

Programmable - High Performance SMD XO & VCXO (LVCMOS Output)



2.5 x 2.0 x 1.0 mm

ASG2-C



Moisture Sensitivity Level (MSL) – 1

FEATURES:

- +2.5V or +3.3V operation
- -40°C to +85°C standard operating temperature range
- Miniature size 2.5 x 2.0 x 1.0 mm Ceramic SMT Package
- Short lead time

APPLICATIONS:

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

STANDARD SPECIFICATIONS:

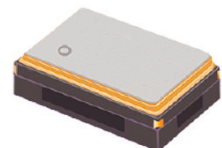
Parameters	Minimum	Typical	Maximum	Units	Notes	
Frequency Range	8		200	MHz		
Operating Temperature	-40		+85	°C		
Storage Temperature	-55		+125	°C		
Overall Frequency Stability	-50		+50	ppm	<i>See Note # 1</i>	
Initial Tolerance + Stability over operating temperature	-35.00		+35.00	ppm		
Supply Voltage (Vdd)	V _{dd} = 3.3V	3.135	3.300	3.465	V	
	V _{dd} = 2.5V	2.375	2.500	2.625	V	
Input Current			40	mA	Frequency dependent	
Duty Cycle	48	50	52	%	@ 1/2Vdd	
Rise and Fall Time (Tr/Tf)			3	ns	90%/10%	
Output Load			15	pF	CMOS	
Output Voltage	VOH	V _{dd} * 0.90		V		
	VOL		V _{dd} * 0.10	V		
Enable/Disable Function	"1" (V _{IH} ≥ 0.7*V _{dd}) or Open: Oscillation "0" (V _{IL} < 0.3*V _{dd}) : High Z					
Control Voltage Range	0		V _{dd}	V	For VCXO Only	
Absolute Pull Range	±35			ppm	For VCXO Only	
Control Port Bandwidth	10			kHz	For VCXO Only	
Linearity			15	%	For VCXO Only	
Slope	Positive				For VCXO Only	
Phase jitter RMS (12kHz to 20MHz offset)		1.0	1.8	ps	<i>See Note #2</i>	

Note #1: Inclusive of initial tolerance at 25°C±3°C, operating temperature range, input voltage variation, load variation & 15 years aging at 25°C.

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



Programmable - High Performance SMD XO & VCXO (LVCMOS Output)



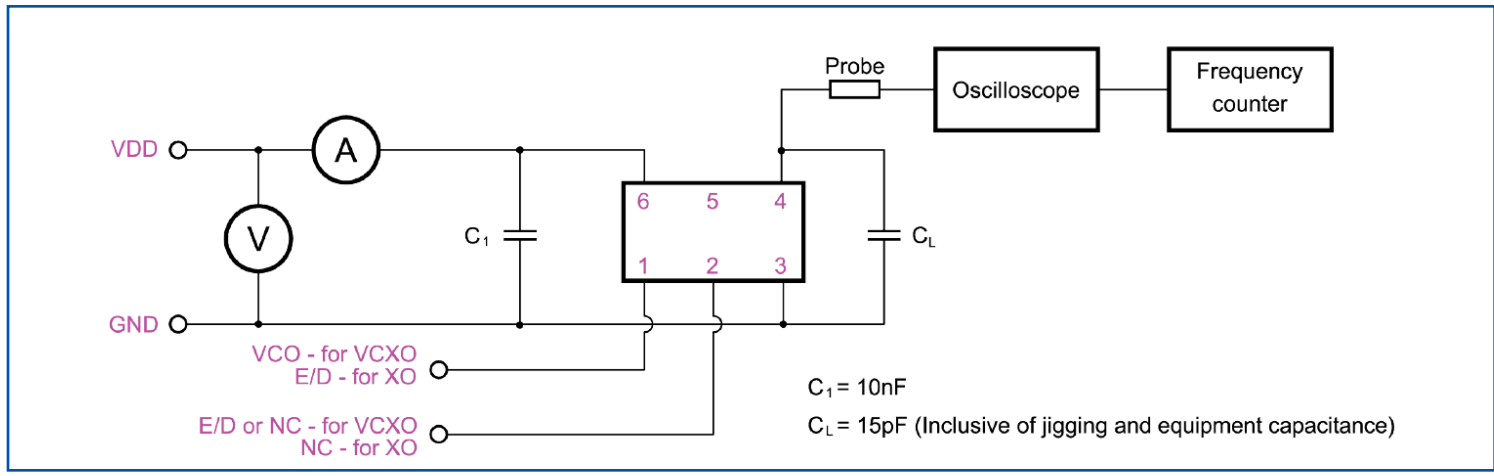
2.5 x 2.0 x 1.0 mm

ASG2-C

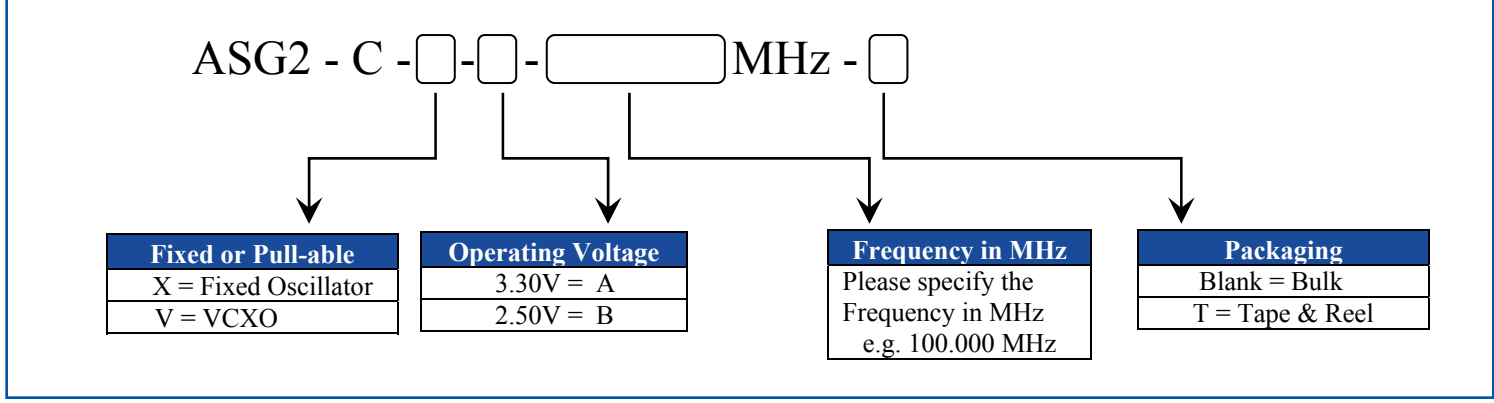
ESD Sensitive

RoHS / RoHS II Compliant

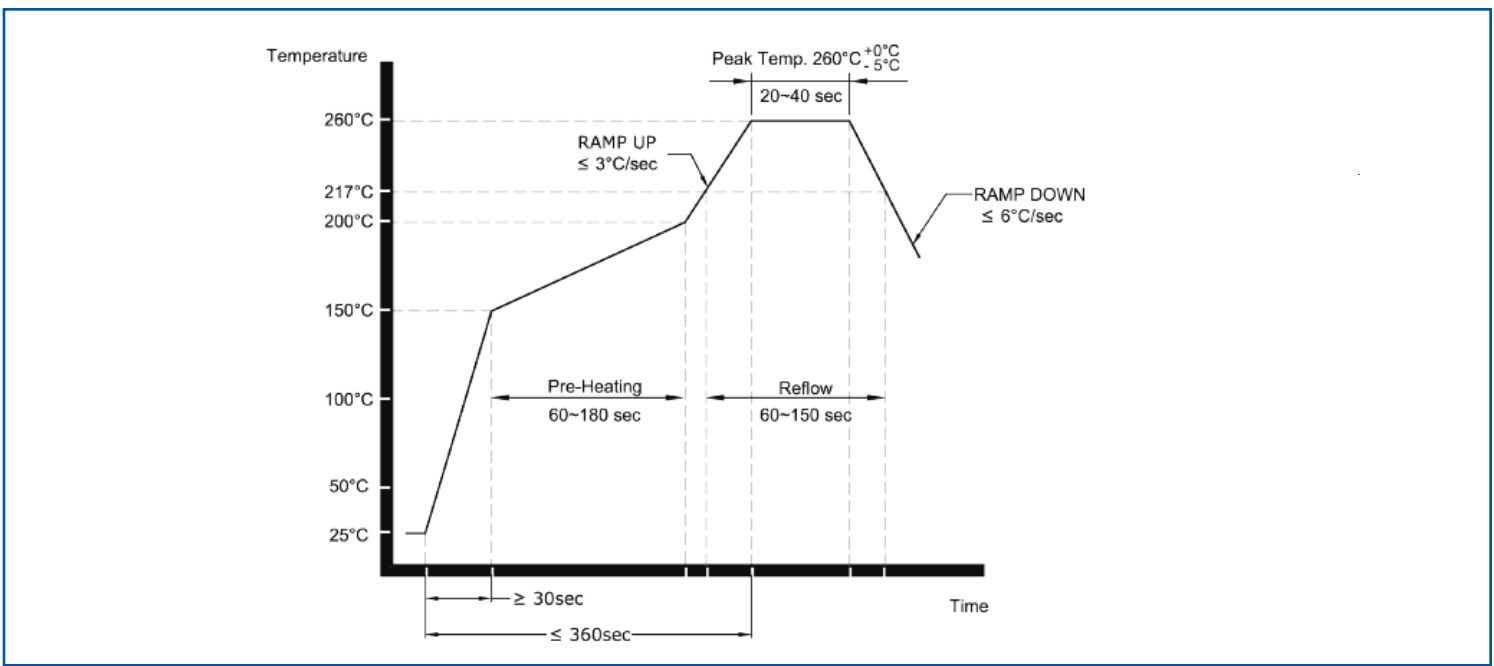
TEST CIRCUIT



OPTIONS & PART IDENTIFICATION:



RECOMMENDED REFLOW PROFILE



ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

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

Revised: 07.01.14

Programmable - High Performance SMD XO & VCXO (LVCMOS Output)



2.5 x 2.0 x 1.0 mm

ASG2-C

 **ESD Sensitive**

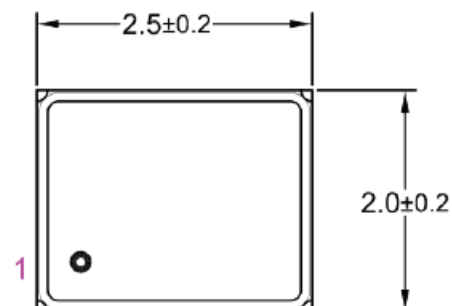
 **RoHS / RoHS II Compliant**

OUTLINE DIMENSION:

Pin #	Pin Description For VCXO configuration
1	Voltage Control for VCXO
2	Output Enable (OE) <i>or</i> No Connect (N/C)
3	GND
4	RF Output
5	No Connect (N/C)
6	Vdd

Pin #	Pin Description For XO configuration
1	Output Enable (OE)
2	No Connect (N/C) for XO
3	GND
4	RF Output
5	No Connect (N/C)
6	Vdd

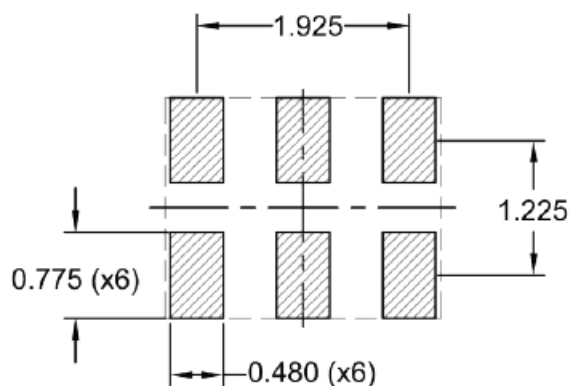
Top View



Bottom View



Recommended Land Pattern



Side View



Dimensions: mm



Programmable - High Performance SMD XO & VCXO (LVCMOS Output)

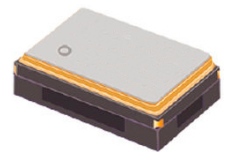
ASG2-C



ESD Sensitive



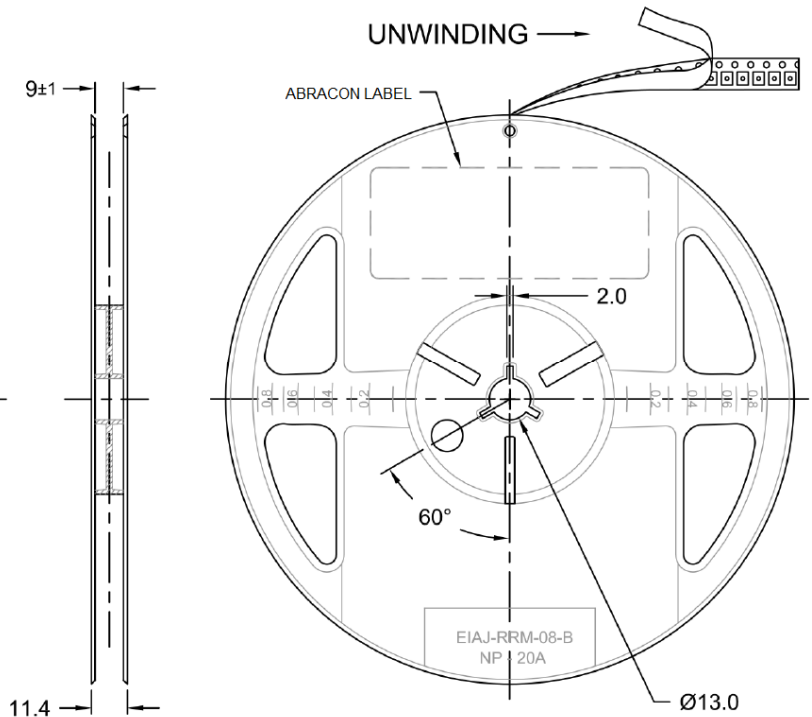
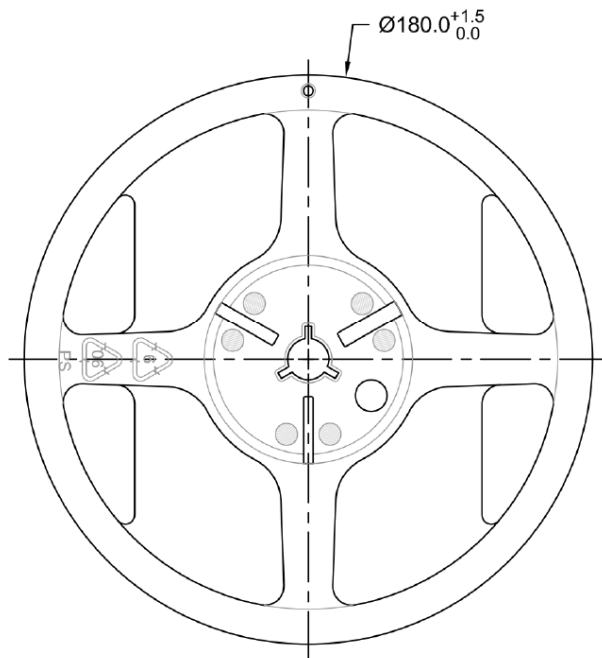
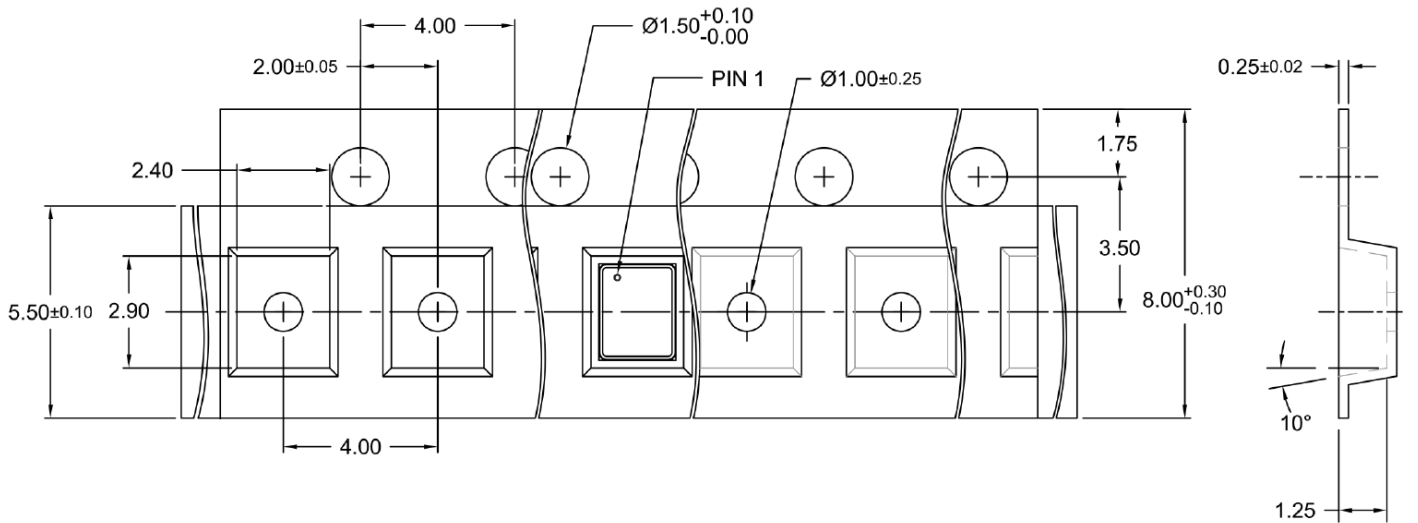
RoHS / RoHS II Compliant



2.5 x 2.0 x 1.0 mm

TAPE & REEL:

T= Tape and reel (3,000pcs/reel)



Dimensions: mm

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
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 07.01.14