

SEP 29 1997

7

INCH-POUND

MIL-PRF-55681/5D

3 July 1997

SUPERSEDING

MIL-C-55681/5C

13 July 1994

PERFORMANCE SPECIFICATION SHEET

CAPACITORS, CHIP, MULTIPLE LAYER, FIXED, CERAMIC DIELECTRIC,
ESTABLISHED RELIABILITY AND NON-ESTABLISHED RELIABILITY,
STYLES CDR21, CDR22, CDR23, CDR24, AND CDR25 (HIGH FREQUENCY)

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 sheet and MIL-PRF-55681.

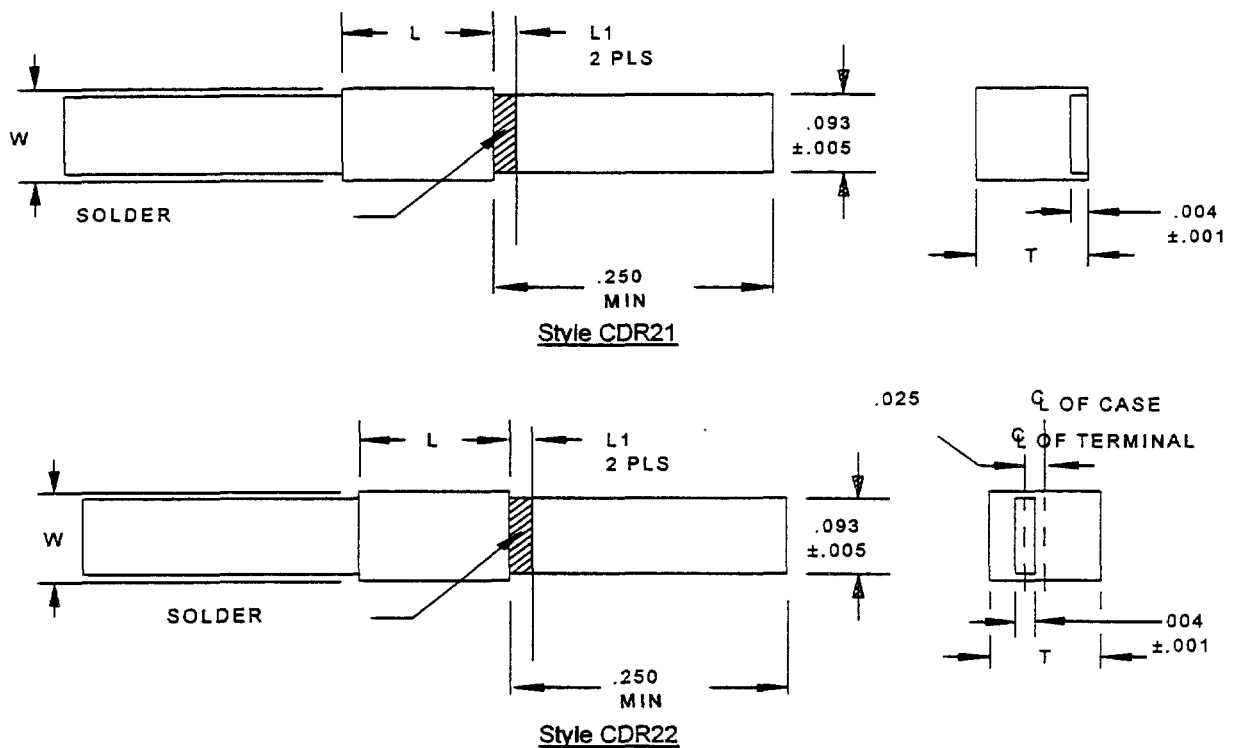
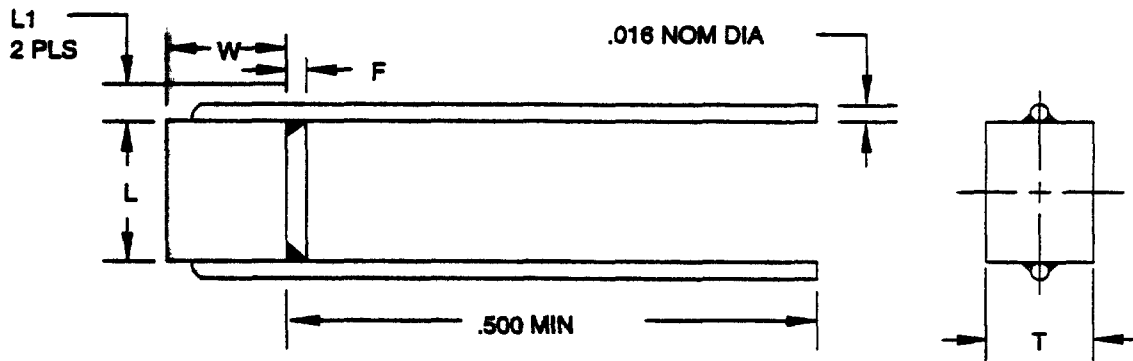
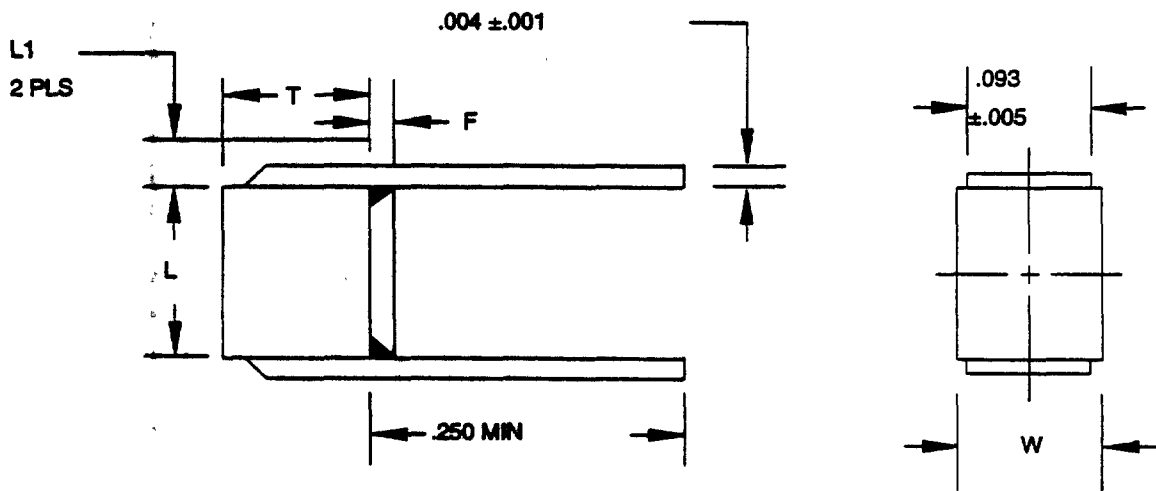


FIGURE 1. Dimensions and configuration.



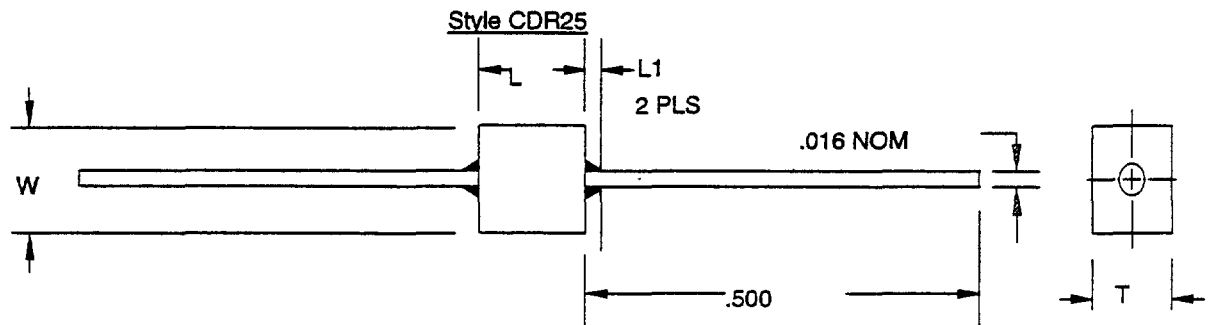
Style CDR23



Style CDR24

FIGURE 1. Dimensions and configuration - Continued.

MIL-PRF-55681/5D



<u>Inches</u>	<u>mm</u>	<u>Inches</u>	<u>mm</u>
.001	0.03	.030	0.76
.004	0.10	.093	2.36
.005	0.13	.100	2.54
.015	0.38	.110	2.79
.016	0.41	.135	3.43
.020	0.51	.250	6.35
.025	0.64	.500	12.70

Dimensions						
Style	L	W	T		L1	F
			Min	Max	Max <u>1/</u>	Max <u>2/</u>
CDR21	.135 ±.015	.110 ±.015	.030	.100	.020	---
CDR22	.135 ±.015	.110 ±.015	.030	.100	.020	---
CDR23	.135 ±.015	.110 ±.015	.030	.100	.020	.020
CDR24	.135 ±.015	.110 ±.015	.030	.100	.020	.020
CDR25	.135 ±.015	.110 ±.015	.030	.100	.020	---

- 1/ Solder buildup over each lead.
2/ Solder fill.

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Dimensions and configuration - Continued.

MIL-PRF-55681/5D

REQUIREMENTS:

Dimensions and configurations: See figure 1.

Terminals: Termination finish S or T. Silver leads, when applicable, are attached with solder having a melting temperature of greater than 200° C.

Inspection conditions: All visual examinations shall be performed using a stereo microscope having a minimum magnification of 20 power.

Capacitance value: See table I.

Capacitance tolerance: See table I.

Rated voltage: See table I.

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

Dissipation factor: In accordance with MIL-PRF-55681.

Insulation resistance:

At +25° C \pm 5° C: 10⁶ megohms, minimum (for 0.1 pF through 470 pF); 10⁵ megohms, minimum (for 510 pF through 5,100 pF).

At +125° C \pm 5° C: 10⁵ megohms, minimum (for 0.1 pF through 470 pF); 10⁴ megohms, minimum (for 510 pF through 5,100 pF).

Equivalent series resistance: In accordance with MIL-PRF-55681.

Terminal strength: In accordance with MIL-PRF-55681.

Product levels: Non-established Reliability - C; Established Reliability - M, P, R, and S.

Marking: In accordance with MIL-PRF-55681.

NOTE: These capacitors are intended for use in RF solid-state circuitry up to and including 25 gigahertz, and cannot be replaced in the field.

TABLE I. Styles CDR21, CDR22, CDR23, CDR24, and CDR25 capacitor characteristics.

Part or Identifying Number (PIN) ^{1/}	Capacitance pF	Capacitance tolerance	Rated temperature and voltage-temperature limits	Rated voltage V dc
CDR2-B-0R1EB --	0.1	B	BG, BP	500
CDR2-B-0R2EB --	0.2	B	BG, BP	500
CDR2-B-0R3E ---	0.3	B,C	BG, BP	500
CDR2-B-0R4E ---	0.4	B,C	BG, BP	500
CDR2-B-0R5E ---	0.5	B,C,D	BG, BP	500
CDR2-B-0R6E ---	0.6	B,C,D	BG, BP	500
CDR2-B-0R7E ---	0.7	B,C,D	BG, BP	500
CDR2-B-0R8E ---	0.8	B,C,D	BG, BP	500
CDR2-B-0R9E ---	0.9	B,C,D	BG, BP	500
CDR2-B-1R0E ---	1.0	B,C,D	BG, BP	500
CDR2-B-1R1E ---	1.1	B,C,D	BG, BP	500
CDR2-B-1R2E ---	1.2	B,C,D	BG, BP	500
CDR2-B-1R3E ---	1.3	B,C,D	BG, BP	500
CDR2-B-1R4E ---	1.4	B,C,D	BG, BP	500
CDR2-B-1R5E ---	1.5	B,C,D	BG, BP	500
CDR2-B-1R6E ---	1.6	B,C,D	BG, BP	500
CDR2-B-1R7E ---	1.7	B,C,D	BG, BP	500
CDR2-B-1R8E ---	1.8	B,C,D	BG, BP	500
CDR2-B-1R9E ---	1.9	B,C,D	BG, BP	500
CDR2-B-2R0E ---	2.0	B,C,D	BG, BP	500
CDR2-B-2R1E ---	2.1	B,C,D	BG, BP	500
CDR2-B-2R2E ---	2.2	B,C,D	BG, BP	500
CDR2-B-2R4E ---	2.4	B,C,D	BG, BP	500
CDR2-B-2R7E ---	2.7	B,C,D	BG, BP	500
CDR2-B-3R0E ---	3.0	B,C,D	BG, BP	500
CDR2-B-3R3E ---	3.3	B,C,D	BG, BP	500
CDR2-B-3R6E ---	3.6	B,C,D	BG, BP	500
CDR2-B-3R9E ---	3.9	B,C,D	BG, BP	500
CDR2-B-4R3E ---	4.3	B,C,D	BG, BP	500
CDR2-B-4R7E ---	4.7	B,C,D	BG, BP	500
CDR2-B-5R1E ---	5.1	B,C,D	BG, BP	500
CDR2-B-5R6E ---	5.6	B,C,D	BG, BP	500
CDR2-B-6R2E ---	6.2	B,C,D	BG, BP	500
CDR2-B-6R8E ---	6.8	B,C,J,K,M	BG, BP	500
CDR2-B-7R5E ---	7.5	B,C,J,K,M	BG, BP	500
CDR2-B-8R2E ---	8.2	B,C,J,K,M	BG, BP	500
CDR2-B-9R1E ---	9.1	B,C,J,K,M	BG, BP	500
CDR2-B-100E ---	10	F,G,J,K,M	BG, BP	500
CDR2-B-110E ---	11	F,G,J,K,M	BG, BP	500
CDR2-B-120E ---	12	F,G,J,K,M	BG, BP	500
CDR2-B-130E ---	13	F,G,J,K,M	BG, BP	500
CDR2-B-150E ---	15	F,G,J,K,M	BG, BP	500
CDR2-B-160E ---	16	F,G,J,K,M	BG, BP	500

See footnote at end of table.

MIL-PRF-55681/5D

TABLE I. Styles CDR21, CDR22, CDR23, CDR24, and CDR25 capacitor characteristics - Continued.

PIN 1/	Capacitance pF	Capacitance tolerance	Rated temperature and voltage-temperature limits	Rated voltage V dc
CDR2-B-180E ---	18	F,G,J,K,M	BG, BP	500
CDR2-B-200E ---	20	F,G,J,K,M	BG, BP	500
CDR2-B-220E ---	22	F,G,J,K,M	BG, BP	500
CDR2-B-240E ---	24	F,G,J,K,M	BG, BP	500
CDR2-B-270E ---	27	F,G,J,K,M	BG, BP	500
CDR2-B-300E ---	30	F,G,J,K,M	BG, BP	500
CDR2-B-330E ---	33	F,G,J,K,M	BG, BP	500
CDR2-B-360E ---	36	F,G,J,K,M	BG, BP	500
CDR2-B-390E ---	39	F,G,J,K,M	BG, BP	500
CDR2-B-430E ---	43	F,G,J,K,M	BG, BP	500
CDR2-B-470E ---	47	F,G,J,K,M	BG, BP	500
CDR2-B-510E ---	51	F,G,J,K,M	BG, BP	500
CDR2-B-560E ---	56	F,G,J,K,M	BG, BP	500
CDR2-B-620E ---	62	F,G,J,K,M	BG, BP	500
CDR2-B-680E ---	68	F,G,J,K,M	BG, BP	500
CDR2-B-750E ---	75	F,G,J,K,M	BG, BP	500
CDR2-B-820E ---	82	F,G,J,K,M	BG, BP	500
CDR2-B-910E ---	91	F,G,J,K,M	BG, BP	500
CDR2-B-101E ---	100	F,G,J,K,M	BG, BP	500
CDR2-B-111D ---	110	F,G,J,K,M	BG, BP	300
CDR2-B-121D ---	120	F,G,J,K,M	BG, BP	300
CDR2-B-131D ---	130	F,G,J,K,M	BG, BP	300
CDR2-B-151D ---	150	F,G,J,K,M	BG, BP	300
CDR2-B-161D ---	160	F,G,J,K,M	BG, BP	300
CDR2-B-181D ---	180	F,G,J,K,M	BG, BP	300
CDR2-B-201D ---	200	F,G,J,K,M	BG, BP	300
CDR2-B-221C ---	220	F,G,J,K,M	BG, BP	200
CDR2-B-241C ---	240	F,G,J,K,M	BG, BP	200
CDR2-B-271C ---	270	F,G,J,K,M	BG, BP	200
CDR2-B-301C ---	300	F,G,J,K,M	BG, BP	200
CDR2-B-331C ---	330	F,G,J,K,M	BG, BP	200
CDR2-B-361C ---	360	F,G,J,K,M	BG, BP	200
CDR2-B-391C ---	390	F,G,J,K,M	BG, BP	200
CDR2-B-431C ---	430	F,G,J,K,M	BG, BP	200
CDR2-B-471C ---	470	F,G,J,K,M	BG, BP	200
CDR2-B-511B ---	510	F,G,J,K,M	BG, BP	100
CDR2-B-561B ---	560	F,G,J,K,M	BG, BP	100
CDR2-B-621B ---	620	F,G,J,K,M	BG, BP	100
CDR2-B-681A ---	680	F,G,J,K,M	BG, BP	50
CDR2-B-751A ---	750	F,G,J,K,M	BG, BP	50
CDR2-B-821A ---	820	F,G,J,K,M	BG, BP	50
CDR2-B-911A ---	910	F,G,J,K,M	BG, BP	50
CDR2-B-102A ---	1,000	F,G,J,K,M	BG, BP	50

See footnote at end of table.

TABLE I. Styles CDR21, CDR22, CDR23, CDR24, and CDR25 capacitor characteristics - Continued.

PIN ^{1/}	Capacitance	Capacitance tolerance	Rated temperature and voltage-temperature limits	Rated voltage
	pF			V dc
CDR2-B-112A ---	1,100	F,G,J,K,M	BP	50
CDR2-B-122A ---	1,200	F,G,J,K,M	BP	50
CDR2-B-132A ---	1,300	F,G,J,K,M	BP	50
CDR2-B-152A ---	1,500	F,G,J,K,M	BP	50
CDR2-B-162A ---	1,600	F,G,J,K,M	BP	50
CDR2-B-182A ---	1,800	F,G,J,K,M	BP	50
CDR2-B-202A ---	2,000	F,G,J,K,M	BP	50
CDR2-B-222A ---	2,200	F,G,J,K,M	BP	50
CDR2-B-242A ---	2,400	F,G,J,K,M	BP	50
CDR2-B-272A ---	2,700	F,G,J,K,M	BP	50
CDR2-B-302A ---	3,000	F,G,J,K,M	BP	50
CDR2-B-332A ---	3,300	F,G,J,K,M	BP	50
CDR2-B-362A ---	3,600	F,G,J,K,M	BP	50
CDR2-B-392A ---	3,900	F,G,J,K,M	BP	50
CDR2-B-432A ---	4,300	F,G,J,K,M	BP	50
CDR2-B-472A ---	4,700	F,G,J,K,M	BP	50
CDR2-B-502A ---	5,000	F,G,J,K,M	BP	50
CDR2-B-512A ---	5,100	F,G,J,K,M	BP	50

^{1/} Complete PIN will include additional symbols to indicate style, voltage-temperature limits, capacitance tolerance (where applicable), termination finish ("T" for styles CDR21, CDR22, and CDR24, and "S" for styles CDR23 and CDR25), and product level.

Custodians:

Army - CR
Navy - EC
Air Force - 85

Review activities:

Navy - AS, MC, OS, SH
Air Force - 19, 99
DLA - CC

Preparing activity:

Army - CR

Agent:

DLA - CC

(Project 5910-1923-06)