

INCH-POUND

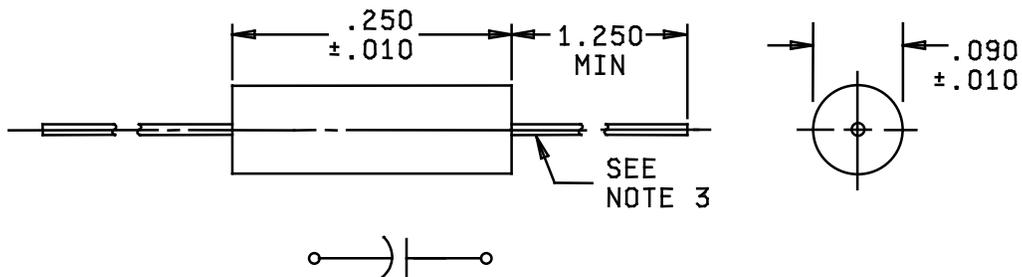
MIL-PRF-20/28D
21 April 2011
SUPERSEDING
MIL-PRF-20/28C
21 June 2001

PERFORMANCE SPECIFICATION SHEET
CAPACITORS, FIXED, CERAMIC DIELECTRIC
(TEMPERATURE COMPENSATING),
ESTABLISHED AND NON-ESTABLISHED RELIABILITY,
STYLES CCR76 AND CC76

CC76 is inactive for new design after
21 April 2011. Use CCR76.

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

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.

Inches	mm
.010	0.25
.090	2.29
.250	6.35
1.250	31.75

FIGURE 1. Styles CCR76 and CC76 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.

Failure rate level (CCR76 only): M (1.0 percent), P (0.1 percent), R (.01 percent) or S (.001 percent).

Thermal shock and voltage conditioning (CCR76 only): In accordance with MIL-PRF-20.

Capacitance: Within tolerance specified (see table I).

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

TABLE I. Capacitor characteristics.

PIN 1/ 2/	Rated voltage (volts, dc)	Nominal capacitance (pF)	Capacitance tolerance	PIN 1/ 2/	Rated voltage (volts, dc)	Nominal capacitance (pF)	Capacitance tolerance
CC-76CG820--	200	82	FGJ	CC-76CG431--	100	430	FGJ
CC-76CG910--	200	91	FGJ	CC-76CG471--	100	470	FGJ
CC-76CG101--	200	100	FGJ	CC-76CG511--	100	510	FGJ
CC-76CG111--	200	110	FGJ	CC-76CG561--	100	560	FGJ
CC-76CG121--	200	120	FGJ	CC-76CG621--	100	620	FGJ
CC-76CG131--	200	130	FGJ	CC-76CG681--	100	680	FGJ
CC-76CG271--	100	270	FGJ	CC-76CG751--	50	750	FGJ
CC-76CG301--	100	300	FGJ	CC-76CG821--	50	820	FGJ
CC-76CG331--	100	330	FGJ	CC-76CG911--	50	910	FGJ
CC-76CG361--	100	360	FGJ	CC-76CG102--	50	1000	FGJ
CC-76CG391--	100	390	FGJ				

1/ Complete PIN will include the following:

1st dash - Symbol "R" (for style CCR76) or dash will be deleted (for style CC76).

2nd dash - Applicable capacitance tolerance symbol.

3rd dash - Applicable failure rate level symbol (CCR76 only) or dash will be deleted (for style CC76).

2/ Capacitors deleted since previous revisions shall be replaced by selecting a capacitor with the nearest parameter.

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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: Method I of [MIL-STD-1285](#), as shown in the following example:

JCG - "J" brand (ER only) (J); and characteristic (CG).

820 - Capacitance value.

GM1 - Capacitance tolerance (G); FR level, CCR76 only (M); and year code (1 for 2011).

ATM - Lot code (A); and trademark (TM).

Referenced documents. In addition to [MIL-PRF-20](#), this specification sheet references the following document:

[MIL-STD-1285](#)

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
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Preparing activity:
DLA - CC

(Project 5910-2011-012)

Review activities:
Army - AV, MI
Navy - AS, MC, OS
Air Force – 99

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