

INCH POUND

MIL-PRF-3098/42H
27 August 1997
SUPERSEDING
MIL-C-3098/42G
23 August 1984

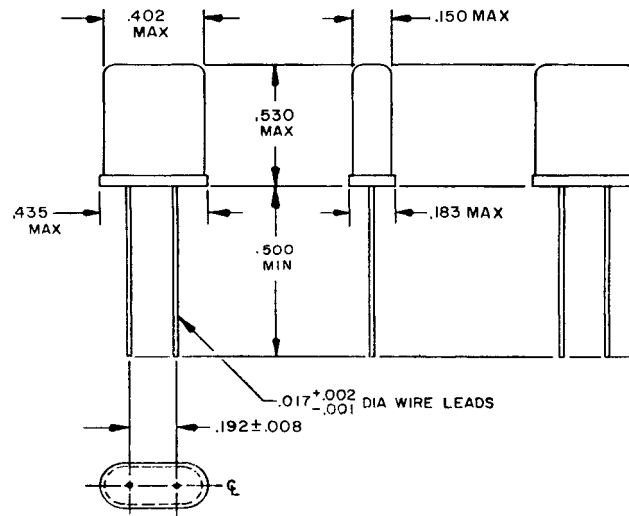
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR64/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: 2.4 MHz to 20 MHz; fundamental; noncontrolled; antiresonance.



Inches	mm	Inches	mm
.001	.03	.192	4.88
.002	.05	.402	10.21
.008	.20	.435	11.05
.017	.43	.500	12.70
.150	3.81	.530	13.46
.183	4.65		

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 - CR64/U.

MIL-PRF-3098/42H

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 2.4 MHz to 20 MHz, inclusive.

Frequency tolerance:

Operating temperature range: ± 50 parts per million (ppm).

Antiresonance, load capacitance: 30.0 pF ± 0.5 pF.

Equivalent resistance: See table I.

Operating temperature range (noncontrolled): -55°C to $+105^{\circ}\text{C}$, inclusive.

Mode of oscillation: Fundamental.

Rated drive level: 1.0 mW, maximum.

Capacitance, shunt: 2.4 MHz to 4.0 MHz - 1.7 pF min. to 7.0 pF max.
4.0 MHz to 6.0 MHz - 2.7 pF min. to 7.0 pF max.
6.0 MHz to 20.0 MHz - 3.7 pF min. to 7.0 pF max.

Shock:

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.

Aging:

Frequency change permitted: ± 5 ppm.

TABLE I. Equivalent resistance.

Frequency range, inclusive	Maximum resistance
<u>MHz</u>	<u>Ohms</u>
2.40 to 2.60	300
2.61+ to 2.89	250
2.90+ to 3.75	180
3.75+ to 4.75	120
4.75+ to 6.00	75
6.00+ to 7.00	50
7.00+ to 10.00	30
10.00+ to 20.00	25

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 - 11, 17, 19, 99

Preparing activity:

Army - CR

Agent:

DLA - CC

(Project 5955-0697-24)