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|----------------------------------|-----|-----------|------|------|
| RoHS Compliant Pb - Lead Free | Ltr | Revisions | Date | Appr |
| | | | | |
| | | | | |
| | | | | |

Electrical Specifications:

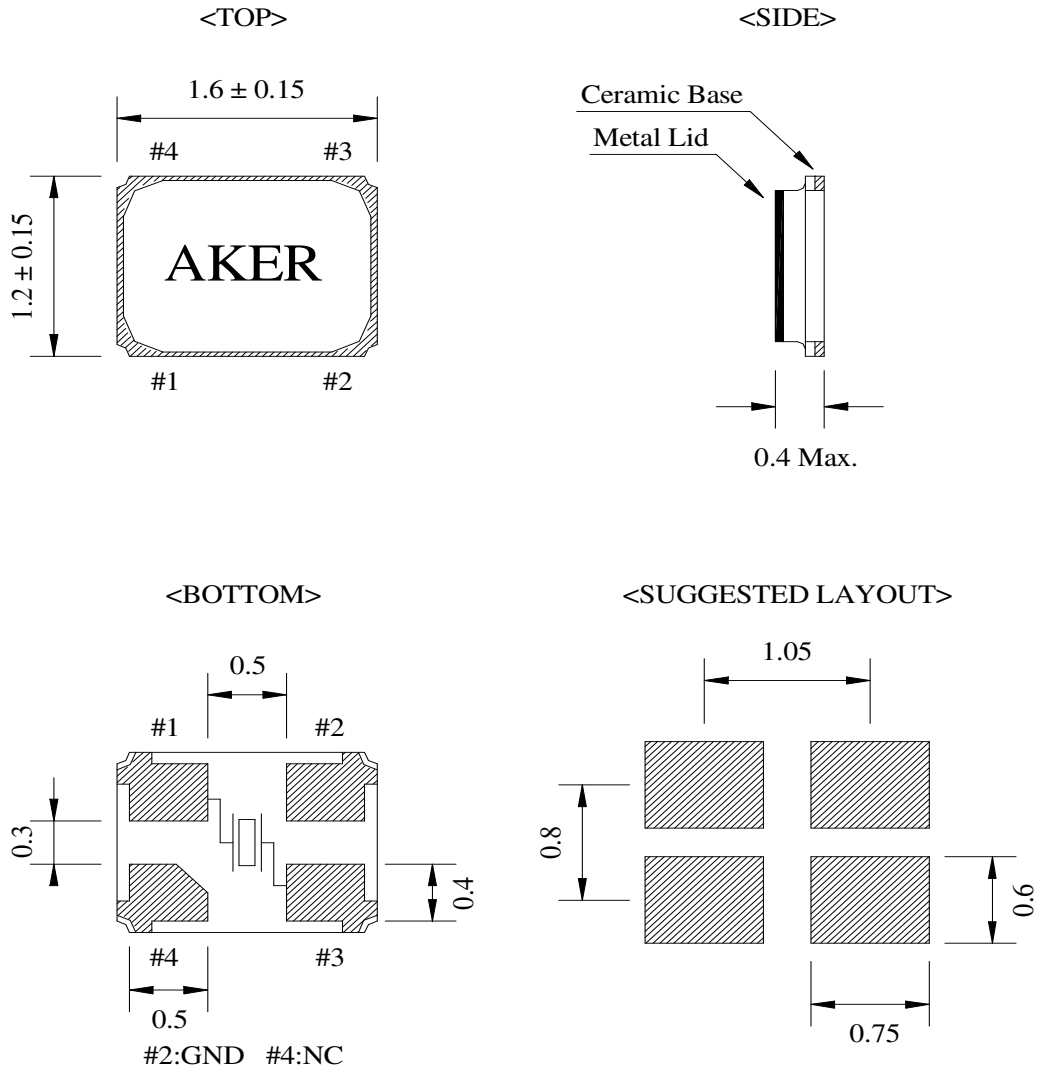
| | | | |
|---|--------------------|-------------------------------------|-----------------------------|
| Frequency Range | | 24.000 to 48.000 | MHz |
| Mode of Oscillation | Fundamental | 24.000 to 48.000 | |
| Frequency Tolerance at 25°C | Standard | ±30 | PPM Max (Note 1) |
| | Optional | ±25 | |
| | | ±20 | |
| | | ±15 | |
| | | ±10 | |
| Frequency Stability over Temperature Range | Standard | ±50 | PPM Max (Note 1) |
| | Optional | ±30 | |
| | | ±25 | |
| | | ±20 | |
| | | ±15* | |
| 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 | | 3.0 | |
| Equivalent Series Resistance (ESR) | | See ESR Table | Ohm |
| Drive Level | | 100 | uW Max |
| Insulation Resistance | | 500 at 100 Vdc ± 15Vdc | M Ohm |

Frequency Range and ESR Values:

| Frequency Range in MHz | ESR Ohm Max | Mode of Operation |
|------------------------|-------------|-------------------|
| 24.000 to 29.999 | 150 | Fundamental |
| 30.000 to 36.999 | 100 | Fundamental |
| 37.000 to 48.000 | 80 | Fundamental |

| | | |
|---|---|--|
|  <p>11-3 Chien-Kuo Rd T.E.P.Z. 4027 Taiwan, ROC</p> <p>All dimensions are millimeters.</p> <p>CAD: TCR</p> <p>Review: EG</p> <p>Appr: JL</p> <p>Page: 1/4 Date: Nov 25, 2018</p> | Specification Title: Microprocessor Crystal Unit Low Profile 1.2 x 1.6 millimeter Surface Mount General Product Specification | |
| | Part Number: C16 Series | |

Mechanical Outline:



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

How to build a Part Number:

| | | | |
|---|-----------------|-------------------------|-------------------------------|
| Series | | C | Parameter |
| Package | | 16 | 1.6 x 1.2 mm Seam Seal |
| | | - | |
| Frequency | | 24.000 to 48.000 | MHz |
| | | - | |
| Load Capacitance | | 6 | 6 pF |
| | | 10 | 10 pF |
| | | 12 | 12 pF |
| | | 16 | 16 pF |
| | | 18 | 18 pF |
| | | 20 | 20 pF |
| | | 32 | 32 pF |
| | | - | |
| Frequency Tolerance (Note 1) | Standard | 30 | ±30 PPM |
| | Option | 25 | ±25 PPM |
| | | 20 | ±20 PPM |
| | | 15 | ± 15 PPM |
| | | 10 | ±10 PPM |
| Frequency Stability (Note 1) | Standard | 50 | ±50 PPM |
| | Option | 30 | ±30 PPM |
| | | 25 | ±25 PPM |
| | | 20 | ±20 PPM |
| | | 15 | ±15 PPM* |
| | | - | |
| Temperature Range | Standard | See Notes | -10 to +70 °C |
| | Extended | X | -40 to +85 °C |
| | | - | |
| Packaging | | M | 250pcs Reel |
| | | R | 1000pcs Reel |
| | | R3 | 3000pcs Reel |

Part Number Example:

C16-40.000-10-3030-R
C16- 1.6 x 2.0 mm SMD Seam Seal Crystal Unit
40.000 MHz Nominal Frequency
10 pF Load Capacitance
3030: ±30 PPM Frequency Tolerance and ±30 PPM Frequency Stability
Fundamental Mode
-20 to +70° C Temperature Range
R: Tape and Reel Packaging - 1000pcs

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.