

No.11-3 Jianguo Rd., T.E.P.Z. 42760 Taiwan, ROC

All dimensions are millimeters.

CAD: TCR
Review: EG
Appr: JL

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Specification Title:

Microprocessor Crystal Unit Low Profile 2.5 x 2.0 millimeter Surface Mount - 4 Pad General Product Specification

Series Name: C2E Series

Electrical Specifications:

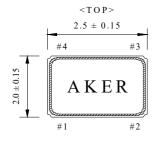
Frequency Range		12.000 to 133.000	MHz
Mode of Oscillation Funda		12.000 to 66.999	MHz
wide of Oscillation	Third Overtone	67.000 to 133.000	MHz
	Standard	±30	
	Optional	±50	PPM Max
Frequency Tolerance at 25°C		±20	(Note 1)
	Ориона	±15	(Note 1)
		±10	
	Standard	±50	
		±100	
5		±30	DD14.44
Frequency Stability over Temperature Range	Optional	±25	PPM Max (Note 1)
remperature Kange		±20	(NOTE 1)
		±15	
		±10*	
	Standard	-20 to +70	
Operating Temperature Range	Extended	-40 to +85	° ≏
		-40 to +125	${\mathbb C}$
Storage Temperature Range		-55 to +125	
Aging		±3	PPM Max/Year
Load Capacitance		6 to 47 and Series Resonance	mE
Shunt Capacitance		3.0	pF
Equivalent Series Resistance(ESR)		See ESR Table	Ohm
Drive Level		100	uW Max
Insulation Resistance		500 at 100 Vdc ± 15 Vdc	M Ohm

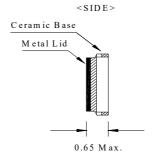
Frequency Range and ESR Values:

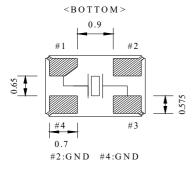
Frequency Range and ESR values.					
Frequency Range in MHz	ESR Ohm Max	Mode of Operation	Frequency Range in MHz	ESR Ohm Max	Mode of Operation
12.000 to 15.999	150	Fundamental	67.000 to 99.999	150	Third Overtone
16.000 to 19.999	80	Fundamental	100.000 to 133.000	100	Third Overtone
20.000 to 24.999	60	Fundamental			
25.000 to 29.999	50	Fundamental			
30.000 to 34.999	45	Fundamental			
35.000 to 66.999	40	Fundamental			

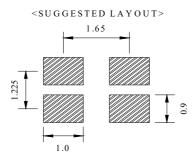
	Ltr	Revisions	Date	Appr
RoHS Compliant				
Pb - Lead Free				
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Mechanical Outline:









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

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				1	

Carrier Tape Dimensions: 2.0 Ø 1.5 4.0 AKER. $\Box_{\overline{B}}$ Ø1.0 4.0 0.8 A-A SECTION Dimensions are millimeters. **Solder Reflow Characteristics:** TEMP(°C) 260℃ 255℃ 217℃ 180℃ 150°C 60~150 SEC 60~180 SEC TIME(SEC) Page: P/N: **C2E Series** Date: August 01, 2022 3/4

How to build a Part Number:

Package	Series		С	Parameter	
Temperature Range Standard See Notes -20 to +70 °C			2E		
Continue Continue	-				
Temperature Range Total Paris Total Pa	Frequency		12.000 to 133.000	MHz	
Load Capacitance		. ,	-		
12			7	7pF	
Load Capacitance			10	10 pF	
18		Ī	12	12 pF	
18 18 pr 20 20 pF 32 32 pF S Series S	l and Ca		16	16 pF	
Standard 30	Load Ca	ipacitance	18	18 pF	
Sandard 30			20	20 pF	
Standard 30			32	32 pF	
Tolerance (Note 1)		ļ	S	Series	
Tolerance (Note 1)		<u>, </u>	-		
Tolerance (Note 1)		Standard	30	±30PPM	
Note 1)	Frequency		25	±25PPM	
Standard Standard	Tolerance		20	±20PPM	
Standard 50	(Note 1)		15	±15PPM	
Temperature Range			10	±10PPM	
Standard See Notes -20 to +70 °C		Standard	50	±50PPM	
Option 25			100	±100PPM	
Option 25	Eroguanay Stability		30	±30PPM	
20			25	±25PPM	
10 ±10PPM*	(Note 1)	Option	20	±20PPM	
			15	±15PPM	
Option			10	±10PPM*	
Option			-		
Option	Temperature Range	Standard	See Notes	-20 to +70 ℃	
Option		Option	Х	-40 to +85 ℃	
Option X2 -40 to +105 ℃ - M 250pcs Reel		Option	X1		
M 250pcs Reel			X2		
	-				
			M	250pcs Reel	
i ackaging it i toopes itee	Packaging		R	1000pcs Reel	
R3 3000pcs Reel			R3		

Part Number Example:

C2E-50.000-18-3050-R

C2E- 2.5 x 2.0 mm SMD Seam Seal Crystal Unit - 4 Pad

50.000 MHz Nominal Frequency

18 pF Load Capacitance

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

Fundamental Mode

-10 to +70° C Temperature Range

R: Tape and Reel Packaging

Notes:

- 1- Frequency Tolerance and Stability options are limited due to physical size.
- * ±10 PPM Temperature Stability is only available from -30 to +85° C.
- 2- Standard Temperature Range does not need to be included in Part Number description.
- 3- Product is shipped in Tape and Reel configuration.
- 4- Quantities less than 250pcs are shipped in tape only.
- 5- Specification subject to change without notice.

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