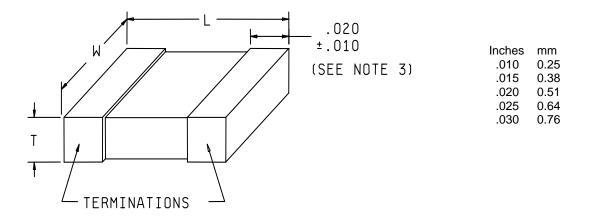
INCH-POUND MIL-PRF-55681/1F <u>11 October 2006</u> SUPERSEDING MIL-PRF-55681/1E 17 February 2000

### PERFORMANCE SPECIFICATION SHEET

### CAPACITORS, CHIP, MULTIPLE LAYER, FIXED, CERAMIC DIELECTRIC, ESTABLISHED RELIABILITY AND NON-ESTABLISHED RELIABILITY, STYLES CDR01, CDR02, CDR03, AND CDR04

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.



Dimensions							
Style	$L\pm$ .015 (0.38)	$W\pm$ .015 (0.38)	Т				
			Min	Max			
CDR01	.080 (2.03)	.050 (1.27)	.022 (0.56)	.055 (1.40)			
CDR02	.180 (4.57)	.050 (1.27)	.022 (0.56)	.055 (1.40)			
CDR03	.180 (4.57)	.080 (2.03)	.022 (0.56)	.080 (2.03)			
CDR04	.180 (4.57)	.125 (3.18)	.022 (0.56)	.080 (2.03)			

FIGURE 1. Styles CDR01, CDR02, CDR03, and CDR04 capacitors

NOTES:

- 1. Dimensions are in inches.
- 2. Metric equivalents are given for general information only.
- 3. For style CDR01, termination width shall be .010 inch (0.25 mm), minimum; uncovered band width shall be .030 inch (0.76 mm), minimum.
- 4. Dimensions and tolerances are for bare chips. For solder coated terminations, for style CDR01 add .020 inch (0.51 mm) to the positive length tolerance and .015 inch (0.38 mm) to the positive width and thickness tolerance. For solder coated terminations for styles CDR02, CDR03, and CDR04, add .025 inch (0.64 mm) to the positive length tolerance and .015 inch (0.38 mm) to the positive width and thickness tolerance.

FIGURE 1. Styles CDR01, CDR02, CDR03, and CDR04 capacitors - Continued.

**REQUIREMENTS:** 

Dimensions and configuration: See figure 1 and table I.

Capacitance value: See table I.

Capacitance tolerance:  $J = \pm 5$  percent;  $K = \pm 10$  percent;  $M = \pm 20$  percent. See table I.

Rated voltage: See table I.

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

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

Marking: In accordance with MIL-PRF-55681.

Part or Identifying Number (PIN) <u>1</u> /	Capacitance pF	Capacitance tolerance	Rated temperature and voltage- temperature limits	Rated voltage V dc
CDR01BP100B CDR01BP120BJ CDR01BP150B CDR01BP180BJ CDR01BP220B CDR01BP270BJ CDR01BP300BJ CDR01BP470B CDR01BP560BJ CDR01BP680B CDR01BP680B CDR01BP101B CDR01BP101B CDR01B-121B CDR01B-121B CDR01BX221B CDR01BX271BK CDR01BX331B CDR01BX331B CDR01BX391BK CDR01BX471B CDR01BX471B CDR01BX471B CDR01BX561BK CDR01BX22B CDR01BX122BK CDR01BX122BK CDR01BX122BK CDR01BX122BK CDR01BX122BK CDR01BX122BK CDR01BX122BK CDR01BX272BK CDR01BX332B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR01BX322B CDR02BY271BJ CDR02BY271BJ CDR02BX472B CDR02BX472B CDR02BX472B	10 12 15 18 22 27 33 39 47 56 68 82 100 120 150 180 220 270 330 390 470 560 680 820 1,000 1,200 1,500 1,200 1,500 1,200 1,500 1,800 2,200 2,700 3,300 3,900 4,700 220 270 3,900 4,700 5,600	J, K J, J, K,		
CDR02BX682B CDR02BX822BK CDR02BX103B CDR02BX123AK CDR02BX153A CDR02BX183AK CDR02BX223A	6,800 8,200 10,000 12,000 15,000 18,000 22,000	K, M K K, M K K, M K, M	BX BX BX BX BX BX BX	100 100 50 50 50 50 50

# TABLE I. CDR01, CDR02, CDR03, and CDR04 capacitors characteristics

See footnote at end of table.

PIN <u>1</u> /	Capacitance pF	Capacitance tolerance	Rated temperature and voltage- temperature limits	Rated voltage V dc
CDR03BP331B	330	J, K	BP	100
CDR03BP391BJ	390	J	BP	100
CDR03BP471B	470	J, K	BP	100
CDR03BP561BJ	560	Ĵ	BP	100
CDR03BP681B	680	J, K	BP	100
CDR03BP821BJ	820	Ĵ	BP	100
CDR03BP102B	1,000	J, K	BP	100
CDR03BX123BK	12,000	K	BX	100
CDR03BX153B	15,000	К, М	BX	100
CDR03BX183BK	18,000	K	BX	100
CDR03BX223B	22,000	К, М	BX	100
CDR03BX273BK	27,000	K	BX	100
CDR03BX333B	33,000	К, М	BX	100
CDR03BX393AK	39,000	K	BX	50
CDR03BX473A	47,000	К, М	BX	50
CDR03BX563AK	56,000	K	BX	50
CDR03BX683A	68,000	К, М	BX	50
CDR04BP122BJ	1,200	J	BP	100
CDR04BP152B	1,500	J, K	BP	100
CDR04BP182BJ	1,800	J	BP	100
CDR04BP222B	2,200	J, K	BP	100
CDR04BP272BJ	2,700	J	BP	100
CDR04BP332B	3,300	J, K	BP	100
CDR04BX393BK	39,000	K	BX	100
CDR04BX473B	47,000	К, М	BX	100
CDR04BX563BK	56,000	K	BX	100
CDR04BX823AK	82,000	K	BX	50
CDR04BX104A	100,000	К, М	BX	50
CDR04BX124AK	120,000	K	BX	50
CDR04BX154A	150,000	К, М	BX	50
CDR04BX184AK	180,000	K	BX	50

### TABLE I. CDR01, CDR02, CDR03, and CDR04 capacitors characteristics - Continued

1/ Complete PIN shall include additional symbol(s) to indicate voltage-temperature limit (where applicable), capacitance tolerance (where applicable), termination finish, and product level.

CHANGES FROM PREVIOUS ISSUE: The margins of this specification sheet are marked with asterisks 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.

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