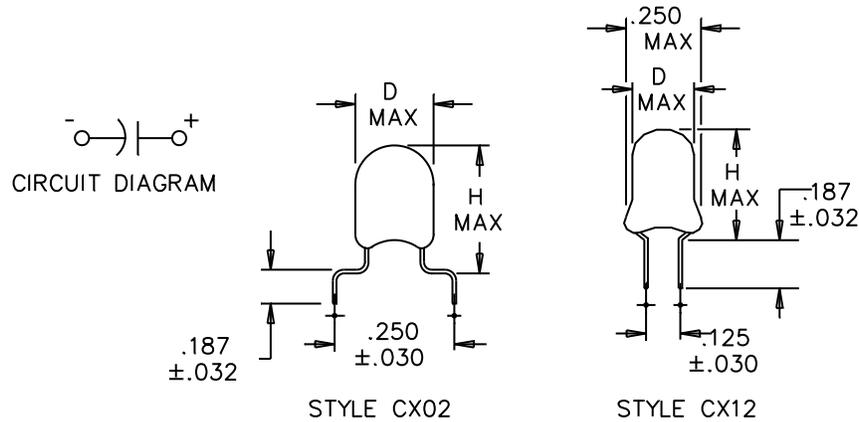


PERFORMANCE SPECIFICATION SHEET

CAPACITORS, FIXED, ELECTROLYTIC (SOLID ELECTROLYTE),
TANTALUM, POLAR, CONFORMAL COATED, NONHERMETICALLY SEALED,
STYLES CX02 AND CX12

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-49137](#).



Dimensions					
Style	Case size	Diameter (D)	Height (H)	Lead size	
				Dia	AWG
CX02	A	.175 (4.45)	.425 (10.80)	.020	24, 22
	B	.250 (6.35)	.500 (12.70)	.020	24, 22
	C	.350 (8.89)	.650 (16.51)	.025	22
	D	.400 (10.16)	.750 (19.05)	.025	22
CX12	E	.175 (4.45)	.350 (8.89)	.020	24, 22
	F	.250 (6.35)	.500 (12.70)	.020	24, 22

NOTES:

1. Dimensions are in inches. Metric equivalents are given for general information only.
2. Metric equivalents are in parentheses.
3. Lead spacing shall be measured within .050 inch (1.27 mm) from the point of emergence from the body or the bottom of the crimp.
4. Case size dimensions are maximum.

FIGURE 1. Dimensions and configuration.

TABLE I. Style CX02 and CX12 characteristics.

Part or identifying number (PIN) ^{1/}	DC rated voltage (+85°C)	Capacitance (nominal)	DC leakage (max) +25°C	Dissipation Factor (DF)	Case size
	<u>Volts</u>	<u>μF</u>	<u>μA</u>	<u>%</u>	
CX-2D685-	6	6.8	1.0	6	A, E
CX-2D476-	6	47.0	3.0	8	B, F
CX-2D686-	6	68.0	4.5	8	B, F
CX02D157-	6	150.0	10.0	10	C
CX02D337-	6	330.0	20.0	10	D
CX-2F475-	10	4.7	1.0	6	A, E
CX-2F336-	10	33.0	3.5	8	B, F
CX02F107-	10	100.0	10.0	10	C
CX02F227-	10	220.0	20.0	10	D
CX-2H335-	15	3.3	1.0	6	A, E
CX-2H226-	15	22.0	3.5	8	B, F
CX02H686-	15	68.0	10.0	8	C
CX02H157-	15	150.0	20.0	10	D
CX-2J225-	20	2.2	1.0	6	A, E
CX-2J156-	20	15.0	3.0	8	B, F
CX02J476-	20	47.0	10.0	8	C
CX02J107-	20	100.0	20.0	10	D
CX-2K155-	25	1.5	1.0	6	A, E
CX-2K106-	25	10.0	2.5	8	B, F
CX02K336-	25	33.0	9.0	8	C
CX02K686-	25	68.0	15.0	8	D
CX-2M685-	35	6.8	2.5	6	B, F
CX02M226-	35	22.0	8.0	8	C
CX02M336-	35	33.0	10.0	8	D
CX02M476-	35	47.0	10.0	8	D
CX-2N104-	50	.1	1.0	4	A, E
CX-2N154-	50	.15	1.0	4	A, E
CX-2N224-	50	.22	1.0	4	A, E
CX-2N334-	50	.33	1.0	4	A, E
CX-2N474-	50	.47	1.0	4	A, E
CX-2N684-	50	.68	1.0	4	A, E
CX-2N105-	50	1.0	1.0	4	A, E
CX-2N155-	50	1.5	1.0	6	B, F
CX-2N225-	50	2.2	1.5	6	B, F
CX-2N335-	50	3.3	2.0	6	B, F
CX-2N475-	50	4.7	2.5	6	B, F
CX02N685-	50	6.8	3.5	6	C
CX02N106-	50	10.0	5.0	8	C
CX02N156-	50	15.0	6.0	8	C
CX02N226-	50	22.0	10.0	8	D

^{1/} Complete PIN will include additional symbols indicating style and capacitance tolerance.

REQUIREMENTS

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

Case material: Dipped, epoxy or plastic.

Leads: Solder-coated metal.

DC rated voltage: See [table I](#).

Operating temperature: -55°C to +85°C.

DC leakage (DCL): See [table I](#).

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

Cap. tolerance: $\pm 10\%$ (K), or $\pm 20\%$ (M).

Dissipation factor (DF): See [table I](#).

Stability at low and high temperature: In accordance with [MIL-PRF-49137](#).

- | | | | |
|-----------------|---------------|---|---|
| Step 1 (+25°C): | DCL | - | See table I . |
| | Cap. | - | Within tolerance specified in table I . |
| | DF | - | See table I . |
| Step 2 (-55°C): | Δ Cap. | - | Within ± 15 percent of step 1 measured value. |
| | DF | - | 200 percent of table I . |
| Step 3 (+25°C): | DCL | - | See table I . |
| | Δ Cap. | - | Within ± 10 percent of step 1 measured value. |
| | DF | - | See table I . |
| Step 4 (+85°C): | DCL | - | 10 times +25°C limit (see table I). |
| | Δ Cap. | - | Within ± 15 percent of step 1 measured value. |
| | DF | - | 150 percent of table I . |
| Step 5 (+25°C): | DCL | - | See table I . |
| | Δ Cap. | - | Within ± 10 percent of step 1 measured value. |
| | DF | - | See table I . |

Surge voltage: In accordance with [MIL-PRF-49137](#).

- | | | |
|---------------|---|---|
| DCL | - | See table I . |
| Δ Cap. | - | Within ± 10 percent of initial value. |
| DF | - | See table I . |

Life: In accordance with [method 108 of MIL-STD-202](#).

- | | | |
|--------------|---------------|--|
| 1,000 hours: | | |
| At +25°C: | DCL | - 200 percent of table I . |
| | Δ Cap. | - Within ± 10 percent of initial measured value. |
| | DF | - See table I . |

MIL-PRF-49137/2E

NOTE: These capacitors are intended to be used only where supplemental moisture protection is provided or for noncritical applications where hermetic moisture protection is not required.

Reference documents. In addition to [MIL-PRF-49137](#), this specification sheet references the following:

[MIL-STD-202](#)

Changes from previous issues. The margins of this specification are marked with vertical lines to indicate where changes from 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:

Army - CR

Agent:

DLA - CC

Review activities:

Navy - AS, MC, OS, SH
Air Force - 19

(Project 5910-2014-018)

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.dla.mil>.