

PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR125/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 sheet and [MIL-PRF-3098](#).

Pertinent characteristics: 1.85 MHz to 3.05 MHz; fundamental mode; noncontrolled; antiresonance.

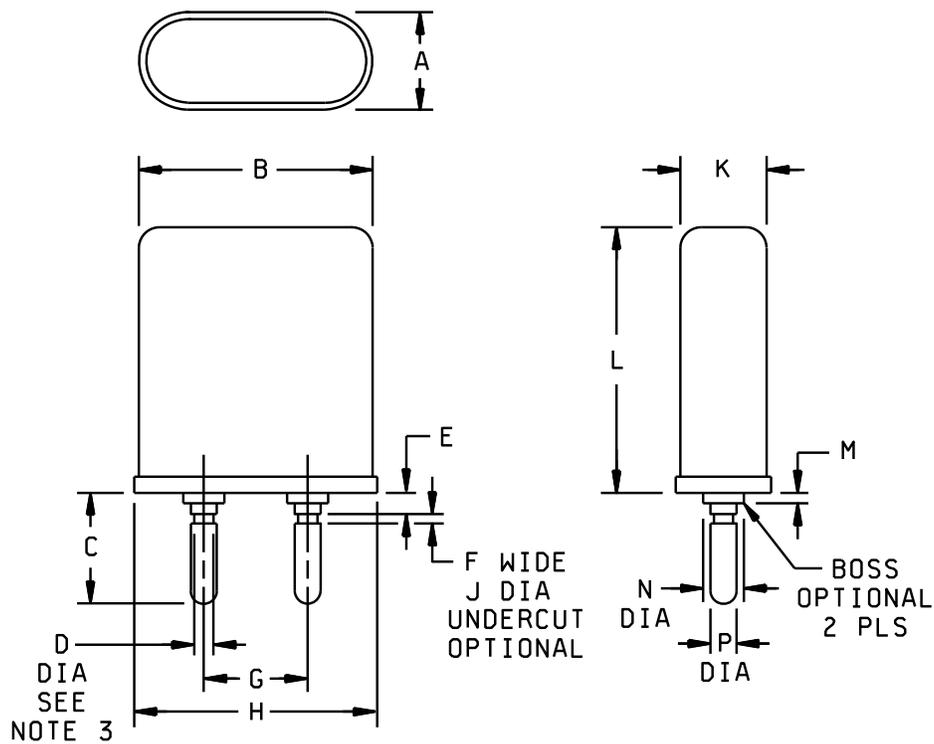


FIGURE 1. Crystal unit - CR125/U.

MIL-PRF-3098/102D

Ltr	Inches		mm	
	Min	Max	Min	Max
A	---	.352	---	8.94
B	---	.725	---	18.42
C	.223	.248	5.66	6.30
D	.030	.037	0.76	0.94
E	.030	.040	0.76	1.02
F	.015	.025	0.38	0.64
G	.460	.476	11.63	12.09
H	---	.757	---	19.23
J	.030	.037	0.76	0.94
K	---	.317	---	8.05
L	---	.775	---	19.69
M	.015	.025	0.38	0.64
N	.075	.141	1.90	3.58
P	.048	.052	1.22	1.32

NOTES:

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

FIGURE 1. Crystal unit - CR125/U - Continued.

REQUIREMENTS:

- Dimensions, marking, and configuration: See figure 1.
- Frequency range: 1.85 MHz to 3.05 MHz, inclusive.
- Capacitance, shunt: 7 pF, maximum.
- Frequency tolerance: ± 0.005 percent.
- Mode of oscillation: Fundamental.
- Antiresonance, load capacitance: 32.0 pF ± 0.05 pF.
- Rated drive level: 1.0 mW, maximum.
- Operating temperature range (noncontrolled): -55°C to +105°C, inclusive.
- Equivalent resistance: See table I.

TABLE I. Equivalent resistance.

Frequency range inclusive	Maximum resistance
<u>MHz</u>	<u>Ohms</u>
1.85 to 1.999999	550
2.0 to 2.249999	500
2.25 to 2.999999	320
3.0 to 3.050000	175

- Shock:
- | | | |
|-------------------------------------------------------------------------------------------------|---------------------|------------------------|
| | <u>Below 2 MHz</u> | <u>2 MHz and above</u> |
| Frequency change permitted: | ± 0.001 percent | ± 0.0005 percent |
| Equivalent resistance change permitted: ± 15 percent or ± 2 ohms, whichever if greater. | | |

Vibration: [Method 204, MIL-STD-202](#), test condition B; amplitude to produce 5 gravity units, maximum.

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|-------------------------------------------------------------------------------------------------|---------------------|------------------------|
| | <u>Below 2 MHz</u> | <u>2 MHz and above</u> |
| Frequency change permitted: | ± 0.001 percent | ± 0.0005 percent |
| Equivalent resistance change permitted: ± 15 percent or ± 2 ohms, whichever if greater. | | |

Temperature cycling: ± 0.001 percent.

Aging:

- Frequency change permitted: ± 0.002 percent.
- Equivalent resistance: See table I.
- Aging temperature: 105°C for 200 days.

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

[MIL-STD-202](#)

MIL-PRF-3098/102D

The margins of this specification 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
Air Force - 99
DLA - CC

Preparing activity:

DLA - CC

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Review activities:

Air Force - 19, 84

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 <http://assist.daps.dla.mil/>.