INCH-POUND
MIL-PRF-20/30D
21 April 2011
SUPERSEDING
MIL-PRF-20/30C
21 June 2001

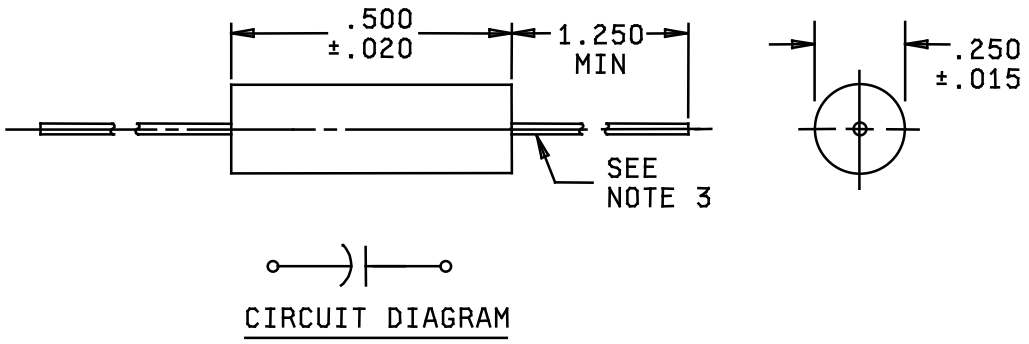
PERFORMANCE SPECIFICATION SHEET

# CAPACITORS, FIXED, CERAMIC DIELECTRIC (TEMPERATURE COMPENSATING), ESTABLISHED AND NON-ESTABLISHED RELIABILITY, STYLES CCR78 AND CC78

CC78 is inactive for new design after 21 April 2011. Use CCR78.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the capacitors described herein shall consist of this specification sheet and MIL-PRF-20.




CIRCUIT DIAGRAM

| Inches | mm |
|---|---|
| .015 | 0.38 |
| .020 | 0.51 |
| .027 | 0.69 |
| .250 | 6.35 |
| .500 | 12.70 |
| 1.250 | 31.75 |

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Lead diameter shall be .015 (0.38 mm) to .027 (0.69 mm).
4. Lead length may be a minimum of 1.00 inch (25.4 mm) long for use in tape and reel packaging, when specified in the ordering data.

FIGURE 1. Styles CCR78 and CC78 capacitors.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Lead type: Axial.

Case type: Tubular, molded.

DC rated voltage: See table I.

Operating temperature range: -55°C to +125°C.

Characteristic: CG.

TABLE I. Capacitor characteristics.

| PIN 1/ | Rated voltage (volts, dc) | Nominal capacitance (pF) | Capacitance tolerance | PIN 1/ | Rated voltage (volts, dc) | Nominal capacitance (pF) | Capacitance tolerance |
|---|---|---|---|---|---|---|---|
| CC-78CG821-- | 200 | 820 | FGJK | CC-78CG562-- | 100 | 5,600 | FGJK |
| CC-78CG102-- | 200 | 1,000 | FGJK | CC-78CG682-- | 100 | 6,800 | FGJK |
| CC-78CG122-- | 200 | 1,200 | FGJK | CC-78CG822-- | 100 | 8,200 | FGJK |
| CC-78CG152-- | 200 | 1,500 | FGJK | CC-78CG103-- | 100 | 10,000 | FGJK |
| CC-78CG182-- | 200 | 1,800 | FGJK | CC-78CG123-- | 100 | 12,000 | FGJK |
| CC-78CG222-- | 200 | 2,200 | FGJK | CC-78CG153-- | 50 | 15,000 | FGJK |
| CC-78CG272-- | 200 | 2,700 | FGJK | CC-78CG183-- | 50 | 18,000 | FGJK |
| CC-78CG332-- | 200 | 3,300 | FGJK | CC-78CG223-- | 50 | 22,000 | FGJK |
| CC-78CG392-- | 100 | 3,900 | FGJK | CC-78CG273-- | 50 | 27,000 | FGJK |
| CC-78CG472-- | 100 | 4,700 | FGJK | | | | |

1/ Complete PIN will include the following:
1st dash - Symbol “R” (for style CCR78) or dash will be deleted (for style CC78).
2nd dash - Applicable capacitance tolerance symbol.
3rd dash - Applicable failure rate level symbol (CCR78 only) or dash will be deleted (for style CC78).

Failure rate level (CCR78 only): M (1.0 percent), P (0.1 percent), R (.01 percent) or S (.001 percent).

Thermal shock and voltage conditioning (CCR78 only): In accordance with MIL-PRF-20.

Capacitance: Within tolerance specified (see table I).

Dissipation factor: In accordance with MIL-PRF-20.

Dielectric withstanding voltage: In accordance with MIL-PRF-20.

Body insulation: Test II.

Solderability: In accordance with MIL-PRF-20.

Resistance to soldering heat: In accordance with MIL-PRF-20.

Life: In accordance with MIL-PRF-20, operating condition 2.

Part or Identifying Number (PIN): In accordance with MIL-PRF-20 and table I.

Marking: In accordance with MIL-PRF-20.

Changes from previous issue: The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5910-2011-014)

Review activities:
Navy - AS, MC, OS, SH
Air Force - 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.