

INCH-POUND
MIL-PRF-3098/108E
w/AMENDMENT 1
7 October 2016
SUPERSEDING
MIL-PRF-3098/108E
6 March 2013

PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR128/U

INACTIVE FOR NEW DESIGN
AFTER 22 JUNE 2016

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and [MIL-PRF-3098](#).

Pertinent characteristics: 17 MHz to 61 MHz; third mechanical overtone; noncontrolled; series resonance.

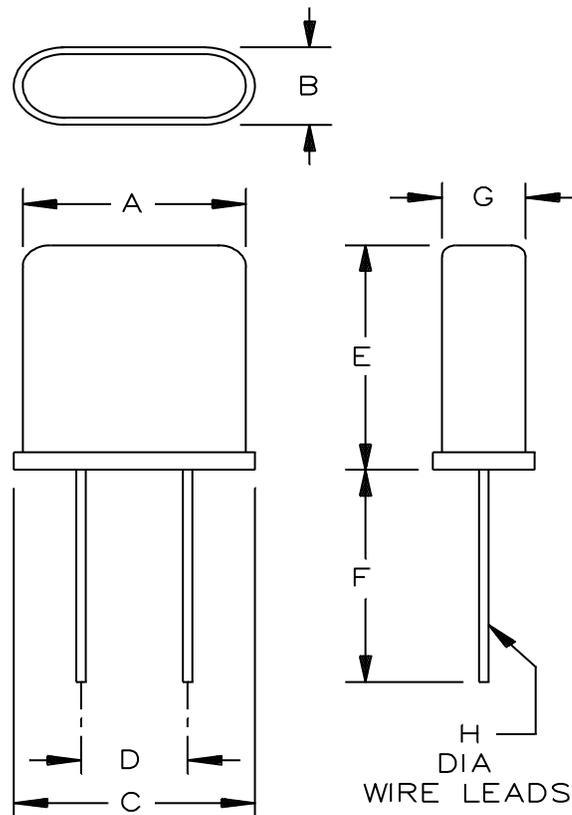


FIGURE 1. Crystal unit - CR128/U.



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Ltr	Inches		mm	
	Min	Max	Min	Max
A	---	.402	---	10.21
B	---	.183	---	4.65
C	---	.435	---	11.05
D	.184	.200	4.67	5.08
E	---	.530	---	13.46
F	.50	---	12.7	---
G	---	.150	---	3.81
H	.015	.019	0.38	0.48

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking to be in accordance with [MIL-PRF-3098](#).

FIGURE 1. Type CR128/U, crystal unit - Continued.

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REQUIREMENTS:

Dimensions, marking, and configuration: See [figure 1](#).

Frequency range: 17 MHz to 61 MHz, inclusive.

Capacitance, shunt: 7 pF, maximum.

Mode of oscillation: Third mechanical overtone.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Operating temperature range (noncontrolled): -55°C to +105°C, inclusive.

Operable temperature range: +105°C to +125°C, inclusive.

Frequency tolerance (operating temperature range): ± 50 ppm.

Equivalent resistance: 40 ohms, maximum.

Qualification: Not required. First article testing shall be performed according to the qualification table of MIL-PRF-3098.

Shock (specified pulse):

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 15 percent or 2 ohms, whichever is greater.

Vibration: [MIL-STD-202-204](#), test condition A; 0.015 inch (0.03 inch total excursion) 10 Hz to 55 Hz; or an amplitude to produce 10 gravity units, 55 Hz to 500 Hz, whichever is the limiting value.

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 15 percent or 2 ohms, whichever is greater.

Thermal shock: ± 50 ppm.

Aging:

Frequency change permitted: ± 10 ppm.

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Reference documents. In addition to [MIL-PRF-3098](#), this document references the following:

[MIL-STD-202-204](#)

The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:

Army - CR
Navy - EC
DLA - CC

Preparing activity:

Army - CR

Agent:

DLA - CC

(Project 5955-2016-039)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.