

INCH POUND

MIL-PRF-3098/51G
27 August 1997
SUPERSEDING
MIL-C-3098/51F
10 April 1995

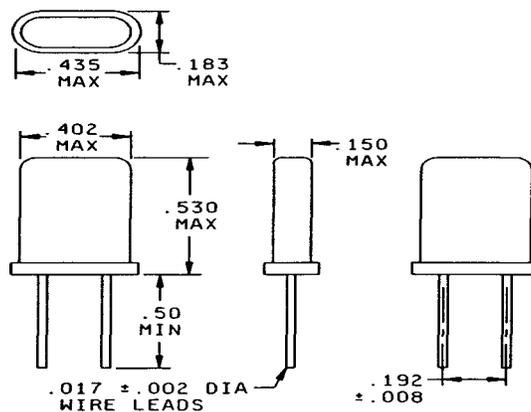
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR74/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: 45 MHz to 125 MHz; fifth mechanical overtone; controlled; 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 to be in accordance with MIL-PRF-3098.

FIGURE 1. Crystal unit - CR74/U.

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REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 45 MHz to 125 MHz, inclusive.

Capacitance, shunt: 4.5 pF \pm 0.5 pF.

Frequency tolerance:

Operating temperature range: \pm 10 ppm.

Frequency stability: \pm 2.5 ppm.

Equivalent resistance: 20 ohms, minimum; 50 ohms, maximum.

Mode of oscillation: Fifth mechanical overtone.

Temperature ranges:

Operating (controlled): +80°C to +90°C, inclusive.

Operable: -55°C to +80°C, inclusive.

Reference temperature: +85°C \pm 1°C.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Unwanted mode: Twice main mode.

Shock (specified pulse):

Frequency change permitted: \pm 3 ppm.

Equivalent resistance change permitted: \pm 15 percent.

Vibration high frequency: Method 204 of MIL-STD-202, test condition A.

Frequency change permitted: \pm 3 ppm.

Equivalent resistance change permitted: \pm 15 percent.

Thermal shock:

Frequency change permitted: \pm 3 ppm.

Equivalent resistance change permitted: \pm 15 percent.

Aging:

Frequency change permitted: \pm 3 ppm.

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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
DLA - CC

Preparing activity:

Army - CR

Agent:

DLA - CC

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