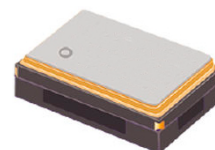


# Programmable - High Performance SMD XO & VCXO (LVDS Output)



2.5 x 2.0 x 1.0 mm

**ASG2-D**



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:

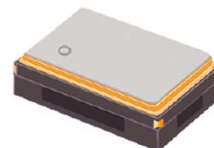
Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		8		1500	MHz	
Operating Temperature		-40		+85	°C	
Storage Temperature		-55		+125	°C	
Overall Frequency Stability		-50		+50	ppm	<i>See Note # 1</i>
Initial Tolerance + Stability over operating temperature		-35.00		+35.00	ppm	
Supply Voltage (V <sub>dd</sub> )	V <sub>dd</sub> = 3.3V	3.135	3.300	3.465	V	
	V <sub>dd</sub> = 2.5V	2.375	2.500	2.625	V	
Input Current				40	mA	Frequency dependent
LVDS Output (OUT & OUT <sub>-</sub> )	Differential Output Voltage Swing		350		mV	V <sub>OD</sub>
	Duty Cycle	45		55	%	@1.25V
	Rise Time			600	ps	RL=100Ω/CL=10pF
	Fall Time			600	ps	RL=100Ω/CL=10pF
Enable/Disable Function		"1" (V <sub>IH</sub> ≥ 0.7*V <sub>dd</sub> ) or Open: Oscillation "0" (V <sub>IL</sub> < 0.3*V <sub>dd</sub> ) : High Z				
Control Voltage Range		0		V <sub>dd</sub>	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 (LVDS Output)



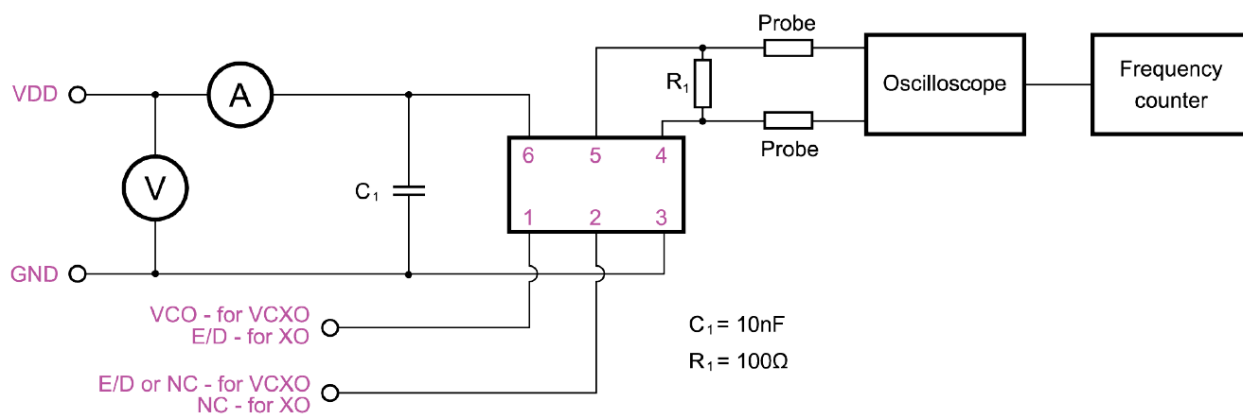
2.5 x 2.0 x 1.0 mm

ASG2-D

ESD Sensitive

RoHS / RoHS II Compliant

## TEST CIRCUIT



## OPTIONS & PART IDENTIFICATION:

ASG2 - D -  -  -  MHz -

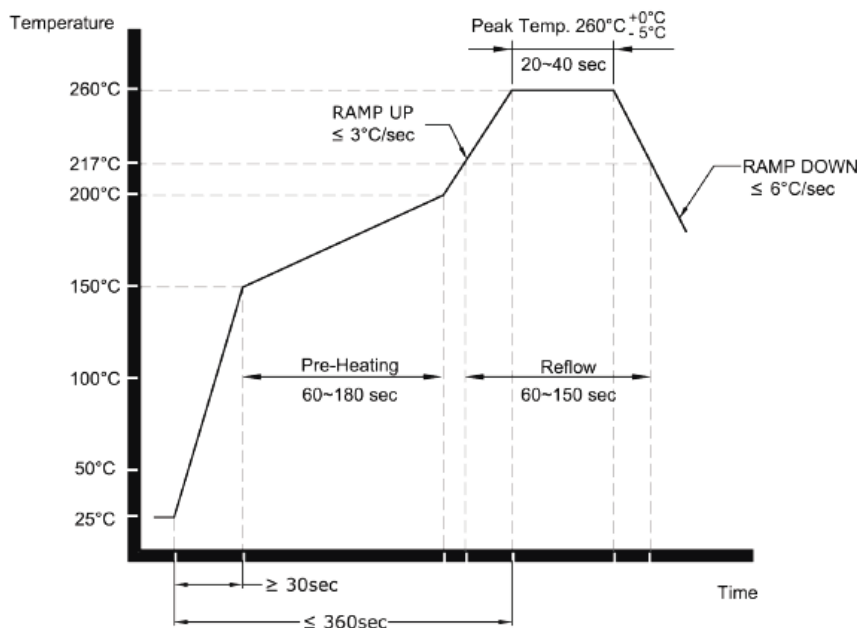
Fixed or Pull-able
X = Fixed Oscillator
V = VCXO

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

## RECOMMENDED REFLOW PROFILE



ABRACON IS  
ISO9001:2008  
CERTIFIED

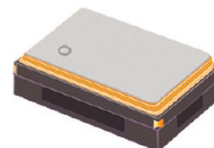


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Revised: 07.01.14

# Programmable - High Performance SMD XO & VCXO (LVDS Output)



2.5 x 2.0 x 1.0 mm

ASG2-D

ESD Sensitive

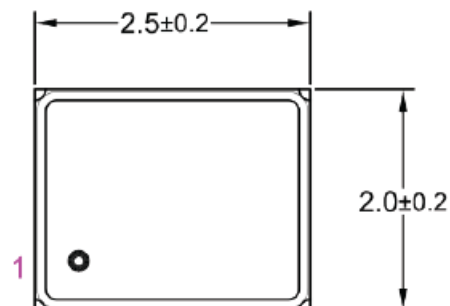
RoHS / RoHS II Compliant

## OUTLINE DIMENSION:

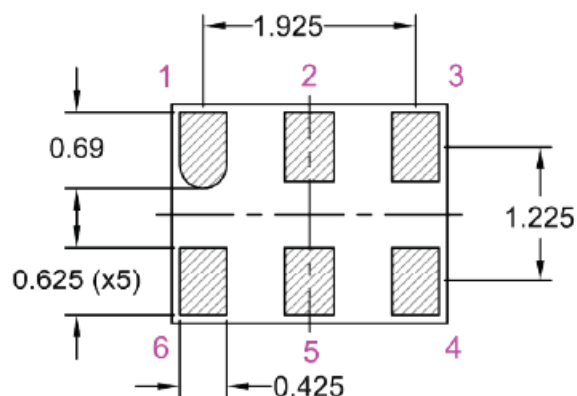
Pin #	Pin Description For VCXO configuration
1	Voltage Control for VCXO
2	Output Enable (OE) <i>or</i> No Connect (N/C)
3	GND
4	RF Output
5	Complimentary Output
6	Vdd

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

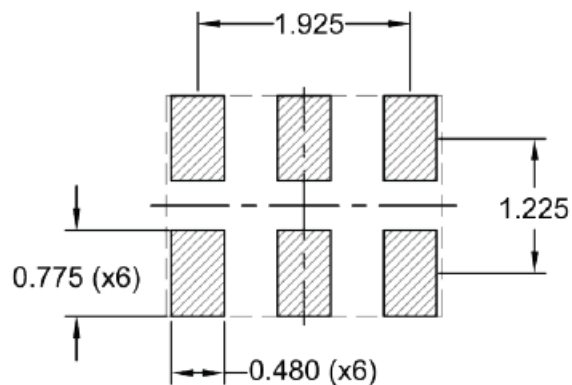
Top View



Bottom View



Recommended Land Pattern



Side View



Dimensions: mm



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Largest Supplier of Electrical and Electronic Components

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

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[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](#)