REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	Correction to drawings. Changes to table II	14 Oct 2004	Kendall Cottingim
B	Added Vishay Tansitor capacitors	15 Feb 2005	Kendall Cottingim
C	Change to manufacturer address.	22 Jan 2008	Michael A. Radecki

Prepared in accordance with ASME Y14.100-2000

Selected item drawing

REV	C	C																			
PAGE	18	19																			

REV STATUS OF PAGES																			
	REV	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	PAGES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

PMIC N/A	**PREPARED BY** Ken Bernier	**DESIGN ACTIVITY:** **DEFENSE SUPPLY CENTER, COLUMBUS** **COLUMBUS, OH**
Original date of drawing 9 July 2004	**CHECKED BY** Ken Bernier **APPROVED BY** Kendall Cottongim	**TITLE** CAPACITORS, FIXED ELECTROLYTIC (NONSOLID ELECTROLYTE), TANTALUM, (POLARIZED, SINTERED SLUG) 85°C (VOLTAGE DERATED TO 125°C)
	SIZE A / **CODE IDENT. NO.** 037Z3	**DWG NO.** **04033**
	REV C	**PAGE** 1 **OF** 19

1. SCOPE

1.1 Scope. This drawing and MIL-DTL-3965 describes the complete requirements for capacitors, fixed electrolytic (nonsolid electrolyte), tantalum, (polarized, sintered slug) 85°C (voltage derated to 125°C).

1.2 Part or Identifying Number (PIN). The complete PIN is as follows:

04033	-	XX
Drawing number		Dash number (see table I)

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-3965 - Capacitors, Fixed, Electrolytic (Nonsolid Electrolyte), Tantalum, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-202 - Electronic and Electrical Component Parts.
MIL-STD-1285 - Marking of Electrical and Electronic Parts.

(Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or http://assist.daps.dla.mil/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Design and construction:

3.1.1 Dimensions and configuration: See figures 1A, 1B, and 1C.

3.1.2 Case type: Tubular, uninsulated.

3.1.3 Seal type: G (hermetic).

3.1.4 Terminals: Threaded stud 6-32 UNC-2A and solder lug for PIN's 01 through 18 (figure 1A). Solder-lug for PIN's 19 through 86 (figures 1B and 1C).

3.1.5 Rated voltage: See table I.

3.1.6 Capacitance (Cap.) (nom): See table I.

3.1.7 Cap. tolerance: See table I.

3.2 Seal: Method 112 of MIL-STD-202, conditions A and C.

3.3 Shock (specified pulse): In accordance with MIL-DTL-3965 and method 213 of MIL-STD-202, condition I (100 G).

3.4 Vibration, high frequency: In accordance with MIL-DTL-3965 and method 204 of MIL-STD-202, condition D (20 G).

3.5 Thermal shock: In accordance with MIL-DTL-3965 and method 107 of MIL-STD-202, condition A (with step 3 at +125°C). Number of cycles: 30.

a. DCL: 125 percent (max) of 25°C value of table I.

b. ΔCap.: Within ±5 percent of initial measurement.

c. ESR: 115 percent (max) of initial requirement.

3.6 Salt atmosphere: In accordance with MIL-DTL-3965 and method 101 of MIL-STD-202, condition B (48 hours).

3.7 Solderability: Not applicable.

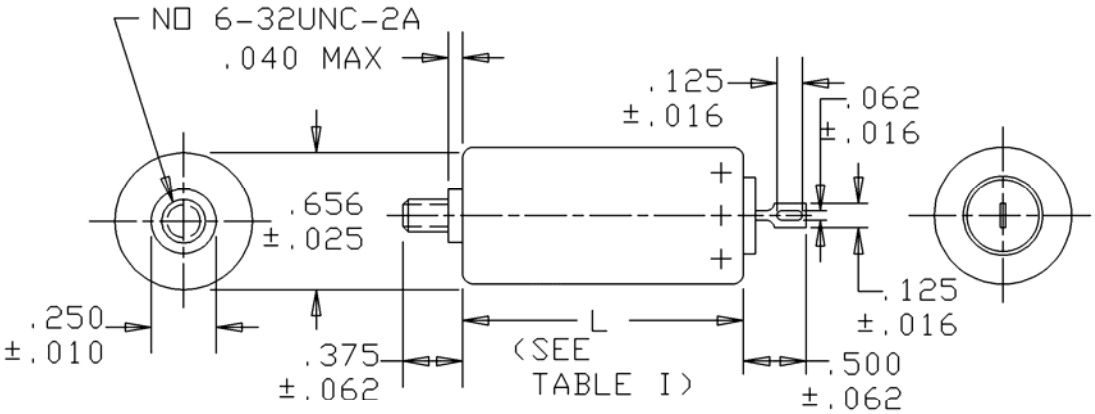
3.8 Terminal strength:

For PINs 01 through 18: Method 211 of MIL-STD-202, condition A.

Wire-lead bend: In accordance with MIL-PRF-3965.

For PINs 19 through 86: Method 211 of MIL-STD-202, condition A.

Bend (if required): Method 211 of MIL-STD-202, condition B.



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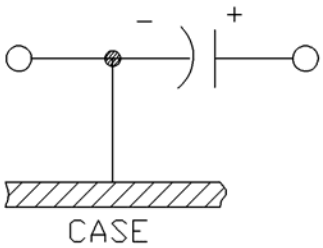


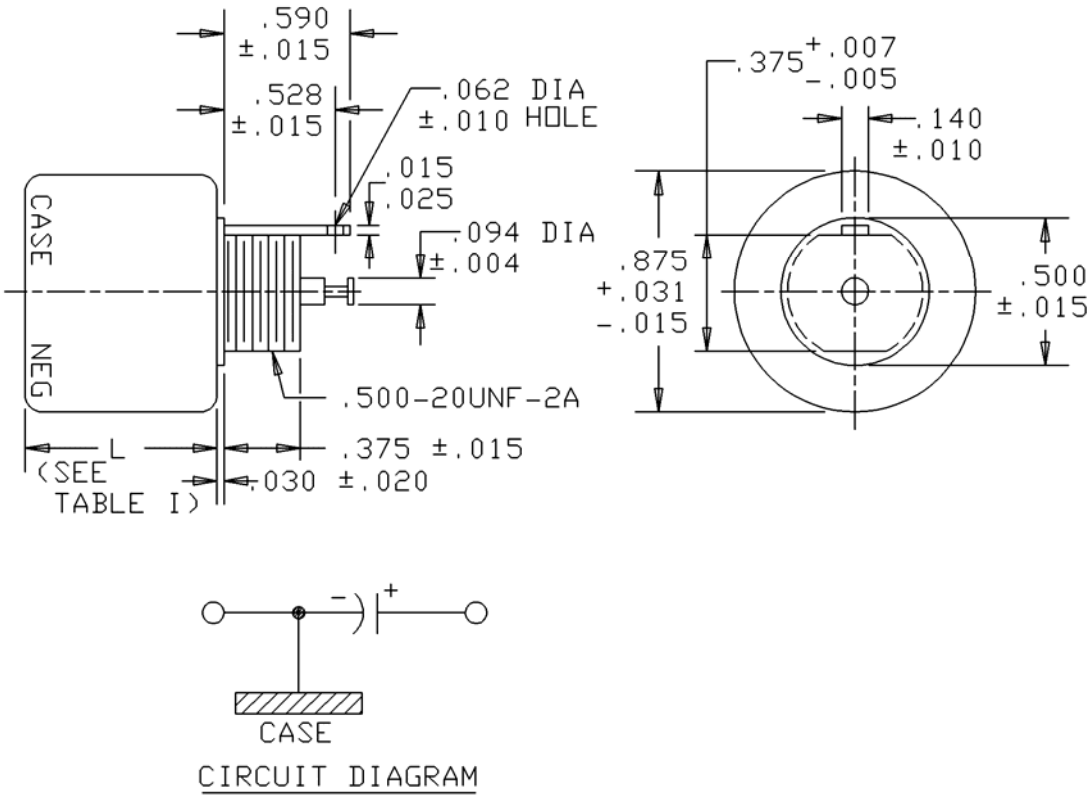
CIRCUIT DIAGRAM

Inches	mm
.005	0.13
.025	0.64
.035	0.89
.062	1.57
.250	6.35
.281	7.14
.656	16.66
2.250	57.15

NOTES:

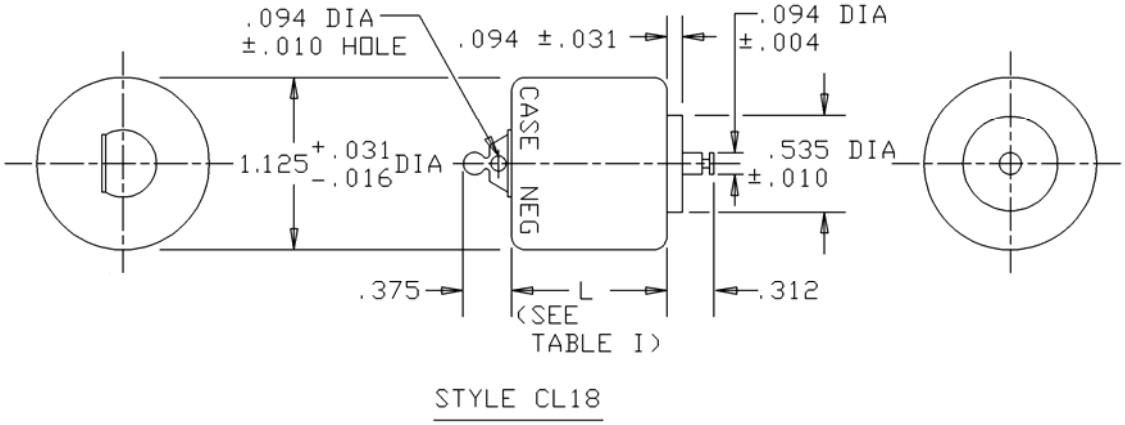
1. All dimensions in inches.
2. Metric equivalents (to the nearest 0.01 mm) are given for general information only.
3. Unless otherwise specified, tolerance is ± .062 (1.57 mm).

FIGURE 1A. Dimensions and configuration.



Inches	mm	Inches	mm
.004	0.10	.094	2.39
.005	0.13	.183	4.65
.010	0.25	.193	4.90
.015	0.38	.313	7.95
.025	0.64	.406	10.31
.031	0.79	.535	13.59
.062	1.57	.875	22.23

FIGURE 1B. Dimensions and configuration.



Inches	mm	Inches	mm
.004	0.10	.094	2.39
.005	0.13	.183	4.65
.010	0.25	.312	7.92
.016	0.41	.406	10.31
.025	0.64	.535	13.59
.031	0.79	1.125	28.58

FIGURE 1C. Dimensions and configuration.

TABLE I. Capacitor characteristics.

DSCC drawing 04033-	Rated voltage (+85°C)	Cap. (nom)	Cap. tolerance	DC leakage (max) (+25°C)	(+85°C)	(+125°C)	ESR (max) (120Hz, 25°C)	Surge voltage (+85°C)	Imped-ance (max)	Cap. change (-55°C)	Cap. change (+85°C)	Cap change (+125°C)	Ripple current 1/	Dimension L ±.062 (1.57)	Figure
PIN	V dc	µF	%	µA	µA	µA	Ω	V dc	Ω	%	%	%	mA	Inches	
01	8	70	+50, -15	6	30	48	12	9.2	60	-60	+30	+30	137	.438 (11.13)	1A
02	8	140	+50, -15	10	50	80	5.9	9.2	30	-60	+30	+30	213	.562 (14.27)	1A
03	10	50	+50, -15	5	25	40	11.7	11.5	75	-60	+30	+30	137	.438 (11.13)	1A
04	10	100	+50, -15	9	45	72	5.9	11.5	40	-60	+30	+30	213	.562 (14.27)	1A
05	20	28	+50, -15	6	30	48	12	23	85	-40	+20	+20	137	.438 (11.13)	1A
06	20	56	+50, -15	10	50	80	6	23	45	-40	+20	+20	213	.562 (14.27)	1A
07	30	20	+50, -15	7	35	56	11.7	34.5	125	-40	+20	+20	137	.438 (11.13)	1A
08	30	40	+50, -15	12	60	96	5.9	34.5	75	-40	+20	+20	213	.562 (14.27)	1A
09	60	12	+50, -15	7	35	56	12	69	180	-30	+20	+20	137	.438 (11.13)	1A
10	60	25	+50, -15	12	60	96	6.0	69	90	-30	+20	+20	213	.562 (14.27)	1A
11	90	8	+50, -15	7	35	56	12	103	250	-30	+20	+20	137	.438 (11.13)	1A
12	90	16	+50, -15	12	60	96	5.9	103	125	-30	+20	+20	213	.562 (14.27)	1A
13	180	4	+50, -15	7	35	56	24	207	500	-30	+20	+20	117	.719 (18.26)	1A
14	180	8	+50, -15	12	60	96	12	207	250	-30	+20	+20	186	.938 (23.83)	1A
15	270	2.5	+50, -15	7	35	56	36	310	750	-30	+20	+20	112	1.031 (26.19)	1A
16	270	5	+50, -15	11	55	88	18	310	375	-30	+20	+20	179	1.375 (34.93)	1A
17	360	2	+50, -15	7	35	56	48	414	1,000	-30	+20	+20	108	1.312 (33.32)	1A
18	360	4	+50, -15	12	60	96	24	414	500	-30	+20	+20	175	1.781 (45.24)	1A
19	20	100	+75, -15	10	50	80	3.3	23	30	-60	+15	+20	333	0.540 (13.72)	1B
20	20	200	+75, -15	16	80	128	2.8	23	20	-60	+15	+20	375	0.732 (18.59)	1B
21	30	75	+75, -15	11	55	88	3.1	34.5	45	-45	+10	+10	333	0.540 (13.72)	1B
22	30	150	+75, -15	13	90	104	3	34.5	30	-45	+10	+10	375	0.732 (18.59)	1B
23	60	40	+75, -15	12	60	96	3.2	69	65	-35	+10	+10	333	0.540 (13.72)	1B
24	60	80	+75, -15	19	95	152	3.1	69	35	-35	+10	+10	375	0.732 (18.59)	1B
25	90	25	+75, -15	11	55	88	3.2	103	90	-35	+10	+10	333	0.540 (13.72)	1B
26	90	50	+75, -15	18	90	144	3.1	103	45	-35	+10	+10	375	0.732 (18.59)	1B
27	180	12	+75, -15	11	55	88	6.6	207	180	-35	+10	+10	282	0.920 (23.37)	1B
28	180	25	+75, -15	18	90	144	6.2	207	90	-35	+10	+10	341	1.300 (33.02)	1B
29	270	8	+75, -15	11	55	88	9.9	310	270	-35	+10	+10	266	1.270 (32.36)	1B
30	270	16	+75, -15	18	90	144	9.8	310	135	-35	+10	+10	320	1.865 (47.37)	1B
31	360	6	+75, -15	11	55	88	13	414	360	-35	+10	+10	258	1.635 (41.53)	1B
32	360	12	+75, -15	18	90	144	13	414	180	-35	+10	+10	314	2.420 (61.47)	1B
33	450	5	+75, -15	11	55	88	15	518	450	-35	+10	+10	252	2.000 (50.80)	1B
34	450	10	+75, -15	18	90	144	15	518	225	-35	+10	+10	308	2.980 (75.69)	1B
35	540	4	+75, -15	11	55	88	20	621	540	-35	+10	+10	250	2.365 (60.07)	1B
36	540	8	+75, -15	18	90	144	20	621	270	-35	+10	+10	308	3.532 (89.71)	1B
37	630	3.5	+75, -15	11	55	88	22	724	630	-35	+10	+10	250	2.720 (69.09)	1B
38	630	7	+75, -15	18	90	144	22	724	315	-35	+10	+10	308	4.062 (103.17)	1B

TABLE I. Capacitor characteristics - Continued.

DSCC drawing 04033-	Rated voltage (+85°C)	Cap. (nom)	Cap. tolerance	DC leakage (max)			ESR (max) (120Hz, 25°C)	Surge voltage (+85°C)	Imped-ance (max)	Cap. change (-55°C)	Cap. change (+85°C)	Cap change (+125°C)	Ripple current 1/	Dimension L ±.062 (1.57)	Figure
				(+25°C)	(+85°C)	(+125°C)									
PIN	V dc	µF	%	µA	µA	µA	Ω	V dc	Ω	%	%	%	mA	Inches	
39	30	370	±20	18	125	180	1.7	34.5	15	-65	+20	+25	550	.600 (15.24)	1C
40	30	370	+50, -15	18	125	180	1.7	34.5	15	-65	+20	+25	550	.600 (15.24)	1C
41	30	650	±20	21	145	210	1.8	34.5	15	-85	+20	+25	694	1.100 (27.94)	1C
42	30	650	+50, -15	21	145	210	1.8	34.5	15	-85	+20	+25	694	1.100 (27.94)	1C
43	30	1300	±20	27	190	270	1.8	34.5	10	-85	+20	+25	694	1.100 (27.94)	1C
44	30	1300	+50, -15	27	190	270	1.8	34.5	10	-85	+20	+25	694	1.100 (27.94)	1C
45	60	200	±20	19	135	190	1.8	69	30	-50	+20	+25	550	.600 (15.24)	1C
46	60	200	+50, -15	19	135	190	1.8	69	30	-50	+20	+25	550	.600 (15.24)	1C
47	60	350	±20	22	155	220	1.8	69	25	-70	+20	+25	694	1.100 (27.94)	1C
48	60	350	+50, -15	22	155	220	1.8	69	25	-70	+20	+25	694	1.100 (27.94)	1C
49	60	700	±20	29	200	290	1.8	69	15	-70	+20	+25	694	1.100 (27.94)	1C
50	60	700	+50, -15	29	200	290	1.8	69	15	-70	+20	+25	694	1.100 (27.94)	1C
51	90	120	±20	19	135	190	1.7	103	40	-40	+20	+25	550	.600 (15.24)	1C
52	90	120	+50, -15	19	135	190	1.7	103	40	-40	+20	+25	550	.600 (15.24)	1C
53	90	220	±20	21	145	210	1.8	103	30	-60	+20	+25	694	1.100 (27.94)	1C
54	90	220	+50, -15	21	145	210	1.8	103	30	-60	+20	+25	694	1.100 (27.94)	1C
55	90	450	±20	29	195	290	1.7	103	35	-60	+20	+25	694	1.100 (27.94)	1C
56	90	450	+50, -15	29	195	290	1.7	103	35	-60	+20	+25	694	1.100 (27.94)	1C
57	180	42	±20	17	120	170	6	207	75	-40	+20	+25	363	.976 (24.79)	1C
58	180	42	+50, -15	17	120	170	6	207	75	-40	+20	+25	363	.976 (24.79)	1C
59	180	60	±20	19	135	190	3.4	207	60	-40	+20	+25	363	.976 (24.79)	1C
60	180	60	+50, -15	19	135	190	3.4	207	60	-40	+20	+25	363	.976 (24.79)	1C
61	180	110	±20	21	145	210	3.5	207	60	-60	+20	+25	631	1.938 (49.23)	1C
62	180	110	+50, -15	21	145	210	3.5	207	60	-60	+20	+25	631	1.938 (49.23)	1C
63	180	230	±20	29	200	290	3.5	207	50	-60	+20	+25	631	1.938 (49.23)	1C
64	180	230	+50, -15	29	200	290	3.5	207	50	-60	+20	+25	631	1.938 (49.23)	1C
65	270	28	±20	19	120	190	9	310	80	-40	+20	+25	339	1.350 (34.29)	1C
66	270	28	+50, -15	19	120	190	9	310	80	-40	+20	+25	339	1.350 (34.29)	1C
67	270	40	±20	19	135	190	8.8	310	100	-40	+20	+25	339	1.350 (34.29)	1C
68	270	40	+50, -15	19	135	190	8.8	310	100	-40	+20	+25	339	1.350 (34.29)	1C
69	270	75	±20	21	145	210	5.2	310	90	-60	+20	+25	608	2.812 (71.42)	1C
70	270	75	+50, -15	21	145	210	5.2	310	90	-60	+20	+25	608	2.812 (71.42)	1C
71	270	150	±20	28	195	280	5.4	310	75	-60	+20	+25	608	2.812 (71.42)	1C
72	270	150	+50, -15	28	195	280	5.4	310	75	-60	+20	+25	608	2.812 (71.42)	1C
73	360	22	±20	18	125	180	11.4	414	100	-40	+20	+25	323	1.705 (43.31)	1C
74	360	22	+50, -15	18	125	180	11.6	414	100	-40	+20	+25	323	1.705 (43.31)	1C
75	360	30	±20	19	135	190	11.7	414	120	-40	+20	+25	323	1.705 (43.31)	1C
76	360	30	+50, -15	19	135	190	11.7	414	120	-40	+20	+25	323	1.705 (43.31)	1C
77	450	17	±20	18	125	180	15	518	130	-40	+20	+25	315	2.080 (52.83)	1C
78	450	17	+50, -15	18	125	180	15	518	130	-40	+20	+25	315	2.080 (52.83)	1C

TABLE I. Capacitor characteristics - Continued.

DSCC drawing 04033-	Rated voltage (+85°C)	Cap. (nom)	Cap. tolerance	DC leakage (max)			ESR (max) (120Hz, 25°C)	Surge voltage (+85°C)	Imped-ance (max)	Cap. change (-55°C)	Cap. change (+85°C)	Cap change (+125°C)	Ripple current 1/	Dimension L ±.062 (1.57)	Figure
				(+25°C)	(+85°C)	(+125°C)									
PIN	V dc	µF	%	µA	µA	µA	Ω	V dc	Ω	%	%	%	mA	Inches	
79	450	25	±20	19	135	190	15	518	150	-40	+20	+25	315	2.080 (52.83)	1C
80	450	25	+50, -15	19	135	190	15	518	150	-40	+20	+25	315	2.080 (52.83)	1C
81	540	14	±20	17	120	170	18	621	160	-40	+20	+25	309	2.435 (61.85)	1C
82	540	14	+50, -15	17	120	170	18	621	160	-40	+20	+25	309	2.435 (61.85)	1C
83	540	20	±20	19	135	190	18	621	170	-40	+20	+25	309	2.435 (61.85)	1C
84	540	20	+50, -15	19	135	190	18	621	170	-40	+20	+25	309	2.435 (61.85)	1C
85	630	12	±20	17	120	170	16	724	180	-40	+20	+25	306	2.810 (71.37)	1C
86	630	12	+50, -15	17	120	170	16	724	180	-40	+20	+25	306	2.810 (71.37)	1C
87	630	18	±20	19	135	190	16	724	200	-40	+20	+25	306	2.810 (71.37)	1C
88	630	18	+50, -15	19	135	190	16	724	200	-40	+20	+25	306	2.810 (71.37)	1C

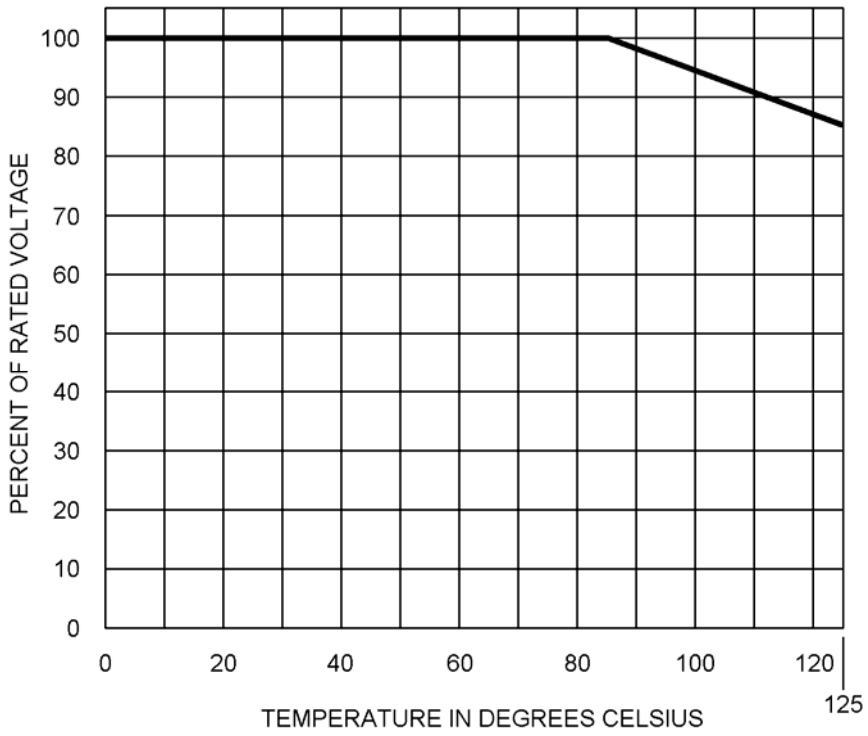


FIGURE 2. Voltage derating with temperature.

3.9 Surge voltage: See table I.

3.10 Moisture resistance: Method 106 of MIL-STD-202. No evidence of harmful corrosion, mechanical damage, or leakage of electrolyte.

a. DCL: 125 percent (max) of 25°C value of table I.

b. ΔCap.: Within ±8 percent of initial measurement.

c. ESR: 115 percent (max) of table I value.

3.11 Dielectric withstanding voltage (DWV): Not applicable.

3.12 Insulation resistance (IR): Not applicable.

3.13 Low temperature (storage): Method 502 of MIL-STD-810. No evidence of leakage of electrolyte.

a. DCL: See table I.

b. ΔCap.: Within ±5 percent of initial measurement.

c. ESR: See table I.

3.14 Stability at low and high temperatures:

3.14.1 Step 1 (+25°C):

a. DCL: See table I.

b. Cap.: Within tolerance of table I value.

c. ESR: See table I.

3.14.2 Step 2 (-55°C):

a. Imp. See table I.

b. ΔCap.: See table I.

3.14.3 Step 3 (+25°C):

a. DCL: See table I.

b. ΔCap.: Within ±5 percent of step 1 value.

c. ESR: See table I.

3.14.4 Step 4 (+85°C):

a. DCL: See table I.

b. ΔCap.: See table I.

c. ESR: See table I.

3.14.5 Step 5 (+125°C):

a. DCL: See table I.

b. ΔCap.: See table I.

c. ESR: See table I.

3.14.6 Step 6 (+25°C):

a. DCL: See table I.

b. ΔCap.: Within ±5 percent of step 1 value.

c. ESR: See table I.

3.15 Reverse voltage: Not applicable.

3.16 Life at 85°C: Method 108 of MIL-STD-202.

3.16.1 2,000 hour (qualification):

a. DCL: See table I.

b. ΔCap.: Within ±15 percent (PIN's 01 through 38) percent of initial measurement and within ±20 percent (PIN's 39 through 86) percent of initial measurement.

c. ESR: See table I.

d. DWV and IR: Not applicable.

3.17 Life at 125°C: Method 108 of MIL-STD-202.

a. DCL: See table I.

b. ΔCap.: Within ±15 percent (PIN's 01 through 38) percent of initial measurement and within ±20 percent (PIN's 39 through 86) percent of initial measurement.

c. ESR: 130 percent (max) of table I value. (PIN's 01 through 38).

150 percent (max) of table I value. (PIN's 39 through 88).

DWV and IR: Not applicable.

3.18 Resistance to solvents: Method 215 of MIL-STD-202.

3.19 Resistance to soldering heat: Method 210 of MIL-STD-202, condition B.

a. DCL: See table I.

b. ΔCap.: Within ±5 percent of initial measurement.

c. ESR: See table I.

3.20 Marking: In accordance with MIL-DTL-3965.

Polarity: PIN's 01 through 18; Series of plus (+) symbols encircling positive end (see figure 1A).

PIN's 19 through 86; Capacitors shall be marked “CASE NEG” on the negative end (sees figure 1B and 1C).

3.21 Changes to product. The manufacturer shall notify the procuring activity of any changes to the product that may affect the form, fit or function of the device. Such notification shall be given prior to shipment of any device incorporating the identified change.

3.22 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be a suggested source of supply.

3.23 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.24 Workmanship. The capacitor shall be uniform in quality and free from any defects that will affect life, serviceability, or appearance.

4. VERIFICATION

4.1 Classification of inspections. Not applicable.

4.2 QPL system. Not applicable.

4.3 Inspection conditions and methods. In accordance with MIL-DTL-3965.

4.4 Qualification inspection. Not applicable.

4.5 Verification of qualification. Not applicable.

4.6 Conformance inspection. Not applicable.

4.7 Periodic group C inspection. Not applicable.

4.8 Method of inspection. In accordance with MIL-DTL-3965.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. These capacitors covered by this specification must be able to operate satisfactorily in systems under the following demanding conditions including: -55°C to +125°C operating temperature range, 48 hours of salt spray, 1,000 cycles of surge voltage.

6.1.1 Application information.

6.1.1.1 Thermal shock: When these styles are not subject to more than five cycles in application.

6.1.1.2 Ripple current. The maximum allowable rms ripple current (in mA) is shown in Table I. The values are for 120-Hz operation over rated temperature (-55°C to +125°C).

6.2 Ordering data. The contract or purchase order should specify the following:

a. Complete PIN (see 1.2).

b. Requirements for delivery and one copy of the quality conformance inspection data or certificate of compliance that parts have passed quality conformance inspection with each shipment of parts by the manufacturer.

c. Requirements for packaging and packing.

6.3 Users of record. Coordination of this document for future revisions are coordinated only with the suggested sources of supply and the users of record of this document. Requests to be added as a recorded user of this drawing should be in writing to: Defense Supply Center, Columbus, ATTN: DSCC/VAT, Post Office Box 3990, Columbus, OH 43218-3990 or e-mailed to capacitorfilter@dscc.dla.mil also by telephone (614) 692-0563 or DSN 850-0563.

TABLE II. Cross reference table between DSCC drawing 04033 and MIL PINs.

DSCC drawing 04033 PIN	MIL-DTL-3965/20 PIN
01	CL13BC700TPG
02	CL13BC141TPG
03	CL13BD500TPG
04	CL13BD101TPG
05	CL13BF280TPG
06	CL13BF560TPG
07	CL13BH200TPG
08	CL13BH400TPG
09	CL13BK120TPG
10	CL13BK250TPG
11	CL13BM080TPG
12	CL13BM160TPG
13	CL13BR040TPG
14	CL13BR080TPG
15	CL13BS2R5TPG
16	CL13BS050TPG
17	CL13BT020TPG
18	CL13BT040TPG
DSCC drawing 04033 PIN	MIL-DTL-3965/1 PIN
19	CL16BF101UPG
20	CL16BF201UPG
21	CL16BH750UPG
22	CL16BH151UPG
23	CL16BK400UPG
24	CL16BK800UPG
25	CL16BM250UPG
26	CL16BM500UPG
27	CL16BR120UPG
28	CL16BR250UPG
29	CL16BS080UPG
30	CL16BS160UPG
31	CL16BT060UPG
32	CL16BT120UPG
33	CL16BU050UPG
34	CL16BU100UPG
35	CL16BV040UPG
36	CL16BV080UPG
37	CL16BW3R5UPG
38	CL16BW070UPG

TABLE II. Cross reference table between DSCC drawing 04033 and MIL PINs. Continued

DSCC drawing 04033 PIN	MIL-DTL-3965/19 PIN
39	CL18BH371MPG
40	CL18BH371TPG
41	CL18BH651MPG
42	CL18BH651TPG
43	CL18BH132MPG
44	CL18BH132TPG
45	CL18BK201MPG
46	CL18BK201TPG
47	CL18BK351MPG
48	CL18BK351TPG
49	CL18BK701MPG
50	CL18BK701TPG
51	CL18BM121MPG
52	CL18BM121TPG
53	CL18BM221MPG
54	CL18BM221TPG
55	CL18BM451MPG
56	CL18BM451TPG
57	CL18BR420MPG
58	CL18BR420TPG
59	CL18BR600MPG
60	CL18BR600TPG
61	CL18BR111MPG
62	CL18BR111TPG
63	CL18BR231MPG
64	CL18BR231TPG
65	CL18BS280MPG
66	CL18BS280TPG
67	CL18BS400MPG
68	CL18BS400TPG
69	CL18BS750MPG
70	CL18BS750TPG
71	CL18BS151MPG
72	CL18BS151TPG
73	CL18BT220MPG
74	CL18BT220TPG
75	CL18BT300MPG
76	CL18BT300TPG
77	CL18BU170MPG
78	CL18BU170TPG
79	CL18BU250MPG
80	CL18BU250TPG
81	CL18BV140MPG
82	CL18BV140TPG
83	CL18BV200MPG
84	CL18BV200TPG
85	CL18BW120MPG
86	CL18BW120TPG
87	CL18BW180MPG
88	CL18BW180TPG

TABLE III. Similar vendor types.

DSCC drawing 04033 - 1/	Vendor "A" type	Vendor "B" type
01	XTK706T008P0D	FC700T008A8
02	XTM147T008P0D	FC141T008B8
03	XTK506T010P0D	FC500T010A8
04	XTM107T010P0D	FC101T010B8
05	XTK286T020P0D	FC280T020A8
06	XTM566T020P0D	FC560T020B8
07	XTK206T030P0D	FC200T030A8
08	XTM406T030P0D	FC400T030B8
09	XTK126T060P0D	FC120T060A8
10	XTM256T060P0D	FC250T060B8
11	XTK805T090P0D	FC8R0T090A8
12	XTM166T090P0D	FC160T090B8
13	XTK405T180P0D	FC4R0T180C8
14	XTM805T180P0D	FC8R0T180D8
15	XTK255T270P0D	FC2R5T270E8
16	XTM505T270P0D	FC5R0T270F8
17	XTK205T360P0D	FC2R0T360X8
18	XTM405T360P0D	FC4R0T360H8
19	XTK107U020P0L	FA101U020A6
20	XTH207U020P0L	FA201U020B6
21	XTL756U030P0L	FA750U030A6
22	XTH157U030P0L	FA151U030B6
23	XTL406U060P0L	FA400U060A6
24	XTH806U060P0L	FA800U060B6
25	XTL256U090P0L	FA250U090A6
26	XTH506U090P0L	FA500U090B6
27	XTL126U180P0L	FA120U180C6
28	XTH256U180P0L	FA250U180E6
29	XTL805U270P0L	FA8R0U270D6
30	XTH166U270P0L	FA160U270G6
31	XTL605U360P0L	FA6R0U360F6
32	XTH126U360P0L	FA120U360K6
33	XTL505U450P0L	FA5R0U450H6
34	XTH106U450P0L	FA100U450M6
35	XTL405U540P0L	FA4R0U540J6
36	XTH805U540P0L	FA8R0U540N6
37	XTL355U630P0L	FA3R5U630L6
38	XTH705U630P0L	FA7R0U630O6
39	XTV377M030P0B	FB371M030P2
40	XTV377T030POB	FB371T030P2
41	XTV657M030P0B	FB651M030R2
42	XTV657T030P0B	FB651T030R2
43	XTV138M030P0B	FB132M030R2
44	XTV138T030P0B	FB132T030R2

See footnotes at end of table.

TABLE III. Similar vendor types - Continued.

DSCC drawing 04033 - 1/	Vendor "A" type	Vendor "B" type
45	XTV207M060P0B	FB201M060P2
46	XTV207T060P0B	FB201T060P2
47	XTV357M060P0B	FB351M060R2
48	XTV357T060P0B	FB351T060R2
49	XTV707M060P0B	FB701M060R2
50	XTV707T060P0B	FB701T060R2
51	XTV127M090P0B	FB121M090P2
52	XTV127T090P0B	FB121T090P2
53	XTV227M090P0B	FB221M090R2
54	XTV227T090P0B	FB221T090R2
55	XTV457M090P0B	FB451M090R2
56	XTV457T090P0B	FB451T090R2
57	XTV426M180P0B	FB420M180Q2
58	XTV426T180P0B	FB420T180Q2
59	XTV606M180P0B	FB600M180Q2
60	XTV606T180P0B	FB600T180Q2
61	XTV117M180P0B	FB111M180U2
62	XTV117T180P0B	FB111T180U2
63	XTV237M180P0B	FB231M180U2
64	XTV237T180P0B	FB231T180U2
65	XTV286M270P0B	FB280M270S2
66	XTV286T270P0B	FB280T270S2
67	XTV406M270P0B	FB400M270S2
68	XTV406T270P0B	FB400T270S2
69	XTV756M270P0B	FB750M270Y2
70	XTV756T270P0B	FB750T270Y2
71	XTV157M270P0B	FB151M270Y2
72	XTV157T270P0B	FB151T270Y2
73	XTV226M360P0B	FB220M360T2
74	XTV226T360P0B	FB220T360T2
75	XTV306M360P0B	FB300M360T2
76	XTV306T360P0B	FB300T360T2
77	XTV176M450P0B	FB170M450V2
78	XTV176T450P0B	FB170T450V2
79	XTV256M450P0B	FB250M450V2
80	XTV256T450P0B	FB250T450V2
81	XTV146M540P0B	FB140M540W2
82	XTV146T540P0B	FB140T540W2
83	XTV206M540P0B	FB200M540W2
84	XTV206T540P0B	FB200T540W2
85	XTV126M630P0B	FB120M630X2
86	XTV126T360P0B	FB120T630X2
87	XTV186M360P0B	FB180M630X2
88	XTV186T360P0B	FB180T630X2

1/ Parts must be purchased to this DSCC PIN to assure all performance and tests are met.

6.4 Suggested sources of supply. Suggested sources of supply are listed herein. Additional sources will be added as they become available. For assistance in the use of this drawing, contact Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43216-5000 or e-mailed to capacitorfilter@dscc.dla.mil also by telephone (614) 692-0563 or DSN 850-0563.

Vendor A	Vendor CAGE Number	Vendor name and address
	05079	Vishay Tansitor 2813 West Road P.O. Box 230 Bennington, VT 05201-5017
Vendor B	1RUZ5	Palm Beach Components Inc. 5401 N Haverhill Rd Unit 101 West Palm Beach, FL 33407