



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: December 31,2023

Specification Title:

**Programmable Clock Oscillator  
Miniature - Low Profile  
2.5 x 2.0 millimeter Surface Mount  
General Product Specification**

Part Number:

**S2P Series**

**Electrical Specifications:**

Frequency Range		1.000~125.000	1.000~200.000		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 ± 10%	VDD
Input Current	1.000 to 30.000MHz	25	30	35	mA Max.
	30.001 to 125.000MHz	35	40	45	
	125.001 to 200.000MHz	-	40	45	
Output Voltage	Logic High (Voh)	90%			VDD Min.
	Logic Low (Vol)	10%			VDD Max.
Output Symmetry (Duty Cycle)	Standard	40 ~ 60 ( at 50% VDD)			%
	Tight	45 ~ 55 ( at 50% VDD)			
Output Level		CMOS			
Output Load		15			pF Max.
Rise and Fall Time	1.000 to 200.000MHz	7	5	4	ns Max.
Enable-Disable Function		Tri-State			
Start Up Time		10			ms Max.

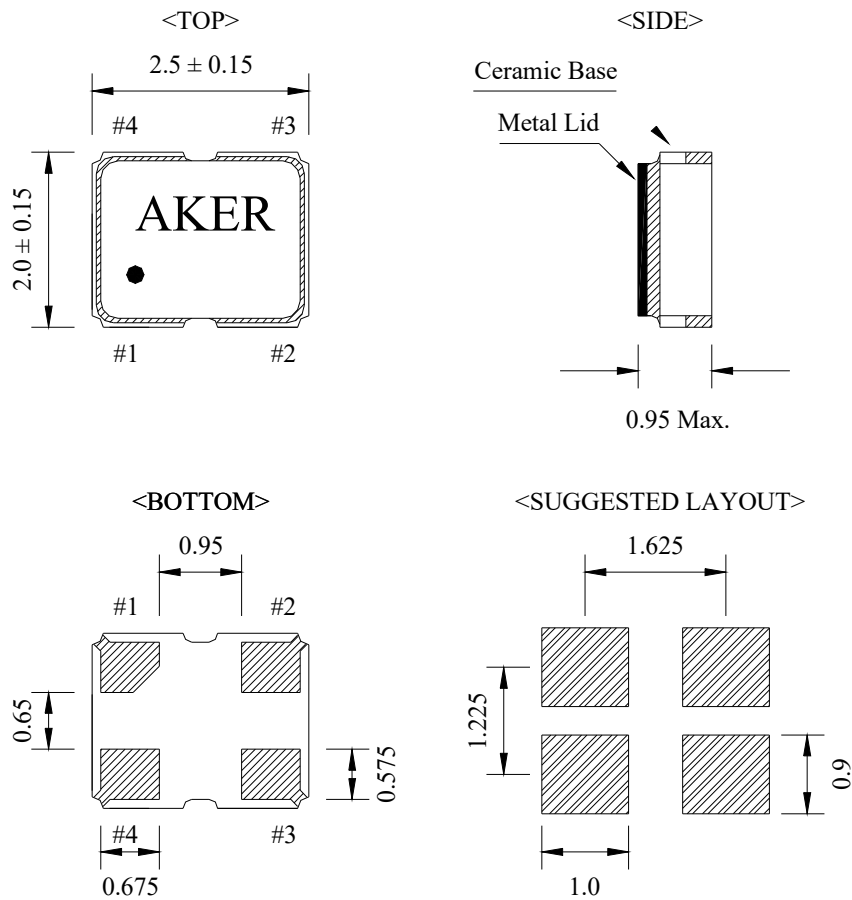
Temperature stability is Inclusive of all conditions:

Calibration Tolerance at +25°C, frequency stability over the operating temperature range, supply voltage change, output load change, shock, vilbration, 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	GND
#3	Output
#4	VDD

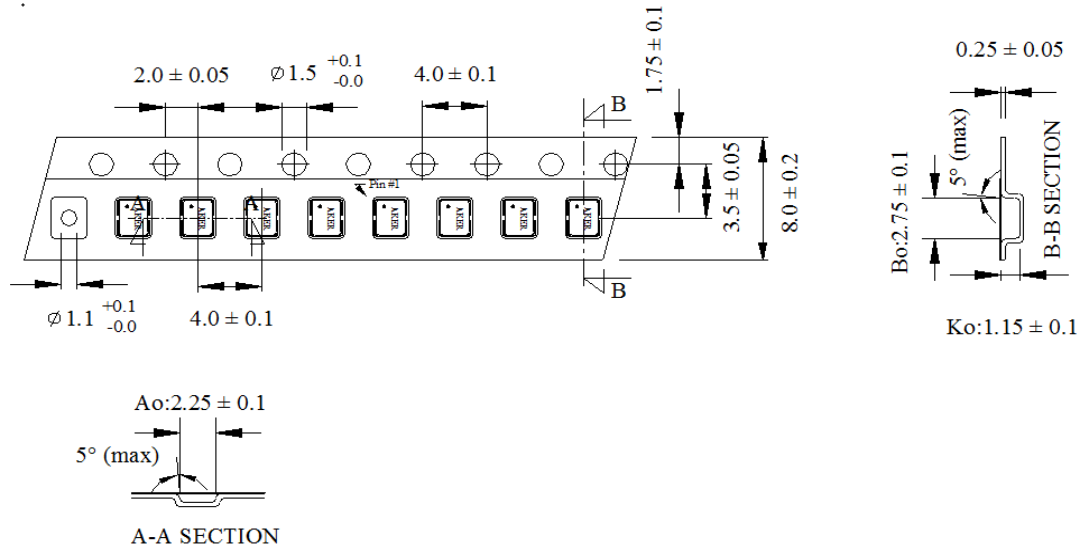
Enable/Disable Function	
PIN #1	PIN #3
HIGH or OPEN	Operating
LOW	High Impedance

**Package is Seam Sealed Ceramic-Metal.**

**Terminator Pads are Ni/Au.**

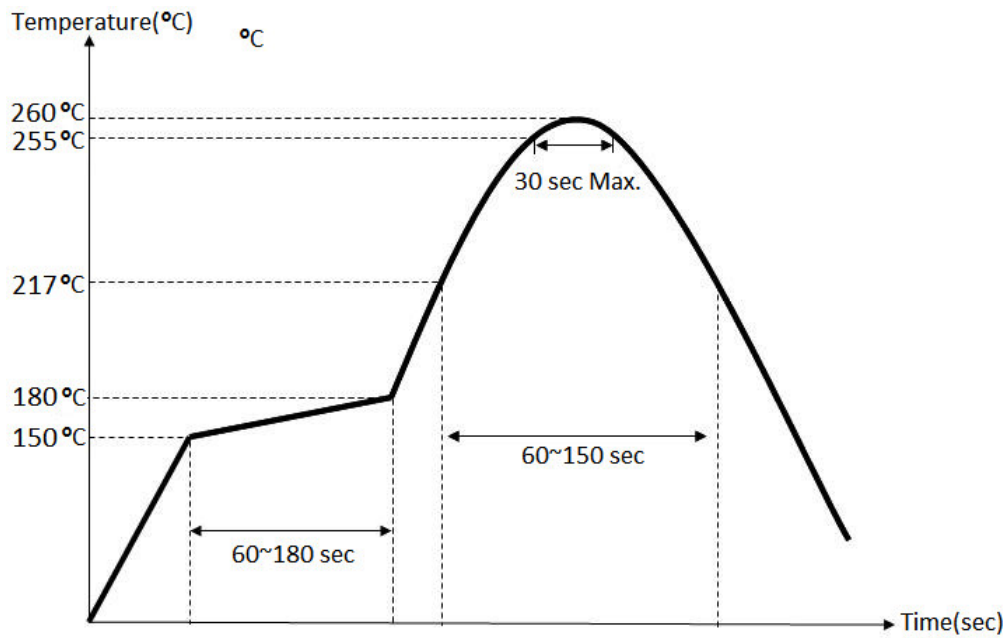
**Dimensions are millimeters.**

### Carrier Tape Dimensions:



Dimensions are millimeters.

### Solder Reflow Characteristics:



## How to build a Part Number:

Series	S	Parameter
Package	2P	2.5 x 2.0 mm
Supply Voltage	33	+3.3 VDD ± 10%
	25	+2.5 VDD ± 5%
	18	+1.8 VDD ± 5%
Temperature Stability	10	±100 ppm
	05	±50 ppm
	025	±25 ppm
	020	±20 ppm
Duty Cycle	See Notes	40%~60%
	T	45%~55%
-		
Frequency	1.000~54.000	MHz
-		
Temperature Range	See Notes	-20 ~ +70 °C
	X	-40 ~ +85 °C
-		
Packaging	M	250pcs Reel
	R	1000pcs Reel
	R3	3000pcs Reel

### Part Number Example:

S2P3305T-25.000-X-R3

S2P: 2.5 x 2.0 mm SMD Package

33: +3.3±5% VDD Supply Voltage

05: ±50 ppm Temperature Stability

T: 45%~55% Tight Symmetry

25.000 MHz Nominal Frequency

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

R3: Tape and Reel Packaging - 3000pcs 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.