RoHS Compliant
Pb - Lead Free

Ltr	Revisions	Date	Appr

Electrical Specifications:

Frequency Range		**8.000 to 133.000**	**MHz**
Mode of Oscillation	**Fundamental**	**8.000 to 54.000**	**MHZ**
	Third Overtone	**40.000 to 133.000**	
Frequency Tolerance at 25°C	**Standard**	**±30**	**PPM Max**
	Optional	**±25**	
		±20	
		±15	
		±10	
Frequency Stability over Temperature Range	**Standard**	**±50**	**PPM Max**
	Optional	**±30**	
		±25	
		±20	
		±15	
		±10*	
Operating Temperature Range	**Standard**	**-10 to +70**	**° C**
	Extended	**-40 to +85**	
Storage Temperature Range		**-55 to +125**	
Aging		**±3**	**PPM Max/Year**
Load Capacitance		**6 to 32 and Series Resonance**	**pF**
Shunt Capacitance		**7.0**	
Equivalent Series Resistance (ESR)		**See ESR Table**	**Ohm**
Drive Level		**100**	**uW Typ**
Insulation Resistance		**500 at at 100 Vdc ± 15 Vdc**	**M Ohm**

Frequency Range and ESR Values:

Frequency Range in MHz	ESR Ohm Max	Mode of Operation	Frequency Range in MHz	ESR Ohm Max	Mode of Operation
8.000 to 9.749	70	Fundamental	40.000 to 79.999	100	3rd Overtone
9.750 to 9.999	60	Fundamental	80.000 to 99.999	80	3rd Overtone
10.000 to 11.999	45	Fundamental	100.000 to 133.000	60	3rd Overtone
12.000 to 15.999	35	Fundamental			
16.000 to 19.999	30	Fundamental			
20.000 to 49.999	25	Fundamental			
50.000 to 54.000	20	Fundamental			

Accurate Kinetic Energy
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All dimensions are millimeters.

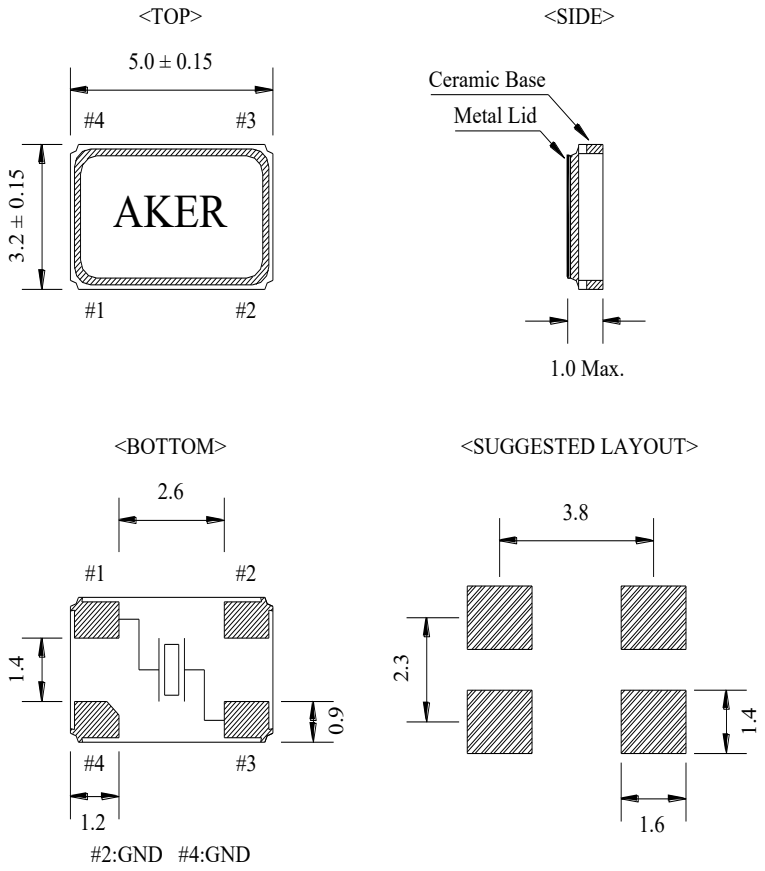
CAD:	TCR
Review:	EG
Appr:	JL
Page: 1/4	Date: Dec 1, 2018

Specification Title:

Microprocessor Crystal Unit
5.0 x 3.2 millimeter Surface Mount
General Product Specification

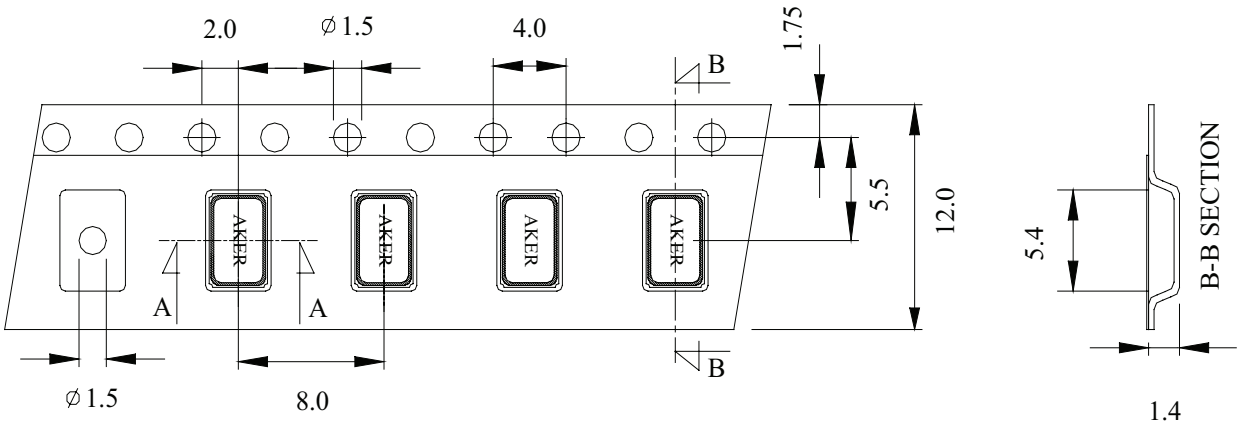
Part Number: **C5S Series**

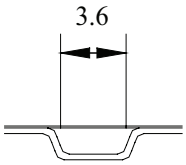
Mechanical Outline:



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

Carrier Tape Dimensions:

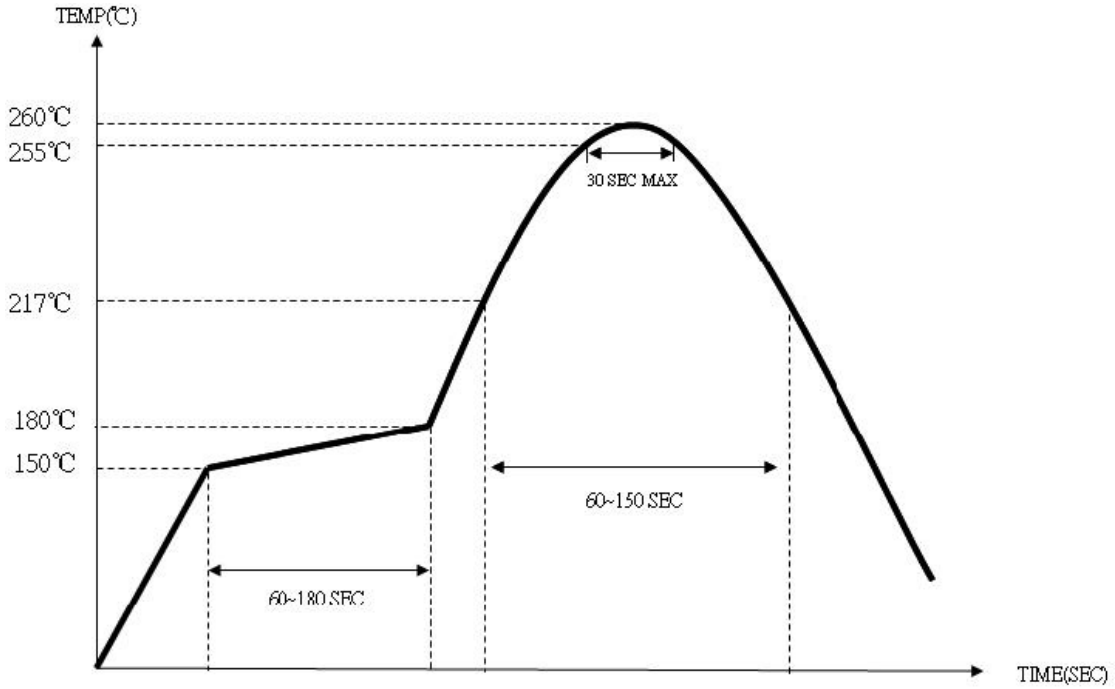




A-A SECTION

Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series		**C**	**Parameter**
Package		**5S**	**5.0 x 3.2 mm**
		-	
Frequency		**8.000 to 133.000**	**MHz**
		-	
Load Capacitance		**6**	**6 pF**
		10	**10 pF**
		12	**12 pF**
		16	**16 pF**
		18	**18 pF**
		20	**20 pF**
		32	**32 pF**
		S	**Series**
		-	
Frequency Tolerance	**Standard**	**30**	**±30 PPM**
	Option	**20**	**±20 PPM**
		15	**±15 PPM**
		10	**± 10 PPM**
Frequency Stability	**Standard**	**50**	**±50 PPM**
	Option	**30**	**±30 PPM**
		20	**±20 PPM**
		15	**±15 PPM**
		10	**±10 PPM***
		-	
Mode of Oscillation		**See Notes**	**Fundamental**
		3	**Third Overtone**
		-	
Temperature Range	**Standard**	**See Notes**	**-10 to +70 ºC**
	Option	**X**	**-40 to +85 ºC**
		-	
Packaging		**M**	**250pcs Reel**
		R	**1000pcs Reel**

Part Number Example:

C5S-40.000-3050-X-R

C5S: 5.0 x 3.2 mm SMD Seam Sealed Package

40.000 MHz Nominal Frequency

18 pF Load Capacitance

3050: ±30 PPM Frequency Tolerance and ±50 PPM Frequency Stability

X: -40 to +85º C Extended Temperature Range

R: Tape and Reel Packaging

Notes:

1- Fundamental mode does not need to be included in Part Number description.
*** ±10 PPM Temperature Stability is only available from -30 to +85° C.**

2- Other Load Capacitances are availble other than those listed in Part Number table above.

3- Product is shipped in Tape and Reel configuration.

4- Quantities less than 250pcs are shipped in tape

5- Specification subject to change without notice

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

AKER Technology:

C5S-25.000-12-50100-X1 C6S-11.0592-12-3030-X S73305-14.7456-X-15 TX32-33025S-40.000-X-R
C3E-12.000-12-3030-R C3E-16.000-12-1010-X C5S-12.000-12-3030-X C6S-16.000-12-3030-X
CA-18.432-18-3050-X CAA-16.000-18-3050-X CAA-4.194304-18-3050-X S73305-12.000-X-15
C3E-12.000-12-1010-X C5S-10.000-12-3030-X C5S-25.000-12-3030-X C1E-24.000-12-3030-X
C3E-20.000-12-3030-X C5S-24.000-12-3030-X CAA-18.432-18-3050-X C7S-6.000-12-3030-X
C3E-20.000-12-50100-X1 CA-7.3728-18-3050-X C3E-12.000-12-3030-X C3E-32.000-12-1010-R
C7S-8.000-12-3030-X CAA-3.6864-18-3050-X S53305-16.000-X C3E-16.000-12-3030-X
C3E-16.000-8-50150-A-X3-R C3E-24.000-12-3030-X