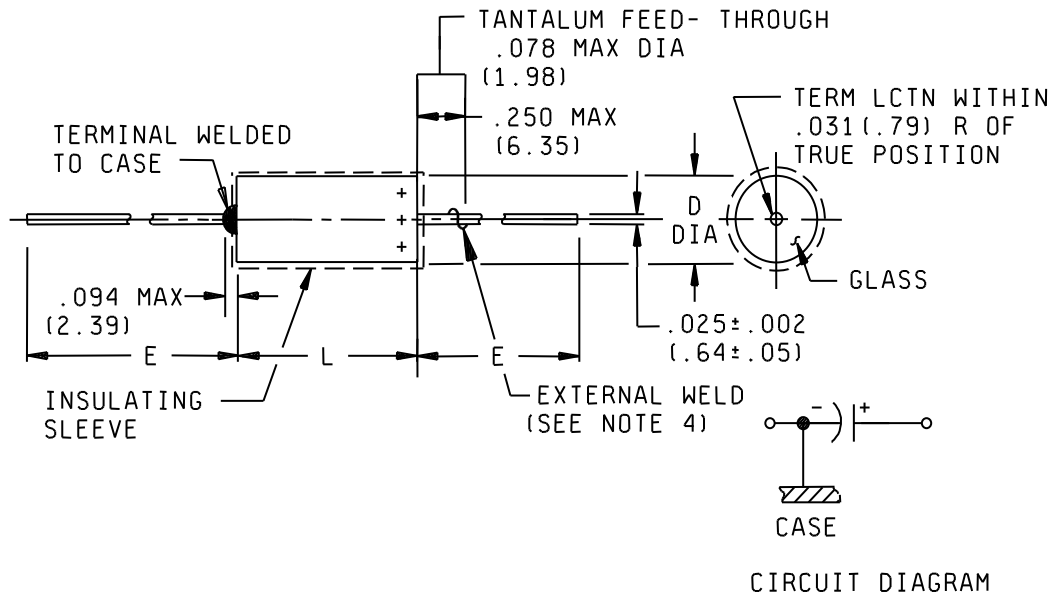


PERFORMANCE SPECIFICATION SHEET

CAPACITOR, FIXED, ELECTROLYTIC (NONSOLID ELECTROLYTE),
TANTALUM (POLARIZED, SINTERED SLUG), EXTENDED
RANGE, +85°C (VOLTAGE DERATED TO +125°C),
ESTABLISHED RELIABILITY, STYLE CLR81

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 given for general information only.
4. The weld shall not be enclosed in the end seal.
5. CLR81 capacitors are replacements for the inactive CLR69s ([MIL-PRF-39006/21](#)), silver cased wet slug capacitors.
6. CLR81 capacitors have higher capacitance values than CLR79s ([MIL-PRF-39006/22](#)) of the same case size and voltage rating.
7. Low ESR versions of CLR81s may be found in [MIL-PRF-39006/31](#) (CLR91).

FIGURE 1. Style CLR81 capacitors.



Case size	Dimensions in inches (mm)			
	Basic case		Insulated case	E ±.250 (6.35)
	L ^{1/} +.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)

^{1/} Length of basic case sleeving shall be as specified in [MIL-PRF-39006](#).

FIGURE 1. Style CLR81 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 derated to +125°C (see [figure 2](#)).

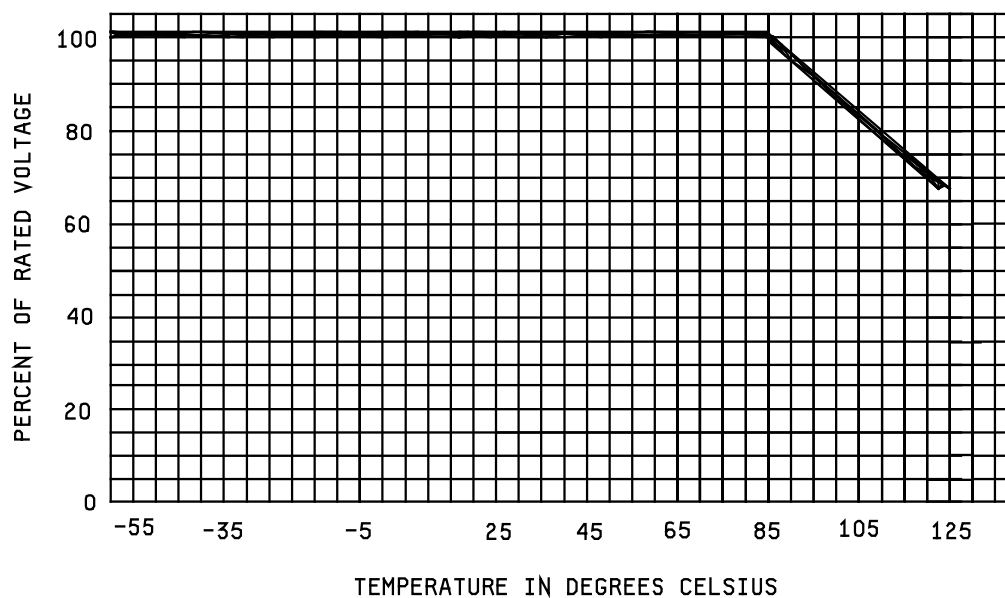


FIGURE 2. Voltage derating with temperature.

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

Capacitance (Cap.) nominal (nom): See [table I](#).

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

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

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

Cap. (nominal): [MIL-STD-202-305](#).

Dissipation factor (DF) (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 (as 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.

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

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.

DF: 115 percent (maximum) of initial requirement.

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

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

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

DCL: See [table I](#).

Δ Cap: Within ± 5 percent of initial measurement.

DF: 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.

DF: 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.

DF: See [table I](#).

Step 4 (+85°C):

DCL: See [table I](#).

Δ Cap: See [table I](#).

DF: See [table I](#).

Step 5 (+125°C):

DCL: See [table I](#).

Δ Cap: See [table I](#).

DF: See [table I](#).

Step 6 (+25°C):

DCL: See [table I](#).

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

DF: See [table I](#).

Reverse voltage: As specified in [MIL-PRF-39006](#).

DCL: See [table I](#).

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

DF: See [table I](#).

Life at +85°C: [MIL-STD-202-108](#).

2,000 hours (qualification):

DCL: See [table I](#).

Δ Cap: Within ± 10 percent of initial measurement.

DF: 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.

DF: 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.

DF: See [table I](#).

Life at +125°C: [MIL-STD-202-108](#).

DCL: See [table I](#).

Δ Cap: Within ± 10 percent of initial measurement.

DF: 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.

DF: 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.

DF: See [table I](#).

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

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

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-39006/25F

TABLE I. Capacitor characteristics.

Cap. μF	Cap. tolerance ±%	DC leakage (max)		Dissipation factor (max) %	ESR at +25°C (max) 2/ Ohms	Impedance (max) Ohms	Capacitance change at			Max +85°C 40 kHz ripple current 3/ mA rms	Case size	PIN M39006/25- 4/			
		+25°C μA	+85°C +125°C μA				-55°C %	+85°C %	+125°C %			Failure rate level (%/1,000 hrs)			
							M(1.0)	P(0.1)	R(0.01)			S(0.001)			
		6 V _{dc} at +85°C 1/			4 V _{dc} at +125°C 1/			Surge (+85°C) 6.9 V _{dc}							
220	±20	2	9	50	3.02	36	-64	+13	+16	1,000	T1	0001-	0089-	0177-	0265-
220	±10	2	9	50	3.02	36	-64	+13	+16	1,000	T1	0002-	0090-	0178-	0266-
820	±20	3	14	155	2.51	18	-88	+16	+20	1,500	T2	0003-	0091-	0179-	0267-
820	±10	3	14	155	2.51	18	-88	+16	+20	1,500	T2	0004-	0092-	0180-	0268-
1,500	±20	5	20	172	1.52	18	-90	+20	+25	1,900	T3	0005-	0093-	0181-	0269-
1,500	±10	5	20	172	1.52	18	-90	+20	+25	1,900	T3	0006-	0094-	0182-	0270-
2,200	±20	6	24	170	1.03	13	-90	+25	+30	2,300	T4	0007-	0095-	0183-	0271-
2,200	±10	6	24	170	1.03	13	-90	+25	+30	2,300	T4	0008-	0096-	0184-	0272-
		8 V _{dc} at +85°C 1/			5 V _{dc} at +125°C 1/			Surge (+85°C) 9.2 V _{dc}							
180	±20	2	9	41	3.02	45	-60	+13	+16	1,000	T1	0009-	0097-	0185-	0273-
180	±10	2	9	41	3.02	45	-60	+13	+16	1,000	T1	0010-	0098-	0186-	0274-
680	±20	3	14	130	2.54	22	-83	+16	+20	1,500	T2	0011-	0099-	0187-	0275-
680	±10	3	14	130	2.54	22	-83	+16	+20	1,500	T2	0012-	0100-	0188-	0276-
1,500	±20	5	20	170	1.50	18	-90	+20	+25	1,900	T3	0013-	0101-	0189-	0277-
1,500	±10	5	20	170	1.50	18	-90	+20	+25	1,900	T3	0014-	0102-	0190-	0278-
1,800	±20	7	25	138	1.02	14	-90	+25	+30	2,300	T4	0015-	0103-	0191-	0279-
1,800	±10	7	25	138	1.02	14	-90	+25	+30	2,300	T4	0016-	0104-	0192-	0280-
		10 V _{dc} at +85°C 1/			7 V _{dc} at +125°C 1/			Surge (+85°C) 11.5 V _{dc}							
150	±20	2	9	34	3.01	54	-55	+13	+16	900	T1	0017-	0105-	0193-	0281-
150	±10	2	9	34	3.01	54	-55	+13	+16	900	T1	0018-	0106-	0194-	0282-
560	±20	3	16	106	2.51	27	-77	+16	+20	1,450	T2	0019-	0107-	0195-	0283-
560	±10	3	16	106	2.51	27	-77	+16	+20	1,450	T2	0020-	0108-	0196-	0284-
1,200	±20	5	20	137	1.51	18	-88	+20	+25	1,850	T3	0021-	0109-	0197-	0285-
1,200	±10	5	20	137	1.51	18	-88	+20	+25	1,850	T3	0022-	0110-	0198-	0286-
1,500	±20	7	25	114	1.01	15	-88	+25	+30	2,300	T4	0023-	0111-	0199-	0287-
1,500	±10	7	25	114	1.01	15	-88	+25	+30	2,300	T4	0024-	0112-	0200-	0288-
		15 V _{dc} at +85°C 1/			10 V _{dc} at +125°C 1/			Surge (+85°C) 17.2 V _{dc}							
100	±20	2	9	30	3.98	72	-44	+13	+16	900	T1	0025-	0113-	0201-	0289-
100	±10	2	9	30	3.98	72	-44	+13	+16	900	T1	0026-	0114-	0202-	0290-
390	±20	3	16	74	2.52	31	-66	+16	+20	1,450	T2	0027-	0115-	0203-	0291-
390	±10	3	16	74	2.52	31	-66	+16	+20	1,450	T2	0028-	0116-	0204-	0292-
820	±20	6	24	111	1.80	22	-77	+20	+25	1,800	T3	0029-	0117-	0205-	0293-
820	±10	6	24	111	1.80	22	-77	+20	+25	1,800	T3	0030-	0118-	0206-	0294-
1,000	±20	8	32	92	1.22	17	-77	+25	+30	2,300	T4	0031-	0119-	0207-	0295-
1,000	±10	8	32	92	1.22	17	-77	+25	+30	2,300	T4	0032-	0120-	0208-	0296-
		25 V _{dc} at +85°C 1/			15 V _{dc} at +125°C 1/			Surge (+85°C) 28.8 V _{dc}							
68	±20	2	9	22	4.29	90	-40	+12	+15	850	T1	0033-	0121-	0209-	0297-
68	±10	2	9	22	4.29	90	-40	+12	+15	850	T1	0034-	0122-	0210-	0298-
270	±20	3	16	55	2.70	33	-62	+13	+16	1,400	T2	0035-	0123-	0211-	0299-
270	±10	3	16	55	2.70	33	-62	+13	+16	1,400	T2	0036-	0124-	0212-	0300-
560	±20	7	28	76	1.80	24	-72	+20	+25	1,750	T3	0037-	0125-	0213-	0301-
560	±10	7	28	76	1.80	24	-72	+20	+25	1,750	T3	0038-	0126-	0214-	0302-
680	±20	8	32	63	1.23	19	-72	+25	+30	2,100	T4	0039-	0127-	0215-	0303-
680	±10	8	32	63	1.23	19	-72	+25	+30	2,100	T4	0040-	0128-	0216-	0304-

See footnotes at end of table.

MIL-PRF-39006/25F

TABLE I. Capacitor characteristics - Continued.

Cap. μF	Cap. tolerance $\pm\%$	DC leakage (max)		Dissipation factor (max) %	ESR at +25°C (max) Ω	Impedance (max) Ohms	Capacitance change at			Max +85°C 40 kHz ripple current $\frac{3}{}$ mA rms	Case size	PIN M39006/25- $\frac{4}{}$			
		+25°C μA	+85°C +125°C μA				-55°C %	+85°C %	+125°C %			Failure rate level (%/1,000 hrs)			
												M(1.0)	P(0.1)	R(0.01)	S(0.001)
		30 V _{dc} at +85°C $\frac{1}{}$			20 V _{dc} at +125°C $\frac{1}{}$			Surge (+85°C) 34.5 V _{dc}							
56	± 20	2	9	22	5.21	100	-38	+12	+15	800	T1	0041-	0129-	0217-	0305-
56	± 10	2	9	22	5.21	100	-38	+12	+15	800	T1	0042-	0130-	0218-	0306-
220	± 20	3	16	42	2.53	36	-60	+13	+16	1,200	T2	0043-	0131-	0219-	0307-
220	± 10	3	16	42	2.53	36	-60	+13	+16	1,200	T2	0044-	0132-	0220-	0308-
470	± 20	8	32	64	1.81	25	-65	+20	+25	1,500	T3	0045-	0133-	0221-	0309-
470	± 10	8	32	64	1.81	25	-65	+20	+25	1,500	T3	0046-	0134-	0222-	0310-
560	± 20	9	36	55	1.30	20	-65	+25	+30	2,000	T4	0047-	0135-	0223-	0311-
560	± 10	9	36	55	1.30	20	-65	+25	+30	2,000	T4	0048-	0136-	0224-	0312-
		50 V _{dc} at +85°C $\frac{1}{}$			30 V _{dc} at +125°C $\frac{1}{}$			Surge (+85°C) 57.5 V _{dc}							
33	± 20	2	9	12.3	4.95	135	-29	+10	+12	700	T1	0049-	0137-	0225-	0313-
33	± 10	2	9	12.3	4.95	135	-29	+10	+12	700	T1	0050-	0138-	0226-	0314-
120	± 20	4	24	22.5	2.49	49	-42	+12	+15	1,200	T2	0051-	0139-	0227-	0315-
120	± 10	4	24	22.5	2.49	49	-42	+12	+15	1,200	T2	0052-	0140-	0228-	0316-
270	± 20	8	32	37	1.82	29	-46	+20	+25	1,450	T3	0053-	0141-	0229-	0317-
270	± 10	8	32	37	1.82	29	-46	+20	+25	1,450	T3	0054-	0142-	0230-	0318-
330	± 20	9	36	38	1.53	22	-46	+25	+30	1,900	T4	0055-	0143-	0231-	0319-
330	± 10	9	36	38	1.53	22	-46	+25	+30	1,900	T4	0056-	0144-	0232-	0320-
		60 V _{dc} at +85°C $\frac{1}{}$			40 V _{dc} at +125°C $\frac{1}{}$			Surge (+85°C) 69.0 V _{dc}							
27	± 20	3	12	10.2	5.01	144	-24	+10	+12	700	T1	0057-	0145-	0233-	0321-
27	± 10	3	12	10.2	5.01	144	-24	+10	+12	700	T1	0058-	0146-	0234-	0322-
100	± 20	4	20	19	2.52	54	-36	+12	+15	1,100	T2	0059-	0147-	0235-	0323-
100	± 10	4	20	19	2.52	54	-36	+12	+15	1,100	T2	0060-	0148-	0236-	0324-
220	± 20	8	32	30	1.81	29	-40	+16	+20	1,400	T3	0061-	0149-	0237-	0325-
220	± 10	8	32	30	1.81	29	-40	+16	+20	1,400	T3	0062-	0150-	0238-	0326-
270	± 20	9	36	27	1.33	23	-45	+20	+25	1,850	T4	0063-	0151-	0239-	0327-
270	± 10	9	36	27	1.33	23	-45	+20	+25	1,850	T4	0064-	0152-	0240-	0328-
		75 V _{dc} at +85°C $\frac{1}{}$			50 V _{dc} at +125°C $\frac{1}{}$			Surge (+85°C) 86.2 V _{dc}							
22	± 20	3	12	8.5	5.13	157	-19	+10	+12	600	T1	0065-	0153-	0241-	0329-
22	± 10	3	12	8.5	5.13	157	-19	+10	+12	600	T1	0066-	0154-	0242-	0330-
82	± 20	4	24	15.2	2.46	63	-30	+12	+15	1,000	T2	0067-	0155-	0243-	0331-
82	± 10	4	24	15.2	2.46	63	-30	+12	+15	1,000	T2	0068-	0156-	0244-	0332-
180	± 20	9	36	24.4	2.23	30	-35	+16	+20	1,300	T3	0069-	0157-	0245-	0333-
180	± 10	9	36	24.4	2.23	30	-35	+16	+20	1,300	T3	0070-	0158-	0246-	0334-
220	± 20	10	40	37.0	1.80	24	-40	+20	+25	1,800	T4	0071-	0159-	0247-	0335-
220	± 10	10	40	37.0	1.80	24	-40	+20	+25	1,800	T4	0072-	0160-	0248-	0336-
		100 V _{dc} at +85°C $\frac{1}{}$			65 V _{dc} at +125°C $\frac{1}{}$			Surge (+85°C) 115.0 V _{dc}							
10	± 20	3	12	4.5	5.97	200	-17	+10	+12	800	T1	0073-	0161-	0249-	0337-
10	± 10	3	12	4.5	5.97	200	-17	+10	+12	800	T1	0074-	0162-	0250-	0338-
39	± 20	5	24	10.4	3.54	80	-20	+12	+15	1,300	T2	0075-	0163-	0251-	0339-
39	± 10	5	24	10.4	3.54	80	-20	+12	+15	1,300	T2	0076-	0164-	0252-	0340-
68	± 20	10	40	11.3	2.21	40	-30	+14	+16	1,600	T3	0077-	0165-	0253-	0341-
68	± 10	10	40	11.3	2.21	40	-30	+14	+16	1,600	T3	0078-	0166-	0254-	0342-
120	± 20	12	48	25	2.76	30	-35	+15	+17	2,000	T4	0079-	0167-	0255-	0343-
120	± 10	12	48	25	2.76	30	-35	+15	+17	2,000	T4	0080-	0168-	0256-	0344-
		125 V _{dc} at +85°C $\frac{1}{}$			85 V _{dc} at +125°C $\frac{1}{}$			Surge (+85°C) 144.0 V _{dc}							
6.8	± 20	3	12	6.0	11.71	300	-14	+10	+12	700	T1	0081-	0169-	0257-	0345-
6.8	± 10	3	12	6.0	11.71	300	-14	+10	+12	700	T1	0082-	0170-	0258-	0346-
27	± 20	5	24	7.2	3.54	90	-18	+12	+15	1,200	T2	0083-	0171-	0259-	0347-

See footnotes at end of table.

TABLE I. Capacitor characteristics - Continued.

Cap. μF	Cap. tolerance ±%	DC leakage (max)		Dissipation factor (max) %	ESR at +25°C (max) 2/ Ohms	Impedance (max) Ohms	Capacitance change at			Max +85°C 40 kHz ripple current 3/ mA rms	Case size	PIN M39006/25- 4/			
		+25°C μA	+85°C +125°C μA				-55°C %	+85°C %	+125°C %			Failure rate level (%/1,000 hrs)			
		125 V _{dc} at +85°C 1/					85 V _{dc} at +125°C 1/					Surge (+85°C)	144.0 V _{dc} -Continued.		
												M(1.0)	P(0.1)	R(0.01)	S(0.001)
27	±10	5	24	7.2	3.54	90	-18	+12	+15	1,200	T2	0084-	0172-	0260-	0348-
47	±20	10	40	7.9	2.23	50	-26	+14	+16	1,500	T3	0085-	0173-	0261-	0349-
47	±10	10	40	7.9	2.23	50	-26	+14	+16	1,500	T3	0086-	0174-	0262-	0350-
82	±20	12	48	17.4	2.82	32	-30	+15	+17	1,900	T4	0087-	0175-	0263-	0351-
82	±10	12	48	17.4	2.82	32	-30	+15	+17	1,900	T4	0088-	0176-	0264-	0352-

1/ Reverse voltage rating at +85°C is 3 V dc and at +125°C is 2 V dc.

2/ Maximum ESR is calculated by the following equation:

$$\text{ESR (max)} = \frac{DF}{2\pi f C}, \text{ where:}$$

DF = Maximum dissipation factor from table I;

f = 120 Hz;

C = Nominal 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.

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 last previous issue.

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

MIL-PRF-39006/21	MIL-STD-202-108	MIL-STD-202-214
MIL-PRF-39006/22	MIL-STD-202-112	MIL-STD-202-301
MIL-PRF-39006/31	MIL-STD-202-204	MIL-STD-202-302
MIL-STD-202-101	MIL-STD-202-208	MIL-STD-202-305
MIL-STD-202-105	MIL-STD-202-210	MIL-STD-810
MIL-STD-202-106	MIL-STD-202-211	MIL-STD-1276
MIL-STD-202-107	MIL-STD-202-213	

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

Preparing activity:
DLA - CC

(Project 5910-2018-004)

Review activities:
Navy - AS, MC, OS
Air Force - 19, 99

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/>