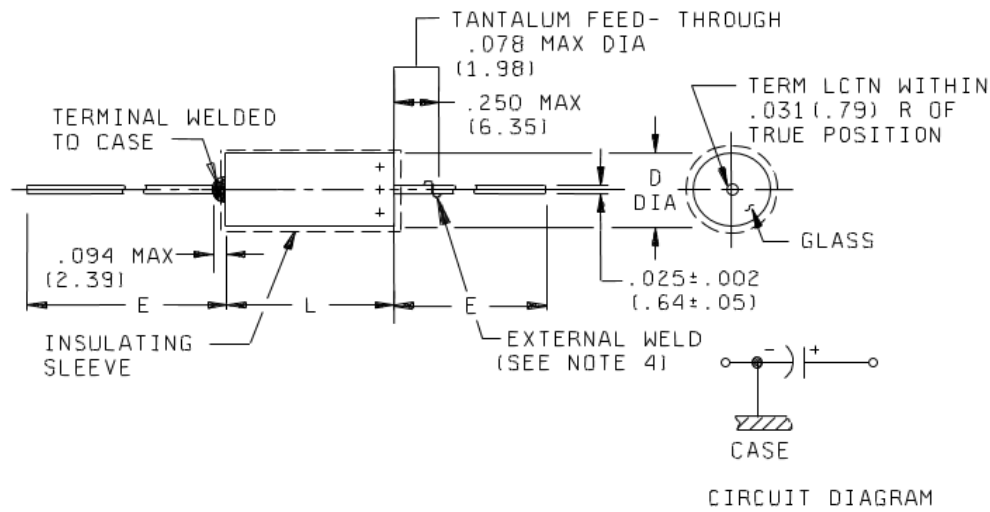


PERFORMANCE SPECIFICATION SHEET

CAPACITOR, FIXED, ELECTROLYTIC (NONSOLID ELECTROLYTE),
 TANTALUM (POLARIZED, SINTERED SLUG), EXTENDED
 RANGE, +85°C (VOLTAGE DERATED TO +125°C),
 ESTABLISHED RELIABILITY, STYLE CLR93

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-39006](#).



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parentheses.
3. Metric equivalents are in millimeters and are given for general information only.
4. The weld shall not be enclosed in the end seal.

FIGURE 1. Style CLR93 capacitors.



MIL-PRF-39006/33C

Case size	Dimensions in inches (mm)			
	Basic case		Insulated case	E ± .250 (6.35)
	L $\frac{1}{2}$ + .031 (0.79) - .016 (0.41)	D ± .016 (0.41)	D max	
T1	.453 (11.51)	.188 (4.78)	.219 (5.56)	1.500 (38.10)
T2	.641 (16.28)	.281 (7.14)	.312 (7.92)	2.250 (57.15)
T3	.766 (19.46)	.375 (9.52)	.406 (10.31)	2.250 (57.15)
T4	1.062 (26.97)	.375 (9.52)	.406 (10.31)	2.250 (57.15)
L2	1.008 (25.60)	.281 (7.14)	.312 (7.92)	2.250 (57.15)

$\frac{1}{2}$ Length of basic case sleeving shall be as specified in [MIL-PRF-39006](#).

FIGURE 1. Style CLR93 capacitors - Continued.

REQUIREMENTS:

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

Case type: Tantalum, tubular, insulated.

Seal type: Hermetic (glass-to-tantalum anode).

Terminals: Axial-wire lead: Cathode and anode (type N32, N51, or N52 of [MIL-STD-1276](#)).

Rated temperature: -55°C to +85°C, voltage de-rated to +125°C (see figure 2).

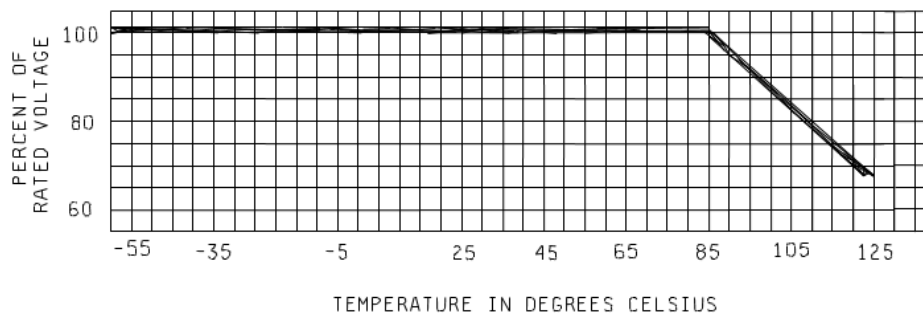


FIGURE 2. Voltage derating with temperature.

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

Capacitance (Cap.) nominal (nom): [MIL-STD-202-305](#), see [table I](#).

Cap. tolerance: ± 10 percent or ± 20 percent (see [table I](#)).

FR level: M, P, R, and S (see [table I](#)).

DC leakage (DCL) (max) (at +25°C): See [table I](#).

Equivalent Series Resistance (ESR) (max): See [table I](#).

Seal: [MIL-STD-202-112](#), conditions A or D, and C.

Shock (specified pulse): [MIL-STD-202-213](#), condition I (100 g's) or condition D (500 g's), as applicable.

Vibration, high frequency: [MIL-STD-202-204](#), condition D (20 g's) or condition H (80 g's), as applicable.

Random vibration (when applicable): [MIL-STD-202-214](#), test condition II-K (53.79 g's).

Thermal shock: [MIL-STD-202-107](#), condition A (with step 3 at +125°C). The following shall apply:

Number of cycles: In accordance with [MIL-PRF-39006](#).

DCL: 200 percent (max) of +25°C value of [table I](#) for qualification and group C.

DCL: 125 percent (max) of +25°C value of [table I](#) for group B.

Δ Cap: Within ± 5 percent of initial measurement.

ESR: 115 percent (max) of initial requirement.

Salt atmosphere (corrosion): [MIL-STD-202-101](#), condition B (48 hours).

Solderability: [MIL-STD-202-208](#).

Terminal strength:

Pull: [MIL-STD-202-211](#), condition A.

Wire-lead bend: In accordance with [MIL-PRF-39006](#).

Surge voltage: In accordance with [MIL-PRF-39006](#) and [table I](#), except:

Δ Cap: Within + 5 percent, - 20 percent of the initial measured value.

Moisture resistance: [MIL-STD-202-106](#).

DCL: 125 percent (max) of +25°C value of [table I](#).

Δ Cap: Within ± 8 percent of initial measurement.

ESR: 115 percent (max) of initial requirement.

Dielectric withstanding voltage (DWV): [MIL-STD-202-301](#). 2,000 V dc, minimum.

Low temperature (storage): Method 502 of [MIL-STD-810](#).

DCL: See [table I](#).

Δ Cap: Within ± 5 percent of initial measurement.

ESR: See [table I](#).

Stability at low and high temperatures:

Step 1 (+25°C):

DCL: See [table I](#).

Δ Cap: Within tolerance of [table I](#) value.

ESR: See [table I](#).

Step 2 (-55°C):

Impedance. See [table I](#).

Δ Cap: See [table I](#).

Step 3 (+25°C):

DCL: See [table I](#).

Δ Cap: Within ± 5 percent of step 1 value.

ESR: See [table I](#).

Step 4 (+85°C):

DCL: See [table I](#).

Δ Cap: See [table I](#).

ESR: See [table I](#).

Step 5 (+125°C):

DCL: See [table I](#).

Δ Cap: See [table I](#).

ESR: See [table I](#).

Step 6 (+25°C):

DCL: See [table I](#).

Δ Cap: Within ± 5 percent of step 1 value.

ESR: See [table I](#).

Insulation resistance (IR): [MIL-STD-202-302](#), condition B. 100 megohms, minimum.

Reverse voltage: Not applicable.

Life at +85°C: [MIL-STD-202-108](#).

2,000 hours (qualification):

DCL: See [table I](#).

Δ Cap: Within ± 10 percent of initial measurement.

ESR: See [table I](#).

10,000 hours (group B) and extended life:

DCL (+85°C): 125 percent (max) of [table I](#) value.

DCL (+25°C): See [table I](#).

Δ Cap: Within +10 percent, -20 percent of initial measurement.

ESR: 200 percent (max) of [table I](#) value.

DWV: 2,000 V dc, minimum.

IR.: 100 megohms, minimum.

AC ripple life at +85°C (qualification and group C):

Test ripple current: See [table I](#).

Test voltage: 66.67 percent of rated voltage (see [table I](#)).

DCL: See [table I](#).

Δ Cap: Within ± 10 percent of initial measurement.

ESR: See [table I](#).

Life at +125°C: [MIL-STD-202-108](#).

DCL: See [table I](#).

Δ Cap: Within ± 10 percent of initial measurement.

ESR: See [table I](#).

DWV: 2,000 V dc, minimum.

IR.: 100 megohms, minimum.

2,000 hours (group C):

DCL (+125°C): 125 percent (max) of [table I](#) value.

DCL (+25°C): See [table I](#).

Δ Cap: Within +10 percent, -20 percent of initial measurement.

ESR: 200 percent (max) of [table I](#) value.

DWV: 2,000 V dc, minimum.

IR.: 100 megohms, minimum.

Barometric pressure: [MIL-STD-202-105](#), condition E (150,000 feet) (45,720.1 m).

Test voltage: Rated voltage.

Resistance to soldering heat: [MIL-STD-202-210](#), condition C.

DCL: See [table I](#).

Δ Cap: Within ± 5 percent of initial measurement.

ESR: See [table I](#).

Marking: In accordance with [MIL-PRF-39006](#).

Polarity of all parts: Series of (+) symbols encircling positive end (see [figure 1](#)).

Example: M39006/
33-0001
JAN TM
12345
9415A

Voltage groups (+85°C rated voltage):

I ----- 6 V through 15 V

II ----- 25 V through 75 V.

III ----- 100 V and 125 V.

MIL-PRF-39006/33C

TABLE I. Capacitor characteristics.

Cap.	Cap. tolerance	DC leakage (max)		Dissipation factor (max)	ESR at +25°C (max) 2/	Impedance (max)	Capacitance change at			Max +85°C 40 kHz ripple current 3/ mA rms	Case size	PIN M39006/33- 4/ non-compression seal			
		+25°C	+85°C				-55°C	+85°C	+125°C			Failure rate level (%/1,000 hrs)			
		μA	μA				%	%	%			M(1.0)	P(0.1)	R(0.01)	S(0.001)
μF	±%	μA	μA	%	Ohms	Ohms	%	%	%						
25 V _{dc} at +85°C 1/ 15 V _{dc} at +125°C 1/ Surge (+85°C) 28.8 V _{dc}															
120	+20	1	5	14.1	1.3	25	-42	8	12	1250	T1	0001-	1001-	2001-	3001-
120	+10	1	5	14.1	1.3	25	-42	8	12	1250	T1	0002-	1002-	2002-	3002-
560	+20	2	10	42.1	0.83	12	-65	10	15	2100	T2	0003-	1003-	2003-	3003-
560	+10	2	10	42.1	0.83	12	-65	10	15	2100	T2	0004-	1004-	2004-	3004-
1100	+20	3	25	49.8	0.5	7	-60	20	45	3200	L2	0005-	1005-	2005-	3005-
1100	+10	3	25	49.8	0.5	7	-60	20	45	3200	L2	0006-	1006-	2006-	3006-
1200	+20	5	20	70.6	0.65	7	-70	12	18	2600	T3	0007-	1007-	2007-	3007-
1200	+10	5	20	70.6	0.65	7	-70	12	18	2600	T3	0008-	1008-	2008-	3008-
1800	+20	6	25	81.4	0.5	7	-75	12	20	3100	T4	0009-	1009-	2009-	3009-
1800	+10	6	25	81.4	0.5	7	-75	12	20	3100	T4	0010-	1010-	2010-	3010-
30 V _{dc} at +85°C 1/ 20 V _{dc} at +125°C 1/ Surge (+85°C) 34.5 V _{dc}															
100	+20	1	5	11.8	1.3	25	-38	8	12	1200	T1	0011-	1011-	2011-	3011-
100	+10	1	5	11.8	1.3	25	-38	8	12	1200	T1	0012-	1012-	2012-	3012-
470	+20	2	10	36.1	0.85	15	-65	10	18	1800	T2	0013-	1013-	2013-	3013-
470	+10	2	10	36.1	0.85	15	-65	10	18	1800	T2	0014-	1014-	2014-	3014-
950	+20	5	30	43.0	0.5	7	-55	18	35	3200	L2	0015-	1015-	2015-	3015-
950	+10	5	30	43.0	0.5	7	-55	18	35	3200	L2	0016-	1016-	2016-	3016-
1000	+20	7	25	63.3	0.7	7	-70	10	18	2500	T3	0017-	1017-	2017-	3017-
1000	+10	7	25	63.3	0.7	7	-70	10	18	2500	T3	0018-	1018-	2018-	3018-
1500	+20	12	35	81.4	0.6	6	-72	10	20	3000	T4	0019-	1019-	2019-	3019-
1500	+10	12	35	81.4	0.6	6	-72	10	20	3000	T4	0020-	1020-	2020-	3020-
50 V _{dc} at +85°C 1/ 30 V _{dc} at +125°C 1/ Surge (+85°C) 57.5 V _{dc}															
68	+20	1	5	9.2	1.5	35	-25	8	15	1050	T1	0021-	1021-	2021-	3021-
68	+10	1	5	9.2	1.5	35	-25	8	15	1050	T1	0022-	1022-	2022-	3022-
220	+20	2	10	17.9	0.9	17.5	-50	8	15	1800	T2	0023-	1023-	2023-	3023-
220	+10	2	10	17.9	0.9	17.5	-50	8	15	1800	T2	0024-	1024-	2024-	3024-
450	+20	3	25	24.4	0.6	7.5	-45	12	30	2900	L2	0025-	1025-	2025-	3025-
450	+10	3	25	24.4	0.6	7.5	-45	12	30	2900	L2	0026-	1026-	2026-	3026-
470	+20	3	25	31.9	0.75	10	-50	8	15	2100	T3	0027-	1027-	2027-	3027-
470	+10	3	25	31.9	0.75	10	-50	8	15	2100	T3	0028-	1028-	2028-	3028-
680	+20	5	40	43.1	0.7	10	-58	10	20	2750	T4	0029-	1029-	2029-	3029-
680	+10	5	40	43.1	0.7	10	-58	10	20	2750	T4	0030-	1030-	2030-	3030-
60 V _{dc} at +85°C 1/ 40 V _{dc} at +125°C 1/ Surge (+85°C) 69.0 V _{dc}															
47	+20	1	5	8.5	2	44	-25	8	12	1050	T1	0031-	1031-	2031-	3031-
47	+10	1	5	8.5	2	44	-25	8	12	1050	T1	0032-	1032-	2032-	3032-
150	+20	2	10	14.9	1.1	20	-40	8	15	1650	T2	0033-	1033-	2033-	3033-
150	+10	2	10	14.9	1.1	20	-40	8	15	1650	T2	0034-	1034-	2034-	3034-
370	+20	3	25	20.1	0.6	9	-33	9	20	2900	L2	0035-	1035-	2035-	3035-
370	+10	3	25	20.1	0.6	9	-33	9	20	2900	L2	0036-	1036-	2036-	3036-
390	+20	3	25	31.8	0.9	15	-60	8	15	2100	T3	0037-	1037-	2037-	3037-
390	+10	3	25	31.8	0.9	15	-60	8	15	2100	T3	0038-	1038-	2038-	3038-
560	+20	5	40	40.5	0.8	10	-58	8	15	2750	T4	0039-	1039-	2039-	3039-
560	+10	5	40	40.5	0.8	10	-58	8	15	2750	T4	0040-	1040-	2040-	3040-
75 V _{dc} at +85°C 1/ 50 V _{dc} at +125°C 1/ Surge (+85°C) 86.2 V _{dc}															
33	+20	1	5	7.5	2.5	66	-25	5	9	1050	T1	0041-	1041-	2041-	3041-
33	+10	1	5	7.5	2.5	66	-25	5	9	1050	T1	0042-	1042-	2042-	3042-
110	+20	2	10	12.9	1.3	24	-35	6	10	1650	T2	0043-	1043-	2043-	3043-
110	+10	2	10	12.9	1.3	24	-35	6	10	1650	T2	0044-	1044-	2044-	3044-
250	+20	5	30	18.1	0.8	12	-30	6	15	2500	L2	0045-	1045-	2045-	3045-
250	+10	5	30	18.1	0.8	12	-30	6	15	2500	L2	0046-	1046-	2046-	3046-
330	+20	3	30	29.9	1	12	-45	6	10	2100	T3	0047-	1047-	2047-	3047-

See footnotes at end of table.

MIL-PRF-39006/33C

TABLE I. Capacitor characteristics - continued.

Cap. μF	Cap. tolerance ±%	DC leakage (max)		Dissipation factor (max) %	ESR at +25°C (max) <u>2/</u> Ohms	Impedance (max) Ohms	Capacitance change at			Max +85°C 40 kHz ripple current <u>3/</u> mA rms	Case size	PIN M39006/33- <u>4/</u> non-compression seal			
		+25°C	+85°C				-55°C	+85°C	+125°C			Failure rate level (%/1,000 hrs)			
		μA	+125°C μA									M(1.0)	P(0.1)	R(0.01)	S(0.001)
75 V _{dc} at +85°C <u>1/</u> 50 V _{dc} at +125°C <u>1/</u> Surge (+85°C) 86.2 V _{dc} -Continued.															
330	+10	3	30	29.9	1	12	-45	6	10	2100	T3	0048-	1048-	2048-	3048-
470	+20	5	50	38.3	0.9	12	-55	8	12	2750	T4	0049-	1049-	2049-	3049-
470	+10	5	50	38.3	0.9	12	-55	8	12	2750	T4	0050-	1050-	2050-	3050-
100 V _{dc} at +85°C <u>1/</u> 65 V _{dc} at +125°C <u>1/</u> Surge (+85°C) 115 V _{dc}															
15	+20	1	5	4.8	3.5	125	-18	3	10	1050	T1	0051-	1051-	2051-	3051-
15	+10	1	5	4.8	3.5	125	-18	3	10	1050	T1	0052-	1052-	2052-	3052-
68	+20	2	10	12.9	2.1	37	-30	4	12	1650	T2	0053-	1053-	2053-	3053-
68	+10	2	10	12.9	2.1	37	-30	4	12	1650	T2	0054-	1054-	2054-	3054-
120	+20	3	25	10.9	1	20.5	-30	4	12	2200	L2	0055-	1055-	2055-	3055-
120	+10	3	25	10.9	1	20.5	-30	4	12	2200	L2	0056-	1056-	2056-	3056-
150	+20	3	25	21.7	1.6	22	-35	6	12	2100	T3	0057-	1057-	2057-	3057-
150	+10	3	25	21.7	1.6	22	-35	6	12	2100	T3	0058-	1058-	2058-	3058-
220	+20	5	50	23.9	1.2	15	-40	6	12	2750	T4	0059-	1059-	2059-	3059-
220	+10	5	50	23.9	1.2	15	-40	6	12	2750	T4	0060-	1060-	2060-	3060-
125 V _{dc} at +85°C <u>1/</u> 85 V _{dc} at +125°C <u>1/</u> Surge (+85°C) 144 V _{dc}															
10	+20	1	5	5.0	5.5	175	-15	3	10	1050	T1	0061-	1061-	2061-	3061-
10	+10	1	5	5.0	5.5	175	-15	3	10	1050	T1	0062-	1062-	2062-	3062-
47	+20	2	10	9.8	2.3	47	-25	5	12	1650	T2	0063-	1063-	2063-	3063-
47	+10	2	10	9.8	2.3	47	-25	5	12	1650	T2	0064-	1064-	2064-	3064-
90	+20	5	25	10.6	1.3	25	-22	4	15	2000	L2	0065-	1065-	2065-	3065-
90	+10	5	25	10.6	1.3	25	-22	4	15	2000	L2	0066-	1066-	2066-	3066-
100	+20	3	25	16.3	1.8	35	-35	5	12	2100	T3	0067-	1067-	2067-	3067-
100	+10	3	25	16.3	1.8	35	-35	5	12	2100	T3	0068-	1068-	2068-	3068-
150	+20	5	50	21.7	1.6	20	-40	6	12	2750	T4	0069-	1069-	2069-	3069-
150	+10	5	50	21.7	1.6	20	-40	6	12	2750	T4	0070-	1070-	2070-	3070-

1/ Reverse voltage: There shall be no continuous reverse voltage. Transient reverse voltage surges are acceptable under the following conditions:

- The peak reverse voltage is equal to or less than 1.5 volts and the product of the peak current times the duration of the reverse transient is 0.05 ampere-seconds or less.
- The repetition rate of the reverse voltage surges is less than 10 Hz.

2/ DF is calculated from ESR and is for reference only, calculated by the equation:

$$DF = (ESR)(2\pi fC)$$

Where:

ESR = Actual measured ESR

$2\pi = 6.28$

$f = 120$ Hz;

$C =$ Actual measured capacitance

3/ For ripple current limits at various temperatures, voltages, and frequencies, see [table II](#).

4/ Dash number shall include the letter "H" to indicate the optional vibration and shock requirements (i.e., 53.79 g's random vibration, 80 g's sinusoidal vibration, and 500 g's shock) or the "-" will be deleted. The acquiring activity may substitute an "H" designated part in place of a non "H" designated part at their option.

TABLE II. Ripple current multipliers versus frequency, temperature, and applied peak voltage. 1/ 2/ 3/ 4/ 5/

Frequency of applied ripple current		120 Hz				800 Hz				1 kHz			
Ambient still air temperature in °C		≤+55	+85	+105	+125	≤+55	+85	+105	+125	≤+55	+85	+105	+125
% of	100%	.60	.39	-	-	.71	.43	-	-	.72	.45	-	-
+85°C	90%	.60	.46	-	-	.71	.55	-	-	.72	.55	-	-
rated	80%	.60	.52	.35	-	.71	.62	.42	-	.72	.62	.42	-
peak	70%	.60	.58	.44	-	.71	.69	.52	-	.72	.70	.52	-
voltage	66-2/3%	.60	.60	.46	.27	.71	.71	.55	.32	.72	.72	.55	.32
Frequency of applied ripple current		10 kHz				40 kHz				100 kHz			
Ambient still air temperature in °C		≤+55	+85	+105	+125	≤+55	+85	+105	+125	≤+55	+85	+105	+125
% of	100%	.88	.55	-	-	1.0	.63	-	-	1.1	.69	-	-
+85°C	90%	.88	.67	-	-	1.0	.77	-	-	1.1	.85	-	-
rated	80%	.88	.76	.52	-	1.0	.87	.59	-	1.1	.96	.65	-
peak	70%	.88	.85	.64	-	1.0	.97	.73	-	1.1	1.07	.80	-
voltage	66-2/3%	.88	.88	.68	.40	1.0	1.0	.77	.45	1.1	1.1	.85	.50

1/ At +125°C, the rated voltage of the capacitors decreases to 66.67 percent of the +85°C rated voltage.

2/ The peak of the applied ac ripple voltage plus the applied dc voltage must not exceed the dc voltage rating of the capacitor either forward or reverse.

3/ The ripple current listed in [table I](#) represents a rating calculated by using a maximum internal temperature rise (ΔT) at +50°C at 40 kHz at +85°C ambient temperature, with a maximum peak rated voltage of 66.67 percent of the +85°C peak voltage rating.

4/ The maximum allowable internal temperature rise (ΔT) decreases linearly to a calculated 10°C rise at +125°C ambient.

5/ The internal temperature rise is directly proportional to the ESR of the capacitor, and ESR increases with decreasing frequency.

TABLE III Substitutability data to replace [DLA Land and Maritime drawing 93026](#).

Rated voltage at (+55°C) Vdc	Cap (uF) at +25°C and 120 Hz	Cap. tolerance	DSCC drawing PIN 93026-	PIN M39006/33- <u>1/</u>			
				Failure rate level (%/1000 hour)			
				M (1.0)	P (0.1)	R (0.01)	S (0.001)
25	120	±20%	29MS	0001-	1001-	2001-	3001-
25	120	±10%	29KS	0002-	1002-	2002-	3002-
25	560	±20%	30MS	0003-	1003-	2003-	3003-
25	560	±10%	30KS	0004-	1004-	2004-	3004-
25	1100	±20%	57MS	0005-	1005-	2005-	3005-
25	1100	±10%	57KS	0006-	1006-	2006-	3006-
25	1200	±20%	31MS	0007-	1007-	2007-	3007-
25	1200	±10%	31KS	0008-	1008-	2008-	3008-
25	1800	±20%	32MS	0009-	1009-	2009-	3009-
25	1800	±10%	32KS	0010-	1010-	2010-	3010-
30	100	±20%	33MS	0011-	1011-	2011-	3011-
30	100	±10%	33KS	0012-	1012-	2012-	3012-
30	470	±20%	34MS	0013-	1013-	2013-	3013-
30	470	±10%	34KS	0014-	1014-	2014-	3014-
30	950	±20%	58MS	0015-	1015-	2015-	3015-

See footnote at end of table.

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TABLE III Substitutability data to replace [DLA Land and Maritime drawing 93026](#). - continued.

Rated voltage at (+55°C)	Cap (uF) at +25°C and	Cap. tolerance	DSCC drawing PIN 93026-	PIN M39006/33- 1/			
				Failure rate level (%/1000 hour)			
30	950	±10%	58KS	0016-	1016-	2016-	3016-
30	1000	±20%	35MS	0017-	1017-	2017-	3017-
30	1000	±10%	35KS	0018-	1018-	2018-	3018-
30	1500	±20%	36MS	0019-	1019-	2019-	3019-
30	1500	±10%	36KS	0020-	1020-	2020-	3020-
50	68	±20%	37MS	0021-	1021-	2021-	3021-
50	68	±10%	37KS	0022-	1022-	2022-	3022-
50	220	±20%	38MS	0023-	1023-	2023-	3023-
50	220	±10%	38KS	0024-	1024-	2024-	3024-
50	450	±20%	59MS	0025-	1025-	2025-	3025-
50	450	±10%	59KS	0026-	1026-	2026-	3026-
50	470	±20%	39MS	0027-	1027-	2027-	3027-
50	470	±10%	39KS	0028-	1028-	2028-	3028-
50	680	±20%	40MS	0029-	1029-	2029-	3029-
50	680	±10%	40KS	0030-	1030-	2030-	3030-
60	47	±20%	41MS	0031-	1031-	2031-	3031-
60	47	±10%	41KS	0032-	1032-	2032-	3032-
60	150	±20%	42MS	0033-	1033-	2033-	3033-
60	150	±10%	42KS	0034-	1034-	2034-	3034-
60	370	±20%	60MS	0035-	1035-	2035-	3035-
60	370	±10%	60KS	0036-	1036-	2036-	3036-
60	390	±20%	43MS	0037-	1037-	2037-	3037-
60	390	±10%	43KS	0038-	1038-	2038-	3038-
60	560	±20%	44MS	0039-	1039-	2039-	3039-
60	560	±10%	44KS	0040-	1040-	2040-	3040-
75	33	±20%	45MS	0041-	1041-	2041-	3041-
75	33	±20%	45KS	0042-	1042-	2042-	3042-
75	110	±20%	46MS	0043-	1043-	2043-	3043-
75	110	±10%	46KS	0044-	1044-	2044-	3044-
75	250	±20%	61MS	0045-	1045-	2045-	3045-
75	250	±10%	61KS	0046-	1046-	2046-	3046-
75	330	±20%	47MS	0047-	1047-	2047-	3047-
75	330	±10%	47KS	0048-	1048-	2048-	3048-
75	470	±20%	48MS	0049-	1049-	2049-	3049-
75	470	±10%	48KS	0050-	1050-	2050-	3050-
100	15	±20%	49MS	0051-	1051-	2051-	3051-
100	15	±10%	49KS	0052-	1052-	2052-	3052-
100	68	±20%	50MS	0053-	1053-	2053-	3053-
100	68	±10%	50KS	0054-	1054-	2054-	3054-
100	120	±20%	62MS	0055-	1055-	2055-	3055-
100	120	±10%	62KS	0056-	1056-	2056-	3056-
100	150	±20%	51MS	0057-	1057-	2057-	3057-
100	150	±10%	51KS	0058-	1058-	2058-	3058-
100	220	±20%	52MS	0059-	1059-	2059-	3059-
100	220	±10%	52KS	0060-	1060-	2060-	3060-
125	10	±20	53MS	0061-	1061-	2061-	3061-
125	10	±10	53KS	0062-	1062-	2062-	3062-
125	47	±20	54MS	0063-	1063-	2063-	3063-

See footnote at end of table.

TABLE III Substitutability data to replace [DLA Land and Maritime drawing 93026](#). - continued.

Rated voltage at (+55°C)	Cap (uF) at +25°C and	Cap. tolerance	DSCC drawing PIN 93026-	PIN M39006/33- 1/			
				Failure rate level (%/1000 hour)			
125	47	±10	54KS	0064-	1064-	2064-	3034-
125	90	±20	63MS	0065-	1065-	2065-	3065-
125	90	±10	63KS	0066-	1066-	2066-	3066-
125	100	±20	55MS	0067-	1067-	2067-	3067-
125	100	±10	55KS	0068-	1068-	2068-	3068-
125	150	±20	56MS	0069-	1069-	2069-	3069-
125	150	±10	56KS	0070-	1070-	2070-	3070-

[1/](#) Dash number shall include the letter "H" to indicate the optional vibration and shock requirements (i.e., 53.79 g's random vibration, 80 g's sinusoidal vibration, and 500 g's shock) or the "-" will be deleted.

Referenced documents. In addition to [MIL-PRF-39006](#), this document references the following:

MIL-STD-202-101	MIL-STD-202-204	MIL-STD-202-301
MIL-STD-202-105	MIL-STD-202-208	MIL-STD-202-302
MIL-STD-202-106	MIL-STD-202-210	MIL-STD-202-305
MIL-STD-202-107	MIL-STD-202-211	MIL-STD-810
MIL-STD-202-108	MIL-STD-202-213	MIL-STD-1276
MIL-STD-202-112	MIL-STD-202-214	

Changes from previous issue. The margins of this specification are marked with vertical lines 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 previous issue.

Custodians:
 Army - CR
 Navy - EC
 Air Force – 85
 DLA - CC
 Other - NA

Preparing activity:
 DLA - CC
 (Project 5910-2024-033)

Review activities:
 Navy - AS, MC
 Air Force - 19

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/>.