

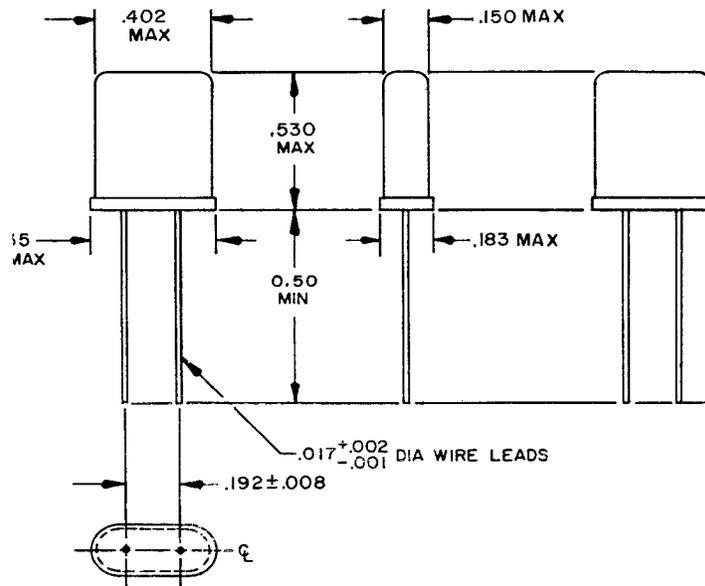
PERFORMANCE SPECIFICATION SHEET

CRYSTAL UNIT, QUARTZ, CR59/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; controlled; series resonance.



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

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 - CR59/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 50 MHz to 125 MHz, inclusive.

Capacitance, shunt: 7 pF, maximum.

Frequency tolerance:

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

Room temperature: ± 80 ppm.

Frequency stability: ± 5 ppm.

Equivalent resistance: 50 to 100 MHz: 50 ohms, maximum.
100+ to 125 MHz: 60 ohms, maximum.

Mode of oscillation: Fifth mechanical overtone.

Reference temperature: $+85^{\circ}\text{C} \pm 1^{\circ}\text{C}$

Temperature ranges:

Operating (controlled): $+80^{\circ}\text{C}$ to $+90^{\circ}\text{C}$, inclusive.

Operable: -55°C to $+80^{\circ}\text{C}$, inclusive.

Calibration values:

Resistance: 60 ohms.

Resistor voltage drop: 0.24 volt.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Shock:

Frequency change permitted: ± 5 ppm.

Equivalent resistance change permitted: ± 10 percent.

Vibration: Method 201 of MIL-STD-202.

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.

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 - 11
DLA - CC

Preparing activity:

Army - CR

Agent:

DLA - CC

Review activities:

Army - AR, MI, SM
Navy - AS, CG, MC, OS, SH
Air Force - 19, 99

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