

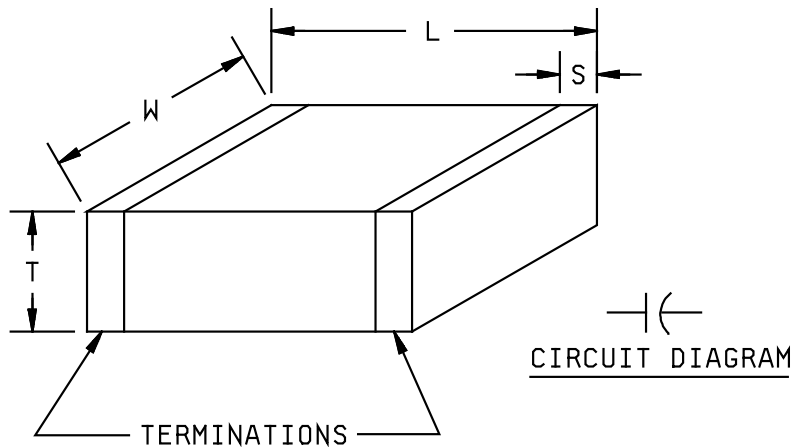
**INCH-POUND**  
MIL-PRF-123/21D  
w/AMENDMENT 1  
5 November 2020  
SUPERSEDING  
MIL-PRF-123/21D  
30 June 2019

PERFORMANCE SPECIFICATION SHEET

CAPACITOR, FIXED, CERAMIC DIELECTRIC  
(TEMPERATURE STABLE AND GENERAL PURPOSE),  
HIGH RELIABILITY, NONLEADED, STYLE CKS55

This specification sheet 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-123](#).



L	W	T		S
		Min	Max	
$\pm .015$	$\pm .015$	.020	.065	$\pm .010$
.120	.060			.020

Inches	mm
.008	0.20
.010	0.25
.020	0.51
.059	1.50
.063	1.60
.126	3.20

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimensions and tolerances are for bare chips. For solder coated terminations, add .025 inch (0.64 mm) to the positive length (L) tolerance, .015 inch to the positive width (W) and thickness (T) tolerances, and .0125 inch (0.32 mm) to the positive S dimension tolerance.

FIGURE 1. Style CKS55 capacitors.



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REQUIREMENTS:

Dimensions and configuration: See [figure 1](#).

Case type: Multilayer, unencapsulated, monolithic ceramic.

Product level: A or T in accordance with [MIL-PRF-123](#).

Termination: M, G, S, or Z in accordance with [MIL-PRF-123](#).

Capacitance value: See [table I](#).

Capacitance tolerance: See [table I](#). (B = ± 0.1 pF; C = ± 0.25 pF; D = ± 0.5 pF; F = ± 1 percent; J = ± 5 percent; K = ± 10 percent; M = ± 20 percent.)

Voltage-temperature limit: BP and BX in accordance with [MIL-PRF-123](#).

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

Rated voltage: See [table I](#).

Marking: In accordance with [MIL-PRF-123](#).

TABLE I. [Style CKS55 characteristics](#).

Part or Identifying Number (PIN) <a href="#">1/</a>	Capacitance pF	Capacitance tolerance	Rated temperature and voltage-temperature limits	Rated voltage V dc
M123 - 21BPC1R0 --	1.0	B, C	BP	100
M123 - 21BPC1R1 --	1.1	B, C	BP	100
M123 - 21BPC1R2 --	1.2	B, C	BP	100
M123 - 21BPC1R3 --	1.3	B, C	BP	100
M123 - 21BPC1R5 --	1.5	B, C	BP	100
M123 - 21BPC1R6 --	1.6	B, C	BP	100
M123 - 21BPC1R8 --	1.8	B, C	BP	100
M123 - 21BPC2R0 --	2.0	B, C	BP	100
M123 - 21BPC2R2 --	2.2	B, C	BP	100
M123 - 21BPC2R4 --	2.4	B, C	BP	100
M123 - 21BPC2R7 --	2.7	B, C, D	BP	100
M123 - 21BPC3R0 --	3.0	B, C, D	BP	100
M123 - 21BPC3R3 --	3.3	B, C, D	BP	100
M123 - 21BPC3R6 --	3.6	B, C, D	BP	100
M123 - 21BPC3R9 --	3.9	B, C, D	BP	100
M123 - 21BPC4R3 --	4.3	B, C, D	BP	100
M123 - 21BPC4R7 --	4.7	B, C, D	BP	100
M123 - 21BPC5R1 --	5.1	B, C, D	BP	100
M123 - 21BPC5R6 --	5.6	B, C, D	BP	100
M123 - 21BPC6R2 --	6.2	B, C, D	BP	100
M123 - 21BPC6R8 --	6.8	B, C, D	BP	100
M123 - 21BPC7R5 --	7.5	B, C, D	BP	100
M123 - 21BPC8R2 --	8.2	B, C, D	BP	100
M123 - 21BPC9R1 --	9.1	B, C, D	BP	100
M123 - 21BPC100 --	10	F, J, K	BP	100
M123 - 21BPC110 --	11	F, J, K	BP	100
M123 - 21BPC120 --	12	F, J, K	BP	100

See footnote at end of table.

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TABLE I. Style CKS55 characteristics - Continued.

PIN <u>1/</u>	Capacitance pF	Capacitance tolerance	Rated temperature and voltage-temperature limits	Rated voltage V dc
M123 - 21BPC130 --	13	F, J, K	BP	100
M123 - 21BPC150 --	15	F, J, K	BP	100
M123 - 21BPC160 --	16	F, J, K	BP	100
M123 - 21BPC180 --	18	F, J, K	BP	100
M123 - 21BPC200 --	20	F, J, K	BP	100
M123 - 21BPC240 --	24	F, J, K	BP	100
M123 - 21BPC270 --	27	F, J, K	BP	100
M123 - 21BPC330 --	33	F, J, K	BP	100
M123 - 21BPC360 --	36	F, J, K	BP	100
M123 - 21BPC390 --	39	F, J, K	BP	100
M123 - 21BPC430 --	43	F, J, K	BP	100
M123 - 21BPC470 --	47	F, J, K	BP	100
M123 - 21BPC510 --	51	F, J, K	BP	100
M123 - 21BPC560 --	56	F, J, K	BP	100
M123 - 21BPC620 --	62	F, J, K	BP	100
M123 - 21BPC680 --	68	F, J, K	BP	100
M123 - 21BPC750 --	75	F, J, K	BP	100
M123 - 21BPC820 --	82	F, J, K	BP	100
M123 - 21BPC910 --	91	F, J, K	BP	100
M123 - 21BPC101 --	100	F, J, K	BP	100
M123 - 21BPC111 --	110	F, J, K	BP	100
M123 - 21BPC121 --	120	F, J, K	BP	100
M123 - 21BPC131 --	130	F, J, K	BP	100
M123 - 21BPC151 --	150	F, J, K	BP	100
M123 - 21BPC161 --	160	F, J, K	BP	100
M123 - 21BPC181 --	180	F, J, K	BP	100
M123 - 21BPC201 --	200	F, J, K	BP	100
M123 - 21BPC221 --	220	F, J, K	BP	100
M123 - 21BPC241 --	240	F, J, K	BP	100
M123 - 21BPC271 --	270	F, J, K	BP	100
M123 - 21BPC301 --	300	F, J, K	BP	100
M123 - 21BPC331 --	330	F, J, K	BP	100
M123 - 21BPC361 --	360	F, J, K	BP	100
M123 - 21BPC391 --	390	F, J, K	BP	100
M123 - 21BPC431 --	430	F, J, K	BP	100
M123 - 21BPC471 --	470	F, J, K	BP	100
M123 - 21BPC511 --	510	F, J, K	BP	100
M123 - 21BPC561 --	560	F, J, K	BP	100
M123 - 21BPC621 --	620	F, J, K	BP	100
M123 - 21BPC681 --	680	F, J, K	BP	100
M123 - 21BPC751 --	750	F, J, K	BP	100
M123 - 21BPC821 --	820	F, J, K	BP	100
M123 - 21BPC911 --	910	F, J, K	BP	100
M123 - 21BPC102 --	1,000	F, J, K	BP	100
M123 - 21BPB112 --	1,100	F, J, K	BP	50
M123 - 21BPB122 --	1,200	F, J, K	BP	50
M123 - 21BPB132 --	1,300	F, J, K	BP	50
M123 - 21BPB152 --	1,500	F, J, K	BP	50
M123 - 21BPB162 --	1,600	F, J, K	BP	50
M123 - 21BPB182 --	1,800	F, J, K	BP	50

See footnote at end of table.

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TABLE I. Style CKS55 characteristics - Continued.

PIN <sup>1/</sup>	Capacitance pF	Capacitance tolerance	Rated temperature and voltage-temperature limits	Rated voltage V dc
M123 - 21BPB202 --	2,000	F, J, K	BP	50
M123 - 21BPB222 --	2,200	F, J, K	BP	50
M123 - 21BXC472 --	4,700	K, M	BX	100
M123 - 21BXC562 --	5,600	K, M	BX	100
M123 - 21BXC682 --	6,800	K, M	BX	100
M123 - 21BXC822 --	8,200	K, M	BX	100
M123 - 21BXC103 --	10,000	K, M	BX	100
M123 - 21BXC123 --	12,000	K, M	BX	100
M123 - 21BXC153 --	15,000	K, M	BX	100
M123 - 21BXB183 --	18,000	K, M	BX	50
M123 - 21BXB223 --	22,000	K, M	BX	50
M123 - 21BXB273 --	27,000	K, M	BX	50
M123 - 21BXB333 --	33,000	K, M	BX	50
M123 - 21BXB393 --	39,000	K, M	BX	50

<sup>1/</sup> The complete PIN will include additional letter(s) to indicate product level, capacitance tolerance and termination.

Amendment notations: The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

Custodians:  
Navy - EC  
Air Force - 19  
DLA - CC  
Other - NA

Preparing activity:  
DLA - CC  
(Project 5910-2020-040)

Review activity:  
Air Force - 85

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 ASSIST Online database at <https://assist.dla.mil/>.