

RoHS Compliant
Pb - Lead Free
AEC-Q200 Qualified

Ltr	Revisions	Date	Appr

Electrical Specifications:

Frequency Range	16.000 to 54.000	MHz
Mode of Oscillation	Fundamental	
Frequency Tolerance at 25°C	±50	PPM Max
Frequency Stability over Temperature Range	±100	
Operating Temperature Range	-40 to +125	°C
Storage Temperature Range	-55 to +125	
Aging	±3	PPM Max/Year
Load Capacitance	7 to 32 and Series Resonance	pF
Shunt Capacitance	3.0	
Equivalent Series Resistance (ESR)	See ESR Table	Ohms
Drive Level	100	uW Typ
Insulation Resistance	500 at 100 Vdc ± 15 Vdc	M Ohms

Frequency Range and ESR Values:

Frequency Range in MHz	ESR Ohm Max	Mode of Operation
16.000 to 19.199	200	Fundamental
19.200 to 25.999	100	Fundamental
26.000 to 35.999	80	Fundamental
36.000 to 54.000	60	Fundamental



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All dimensions are millimeters.

CAD: TCR

Review: EG

Appr: JL

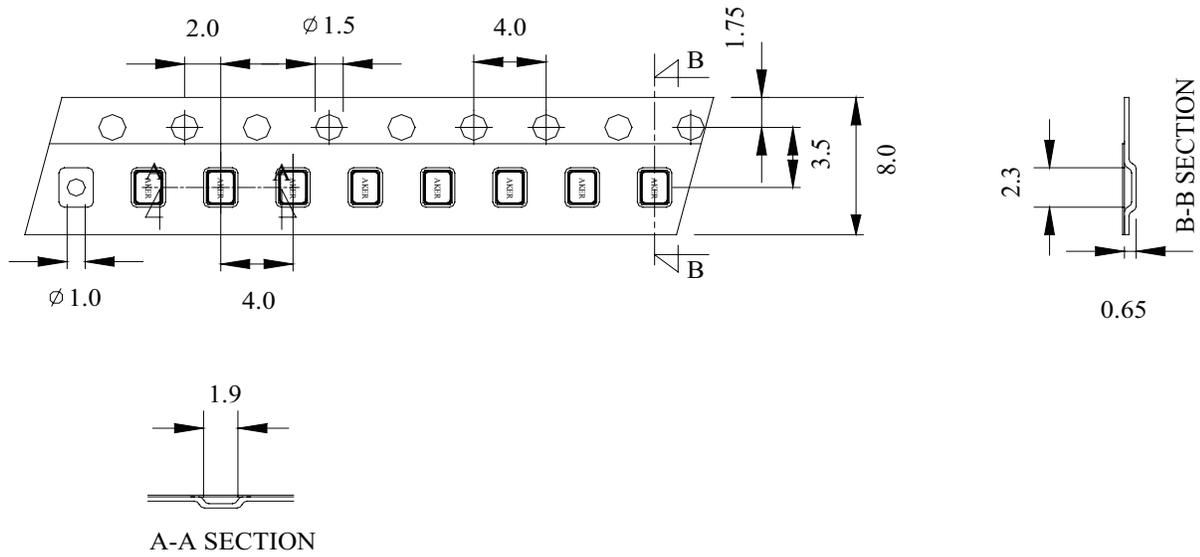
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Specification Title:

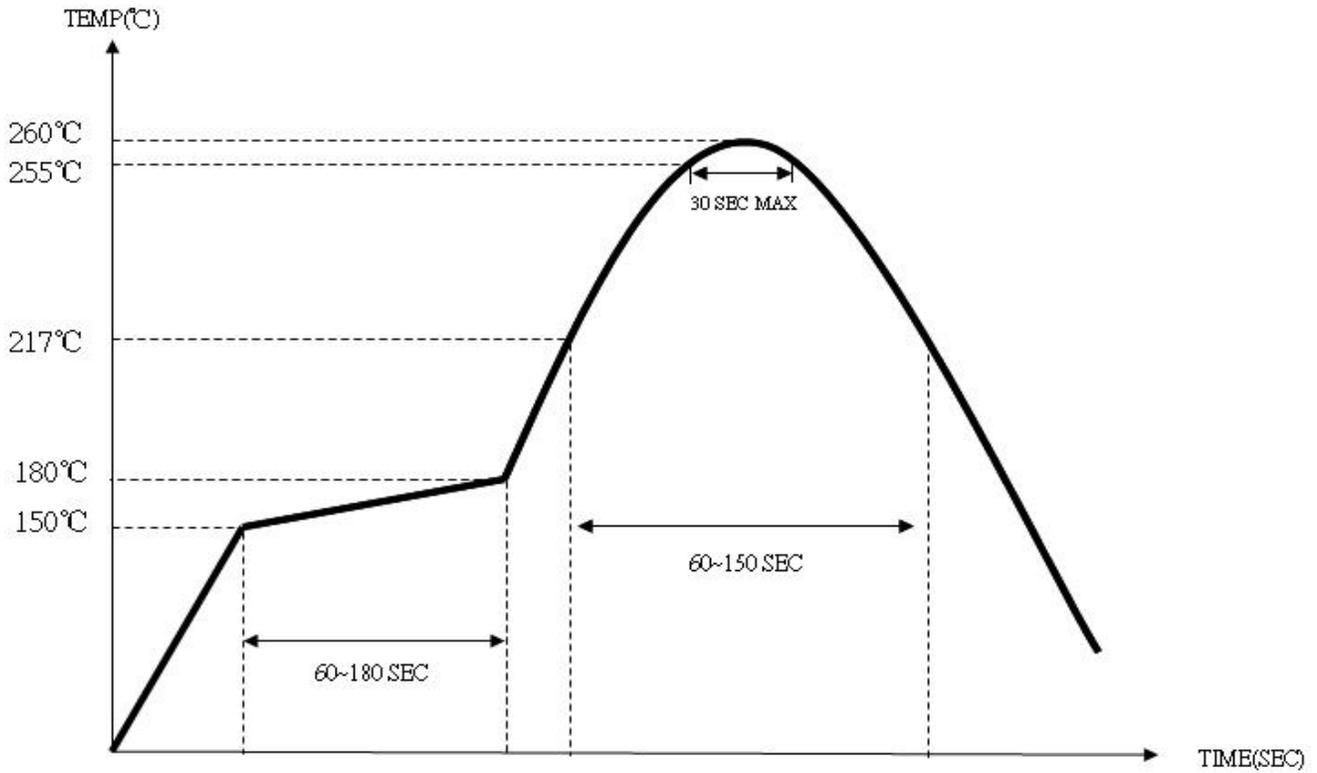
**Microprocessor Crystal Unit
Automotive Temperature Range
Low Profile
2.0 x 1.6 millimeter Surface Mount
General Product Specification**

Part Number: C1E X1 Series

Carrier Tape Dimensions:



Dimensions are millimeters.



How to build a Part Number:

Series		C	Parameter
Package		1E	2.0 x 1.6 mm Seam Seal
		-	
Frequency		16.000 to 54.000	MHz
		-	
Load Capacitance		7	7 pF
		10	10 pF
		12	12 pF
		16	16 pF
		18	18 pF
		20	20 pF
		32	32 pF
		-	
Frequency Tolerance (Note 1)		50	±50 PPM
Frequency Stability (Note 1)		100	±100 PPM
		-	
Temperature Range		X1	-40 to +125 °C
		-	
Packaging		M	250pcs / Reel
		R	1000pcs / Reel
		R3	3000pcs / Reel

Part Number Example:

C1E-50.000-10-50100-X1-R
C1E- 1.6 x 2.0 mm SMD Seam Seal Crystal Unit
50.000 MHz Nominal Frequency
10 pF Load Capacitance
50100: ±50 PPM Frequency Tolerance and ±100 PPM Frequency Stability
Fundamental Mode
-40 to +125° C Temperature Range
R: Tape and Reel Packaging - 1000pcs

Notes:

- 1- Frequency Tolerance and Stability options are limited due to physical size.
- 2- Product is shipped in Tape and Reel configuration.
- 3- Quantities less than 250pcs are shipped on tape only.
- 4- Specification subject to change without notice.