

RoHS Compliant Pb - Lead Free	Ltr	Revisions	Date	Appr

**Electrical Specifications:**

Frequency Range		13.500 - 160.000		MHz
Frequency Stability over Temperature		±100		PPM Max
		±50		
		±25		
Aging per Year		±3		
Operating Temperature Range	Standard	-20 to +70		°C
	Extended	-40 to +85		
	Automotive	-40 to +125		
Storage Temperature Range		-55 to +125		
Supply Voltage		2.5 ± 5%	3.3 ± 5%	Vdd
Input Current	13.500 - 160.000Mhz	70	70	mA Max
Output Voltage	Logic High (Voh)	1.475	2.275	Vdd Min
	Logic Low (Vol)	1.095	1.68	Vdd Max
Output Symmetry		45 to 55		%
Output Type		LVPECL - Complimentary Output		-
Output Load		50		Ω
Rise and Fall Time	13.500 - 99.999Mhz	1	1	ns Max
	100.000 - 160.000Mhz	0.5	0.5	
Enable-Disable Function	Tri-State			-
	INH - Pin 1	Q Pin 4 - QN Pin 5		-
	High - Pin 1	Operating		-
	Low - Pin 1	High Impedance		-
Enable High Input Voltage		1.75	2.31	Vdd Min
Enable Low Input Voltage		0.75	0.99	Vdd Max
Phase Jitter (12 KHz to 20 MHz)		1		ps RMS

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

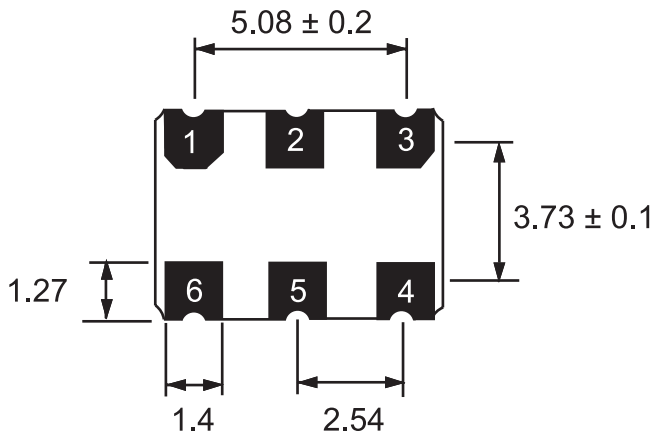
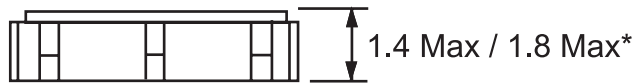
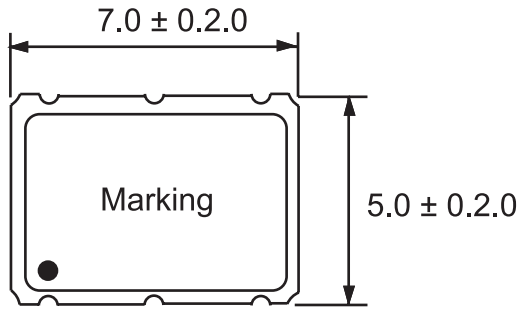
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Specification Title:

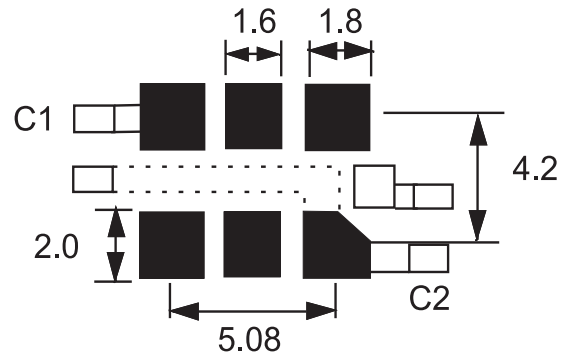
**Clock Oscillator  
LVPECL - Complimentary Output  
5.0 x 7.0 mm Surface Mount - 6 Pad  
General Product Specification**

Part Number: **S7A LVPECL Series**

### Mechanical Outline:



### Solder Pattern:



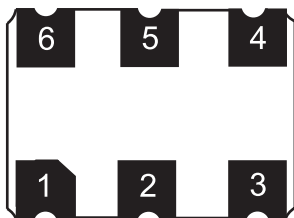
C1: 0.01 uF or 0.1 uF decoupling capacitor is recommended.

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

\*Package Height:  
1.4 mm Max for 13.500 to 160.000 MHz

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

### Pad Connection:

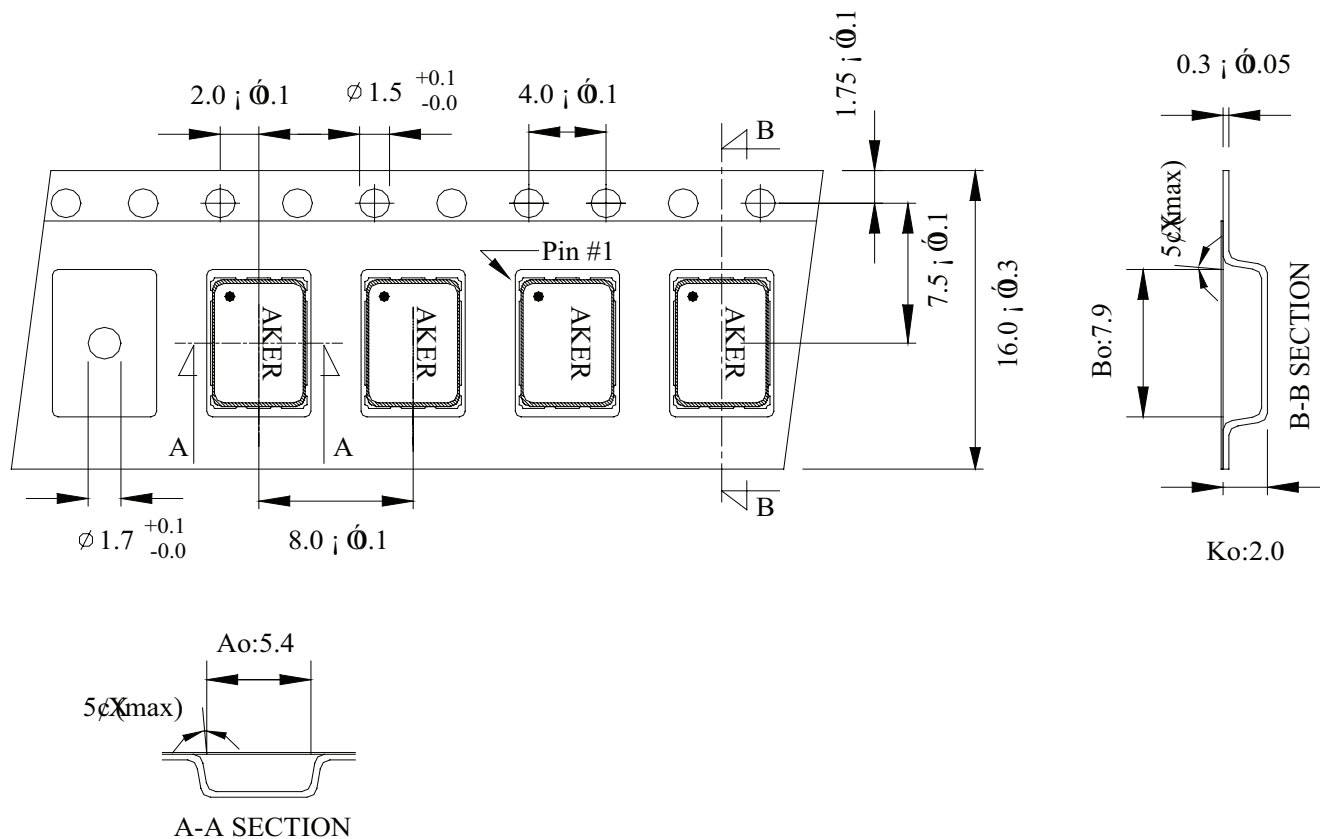


Top View

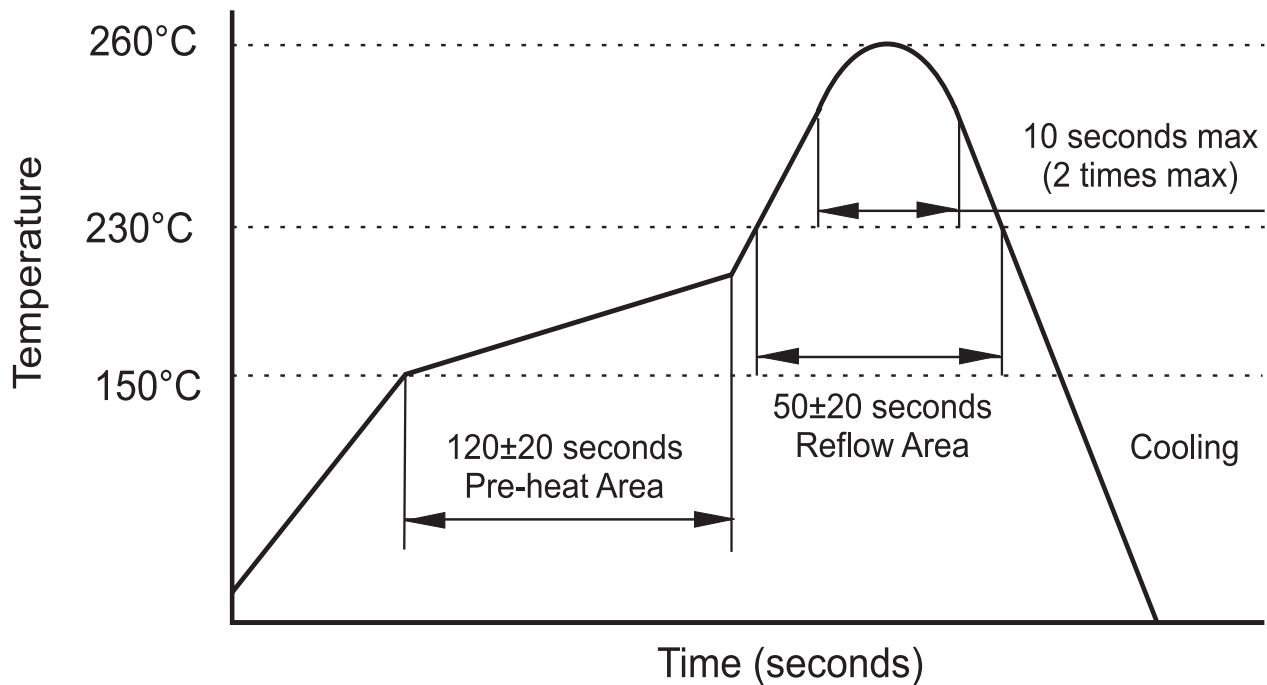
### Pin Connection

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

## Carrier Tape Dimensions:



## Solder Reflow Characteristics:



## How to build a Part Number:

Series	S	Parameter
Package	7A	7.0 x 5.0 mm - 6 Pad
Supply Voltage	25	+2.5 Vdd ± 5%
	33	+3.3 Vdd ± 5%
Temperature Stability	10	±100 PPM
	05	±50 PPM
	025	±25 PPM
Frequency	13.500 - 160.000	MHz
Output Load	P	LVPECL
Temperature Range	See Notes	-20 to +70 °C
	X	-40 to +85 °C
	X1	-40 to +125 °C
Packaging	M	250pcs Ree1
	R	1000pcs Reel

### Part Number Example:

**S7A3305-156.250-P-X-R**

**S7A:** 5.0 x 7.0 mm SMD Package - 6 Pad

**33:** +3.3 Vdd Supply Voltage

**05:** ±50 PPM Temperature Stability

**156.250** MHz Nominal Frequency

**P:** LVPECL Output

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

**R:** Tape and Reel Packaging - 1000pcs Reel

### Notes:

- 1- Standard Temperature Range does not need to be included in Part Number description.  
\*25PPM not available in X1 temp range
- 2- Product is shipped in Tape and Reel configuration.
- 3- Quantities less than 250pcs are shipped in tape.
- 4- Specification subject to change without notice.