



Accurate Kinetic Energy

No.11-3 Jianguo Rd., Tanzi Dist., 42760 Taiwan

All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

Page: 1/4 Date: August 01,2022

Specification Title:

**Clock Oscillator
HCSL - Complimentary Output
2.5 x 2.0 millimeter Surface Mount
General Product Specification**

Part Number:

S2A HCSL Series

Electrical Specifications:

Frequency Range		13.500 ~ 156.250			MHz
Frequency Stability		±25 ~ ±100			ppm
Aging per Year		±3			ppm Max.
Operating Temperature Range	Standard	-20 ~ +70			°C
	Extended	-40 ~ +85			
Storage Temperature Range		-55 ~ +125			
Supply Voltage		1.8 ± 5%	2.5 ± 5%	3.3 ± 5%	VDD
Input Current	13.500 to 99.999MHz	40	40	40	mA Max.
	100.000 to 156.250MHz	40	40	40	
Output Voltage	Logic High (Voh)	0.85	0.85	0.85	VDD Max.
	Logic Low (Vol)	-0.15	-0.15	-0.15	VDD Min.
Output Symmetry (Duty Cycle)		45 ~ 55			%
Output Type		HCSL			
Output Load (Terminated to GND)		50			ohm
Rise and Fall Time	13.500 to 99.999MHz	1.0	1.0	1.0	ns Max.
	100.000 to 156.250MHz	0.7	0.7	0.7	
Enable-Disable Function		Tri-State			
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)		1			ps Max. RMS

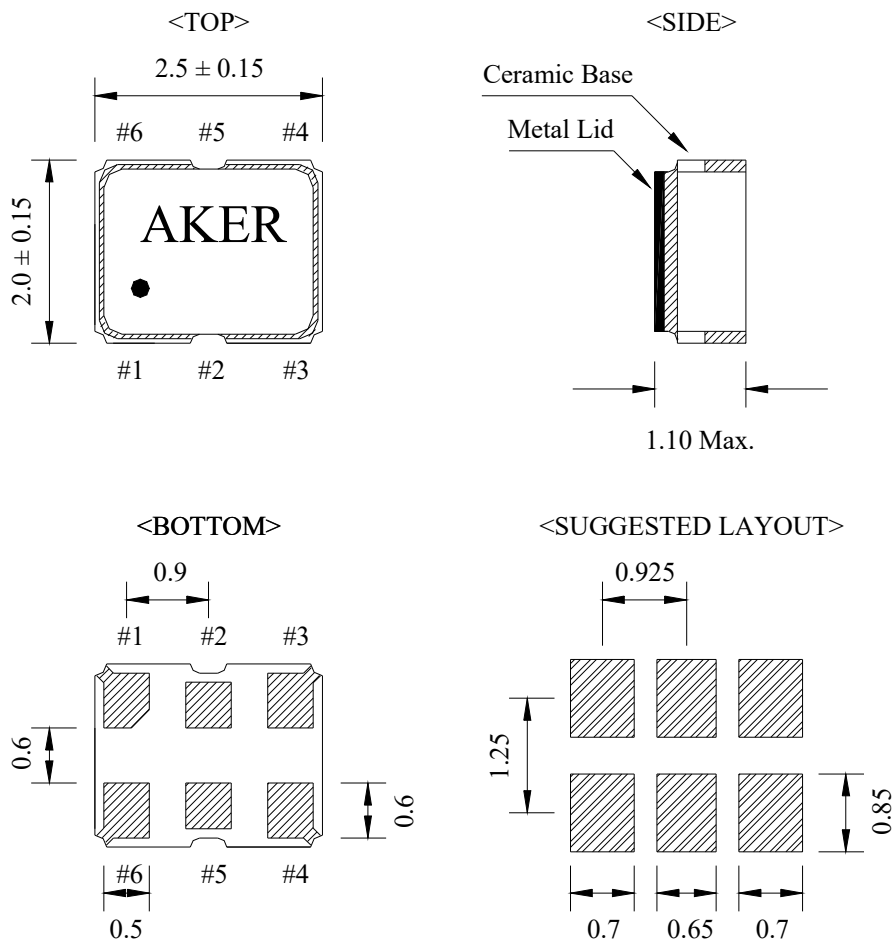
Temperature stability is Inclusive of all conditions:

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

**RoHS Compliant
Pb - Lead Free**

Ltr	Revisions	Date	Appr

Mechanical Outline and Solder Pad Layout:

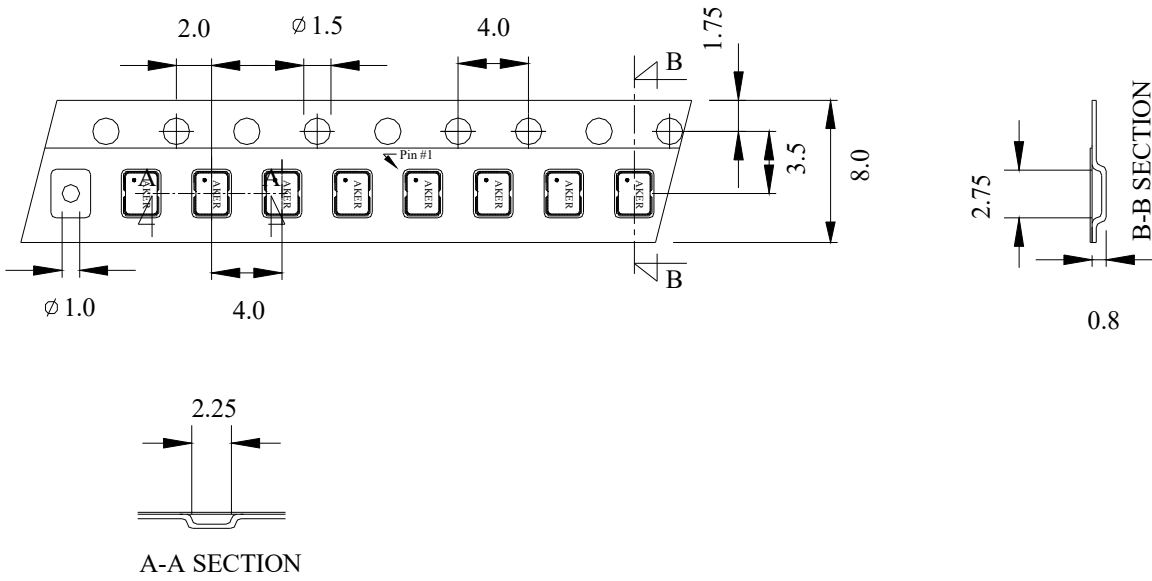


Pin Connection	
PIN No.	Connection
#1	Enable/Disable
#2	NC
#3	GND
#4	Output - Q
#5	Output - QN
#6	VDD

Enable/Disable Function	
PIN #1	PIN #4 & #5
HIGH or OPEN	Operating
LOW	High Impedance

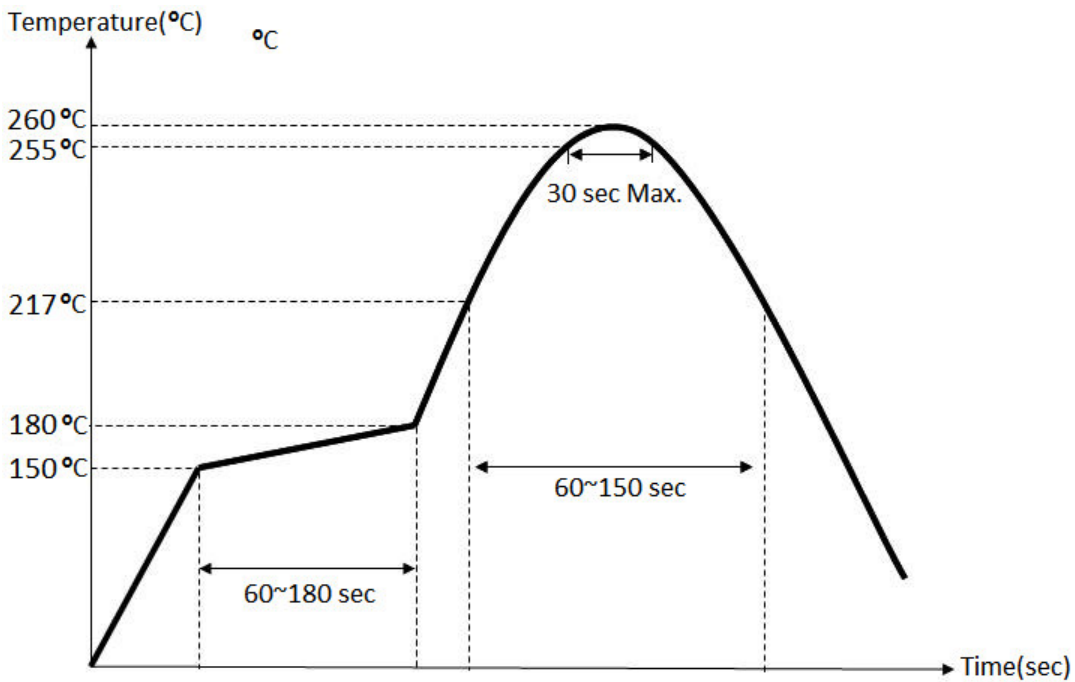
Package is Seam Sealed Ceramic-Metal.
Terminator Pads are Ni/Au.
Dimensions are millimeters.

Carrier Tape Dimensions:



Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series	S	Parameter
Package	2A	2.5 x 2.0 mm - 6 Pad
Supply Voltage	33	+3.3 VDD ± 5%
	25	+2.5 VDD ± 5%
	18	+1.8 VDD ± 5%
Temperature Stability	10	±100 ppm
	05	±50 ppm
	025	±25 ppm
	-	
Frequency	13.500~156.250	MHz
	-	
Output Load	H	HCSL
	-	
Temperature Range	See Notes	-20 ~ +70 °C
	X	-40 ~ +85 °C
	-	
Packaging	M	250pcs Reel
	R	1000pcs Reel

Part Number Example:

S2A3305-156.250-H-X-R

S2A: 2.5 x 2.0 mm SMD Package - 6 Pad

33: +3.3±5% VDD Supply Voltage

05: ±50 ppm Temperature Stability

156.250 MHz Nominal Frequency

H: HCSL Output

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

R: Tape and Reel Packaging - 1000pcs Reel

Notes:

- 1- Standard Duty Cycle and Temperature Range do not need to be included in Part Number description.
- 2- Product is shipped in Tape and Reel configuration.
- 3- Quantities less than 250pcs are shipped in tape only.
- 4- Specification subject to change without notice.