

**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	50	mA Max
	100.000 to 160.000MHz	50	50	50	
	161.000 to 800.000MHz	-	50	50	
Output Voltage	Logic High (Voh)	1.6	1.6	1.6	Vdd Min
	Logic Low (Vol)	0.9	0.9	0.9	Vdd Max
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	1	ns Max
	100.000 to 160.000MHz	0.5	0.5	0.5	
	161.000 to 800.000MHz	-	0.5	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

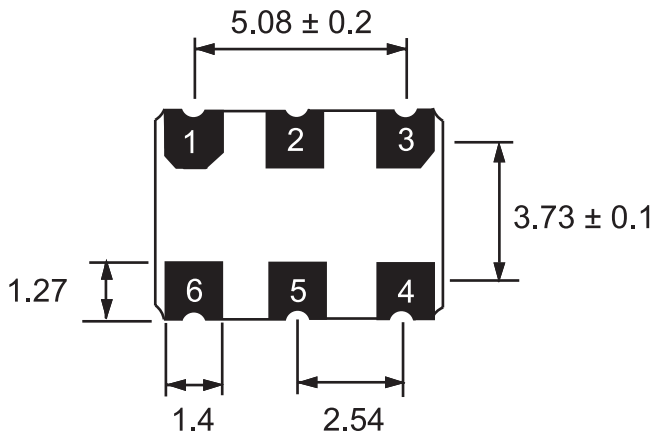
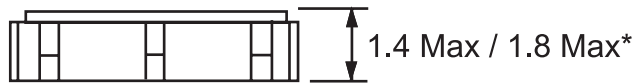
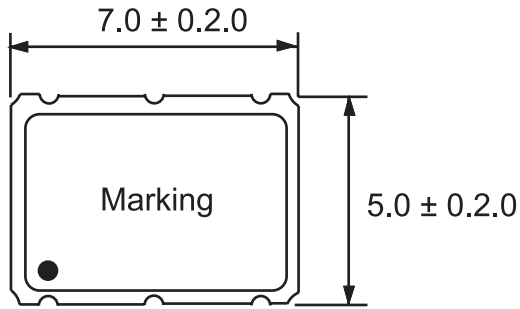
Page: 1/4 Date: Oct 20, 2019

Specification Title:

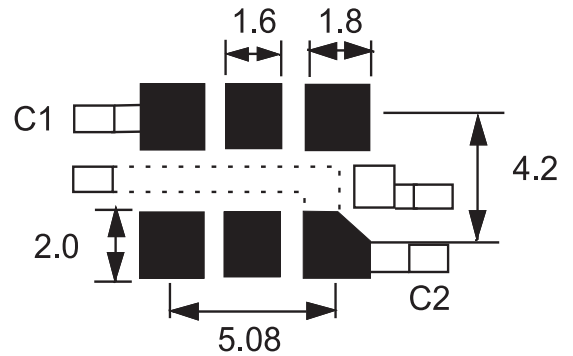
**Clock Oscillator  
LVDS - Complimentary Output  
5.0 x 7.0 mm Surface Mount - 6 Pad  
General Product Specification**

Part Number: **S7A Series**

### Mechanical Outline:



### 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.

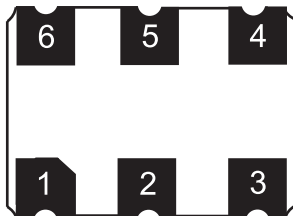
\*Package Height:

1.4 mm Max for 77 to 159.900 MHz

1.8 mm Max for 160 to 625 MHz

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

### Pad Connection:

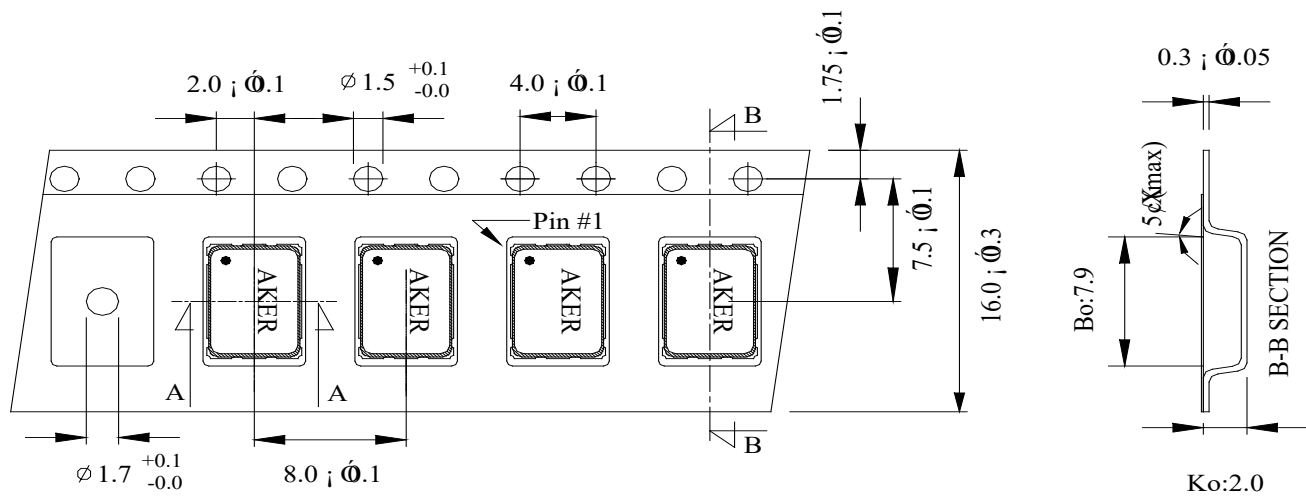


Top View

### Pin Connection

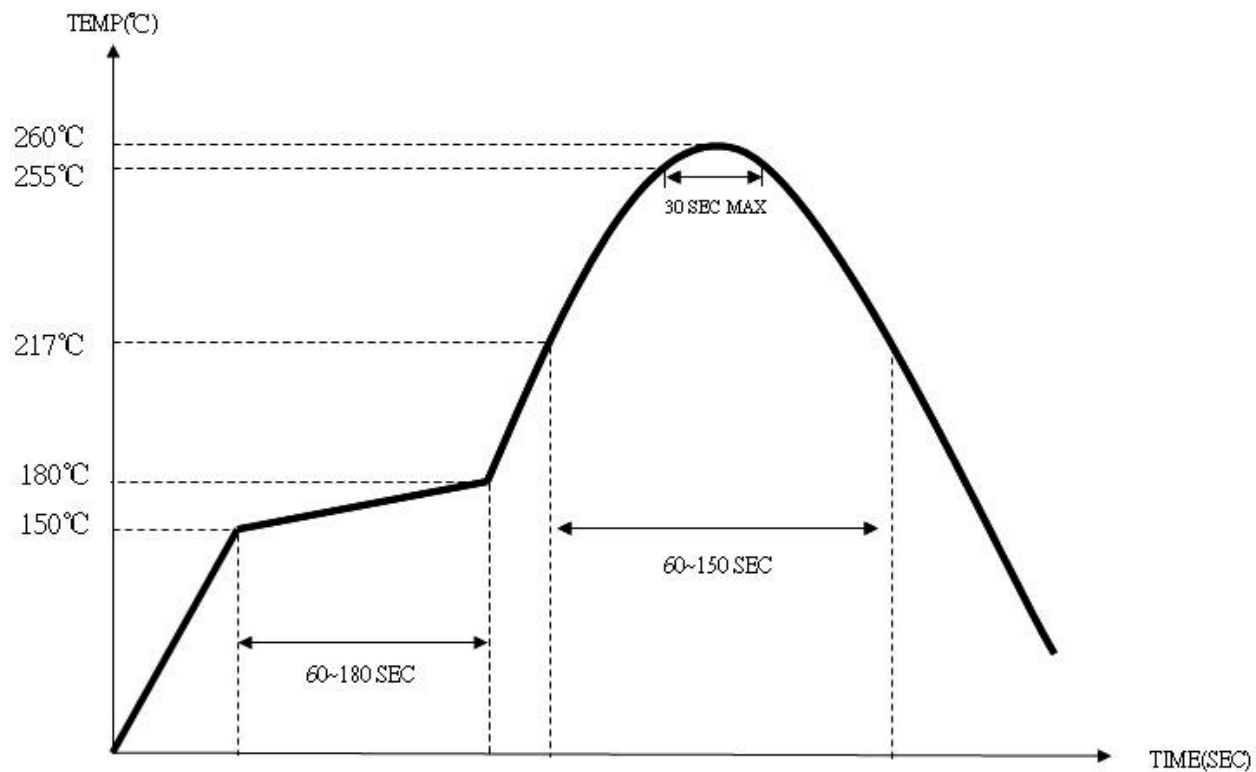
- 1- INH
- 2- NC
- 3- GND
- 4- Output - Q
- 5- Comp. Output - QN
- 6- Vdd

## 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.