

PERFORMANCE SPECIFICATION SHEET

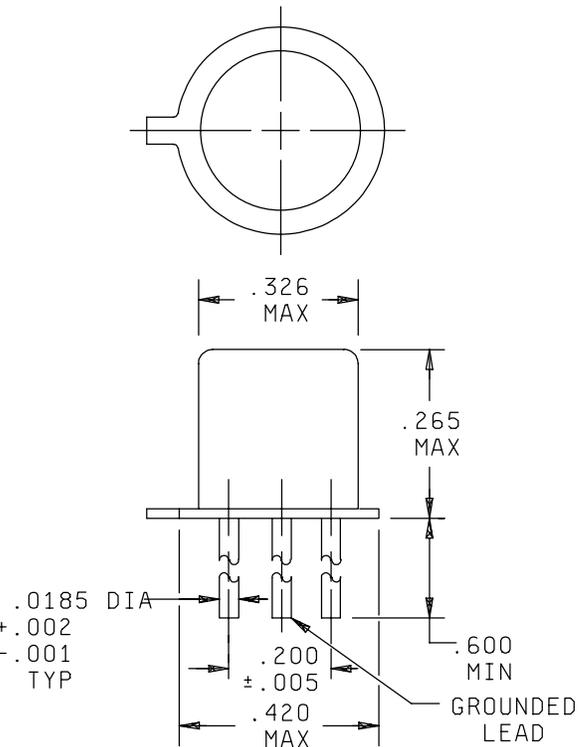
CRYSTAL UNIT, QUARTZ, CR159/U

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: 8 MHz to 20 MHz; fundamental; noncontrolled; series resonance.

Inches	mm
.001	0.02
.002	0.05
.005	0.12
.018	0.46
.200	5.08
.265	6.73
.326	8.28
.420	10.67
.600	15.24



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The crystal unit shall not be trimmed after sealing.
4. Marking shall be in accordance with MIL-PRF-3098.

FIGURE 1. Crystal unit - CR159/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 8 MHz to 20 MHz, inclusive.

Frequency tolerance :  $\pm 50$  ppm.

Equivalent resistance: See table I.

TABLE I Equivalent resistance .

Frequency range, inclusive. MHz	Maximum resistance Ohms
8.0 to 10.0	40
10.0+ to 12.0	30
12.0+ to 15.0	25
15.0+ to 20.0	20

Mode of oscillation: Fundamental.

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

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Capacitance, shunt: 7.0 pF.

Shock:

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Vibration: Method 201, MIL-STD-202.

Frequency change permitted:  $\pm 10$  ppm.

Equivalent resistance change permitted:  $\pm 15$  percent.

Temperature cycling:

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Aging:

Frequency change permitted:  $\pm 5$  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.

MIL-PRF-3098/140F

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

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