

INCH-POUND
MIL-PRF-3098/92G
w/AMENDMENT 1
16 September 2019
SUPERSEDING
MIL-PRF-3098/92G
17 September 2014

PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR116/U

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: 50 MHz to 125 MHz; fifth mechanical overtone; noncontrolled; series resonance.

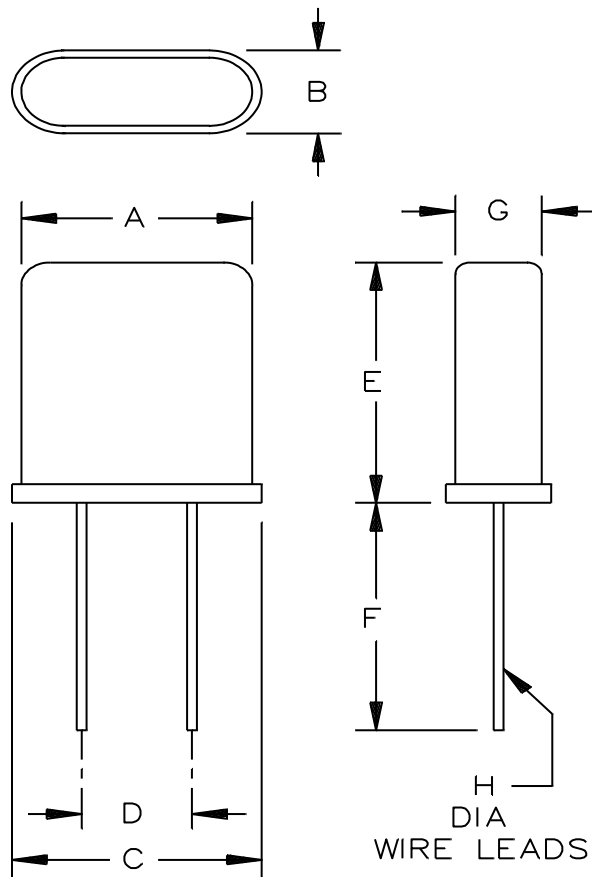


FIGURE 1. Crystal unit - CR116/U.

AMSC N/A

FSC 5955



MIL-PRF-3098/92G
w/AMENDMENT 1

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 CR116/U, crystal unit - Continued.

REQUIREMENTS:

Qualification inspection is not applicable for this specification sheet. Acceptance testing shall consist of screening, Group A and Group B inspection of [MIL-PRF-3098](#).

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

Frequency range: 50 MHz to 125 MHz, inclusive.

Capacitance, shunt: 4.5 pF, maximum.

Mode of oscillation: Fifth mechanical overtone.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Calibration values:

Resistance: 40 ohms.

Resistor voltage drop: 0.28 volt.

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

Frequency tolerance: ± 25 ppm.

Equivalent resistance: 60 ohms, maximum.

Unwanted modes: The minimum unwanted mode effective resistance shall be at least three times that of the main mode, or 120 ohms, whichever is greater.

Shock:

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 10 percent.

MIL-PRF-3098/92G
w/AMENDMENT 1

Vibration: [MIL-STD-202-204](#), test condition A.

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 10 percent.

Thermal shock:

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 10 percent.

Aging:

Frequency change permitted: ± 5 ppm.

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

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

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
Army - CR

Agent:
DLA - CC

(Project 5955-2019-024)

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>.