

INCH-POUND

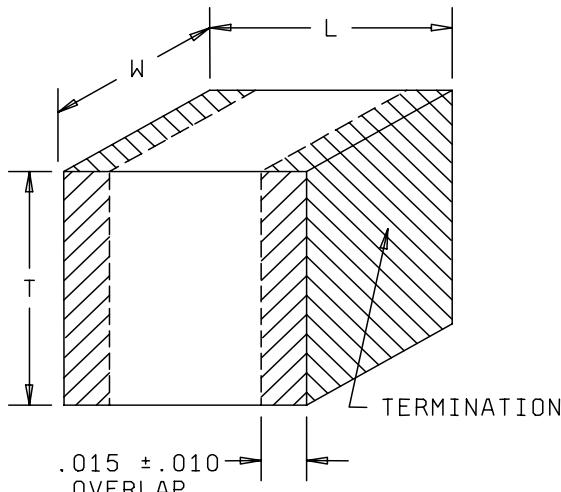
MIL-C-11272/17B
7 February 2003
SUPERSEDING
MIL-C-11272/17A(USAF)
6 July 1973

MILITARY SPECIFICATION

**CAPACITORS, FIXED, PORCELAIN DIELECTRIC,
STYLES CY83 AND CY84**

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

**INACTIVE FOR DESIGN AFTER
16 JULY 1979. USE MIL-PRF-55681/4.**



	Inches	mm
.010	.25	
.015	.38	
.020	.51	
.060	1.52	
.100	2.54	
.110	2.79	

Dimensions				
Style	L	W	T	
			Min.	Max.
CY83	.110 ± .015	.110 ± .015	.060	.100
CY84	.110 ± .020	.110 ± .015	.060	.100

NOTES:

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

**FIGURE 1. Capacitors, fixed, porcelain dielectric,
styles CY83 and CY84.**

TABLE I. Styles CY83 and CY84.

PIN 1/	Capacitance pF	Rated voltage Volts, dc	Capacitance tolerance available
CY8-D0R1B	0.1	500	B
CY8-D0R2B	0.2	500	B
CY8-D0R3-	0.3	500	B, C
CY8-D0R4-	0.4	500	B, C
CY8-D0R5-	0.5	500	B, C, D
CY8-D0R6-	0.6	500	B, C, D
CY8-D0R7-	0.7	500	B, C, D
CY8-D0R8-	0.8	500	B, C, D
CY8-D0R9-	0.9	500	B, C, D
CY8-D1R0-	1.0	500	B, C, D
CY8-D1R1-	1.1	500	B, C, D
CY8-D1R2-	1.2	500	B, C, D
CY8-D1R3-	1.3	500	B, C, D
CY8-D1R4-	1.4	500	B, C, D
CY8-D1R5-	1.5	500	B, C, D
CY8-D1R6-	1.6	500	B, C, D
CY8-D1R7-	1.7	500	B, C, D
CY8-D1R8-	1.8	500	B, C, D
CY8-D1R9-	1.9	500	B, C, D
CY8-D2R0-	2.0	500	B, C, D
CY8-D2R1-	2.1	500	B, C, D
CY8-D2R2-	2.2	500	B, C, D
CY8-D2R4-	2.4	500	B, C, D
CY8-D2R7-	2.7	500	B, C, D
CY8-D3R0-	3.0	500	B, C, D
CY8-D3R3-	3.3	500	B, C, D
CY8-D3R6-	3.6	500	B, C, D
CY8-D3R9-	3.9	500	B, C, D
CY8-D4R3-	4.3	500	B, C, D
CY8-D4R7-	4.7	500	B, C, D
CY8-D5R1-	5.1	500	B, C, D
CY8-D5R6-	5.6	500	B, C, D
CY8-D6R2-	6.2	500	B, C, D
CY8-D6R8-	6.8	500	B, C, J, K, M
CY8-D7R5-	7.5	500	B, C, J, K, M
CY8-D8R2-	8.2	500	B, C, J, K, M
CY8-D9R1-	9.1	500	B, C, J, K, M
CY8-D100-	10	500	F, G, J, K, M
CY8-D110-	11	500	F, G, J, K, M
CY8-D120-	12	500	F, G, J, K, M
CY8-D130-	13	500	F, G, J, K, M
CY8-D150-	15	500	F, G, J, K, M
CY8-D160-	16	500	F, G, J, K, M
CY8-D180-	18	500	F, G, J, K, M
CY8-D200-	20	500	F, G, J, K, M
CY8-D220-	22	500	F, G, J, K, M
CY8-D240-	24	500	F, G, J, K, M
CY8-D270-	27	500	F, G, J, K, M

See footnote at end of table.

FIGURE 1. Styles CY83 and CY84 - Continued.

PIN 1/	Capacitance	Rated voltage	Capacitance tolerance available
CY8-D300-	30	500	F, G, J, K, M
CY8-D330-	33	500	F, G, J, K, M
CY8-D360-	36	500	F, G, J, K, M
CY8-D390-	39	500	F, G, J, K, M
CY8-D430-	43	500	F, G, J, K, M
CY8-D470-	47	500	F, G, J, K, M
CY8-D510-	51	500	F, G, J, K, M
CY8-D560-	56	500	F, G, J, K, M
CY8-D620-	62	500	F, G, J, K, M
CY8-D680-	68	500	F, G, J, K, M
CY8-D750-	75	500	F, G, J, K, M
CY8-D820-	82	500	F, G, J, K, M
CY8-D910-	91	500	F, G, J, K, M
CY8-D101-	100	500	F, G, J, K, M
CY8-D111-	110	300	F, G, J, K, M
CY8-D121-	120	300	F, G, J, K, M
CY8-D131-	130	300	F, G, J, K, M
CY8-D151-	150	300	F, G, J, K, M
CY8-D161-	160	300	F, G, J, K, M
CY8-D181-	180	300	F, G, J, K, M
CY8-D201-	200	300	F, G, J, K, M
CY8-D221-	220	200	F, G, J, K, M
CY8-D241-	240	200	F, G, J, K, M
CY8-D271-	270	200	F, G, J, K, M
CY8-D301-	300	200	F, G, J, K, M
CY8-D331-	330	200	F, G, J, K, M
CY8-D361-	360	200	F, G, J, K, M
CY8-D391-	390	200	F, G, J, K, M
CY8-D431-	430	200	F, G, J, K, M
CY8-D471-	470	200	F, G, J, K, M
CY8-D511-	510	100	F, G, J, K, M
CY8-D561-	560	100	F, G, J, K, M
CY8-D621-	620	100	F, G, J, K, M
CY8-D681-	680	50	F, G, J, K, M
CY8-D751-	750	50	F, G, J, K, M
CY8-D821-	820	50	F, G, J, K, M
CY8-D911-	910	50	F, G, J, K, M
CY8-D102-	1000	50	F, G, J, K, M

- 1/ Complete PIN will include an additional digit to indicate the style, and an additional letter symbol to indicate the capacitance tolerance, where applicable.

REQUIREMENTS

Requirements: Requirements shall be in accordance with MIL-C-11272, and as specified herein.

Design and construction: Capacitors shall be of the design, construction, and physical dimensions specified on figure 1 and in table I.

Case type: Multi-layer, unencapsulated, monolithic.

Material - Porcelain.

Terminations:

Style CY83: Metallized.

Style CY84: Solder coated, 372°F, 62 Sn, 36P6, 2 percent Ag.

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

Capacitance (Cap.) value: See table I.

Capacitance tolerance: B: 0.10pF, C: 0.25pF, D: 0.50pF, F: 1%, G: 2%, J: 5%, K: 10%, M: 20%.

Rated voltage: See table I, characteristic D.

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

Insulation resistance (IR):

At +25°C: 10^6 megohms, minimum (for 0.1 pF through 470 pF).
 10^5 megohms, minimum (for 510 pF through 1,000 pF).

At +125°C: 10^5 megohms, minimum (for 0.1 pF through 470 pF).
 10^4 megohms, minimum (for 510 pF through 1,000 pF).

Quality factor: 10,000. 1 MHz -0 +100 kHz.

Life:

At +25°C and +125°C:

IR: Not less than initial requirement.

Cap.: Change not more than 0.2 percent or 0.2 pF, whichever is greater, from the nominal value.

Temperature coefficient and capacitance drift: See table II.

TABLE II. Temperature coefficient and capacitance drift.

Temperature coefficient	Capacitance drift (-55°C to +125°C)
Parts/million/°C 90 ± 20	0.1 percent or 0.1 pF, whichever is greater

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.

Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:

DLA - CC

(Project 5910-2163-09)

Review activities:

Army - MI
Air Force - 99
DLA - IS