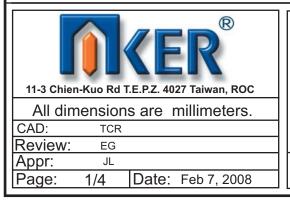
	Ltr	Revisions	Date	Appr
RoHS Compliant				
Pb - Lead Free				
AEC-Q200 Qualified				

Electrical Specifications:

Frequency Range	2.000 to 50.000		MHz		
Temperature Stability	±100		PPM Max		
Aging per Year		±3			
Operating Temperature Range	Standard				
Operating reinperature Nange	Extended			°C	
Storage Temperature Range		-55 to +150			
Supply Voltage		+2.5 ± 5%	+3.3 ± 5%	Vdd	
	2.000 to 10.000 MHz	6	7		
Input Current	10.100 to 20.000 MHz	8	7	mA Max	
input Current	20.100 to 32.000 MHz	8	12	IIIA WAX	
	32.100 to 50.000 MHz	20	20		
Outrout Valtage	Logic High (Voh)	90%		Vdd Min	
Output Voltage	Logic Low (Vol)	10%		Vdd Max	
Output Symmetry (Duty Cycle)	Standard	40 to 60		%	
Output Symmetry (Duty Cycle)	Tight	45 to 55		70	
Output Load	15		pF		
Output Level		CMOS		-	
Phase Jitter (12 KHz to 20 MHz)		1		ps Max RMS	
Rise and Fall Time		7		ns Max	
Standby Function		Tri-State		-	
Start Up Time		10		ms Max	

Temperature stability is Inclusive of all conditions:

Calibration Tolerance at +25°C, frequency stability over the operating temperature range, supply voltage, supply voltage change, output load changes, shock, vilbration, and 1st year aging at +25°C.

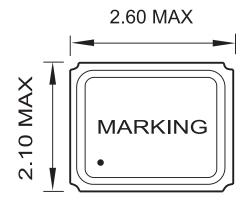


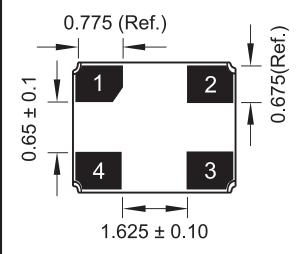
Specification Title:

Clock Oscillator
Automotive Temperature Range
Ultra Miniature
2.5 x 2.0 millimeter Surface Mount
General Product Specification

Part Number: S2 X1 Series

Mechanical Outline:



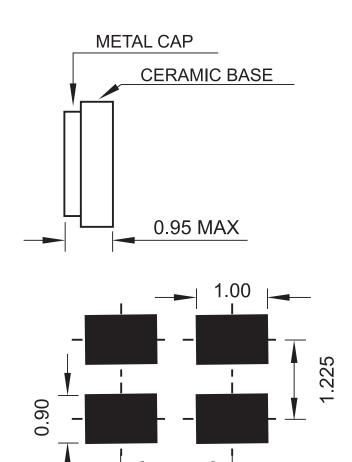


#1 : E/D #2 : GND

#4: VDC #3: OUTPUT

Bottom

Pin1	Pin 3
INH	Output
High or Open	Operating
Low	High Impedance



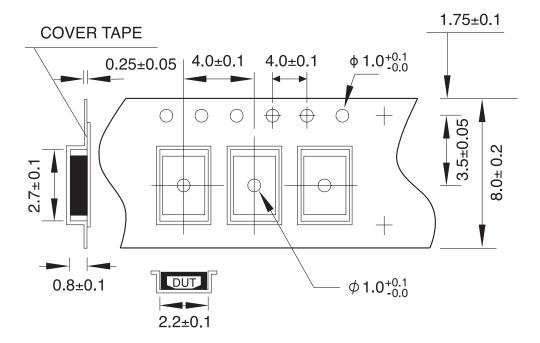
Recommended Land Pattern

1.625

Package is Seam Sealed Ceramic-Metal. Dimensions are millimeters.

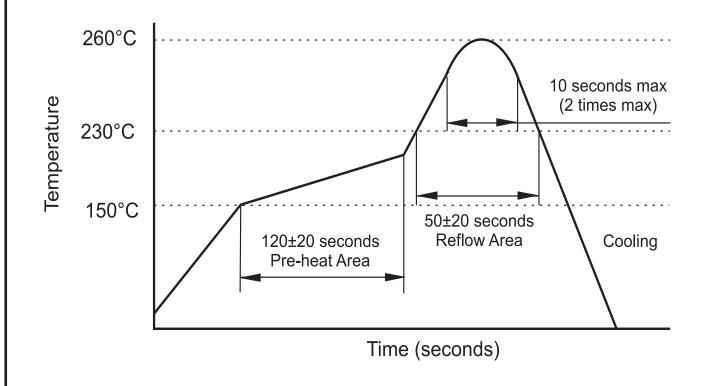
Page: 2/4 Date: Feb 7, 2008 P/N: S2 X1 Series		
--	--	--

Carrier Tape Dimensions:



Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series	S	Parameter
Package	2	2.5 x 2.0 mm
Supply Voltage	33	+3.3 Vdd ± 5%
Supply Voltage	25	+2.5 Vdd ± 5%
Temperature Stability	10	±100 PPM
Duty Cycle	See Notes	40/60%
Duty Cycle	Т	45/55%
	-	
Frequency	2.000 to 50.000	MHz
	-	
Temperature Range	X1	-40 to +125 °C
	-	
Packaging	R	Tape and Reel

Part Number Example:

S22510-48.000-X1-R

S2: 2.0 x 2.5 mm SMD Package

25: +2.5 Vdd Supply Voltage

10: ±100 PPM Temperature Stability

48.000 MHz Nominal Frequency

X1: -40 to + 125° C Automotive Temperature Range

R: Tape and Reel Packaging

Notes:

- 1- Standard Duty Cycle does not need to be included in Part Number description.
- 2- Product is shipped in Tape and Reel configuration. Each reel contains 1000 pieces.
- 3- Quantities less than 1000 are shipped bulk in ESD pouches.
- 4- Specification subject to change without notice.

Page: 4/4 Date: Feb 7, 2008	P/N:	S2 X1 Series	
-----------------------------	------	--------------	--