

**RoHS Compliant
Pb - Lead Free**

Ltr	Revisions	Date	Appr

Electrical Specifications:

Frequency Range		13.500 to 800.000			MHz
Frequency Stability over Temperature		±100			PPM Max
		±50			
		±25			
Aging per Year		±3			
Operating Temperature Range		Standard	-10 to +70		°C
		Extended	-40 to +85		
Storage Temperature Range		-55 to +125			
Supply Voltage		1.8 ± 5%	2.5 ± 5%	3.3 ± 5%	Vdd
Input Current		13.500 to 99.999MHz	50	50	mA Max
		100.000 to 160.000MHz	50	50	
		161.000 to 800.000MHz	-	50	
Output Voltage		Logic High (Voh)	1.6	1.6	Vdd Min
		Logic Low (Vol)	0.9	0.9	0.9
Differential Output Voltage (Vod)		247 to 454			mV
Offset Voltage (Vos)		1.125 to 1.375			V
Output Symmetry		45 to 55			%
Output Type		LVDS - Complimentary Output			-
Output Load (Between Q and QN)		100			Ω
Rise and Fall Time		13.500 to 99.999MHz	1	1	ns Max
		100.000 to 160.000MHz	0.5	0.5	
		161.000 to 800.000MHz	-	0.5	
Input Enable Voltage		1.26	1.75	2.31	Vdd Min
Input Disable Voltage		0.54	0.75	0.99	Vdd Max
Phase Jitter (12 KHz to 20 MHz)		13.500 to 160.000MHz	1		ps RMS
		161.000 to 800.000MHz	2		

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, vibration, and 1st year aging at +25°C.



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All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: MK

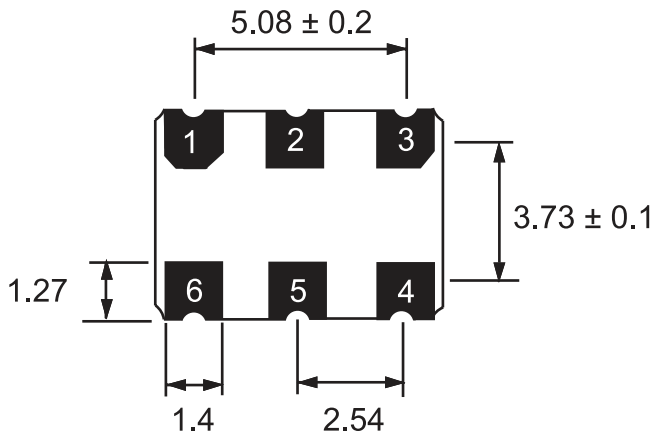
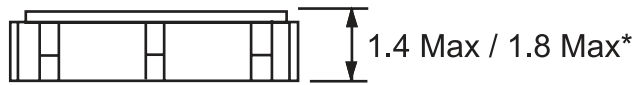
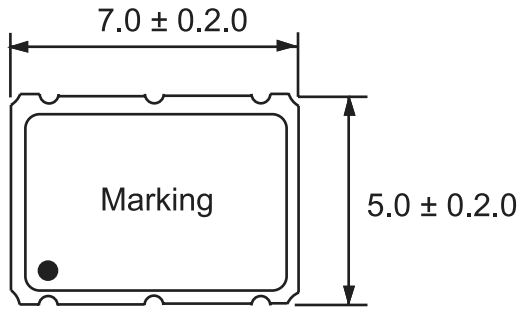
Page: 1/4 Date: Oct 20, 2019

Specification Title:

**Clock Oscillator
LVDS - Complimentary Output
5.0 x 7.0 mm Surface Mount - 6 Pad
General Product Specification**

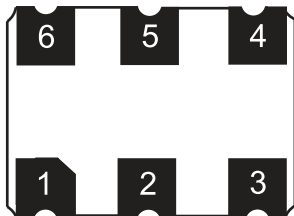
Part Number: **S7A Series**

Mechanical Outline:



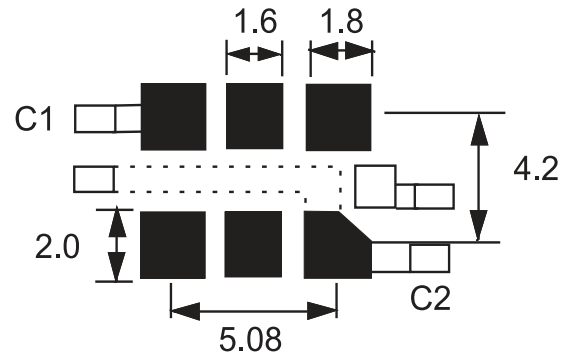
**Package is Seam Sealed Ceramic-Metal.
Dimensions are millimeters.**

Pad Connection:



Top View

Solder Pattern:



C1: 0.01 uF or 0.1 uF decoupling capacitor is recommended.

C2: By-Pass capacitor for noise suppression. Contact Aker for suggested values.

*Package Height:

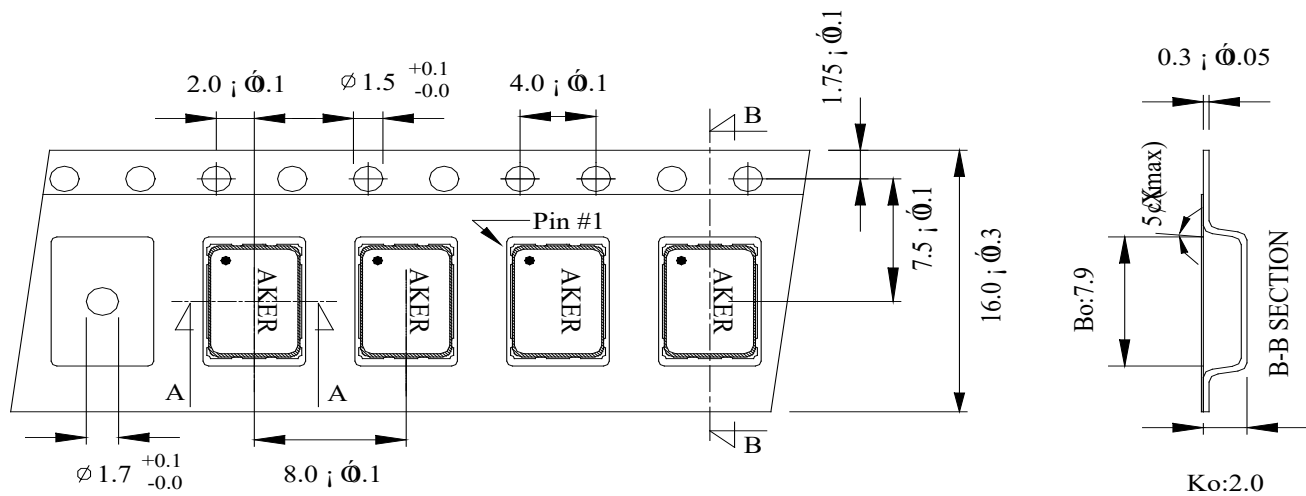
1.4 mm Max for 77 to 159.900 MHz

1.8 mm Max for 160 to 625 MHz

Pin Connection

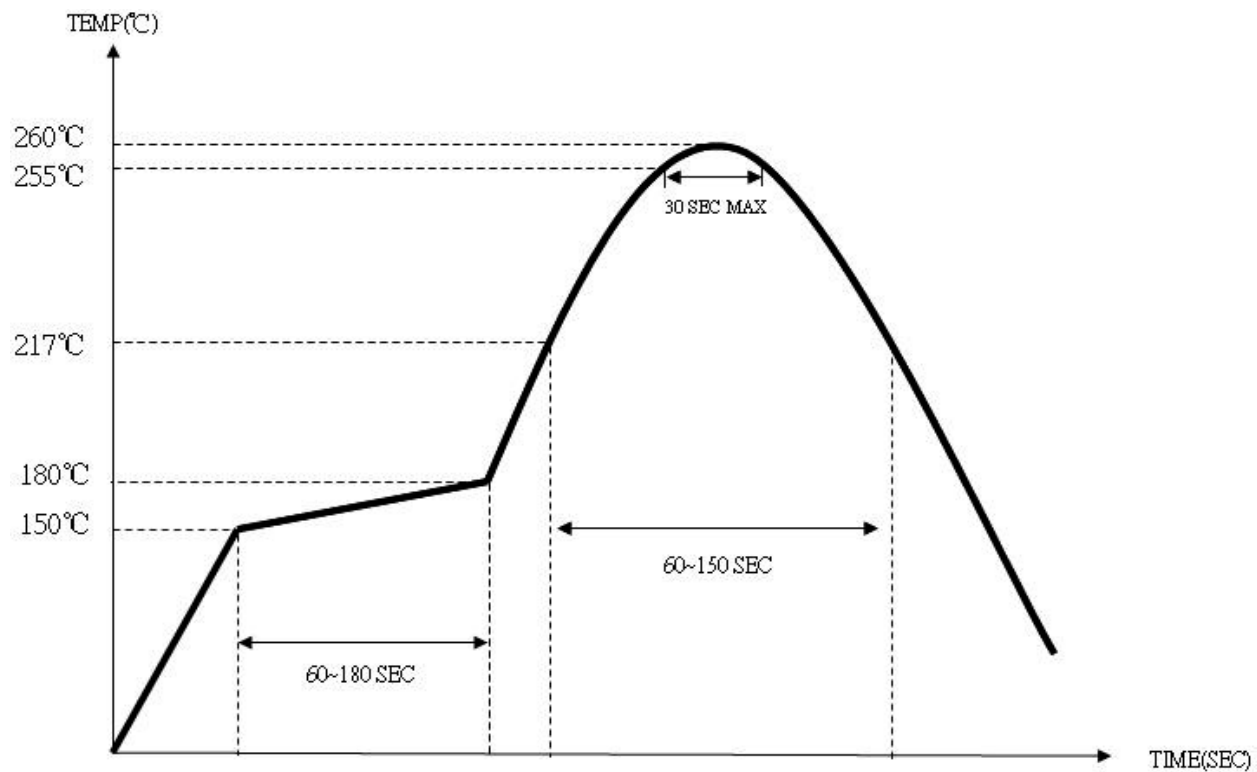
- 1- INH
- 2- NC
- 3- GND
- 4- Output - Q
- 5- Comp. Output - QN
- 6- Vdd

Carrier Tape Dimensions:



Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series	S	Parameter
Package	7A	5.0 x 7.0 mm - 6 Pad
Supply Voltage	18	+1.8 Vdd ± 5%
	25	+2.5 Vdd ± 5%
	33	+3.3 Vdd ± 5%
Temperature Stability	10	±100 PPM
	05	±50 PPM
	025	±25 PPM
Frequency	13.500 - 800.000	MHz
Output Load	L	LVDS
Temperature Range	See Notes	-10 to +70 °C
	X	-40 to +85 °C
Packaging	M	250pcs Reel
	R	1000pcs Reel

Part Number Example:

S7A3305-155.520-L-X-R

S7A: 5.0 x 7.0 mm SMD Package - 6 Pad

33: +3.3 Vdd Supply Voltage

05: ±50 PPM Temperature Stability

155.520 MHz Nominal Frequency

L: LVDS Output

X: -40 to + 85° C Extended Temperature Range

R: Tape and Reel Packaging

Notes:

- 1- Standard Temperature Range 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 250pcs are shipped in tape.
- 4- Specification subject to change without notice.