



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

All dimensions are millimeters.

CAD:	TCR
Review:	EG
Appr:	JL
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Date:	February 5,2025

Specification Title:

**HC MOS Output Clock Oscillator
Low Profile
5.0 x 3.2 millimeter Surface Mount
General Product Specification**

Part Number:

S5 Series

Electrical Specifications:

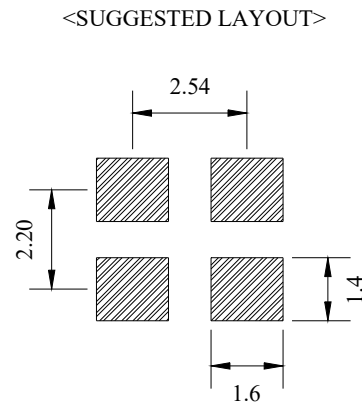
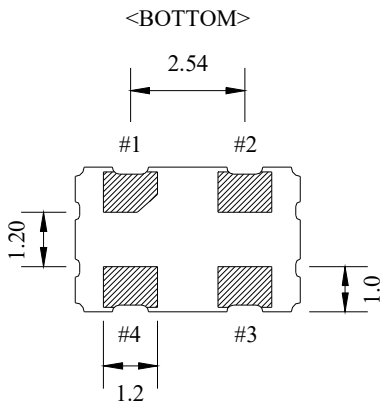
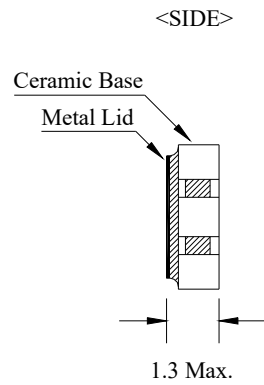
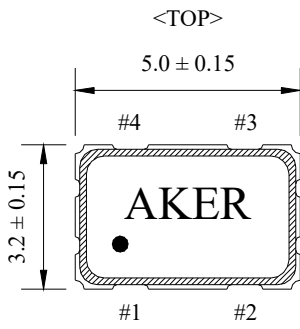
Frequency Range	10.000~40.000	10.000~50.000	10.000~50.000	1.000~110.000	1.000~156.250	1.000~156.250	1.000~110.000	1.000~50.000	MHz	
Frequency Stability	±20 ~ ±100								ppm	
Aging per Year	±3								ppm Max.	
Operating Temperature Range	Standard	-20 ~ +70							°C	
	Extended	-40 ~ +85 Or Specify (-40~+125 is available)								
Storage Temperature Range	-55 ~ +125									
Supply Voltage	0.9 ± 5%	1.2 ± 5%	1.5 ± 5%	1.8 ± 10%	2.5 ± 10%	3.3 ± 10%	1.62 ~ 3.63	5.0 ± 10%	VDD	
Input Current	1.000 to 9.999MHz	-	-	-	5	6	7	7	10	mA Max.
	10.000 to 19.999MHz	1.5	2.5	3.5	6	7	7	7	15	
	20.000 to 31.999MHz	1.5	2.5	3.5	6	8	12	12	25	
	32.000 to 49.999MHz	2	3.5	4.5	15	20	20	20	35	
	50.000 to 79.999MHz	-	-	-	15	20	25	25	-	
	80.000 to 110.000MHz	-	-	-	20	25	30	30	-	
110.001 to 156.250MHz	-	-	-	-	30	40	-	-		
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 Load	15								pF Max.	
Rise and Fall Time	1.000 to 31.999MHz	15	12	10	5	5	5	5	5	ns Max.
	32.000 to 49.999MHz	15	12	10	5	5	5	5	5	
	50.000 to 79.999MHz	-	-	-	4	4	4	4	-	
	80.000 to 110.000MHz	-	-	-	3	3	3	3	-	
	110.001 to 156.250MHz	-	-	-	-	3	3	-	-	
Phase Jitter RMS (12 KHz to 20 MHz)	1								ps Max.	
Enable-Disable Function	Tri-State									
Start Up Time	5								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, vibration, and 1st year aging at +25°C.

RoHS Compliant Pb - Lead Free	Ltr	Revisions	Date	Date	Appr

Mechanical Outline and Solder Pad Layout:



Pin Connection	
PIN No.	Connection
#1	Enable/Disable
#2	GND
#3	Output
#4	VDD

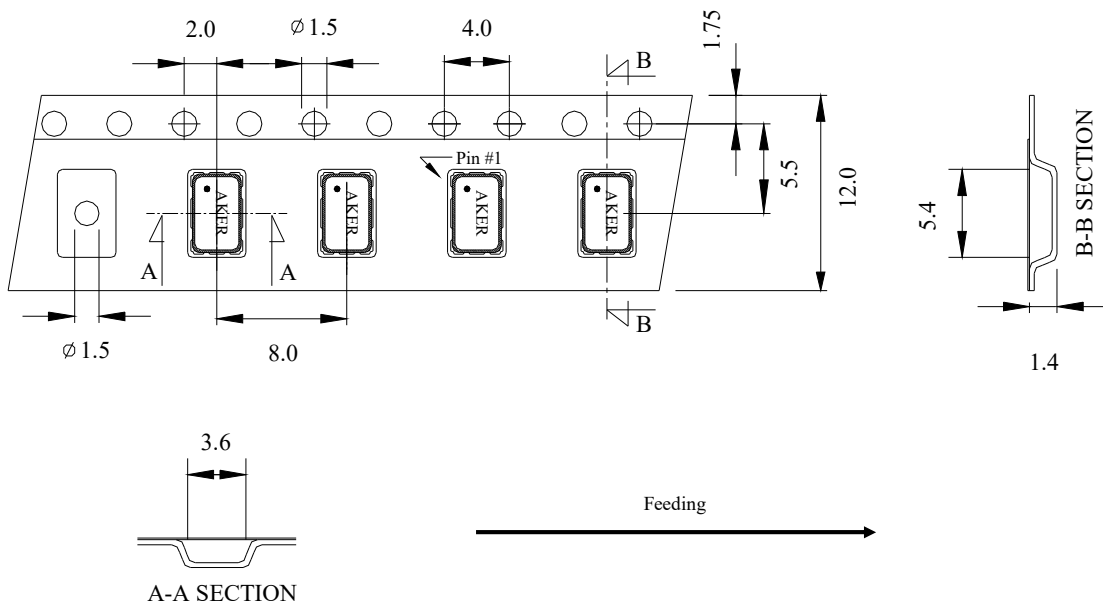
Enable/Disable Function	
PIN #1	PIN #3
HIGH or OPEN	Operating
LOW	High Impedance

Package is Seam Sealed Ceramic-Metal.

Terminator Pads are Ni/Au.

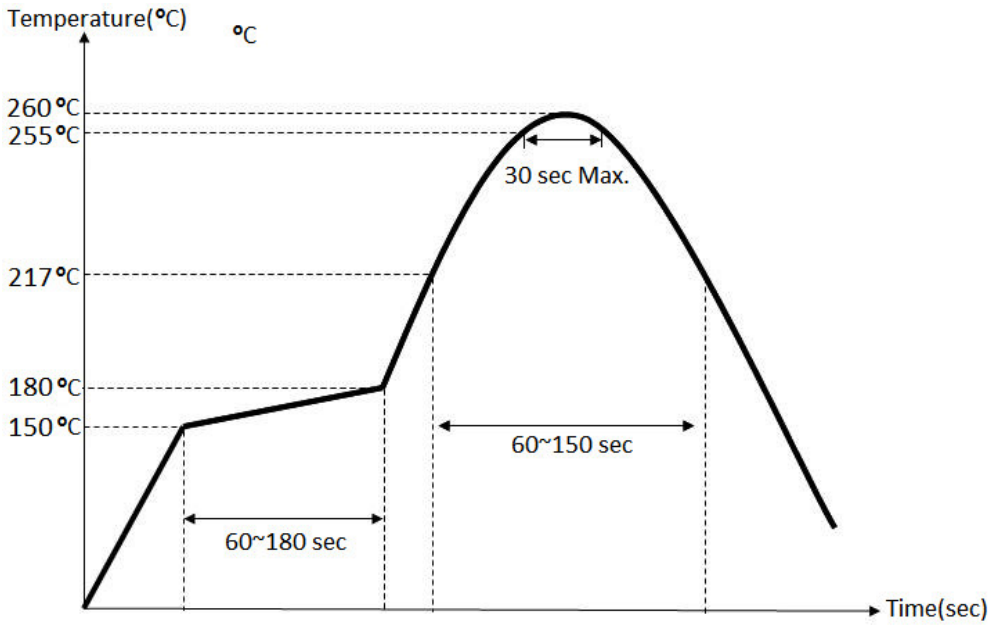
Dimensions are millimeters.

Carrier Tape Dimensions:



Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series	S	Parameter
Package	5	5.0 x 3.2 mm
Supply Voltage	50	+5.0 VDD ± 10%
	33	+3.3 VDD ± 10%
	25	+2.5 VDD ± 10%
	18	+1.8 VDD ± 10%
	15	+1.5 VDD ± 5%
	12	+1.2 VDD ± 5%
	09	+0.9 VDD ± 5%
	M	+1.62 ~ +3.63 VDD
Temperature Stability	10	±100 ppm
	05	±50 ppm
	025	±25 ppm
	020	±20 ppm
Duty Cycle	See Notes	40%~60%
	T	45%~55%
Frequency	1.000~156.250	MHz
Temperature Range	See Notes	-20 ~ +70 °C
	X	-40 ~ +85 °C
	X1	-40 ~ +125 °C
	X2	-40 ~ +105 °C
Packaging	M	250pcs Reel
	R	1000pcs Reel

Part Number Example:

S53305T-50.000-X-R

S5: 5.0 x 3.2 mm SMD Package

33: +3.3±10% VDD Supply Voltage

05: ±50 ppm Temperature Stability

T: 45%~55% Tight Symmetry

50.000 MHz Nominal Frequency

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.