00		+1.00	ppm	
Supply Voltage (V _{dd}):	V _{dd} = 3.3V	3.135	3.300	3.465	V	
	V _{dd} = 2.5V	2.375	2.500	2.625	V	
Input Current:	V _{dd} = 3.3V		< 54	60	mA	Frequency dependent
	V _{dd} = 2.5V		< 50	60	mA	Frequency dependent
LVPECL Output (Out & \overline{Out}):	Output High Voltage V _{OH}	V _{dd} - 1.03		V _{dd} - 0.60	V	V _{OH}
	Output Low Voltage V _{OL}	V _{dd} - 1.85		V _{dd} - 1.60	V	V _{OL}
	Differential Duty Cycle	45	48/52	55	%	DODC _{LVPECL}
	Rise Time	150		350	ps	t _R
	Fall Time	150		350	ps	t _F
Start-up Time:			≤ 2.0	3.0	ms	
Enable/Disable Function :		"1" (V _{IH} ≥ 0.7*V _{dd}) or Open: Oscillation "0" (V _{IL} < 0.3*V _{dd}) : High Z				
V _{control} Range		0.00		V _{dd}	Volts	For VCXO
Frequency Pull		±50			ppm	
Control Port Bandwidth		10			kHz	
Phase jitter RMS [t _{jitt} ()] See Note #2	Integer Mode		< 0.60	1.60	ps	12kHz to 20MHz
	Fractional Mode		< 0.90	1.60	ps	12kHz to 20MHz

Note #1: Inclusive of initial tolerance at 25°C±3°C, operating temperature range, input voltage variation, load variation & aging.

Note #2: The rms jitter over 12kHz to 20MHz Bandwidth is dependent on the carrier and whether or not the final frequency is achieved without engaging the Fractional Mode

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.27.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Programmable - High Performance SMD XO & VCXO

ASG-P Series



RoHS
Compliant



7.0 x 5.0 x 1.9mm

OVERALL SYSTEM BLOCK DIAGRAM



PHASE NOISE & JITTER CHARACTERISTICS

622.88MHz Carrier



1.50GHz Carrier



Programmable - High Performance SMD XO & VCXO

ASG-P Series



RoHS
Compliant



7.0 x 5.0 x 1.9mm

FREQUENCY STABILITY VS. TEMPERATURE



FREQUENCY PULLING VS. CONTROL VOLTAGE (VCXO MODE)



PART IDENTIFICATION:

ASG - P - [] - [] - [] MHz - []

Fixed or Pull-able

X = Fixed Oscillator

V = VCXO

Operating Voltage

3.30V = A

2.50V = B

Frequency in MHz

Please specify the
Frequency in MHz
e.g. 100.000 MHz

Packaging

Blank = Bulk

T = Tape & Reel

MARKING:

Top Line:
Bottom Line:

Pin# 1 Identifier

ASG
GYWW

WW = Work Week

Year Code (B=2011, C=2012, etc.)

Internal Tracking Code

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.27.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Programmable - High Performance SMD XO & VCXO

ASG-P Series



RoHS
Compliant



7.0 x 5.0 x 1.9mm

OUTLINE DIMENSIONS:

Pin #	Pin Description For VCXO configuration
1	Voltage Control for VCXO
2	Output Enable (OE)
3	GND
4	RF Output
5	RF $\overline{\text{Output}}$
6	Vdd

Pin #	Pin Description For XO configuration
1	Output Enable (OE)
2	N/C for XO
3	GND
4	RF Output
5	RF $\overline{\text{Output}}$
6	Vdd



REFLOW PROFILE:



ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

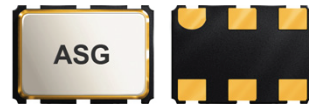
Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.27.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Programmable - High Performance SMD XO & VCXO

ASG-P Series



RoHS
Compliant

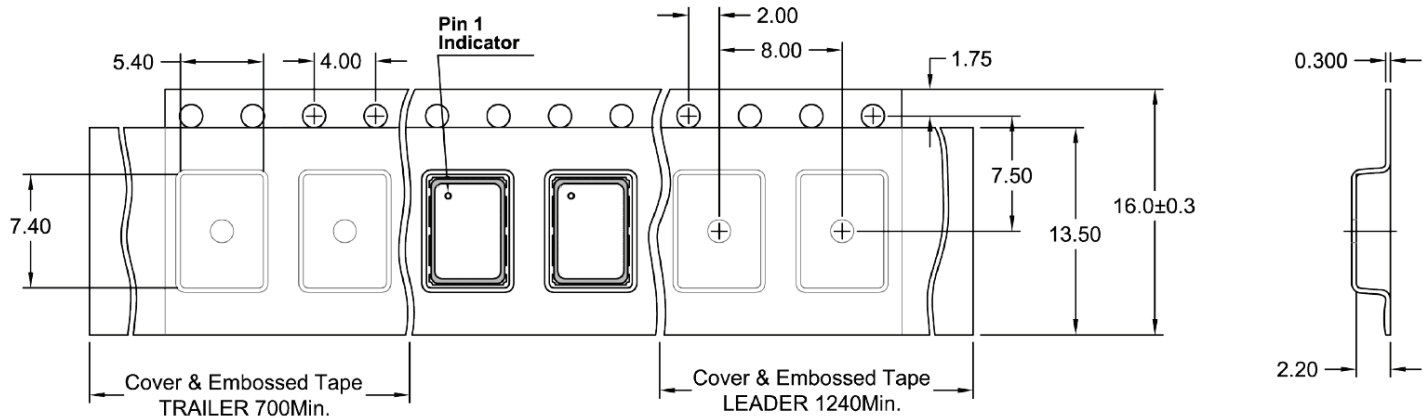


7.0 x 5.0 x 1.9mm

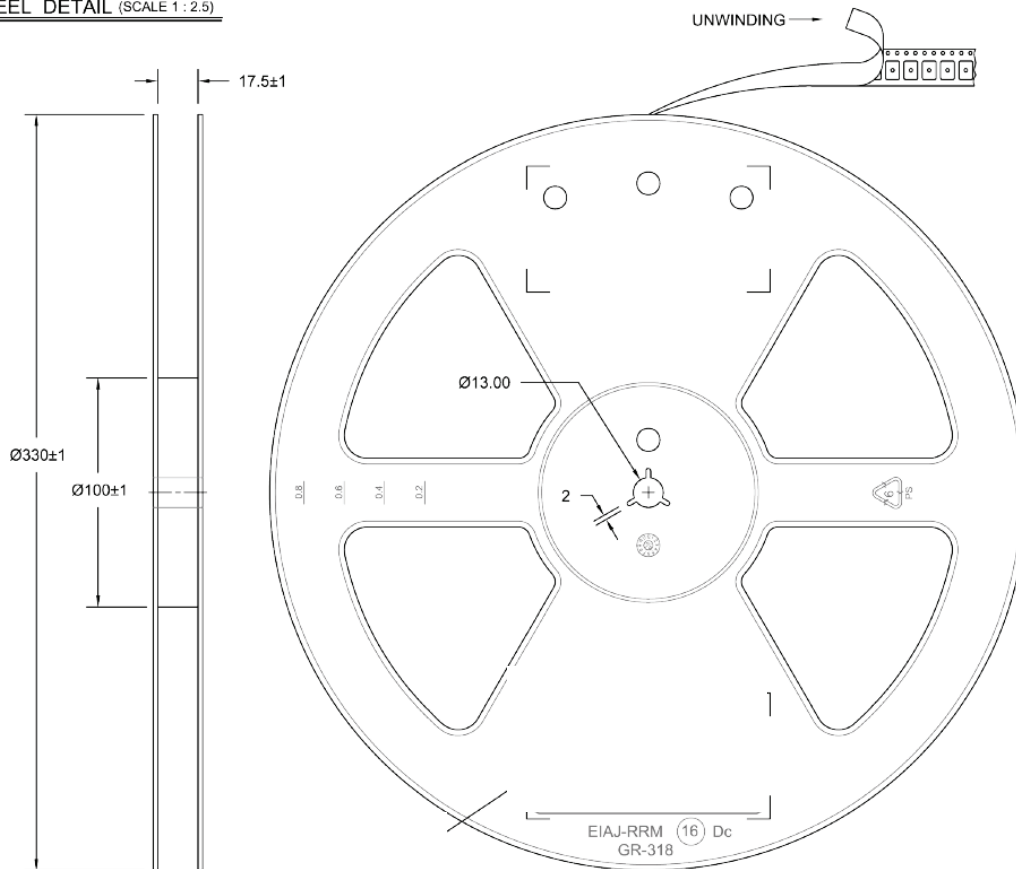
TAPE & REEL:

T= Tape and reel (2,000pcs/reel)

TAPE DETAIL (SCALE 2 : 1)



REEL DETAIL (SCALE 1 : 2.5)



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

Visit www.abracon.com for Terms & Conditions of Sale **Revised: 04.27.12**
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [VCXO Oscillators](#) category:

Click to view products by [ABRACON](#) manufacturer:

Other Similar products are found below :

[3808AI-DF-33NG-80.0000](#) [SIT3808AI-CF-33EM-50.000000X](#) [603281](#) [YNETHE125](#) [SiT3701AC-43-33C-10.00000X](#) [315LB3I1250T](#)
[CVPD-922X-100.000](#) [CVSS-945-125.000](#) [ASVV-4.096 MHz-L50-N152-T](#) [CVHD-950-122.880](#) [CVHD-950-80.000](#) [CVHD950X-54.000](#)
[ASG-P-V-A-1.000GHZ](#) [ECXV-P37C2M-640.000](#) [CVPD-920-80.000](#) [CVHD-957-22.57920](#) [ECXV-P37C2N-155.520](#) [ECXV-P37C2N-56.000](#)
[ECXV-P37C2N-184.320](#) [ECXV-P37C2N-155.000](#) [ECXV-P35C2N-155.520](#) [LFVCXO067515Bulk](#) [ASG-D-V-A-1.000GHZ](#) [ASG-D-V-A-](#)
[491.520MHz](#) [CVHD-950-74.25](#) [CVPD-920-74.25](#) [ABLNO-V-92.160MHZ](#) [ABLNO-V-120.000MHZ](#) [ABLNO-V-80.000MHZ](#) [ABLJO-V-](#)
[100.000MHZ](#) [ABLJO-V-120.000MHZ](#) [ABLJO-V-122.880MHZ](#) [ABLJO-V-150.000MHZ](#) [ABLJO-V-155.520MHZ](#) [ABLJO-V-160.000MHZ](#)
[ABLJO-V-200.000MHZ](#) [ABLJO-V-200.000MHZ-T](#) [ABLNO-V-100.000MHZ](#) [ABLNO-V-100.000MHZ-T2](#) [ABLNO-V-120.000MHZ-T2](#)
[ABLNO-V-122.880MHZ](#) [ABLNO-V-125.000MHZ](#) [ABLNO-V-156.250MHZ](#) [ABLNO-V-96.000MHZ](#) [ABLNO-V-96.000MHZ-T2](#) [ABLNO-V-](#)
[104.000MHZ](#) [ABLNO-V-125.000MHZ-T2](#) [ASG2-D-V-A-1000.000MHZ](#) [ASG2-D-V-B-644.53125MHz](#) [ASG2-P-V-A-1000.000MHZ](#)