

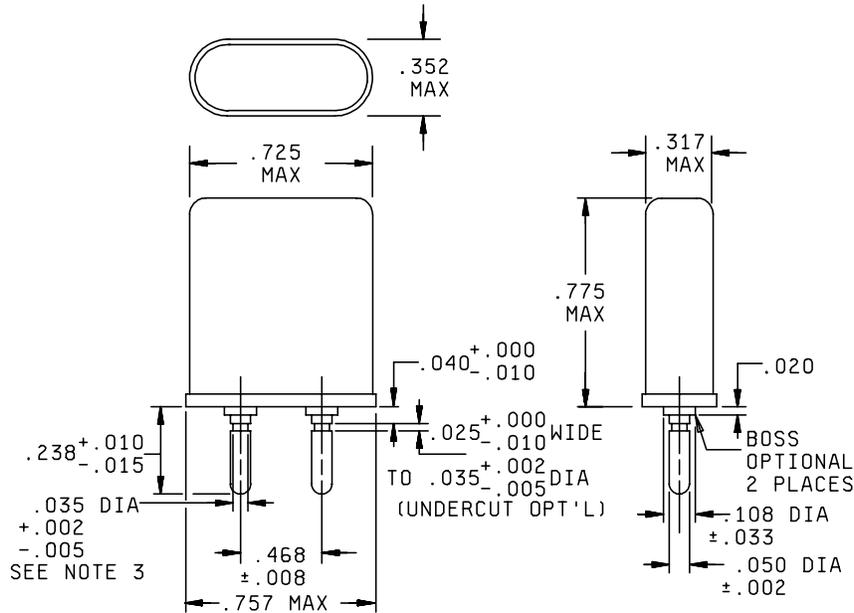
PERFORMANCE SPECIFICATION SHEET

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 and MIL-PRF-3098.

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



Inches	mm	Inches	mm	Inches	mm	Inches	mm
.002	.05	.020	.51	.050	1.27	.486	12.34
.005	.13	.025	.64	.108	2.74	.725	18.42
.008	.20	.033	.84	.238	6.05	.757	19.23
.010	.25	.035	.89	.317	8.05	.775	19.69
.015	.38	.040	1.02	.352	8.94		

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.

MIL-PRF-3098/102C

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 $+105^{\circ}\text{C}$, 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.

- | | | |
|---|---------------------|------------------------|
| | <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

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

MIL-PRF-3098/102C

Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5955-0756)

Review activities:

Air Force - 19, 99

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 www.dodssp.daps.mil.