

INCH POUND
MIL-PRF-3098/57G
27 August 1997
SUPERSEDING
MIL-C-3098/57F
10 April 1995

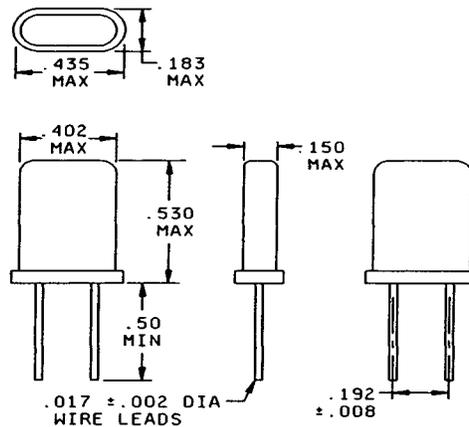
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR80/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.



Inches	mm
.002	.05
.008	.20
.017	.43
.150	3.81
.183	4.65
.192	4.88
.402	10.21
.435	11.05
.500	12.70
.530	13.46

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be in accordance with MIL-C-3098.

FIGURE 1. Crystal unit - CR80/U.

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REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 50 MHz to 125 MHz, inclusive.

Capacitance, shunt: 7 pF, maximum.

Frequency tolerances:

Primary operating temperature range: ± 20 parts per million (ppm).

Secondary operating temperature range: ± 30 ppm.

Equivalent resistance:	<u>MHz</u>	<u>Ohms, maximum</u>
	50 to 90	50
	90+ to 125	60

Mode of oscillation: Fifth mechanical overtone.

Operating temperature ranges:

Primary: -40°C to $+90^{\circ}\text{C}$, inclusive.

Secondary: -55°C to -40°C , and $+90^{\circ}\text{C}$ to $+105^{\circ}\text{C}$, inclusive.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Shock (specified pulse):

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 10 percent.

Vibration: Method 204 of MIL-STD-202, 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.

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Aging:

Frequency change permitted: ± 5 ppm.

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

Custodians:

Army - CR

Navy - EC

Air force - 85

Review activities:

Army - AR, MI, SM

Navy - AS, CG, MC, OS, SH

Air Force - 17, 19, 99

Preparing activity:

Army - CR

Agent:

DLA - CC

(Project 5955-0697-33)