



Tantalum Leaded Capacitors

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Tantalum Hermetically Sealed/Axial Capacitors

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Application Notes for Solid Tantalum Capacitors

IMPORTANT NOTICE

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Finally, KEMET Electronics Corporation does not assume any responsibility for the correctness of the information contained in this catalog. All design characteristics, specifications, tolerances, and the like are subject to change without notice.

ORDERING INFORMATION (OBSOLETE*)



Symbol	VDC Working		VDC Surge	
	85°C	125°C	85°C	125°C
B	6	4	8	5
C	10	7	13	9
D	15	10	20	12
E	20	13	26	16
F	35	23	46	28
G	50	33	65	40
H	75	50	98	64
J	100	67	130	86

Examples

565 — 5,600,000 = 5.60 μ F 563 — 56,000 = .056 μ F
564 — 560,000 = .56 μ F

* This Military Part Numbering System is obsolete in accordance with the current specifications. The correct current designation for a CSR part number is the MIL Specification Number, followed by the Specification (slash) Sheet Number and Dash Number (i.e. — MIL-PRF-39003/01-2270). However, the part number breakdown shown above is still widely used and is shown for reference.

MILITARY CAPACITOR APPROVED FAILURE RATE LEVELS AND MARKINGS PER MIL-PRF-39003 FOR CSR09 (T222 A & B CASE SIZES ONLY), CSR13 (T212), CSR21 (T262), CSR23 (T242) & CSR33 (T252) CAPACITORS

KEMET APPROVED FAILURE RATE LEVELS — MIL-PRF-39003/H (EXPONENTIAL)

STYLE	DESCRIPTION	KEMET SERIES	APPROVED FAILURE RATE LEVEL
CSR09	Polar-Subminiature	T222	S (0.001%/k hrs.)
CSR13	Polar-Standard	T212	S (0.001%/k hrs.)
	MIL Range		
CSR21	Polar-Standard Low ESR	T262	S (0.001%/k hrs.)
	MIL Range		
CSR23	Polar-Extended Range	T242	S (0.001%/k hrs.)

STYLE	DESCRIPTION	KEMET SERIES	APPROVED FAILURE RATE LEVEL
CSR33	Polar-Extended Range	T252	S (0.001%/k hrs.)
	Low Leakage		
CSR91	Non-Polar	T213	S (0.001%/k hrs.)

MILITARY MARKING

A CASE

39003	Military specification number
01 - K	Specification sheet number and trademark
9002J	Military dash number and "J" for JAN
+333	Polarity, date code (1st digit indicates year and the next two digits indicate the week)
XY	Lot symbol

C & D CASES

M39003	Military specification number
01 - 8222J	Specification sheet number, Military dash number, and "J" for JAN
+8.2 μ F	Positive terminal identifier and capacitance value
10% 50V	Capacitance tolerance and voltage
31433	Source code
0333 XY K	Date code, lot code, and trademark

B CASE

M39003	Military specification number
01 -	Specification sheet number
8006J	Military dash number and "J" for JAN
31433	Source code
+333 XY	Polarity, date code (1st digit indicates year and the next two digits indicate the week), lot symbol

CSR91 (T213) CAPACITORS

A, B, C & D CASES

M39003	Military specification number
04 - 0980J	Specification sheet number, Military dash number, and "J" for JAN
1 μ F	Capacitance value
10% 20VNP	Capacitance tolerance and voltage rating
0333 XY 31433	Date code, lot code, and source code

(See page 38 for CSS Marking)

KEMET APPROVED FAILURE RATE LEVELS — MIL-PRF-39003/H (GRADED)

STYLE	DESCRIPTION	KEMET SERIES	APPROVED FAILURE RATE LEVEL*
CSR09	Polar-Subminiature	T222	D (0.001%/k hrs.)
CSR13*	Polar-Standard MIL Case	T212	D (0.001%/k hrs.)
CSS13**	Polar-Standard MIL Case	T216	C (0.01%/k hrs.)
CSR21	Polar-Standard Low ESR MIL Case	T262	D (0.001%/k hrs.)
CSR23*	Polar-Extended Range	T242	D (0.001%/k hrs.)

*Not approved to 'D' Failure Rate Level on all voltages and capacitance values.

**MIL-PRF-39003/10 for space applications.

STYLE	DESCRIPTION	KEMET SERIES	APPROVED FAILURE RATE LEVEL*
CSR33*	Polar-Extended Range Low Leakage	T252	D (0.001%/k hrs.)
CSS33**	Polar-Extended Range Low Leakage	T256	C (0.01%/k hrs.)
CSR91*	Non-Polar	T213	D (0.001%/k hrs.)

*Not approved to 'D' Failure Rate Level on all voltages and capacitance values.

**MIL-PRF-39003/10 for space applications.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:** .0023-1200 μ F, 6-125 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA values with $\pm 20\%$, $\pm 10\%$ and $\pm 5\%$ tolerances.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings on pages 7-41. See Application Notes Section, page 76 for additional description.
- **DC LEAKAGE CURRENT:** Each corresponding part number table lists maximum leakage current for each capacitor on pages 7-41. See Application Notes Section, page 76 for additional description.
- **RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, Pages 76 & 77 for description.
- **IMPEDANCE and ESR:** See Application Notes Section, pages 77 & 78 for description. Reference ESR values are shown for commercial hermetically sealed capacitors on page 19.

- **AC RIPPLE VOLTAGE:** Permissible AC ripple voltage is related to the ESR of the capacitor and the power dissipation capabilities of a particular case size. Thermal capacities for the various case sizes have been determined empirically and are listed below. For additional description see page 78.

Standard Case Size	Watts	T222
A	.09	.070
B	.100	.090
C	.125	—
D	.180	—

Maximum Power Dissipation: 25°C Ambient

- **ENVIRONMENTAL CONSIDERATIONS:**
 - A. Shock Test: MIL-STD-202, Method 213
 - B. Thermal Shock, MIL-STD-202, Method 107, Condition B.
 - C. Moisture Resistance: MIL-STD-202, Method 106.
 - D. Solderability: MIL-STD-202, Method 208

For additional Environmental Test Information see pages 80, 81 and 82.

- **LEAD MATERIAL:** Standard leads are solder-coated nickel per MIL-STD-1276.
- **INSULATING SLEEVES:** The standard insulating material used in transparent high temperature plastic, having 2000 volt dielectric strength, excellent dimensional stability and chemical and cold flow resistance.
- **LEAD TAPE and REEL:** Reeling per specification RS-296. See pages 71 and 73 for additional information.

KEMET standard hermetic sealed T110 Series are desirable for use in high humidity environments. They are ruggedly built, designed for miniaturized circuitry, and are especially suited for coupling, bypass, filtering and R-C timing circuits. They exhibit excellent stability, extremely low DC leakage current, dissipation factor, and ESR/impedance over a wide temperature and frequency range.

Available in standard EIA capacitance values from .0047-330 μF in $\pm 20\%$, $\pm 10\%$, and $\pm 5\%$ tolerances and working voltages from 6-125 VDC.

Higher CV values in comparable case sizes are available in KEMET T140 Series. Refer to page 27.

Included in the following Series table is a complete listing of CSR13 qualified MIL-PRF-39003 capacitors. KEMET is approved to manufacture the S (0.001%/k hrs.) Exponential & D (0.001%/k hrs.) Graded failure rate levels.

KEMET is now offering low ESR limits in the T110 Series. See ESR chart on page 19. You may order the lower ESR by using Customer Specification 2864 as the last four digits of the part number.

Effective September 30, 2005, the KEMET T110 Series is RoHS Compliant.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	UNINSULATED		INSULATED		B ± 0.002 (.05)	C MAX.
	D ± 0.005 (.13)	L ± 0.031 (.79)	D ± 0.010 (.25)	L ± 0.031 (.79)		
A	0.125 (3.18)	0.250 (6.35)	0.135 (3.43)	0.286 (7.26)	0.020 (.51)	0.422 (10.72)
B	0.175 (4.45)	0.438 (11.13)	0.185 (4.70)	0.474 (12.04)	0.020 (.51)	0.610 (15.49)
C	0.279 (7.09)	0.650 (16.51)	0.289 (7.34)	0.686 (17.42)	0.025 (.64)	0.822 (20.88)
D	0.341 (8.66)	0.750 (19.05)	0.351 (8.92)	0.786 (19.96)	0.025 (.64)	0.922 (23.42)

ORDERING INFORMATION*

TANTALUM — T

SERIES — XXX
T110, T212 (CSR13)
T111, T213 (CSR91)
T140, T242 (CSR23)

CASE SIZE — A / B / C / D

PICOFARAD CODE — 105
First two digits represent significant figures.
Third digit specifies number of zeros to follow.

CAPACITANCE TOLERANCE — K
M — $\pm 20\%$ K — $\pm 10\%$ J — $\pm 5\%$

VOLTAGE — 050
At 85°C

LEAD MATERIAL — A
S — Standard
T — 100% Tin (T110, T140 Series only)

FAILURE RATE** — S
GRADED
A — Not Applicable
B — 0.1%/k hrs.
C — 0.01%/k hrs.
D — 0.001%/k hrs.
EXPONENTIAL
M — 1%/k hrs.
P — 0.1%/k hrs.
R — 0.01%/k hrs.
S — 0.001%/k hrs.

SPECIFICATION — C
All capacitors are sleeved unless specified.

****Part Number Example: T110A105K050AS (14 digits - no spaces)**
***For Military Ordering Information, see page 4.**

MARKING INFORMATION

Marking: Unless otherwise specified by special order, standard marking of T110 Series capacitor consists of the following:

A, B, C & D CASES

+K 10%	— Polarity, Manufacturer's Identification and Capacitance Tol.
R56 μF	— Nominal Capacitance — (μF) ("R" indicates decimal)
100V	— Voltage
0312	— Date Code (e.g.: 0312)

* For Military Marking, see page 4.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)							KEMET EQUIVALENT MILITARY PART NUMBER	
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED				
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)		
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C														
2.2	A	5,10,20	T110A225(1)006AS	0.3	4									
2.7	A	5,10,20	T110A275(1)006AS	0.3	4									
3.3	A	5,10,20	T110A335(1)006AS	0.3	4									
3.9	A	5,10,20	T110A395(1)006AS	0.3	4									
4.7	A	5,10,20	T110A475(1)006AS	0.3	4									
5.6	A	5	T110A565J006AS	0.3	4	5001	5201	5401	5601	6001	7001	8001	T212A565J006(2)S	
5.6	A	10	T110A565K006AS	0.3	4	2241	2481	2721	2961	6002	7002	8002	T212A565K006(2)S	
5.6	A	20	T110A565M006AS	0.3	4									
6.8	A	5	T110A685J006AS	0.3	6	5002	5202	5402	5602	6003	7003	8003	T212A685J006(2)S	
6.8	A	10	T110A685K006AS	0.3	6	2242	2482	2722	2962	6004	7004	8004	T212A685K006(2)S	
6.8	A	20	T110A685M006AS	0.3	6	2243	2483	2723	2963	6005	7005	8005	T212A685M006(2)S	
8.2	B	5,10,20	T110B825(1)006AS	0.3	6									
10.0	B	5,10,20	T110B106(1)006AS	0.3	6									
12.0	B	5,10,20	T110B126(1)006AS	0.5	6									
15.0	B	5,10,20	T110B156(1)006AS	0.9	6									
18.0	B	5,10,20	T110B186(1)006AS	0.9	6									
22.0	B	5,10,20	T110B226(1)006AS	0.9	6									
27.0	B	5,10,20	T110B276(1)006AS	0.9	6									
33.0	B	5,10,20	T110B336(1)006AS	0.9	6									
39.0	B	5,10,20	T110B396(1)006AS	0.9	6									
47.0	B	5	T110B476J006AS	1.5	6	5003	5203	5403	5603	6006	7006	8006	T212B476J006(2)S	
47.0	B	10	T110B476K006AS	1.5	6	2244	2484	2724	2964	6007	7007	8007	T212B476K006(2)S	
47.0	B	20	T110B476M006AS	1.5	6	2245	2485	2725	2965	6008	7008	8008	T212B476M006(2)S	
56.0	B	5	T110B566J006AS	1.5	6	5004	5204	5404	5604	6009	7009	8009	T212B566J006(2)S	
56.0	B	10	T110B566K006AS	1.5	6	2246	2486	2726	2966	6010	7010	8010	T212B566K006(2)S	
56.0	B	20	T110B566M006AS	1.5	6									
68.0	C	5,10,20	T110C686(1)006AS	3.0	6									
82.0	C	5,10,20	T110C826(1)006AS	3.0	6									
100.0	C	5,10,20	T110C107(1)006AS	3.0	6									
120.0	C	5,10,20	T110C127(1)006AS	3.0	6									
150.0	C	5	T110C157J006AS	4.5	6	5005	5205	5405	5605	6011	7011	8011	T212C157J006(2)S	
150.0	C	10	T110C157K006AS	4.5	6	2247	2487	2727	2967	6012	7012	8012	T212C157K006(2)S	
150.0	C	20	T110C157M006AS	4.5	6	2248	2488	2728	2968	6013	7013	8013	T212C157M006(2)S	
180.0	C	5	T110C187J006AS	5.5	6	5006	5206	5406	5606	6014	7014	8014	T212C187J006(2)S	
180.0	C	10	T110C187K006AS	5.5	6	2249	2489	2729	2969	6015	7015	8015	T212C187K006(2)S	
180.0	C	20	T110C187M006AS	5.5	6									
220.0	D	5,10,20	T110D227(1)006AS	6.0	8									
270.0	D	5	T110D277J006AS	6.0	8	5007	5207	5407	5607	6016	7016	8016	T212D277J006(2)S	
270.0	D	10	T110D277K006AS	6.0	8	2250	2490	2730	2970	6017	7017	8017	T212D277K006(2)S	
270.0	D	20	T110D277M006AS	6.0	8									
330.0	D	5	T110D337J006AS	7.5	8	5008	5208	5408	5608	6018	7018	8018	T212D337J006(2)S	
330.0	D	10	T110D337K006AS	7.5	8	2251	2491	2731	2971	6019	7019	8019	T212D337K006(2)S	
330.0	D	20	T110D337M006AS	7.5	8	2252	2492	2732	2972	6020	7020	8020	T212D337M006(2)S	
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C														



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T110 SERIES — POLAR TYPE & T212 (CSR13)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS										KEMET EQUIVALENT MILITARY PART NUMBER					
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)							MIL-PRF-39003/1H GRADED								
						MIL-PRF-39003/1H EXPONENTIAL															
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)									
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C (Cont'd)																					
5.6	B	5,10,20	T110B565(1)010AS	0.4	4																
6.8	B	5,10,20	T110B685(1)010AS	1.0	6																
8.2	B	5,10,20	T110B825(1)010AS	1.0	6																
10.0	B	5,10,20	T110B106(1)010AS	1.0	6																
12.0	B	5,10,20	T110B126(1)010AS	1.0	6																
15.0	B	5,10,20	T110B156(1)010AS	1.0	6																
18.0	B	5,10,20	T110B186(1)010AS	1.0	6																
22.0	B	5,10,20	T110B226(1)010AS	2.0	6																
27.0	B	5	T110B276J010AS	2.0	6	5011	5211	5411	5611	6026	7026	8026				T212B276J010(2)S					
27.0	B	10	T110B276K010AS	2.0	6	2256	2496	2736	2976	6027	7027	8027				T212B276K010(2)S					
27.0	B	20	T110B276M010AS	2.0	6																
33.0	B	5	T110B336J010AS	2.0	6	5012	5212	5412	5612	6028	7028	8028				T212B336J010(2)S					
33.0	B	10	T110B336K010AS	2.0	6	2257	2497	2737	2977	6029	7029	8029				T212B336K010(2)S					
33.0	B	20	T110B336M010AS	2.0	6	2258	2498	2738	2978	6030	7030	8030				T212B336M010(2)S					
39.0	B	5	T110B396J010AS	2.0	6	5013	5213	5413	5613	6031	7031	8031				T212B396J010(2)S					
39.0	B	10	T110B396K010AS	2.0	6	2259	2499	2739	2979	6032	7032	8032				T212B396K010(2)S					
39.0	B	20	T110B396M010AS	2.0	6																
47.0	C	5,10,20	T110C476(1)010AS	3.0	6																
56.0	C	5,10,20	T110C566(1)010AS	3.0	6																
68.0	C	5,10,20	T110C686(1)010AS	3.0	6																
82.0	C	5	T110C826J010AS	3.0	6	5014	5214	5414	5614	6033	7033	8033				T212C826J010(2)S					
82.0	C	10	T110C826K010AS	3.0	6	2260	2500	2740	2980	6034	7034	8034				T212C826K010(2)S					
82.0	C	20	T110C826M010AS	3.0	6																
100.0	C	5	T110C107J010AS	5.0	6	5015	5215	5415	5615	6035	7035	8035				T212C107J010(2)S					
100.0	C	10	T110C107K010AS	5.0	6	2261	2501	2741	2981	6036	7036	8036				T212C107K010(2)S					
100.0	C	20	T110C107M010AS	5.0	6	2262	2502	2742	2982	6037	7037	8037				T212C107M010(2)S					
120.0	C	5	T110C127J010AS	6.0	6	5016	5216	5416	5616	6038	7038	8038				T212C127J010(2)S					
120.0	C	10	T110C127K010AS	6.0	6	2263	2503	2743	2983	6039	7039	8039				T212C127K010(2)S					
120.0	C	20	T110C127M010AS	6.0	6																
150.0	D	5,10,20	T110D157(1)010AS	9.0	6																
180.0	D	5	T110D187J010AS	9.0	6	5017	5217	5417	5617	6040	7040	8040				T212D187J010(2)S					
180.0	D	10	T110D187K010AS	9.0	6	2264	2504	2744	2984	6041	7041	8041				T212D187K010(2)S					
180.0	D	20	T110D187M010AS	9.0	6																
220.0	D	5	T110D227J010AS	10.0	8	5018	5218	5418	5618	6042	7042	8042				T212D227J010(2)S					
220.0	D	10	T110D227K010AS	10.0	8	2265	2505	2745	2985	6043	7043	8043				T212D227K010(2)S					
220.0	D	20	T110D227M010AS	10.0	8	2266	2506	2746	2986	6044	7044	8044				T212D227M010(2)S					
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C																					
0.33	A	5,10,20	T110A334(1)015AS	0.3	3																
0.39	A	5,10,20	T110A394(1)015AS	0.3	3																
0.47	A	5,10,20	T110A474(1)015AS	0.3	3																
0.56	A	5,10,20	T110A564(1)015AS	0.3	3																
0.68	A	5,10,20	T110A684(1)015AS	0.3	3																
0.82	A	5,10,20	T110A824(1)015AS	0.3	3																



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T110 SERIES — POLAR TYPE & T212 (CRS13)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS										KEMET EQUIVALENT MILITARY PART NUMBER				
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)								MIL-PRF-39003/1H EXPONENTIAL	MIL-PRF-39003/1H GRADED					
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED										
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)								
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C (Cont'd)																				
2.7	B	5,10,20	T110B275(1)020AS	0.5	4															
3.3	B	5,10,20	T110B335(1)020AS	1.0	4															
3.9	B	5,10,20	T110B395(1)020AS	1.0	4															
4.7	B	5,10,20	T110B475(1)020AS	1.0	4															
5.6	B	5,10,20	T110B565(1)020AS	1.0	4															
6.8	B	5,10,20	T110B685(1)020AS	1.0	4															
8.2	B	5	T110B825J020AS	1.0	6	5031	5231	5431	5631	6075	7075	8075				T212B825J020(2)S				
8.2	B	10	T110B825K020AS	1.0	6	2285	2525	2765	3005	6076	7076	8076				T212B825K020(2)S				
8.2	B	20	T110B825M020AS	1.0	6															
10.0	B	5	T110B106J020AS	1.0	6	5032	5232	5432	5632	6077	7077	8077				T212B106J020(2)S				
10.0	B	10	T110B106K020AS	1.0	6	2286	2526	2766	3006	6078	7078	8078				T212B106K020(2)S				
10.0	B	20	T110B106M020AS	1.0	6	2287	2527	2767	3007	6079	7079	8079				T212B106M020(2)S				
12.0	B	5	T110B126J020AS	1.0	6	5033	5233	5433	5633	6080	7080	8080				T212B126J020(2)S				
12.0	B	10	T110B126K020AS	1.0	6	2288	2528	2768	3008	6081	7081	8081				T212B126K020(2)S				
12.0	B	20	T110B126M020AS	1.0	6															
15.0	B	5	T110B156J020AS	2.0	6	5034	5234	5434	5634	6082	7082	8082				T212B156J020(2)S				
15.0	B	10	T110B156K020AS	2.0	6	2289	2529	2769	3009	6083	7083	8083				T212B156K020(2)S				
15.0	B	20	T110B156M020AS	2.0	6	2290	2530	2770	3010	6084	7084	8084				T212B156M020(2)S				
18.0	C	5,10,20	T110C186(1)020AS	2.0	6															
22.0	C	5,10,20	T110C226(1)020AS	2.5	6															
27.0	C	5	T110C276J020AS	2.5	6	5035	5235	5435	5635	6085	7085	8085				T212C276J020(2)S				
27.0	C	10	T110C276K020AS	2.5	6	2291	2531	2771	3011	6086	7086	8086				T212C276K020(2)S				
27.0	C	20	T110C276M020AS	2.5	6															
33.0	C	5	T110C336J020AS	3.0	6	5036	5236	5436	5636	6087	7087	8087				T212C336J020(2)S				
33.0	C	10	T110C336K020AS	3.0	6	2292	2532	2772	3012	6088	7088	8088				T212C336K020(2)S				
33.0	C	20	T110C336M020AS	3.0	6	2293	2533	2773	3013	6089	7089	8089				T212C336M020(2)S				
39.0	C	5	T110C396J020AS	3.0	6	5037	5237	5437	5637	6090	7090	8090				T212C396J020(2)S				
39.0	C	10	T110C396K020AS	3.0	6	2294	2534	2774	3014	6091	7091	8091				T212C396K020(2)S				
39.0	C	20	T110C396M020AS	3.0	6															
47.0	C	5	T110C476J020AS	4.5	6	5038	5238	5438	5638	6092	7092	8092				T212C476J020(2)S				
47.0	C	10	T110C476K020AS	4.5	6	2295	2535	2775	3015	6093	7093	8093				T212C476K020(2)S				
47.0	C	20	T110C476M020AS	4.5	6	2296	2536	2776	3016	6094	7094	8094				T212C476M020(2)S				
56.0	D	5	T110D566J020AS	5.5	6	5039	5239	5439	5639	6095	7095	8095				T212D566J020(2)S				
56.0	D	10	T110D566K020AS	5.5	6	2297	2537	2777	3017	6096</										



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T110 SERIES — POLAR TYPE & T212 (CSR13)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)															
0.0082	A	5	T110A822J050AS	0.1	2	5053	5253	5453	5653	6131	7131	8131	T212A822J050(2)S		
0.0082	A	10	T110A822K050AS	0.1	2	2319	2559	2799	3039	6132	7132	8132	T212A822K050(2)S		
0.0082	A	20	T110A822M050AS	0.1	2										
0.01	A	5	T110A103J050AS	0.1	2	5054	5254	5454	5654	6133	7133	8133	T212A103J050(2)S		
0.01	A	10	T110A103K050AS	0.1	2	2320	2560	2800	3040	6134	7134	8134	T212A103K050(2)S		
0.01	A	20	T110A103M050AS	0.1	2	2321	2561	2801	3041	6135	7135	8135	T212A103M050(2)S		
0.012	A	5	T110A123J050AS	0.1	2	5055	5255	5455	5655	6136	7136	8136	T212A123J050(2)S		
0.012	A	10	T110A123K050AS	0.1	2	2322	2562	2802	3042	6137	7137	8137	T212A123K050(2)S		
0.012	A	20	T110A123M050AS	0.1	2										
0.015	A	5	T110A153J050AS	0.1	2	5056	5256	5456	5656	6138	7138	8138	T212A153J050(2)S		
0.015	A	10	T110A153K050AS	0.1	2	2323	2563	2803	3043	6139	7139	8139	T212A153K050(2)S		
0.015	A	20	T110A153M050AS	0.1	2	2324	2564	2804	3044	6140	7140	8140	T212A153M050(2)S		
0.018	A	5	T110A183J050AS	0.1	2	5057	5257	5457	5657	6141	7141	8141	T212A183J050(2)S		
0.018	A	10	T110A183K050AS	0.1	2	2325	2565	2805	3045	6142	7142	8142	T212A183K050(2)S		
0.018	A	20	T110A183M050AS	0.1	2										
0.022	A	5	T110A223J050AS	0.1	2	5058	5258	5458	5658	6143	7143	8143	T212A223J050(2)S		
0.022	A	10	T110A223K050AS	0.1	2	2326	2566	2806	3046	6144	7144	8144	T212A223K050(2)S		
0.022	A	20	T110A223M050AS	0.1	2	2327	2567	2807	3047	6145	7145	8145	T212A223M050(2)S		
0.027	A	5	T110A273J050AS	0.1	2	5059	5259	5459	5659	6146	7146	8146	T212A273J050(2)S		
0.027	A	10	T110A273K050AS	0.1	2	2328	2568	2808	3048	6147	7147	8147	T212A273K050(2)S		
0.027	A	20	T110A273M050AS	0.1	2										
0.033	A	5	T110A333J050AS	0.1	2	5060	5260	5460	5660	6148	7148	8148	T212A333J050(2)S		
0.033	A	10	T110A333K050AS	0.1	2	2329	2569	2809	3049	6149	7149	8149	T212A333K050(2)S		
0.033	A	20	T110A333M050AS	0.1	2	2330	2570	2810	3050	6150	7150	8150	T212A333M050(2)S		
0.039	A	5	T110A393J050AS	0.1	2	5061	5261	5461	5661	6151	7151	8151	T212A393J050(2)S		
0.039	A	10	T110A393K050AS	0.1	2	2331	2571	2811	3051	6152	7152	8152	T212A393K050(2)S		
0.039	A	20	T110A393M050AS	0.1	2										
0.047	A	5	T110A473J050AS	0.1	2	5062	5262	5462	5662	6153	7153	8153	T212A473J050(2)S		
0.047	A	10	T110A473K050AS	0.1	2	2332	2572	2812	3052	6154	7154	8154	T212A473K050(2)S		
0.047	A	20	T110A473M050AS	0.1	2	2333	2573	2813	3053	6155	7155	8155	T212A473M050(2)S		
0.056	A	5	T110A563J050AS	0.1	2	5063	5263	5463	5663	6156	7156	8156	T212A563J050(2)S		
0.056	A	10	T110A563K050AS	0.1	2	2334	2574	2814	3054	6157	7157	8157	T212A563K050(2)S		
0.056	A	20	T110A563M050AS	0.1	2										
0.068	A	5	T110A683J050AS	0.1	2	5064	5264	5464	5664	6158	7158	8158	T212A683J050(2)S		
0.068	A	10	T110A6												

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)															
0.39	A	10	T110A394K050AS	0.3	2	2349	2589	2829	3069	6182	7182	8182	T212A394K050(2)S		
0.39	A	20	T110A394M050AS	0.3	2										
0.47	A	5	T110A474J050AS	0.3	2	5074	5274	5474	5674	6183	7183	8183	T212A474J050(2)S		
0.47	A	10	T110A474K050AS	0.3	2	2350	2590	2830	3070	6184	7184	8184	T212A474K050(2)S		
0.47	A	20	T110A474M050AS	0.3	2	2351	2591	2831	3071	6185	7185	8185	T212A474M050(2)S		
0.56	A	5	T110A564J050AS	0.3	2	5075	5275	5475	5675	6186	7186	8186	T212A564J050(2)S		
0.56	A	10	T110A564K050AS	0.3	2	2352	2592	2832	3072	6187	7187	8187	T212A564K050(2)S		
0.56	A	20	T110A564M050AS	0.3	2										
0.68	A	5	T110A684J050AS	0.3	2	5076	5276	5476	5676	6188	7188	8188	T212A684J050(2)S		
0.68	A	10	T110A684K050AS	0.3	2	2353	2593	2833	3073	6189	7189	8189	T212A684K050(2)S		
0.68	A	20	T110A684M050AS	0.3	2	2354	2594	2834	3074	6190	7190	8190	T212A684M050(2)S		
0.82	A	5	T110A824J050AS	0.3	2	5077	5277	5477	5677	6191	7191	8191	T212A824J050(2)S		
0.82	A	10	T110A824K050AS	0.3	2	2355	2595	2835	3075	6192	7192	8192	T212A824K050(2)S		
0.82	A	20	T110A824M050AS	0.3	2										
1.0	A	5	T110A105J050AS	0.4	2	5078	5278	5478	5678	6193	7193	8193	T212A105J050(2)S		
1.0	A	10	T110A105K050AS	0.4	2	2356	2596	2836	3076	6194	7194	8194	T212A105K050(2)S		
1.0	A	20	T110A105M050AS	0.4	2	2357	2597	2837	3077	6195	7195	8195	T212A105M050(2)S		
1.2	B	5	T110B125J050AS	0.4	4	5079	5279	5479	5679	6196	7196	8196	T212B125J050(2)S		
1.2	B	10	T110B125K050AS	0.4	4	2358	2598	2838	3078	6197	7197	8197	T212B125K050(2)S		
1.2	B	20	T110B125M050AS	0.4	4										
1.5	B	5	T110B155J050AS	0.5	4	5080	5280	5480	5680	6198	7198	8198	T212B155J050(2)S		
1.5	B	10	T110B155K050AS	0.5	4	2359	2599	2839	3079	6199	7199	8199	T212B155K050(2)S		
1.5	B	20	T110B155M050AS	0.5	4	2360	2600	2840	3080	6200	7200	8200	T212B155M050(2)S		
1.8	B	5	T110B185J050AS	0.5	4	5081	5281	5481	5681	6201	7201	8201	T212B185J050(2)S		
1.8	B	10	T110B185K050AS	0.5	4	2361	2601	2841	3081	6202	7202	8202	T212B185K050(2)S		
1.8	B	20	T110B185M050AS	0.5	4										
2.2	B	5	T110B225J050AS	0.8	4	5082	5282	5482	5682	6203	7203	8203	T212B225J050(2)S		
2.2	B	10	T110B225K050AS	0.8	4	2362	2602	2842	3082	6204	7204	8204	T212B225K050(2)S		
2.2	B	20	T110B225M050AS	0.8	4	2363	2603	2843	3083	6205	7205	8205	T212B225M050(2)S		
2.7	B	5	T110B275J050AS	0											



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T110 SERIES — POLAR TYPE & T212 (CSR13)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)															
18.0	C	10	T110C186K050AS	4.5	4	2379	2619	2859	3099	6232	7232	8232	T212C186K050(2)S		
18.0	C	20	T110C186M050AS	4.5	4										
22.0	D	5	T110D226J050AS	5.5	4	5094	5294	5494	5694	6233	7233	8233	T212D226J050(2)S		
22.0	D	10	T110D226K050AS	5.5	4	2380	2620	2860	3100	6234	7234	8234	T212D226K050(2)S		
22.0	D	20	T110D226M050AS	5.5	4	2381	2621	2861	3101	6235	7235	8235	T212D226M050(2)S		
60 VOLT RATING AT 85°C — 40 VOLT RATING AT 125°C															
0.0047	A	5,10,20	T110A472(1)060AS	0.3	3										
0.0056	A	5,10,20	T110A562(1)060AS	0.3	3										
0.0068	A	5,10,20	T110A682(1)060AS	0.3	3										
0.0082	A	5,10,20	T110A822(1)060AS	0.3	3										
0.01	A	5,10,20	T110A103(1)060AS	0.3	3										
0.012	A	5,10,20	T110A123(1)060AS	0.3	3										
0.015	A	5,10,20	T110A153(1)060AS	0.3	3										
0.018	A	5,10,20	T110A183(1)060AS	0.3	3										
0.022	A	5,10,20	T110A223(1)060AS	0.3	3										
0.027	A	5,10,20	T110A273(1)060AS	0.3	3										
0.033	A	5,10,20	T110A333(1)060AS	0.3	3										
0.039	A	5,10,20	T110A393(1)060AS	0.3	3										
0.047	A	5,10,20	T110A473(1)060AS	0.3	3										
0.056	A	5,10,20	T110A563(1)060AS	0.3	3										
0.068	A	5,10,20	T110A683(1)060AS	0.3	3										
0.082	A	5,10,20	T110A823(1)060AS	0.3	3										
0.1	A	5,10,20	T110A104(1)060AS	0.5	3										
0.12	A	5,10,20	T110A124(1)060AS	0.5	3										
0.15	A	5,10,20	T110A154(1)060AS	0.5	3										
0.18	A	5,10,20	T110A184(1)060AS	0.5	3										
0.22	A	5,10,20	T110A224(1)060AS	0.5	3										
0.27	A	5,10,20	T110A274(1)060AS	0.5	3										
0.33	A	5,10,20	T110A334(1)060AS	0.5	3										
0.39	A	5,10,20	T110A394(1)060AS	0.5	3										
0.47	A	5,10,20	T110A474(1)060AS	0.5	3										
0.56	A	5,10,20	T110A564(1)060AS	0.5	3										
0.68	A	5,10,20	T110A684(1)060AS	0.5	3										
0.82	B	5,10,20	T110B824(1)060AS	0.5	3										
1.0	B	5,10,20	T110B105(1)060AS	0.5	3										
1.2	B	5,10,20	T110B125(1)060AS	0.5	4										
1.5	B	5,10,20	T110B155(1)060AS	0.5	4										
1.8	B	5,10,20	T110B185(1)060AS	0.5	4										
2.2	B	5,10,20	T110B225(1)060AS	1.0	4										
2.7	B	5,10,20	T110B275(1)060AS	1.0	4										
3.3	B	5,10,20	T110B335(1)060AS	1.5	4										
3.9	B	5,10,20	T110B395(1)060AS	1.5	4										
4.7	C	5,10,20	T110C475(1)060AS	2.0	4										
5.6	C	5,10,20	T110C565(1)060AS	2.0	4										
6.8	C	5,10,20	T110C685(1)060AS	3.0	4										

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS										KEMET EQUIVALENT MILITARY PART NUMBER													
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)								M	P	R	S	B	C	D									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED																			
						(1.0)	(0.1)	(0.01)	(0.001)	(0.1)	(0.01)	(0.001)	(0.001)																
75 VOLT RATING AT 85°C — 50 VOLT RATING AT 125°C (Cont'd)																													
0.012	A	5,10,20	T110A123(1)075AS	0.3	2																								
0.015	A	5,10,20	T110A153(1)075AS	0.3	2																								
0.018	A	5,10,20	T110A183(1)075AS	0.3	2																								
0.022	A	5,10,20	T110A223(1)075AS	0.3	2																								
0.027	A	5,10,20	T110A273(1)075AS	0.3	2																								
0.033	A	5,10,20	T110A333(1)075AS	0.3	2																								
0.039	A	5,10,20	T110A393(1)075AS	0.3	2																								
0.047	A	5,10,20	T110A473(1)075AS	0.3	2																								
0.056	A	5,10,20	T110A563(1)075AS	0.3	2																								
0.068	A	5,10,20	T110A683(1)075AS	0.3	2																								
0.082	A	5,10,20	T110A823(1)075AS	0.3	2																								
0.1	A	5	T110A104J075AS	0.3	2	5095	5295	5495	5695	6236	7236	8236									T212A104J075(2)S								
0.1	A	10	T110A104K075AS	0.3	2	2382	2622	2862	3102	6237	7237	8237									T212A104K075(2)S								
0.1	A	20	T110A104M075AS	0.3	2	2383	2623	2863	3103	6238	7238	8238									T212A104M075(2)S								
0.12	A	5	T110A124J075AS	0.3	2	5096	5296	5496	5696	6239	7239	8239									T212A124J075(2)S								
0.12	A	10	T110A124K075AS	0.3	2	2384	2624	2864	3104	6240	7240	8240									T212A124K075(2)S								
0.12	A	20	T110A124M075AS	0.3	2																								
0.15	A	5	T110A154J075AS	0.3	2	5097	5297	5497	5697	6241	7241	8241									T212A154J075(2)S								
0.15	A	10	T110A154K075AS	0.3	2	2385	2625	2865	3105	6242	7242	8242									T212A154K075(2)S								
0.15	A	20	T110A154M075AS	0.3	2	2386	2626	2866	3106	6243	7243	8243									T212A154M075(2)S								
0.18	A	5	T110A184J075AS	0.3	2	5098	5298	5498	5698	6244	7244	8244									T212A184J075(2)S								
0.18	A	10	T110A184K075AS	0.3	2	2387	2627	2867	3107	6245	7245	8245									T212A184K075(2)S								
0.18	A	20	T110A184M075AS	0.3	2																								
0.22	A	5	T110A224J075AS	0.3	2	5099	5299	5499	5699	6246	7246	8246									T212A224J075(2)S								
0.22	A	10	T110A224K075AS	0.3	2	2388	2628	2868	3108	6247	7247	8247									T212A224K075(2)S								
0.22	A	20	T110A224M075AS	0.3	2	2389	2629	2869	3109	6248	7248	8248									T212A224M075(2)S								
0.27	A	5	T110A274J075AS	0.3	2	5100	5300	5500	5700	6249	7249	8249									T212A274J075(2)S								
0.27	A	10	T110A274K075AS	0.3	2	2390	2630	2870	3110	6250	7250	8250									T212A274K075(2)S								
0.27	A	20	T110A274M075AS	0.3	2																								



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T110 SERIES — POLAR TYPE & T212 (CSR13)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
75 VOLT RATING AT 85°C — 50 VOLT RATING AT 125°C (Cont'd)															
2.2	B	20	T110B225M075AS	0.8	4	2407	2647	2887	3127	6278	7278	8278	T212B225M075(2)S		
2.7	B	5	T110B275J075AS	1.0	4	5112	5312	5512	5712	6279	7279	8279	T212B275J075(2)S		
2.7	B	10	T110B275K075AS	1.0	4	2408	2648	2888	3128	6280	7280	8280	T212B275K075(2)S		
2.7	B	20	T110B275M075AS	1.2	4										
3.3	B	5	T110B335J075AS	1.2	4	5113	5313	5513	5713	6281	7281	8281	T212B335J075(2)S		
3.3	B	10	T110B335K075AS	1.2	4	2409	2649	2889	3129	6282	7282	8282	T212B335K075(2)S		
3.3	B	20	T110B335M075AS	1.2	4	2410	2650	2890	3130	6283	7283	8283	T212B335M075(2)S		
3.9	B	5	T110B395J075AS	1.5	4	5114	5314	5514	5714	6284	7284	8284	T212B395J075(2)S		
3.9	B	10	T110B395K075AS	1.5	4	2411	2651	2891	3131	6285	7285	8285	T212B395K075(2)S		
3.9	B	20	T110B395M075AS	1.5	4										
4.7	C	5	T110C475J075AS	3.0	4	5115	5315	5515	5715	6286	7286	8286	T212C475J075(2)S		
4.7	C	10	T110C475K075AS	3.0	4	2412	2652	2892	3132	6287	7287	8287	T212C475K075(2)S		
4.7	C	20	T110C475M075AS	3.0	4	2413	2653	2893	3133	6288	7288	8288	T212C475M075(2)S		
5.6	C	5	T110C565J075AS	3.0	4	5116	5316	5516	5716	6289	7289	8289	T212C565J075(2)S		
5.6	C	10	T110C565K075AS	3.0	4	2414	2654	2894	3134	6290	7290	8290	T212C565K075(2)S		
5.6	C	20	T110C565M075AS	3.0	4										
6.8	C	5	T110C685J075AS	5.0	4	5117	5317	5517	5717	6291	7291	8291	T212C685J075(2)S		
6.8	C	10	T110C685K075AS	5.0	4	2415	2655	2895	3135	6292	7292	8292	T212C685K075(2)S		
6.8	C	20	T110C685M075AS	5.0	4	2416	2656	2896	3136	6293	7293	8293	T212C685M075(2)S		
8.2	C	5	T110C825J075AS	5.0	4	5118	5318	5518	5718	6294	7294	8294	T212C825J075(2)S		
8.2	C	10	T110C825K075AS	5.0	4	2417	2657	2897	3137	6295	7295	8295	T212C825K075(2)S		
8.2	C	20	T110C825M075AS	5.0	4										
10.0	C	5	T110C106J075AS	5.0	4	5119	5319	5519	5719	6296	7296	8296	T212C106J075(2)S		
10.0	C	10	T110C106K075AS	5.0	4	2418	2658	2898	3138	6297	7297	8297	T212C106K075(2)S		
10.0	C	20	T110C106M075AS	5.0	4	2419	2659	2899	3139	6298	7298	8298	T212C106M075(2)S		
12.0	D	5	T110D126J075AS	5.0	4	5120	5320	5520	5720	6299	7299	8299	T212D126J075(2)S		
12.0	D	10	T110D126K075AS	5.0	4	2420	2660	2900	3140	6300	7300	8300	T212D126K075(2)S		
12.0	D	20	T110D126M075AS	5.0	4										
15.0	D	5	T110D156J075AS	7.0	4	5121	5321	5521	5721	6301	7301	8301	T212D156J075(2)S		
15.0	D	10	T110D156K075AS	7.0	4	2421	2661	2901	3141	6302	7302	8302	T212D156K075(2)S		
15.0	D	20	T110D156M075AS	7.0	4	2422	2662	2902	3142	6303	7303	8303	T212D156M075(2)S		
100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°															
0.0047	A	5	T110A472J100AS	0.3	2	5122	5322	5522	5722	6304	7304	*	T212A472J100(2)S		
0.0047	A	10	T110A472K100AS	0.3	2	2423	2663	2903	3143	6305	7305	*	T212A472K100(2)S		
0.0047	A	20	T110A472M1												

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°C (Cont'd)															
0.022	A	20	T110A223M100AS	0.3	2	2436	2676	2916	3156	6326	7326	*	T212A223M100(2)S		
0.027	A	5	T110A273J100AS	0.3	2	5131	5331	5531	5731	6327	7327	*	T212A273J100(2)S		
0.027	A	10	T110A273K100AS	0.3	2	2437	2677	2917	3157	6328	7328	*	T212A273K100(2)S		
0.027	A	20	T110A273M100AS	0.3	2										
0.033	A	5	T110A333J100AS	0.3	2	5132	5332	5532	5732	6329	7329	*	T212A333J100(2)S		
0.033	A	10	T110A333K100AS	0.3	2	2438	2678	2918	3158	6330	7330	*	T212A333K100(2)S		
0.033	A	20	T110A333M100AS	0.3	2	2439	2679	2919	3159	6331	7331	*	T212A333M100(2)S		
0.039	A	5	T110A393J100AS	0.3	2	5133	5333	5533	5733	6332	7332	*	T212A393J100(2)S		
0.039	A	10	T110A393K100AS	0.3	2	2440	2680	2920	3160	6333	7333	*	T212A393K100(2)S		
0.039	A	20	T110A393M100AS	0.3	2										
0.047	A	5	T110A473J100AS	0.3	2	5134	5334	5534	5734	6334	7334	*	T212A473J100(2)S		
0.047	A	10	T110A473K100AS	0.3	2	2441	2681	2921	3161	6335	7335	*	T212A473K100(2)S		
0.047	A	20	T110A473M100AS	0.3	2	2442	2682	2922	3162	6336	7336	*	T212A473M100(2)S		
0.056	A	5	T110A563J100AS	0.3	2	5135	5335	5535	5735	6337	7337	*	T212A563J100(2)S		
0.056	A	10	T110A563K100AS	0.3	2	2443	2683	2923	3163	6338	7338	*	T212A563K100(2)S		
0.056	A	20	T110A563M100AS	0.3	2										
0.068	A	5	T110A683J100AS	0.3	2	5136	5336	5536	5736	6339	7339	*	T212A683J100(2)S		
0.068	A	10	T110A683K100AS	0.3	2	2444	2684	2924	3164	6340	7340	*	T212A683K100(2)S		
0.068	A	20	T110A683M100AS	0.3	2	2445	2685	2925	3165	6341	7341	*	T212A683M100(2)S		
0.082	A	5	T110A823J100AS	0.3	2	5137	5337	5537	5737	6342	7342	*	T212A823J100(2)S		
0.082	A	10	T110A823K100AS	0.3	2	2446	2686	2926	3166	6343	7343	*	T212A823K100(2)S		
0.082	A	20	T110A823M100AS	0.3	2										
0.1	A	5	T110A104J100AS	0.3	2	5138	5338	5538	5738	6344	7344	*	T212A104J100(2)S		
0.1	A	10	T110A104K100AS	0.3	2	2447	2687	2927	3167	6345	7345	*	T212A104K100(2)S		
0.1	A	20	T110A104M100AS	0.3	2	2448	2688	2928	3168	6346	7346	*	T212A104M100(2)S		
0.12	A	5	T110A124J100AS	0.3	2	5139	5339	5539	5739	6347	7347	*	T212A124J100(2)S		
0.12	A	10	T110A124K100AS	0.3	2	2449	2689	2929	3169	6348	7348	*	T212A124K100(2)S		
0.12	A	20	T110A124M100AS	0.3	2										
0.15	A	5	T110A154J100AS	0.3	2	5140	5340	5540	5740	6349	7349	*	T212A154J100(2)S		
0.15	A	10	T110A154K100AS	0.3	2	2450	2690	2930	3170	6350	7350	*	T212A154K100(2)S		
0.15	A	20	T110A154M100AS	0.3	2	2451	2691	2931	3171	6351	7351	*	T212A154M100(2)S		
0.18	A	5	T110A184J100AS	0.3	2	5141	5341	5541	5741	6352	7352	*	T212A184J100(2)S		
0.18	A	10	T110A184K100AS	0.3	2	2452	2692	2932	3172	6353	7353	*	T212A184K100(2)S		
0.18	A	20	T110A184M100AS	0.3	2										
0.22	A	5	T110A224J100AS	0.3	2	5142	5342	5542	5742	6354	7354	*	T212A224J100(2)S		
0.22	A	10	T11												



RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS										KEMET EQUIVALENT MILITARY PART NUMBER				
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)								MIL-PRF-39003/1H EXPONENTIAL	MIL-PRF-39003/1H GRADED					
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED										
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)								
100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°C (Cont'd)																				
1.2	B	5	T110B125J100AS	0.5	3	5151	5351	5551	5751	6377	7377	*				T212B125J100(2)S				
1.2	B	10	T110B125K100AS	0.5	3	2467	2707	2947	3187	6378	7378	*				T212B125K100(2)S				
1.2	B	20	T110B125M100AS	0.5	3															
1.5	B	5	T110B155J100AS	0.7	3	5152	5352	5552	5752	6379	7379	*				T212B155J100(2)S				
1.5	B	10	T110B155K100AS	0.7	3	2468	2708	2948	3188	6380	7380	*				T212B155K100(2)S				
1.5	B	20	T110B155M100AS	0.7	3	2469	2709	2949	3189	6381	7381	*				T212B155M100(2)S				
1.8	B	5	T110B185J100AS	0.7	3	5153	5353	5553	5753	6382	7382	*				T212B185J100(2)S				
1.8	B	10	T110B185K100AS	0.7	3	2470	2710	2950	3190	6383	7383	*				T212B185K100(2)S				
1.8	B	20	T110B185M100AS	0.7	3															
2.2	B	5	T110B225J100AS	0.9	3	5154	5354	5554	5754	6384	7384	*				T212B225J100(2)S				
2.2	B	10	T110B225K100AS	0.9	3	2471	2711	2951	3191	6385	7385	*				T212B225K100(2)S				
2.2	B	20	T110B225M100AS	0.9	3	2472	2712	2952	3192	6386	7386	*				T212B225M100(2)S				
2.7	B	5	T110B275J100AS	1.1	3	5155	5355	5555	5755	6387	7387	*				T212B275J100(2)S				
2.7	B	10	T110B275K100AS	1.1	3	2473	2713	2953	3193	6388	7388	*				T212B275K100(2)S				
2.7	B	20	T110B275M100AS	1.1	3															
3.3	C	5	T110C335J100AS	1.5	3	5156	5356	5556	5756	6389	*	*				T212C335J100(2)S				
3.3	C	10	T110C335K100AS	1.5	3	5157	5357	5557	5757	6390	*	*				T212C335K100(2)S				
3.3	C	20	T110C335M100AS	1.5	3	5158	5358	5558	5758	6391	*	*				T212C335M100(2)S				
3.9	C	5	T110C395J100AS	1.5	3	5159	5359	5559	5759	6392	*	*				T212C395J100(2)S				
3.9	C	10	T110C395K100AS	1.5	3	5160	5360	5560	5760	6393	*	*				T212C395K100(2)S				
4.7	C	5	T110C475J100AS	2.5	3	5161	5361	5561	5761	6394	*	*				T212C475J100(2)S				
4.7	C	10	T110C475K100AS	2.5	3	5162	5362	5562	5762	6395	*	*				T212C475K100(2)S				
4.7	C	20	T110C475M100AS	2.5	3	5163	5363	5563	5763	6396	*	*				T212C475M100(2)S				
5.6	C	5	T110C565J100AS	2.5	3	5164	5364	5564	5764	6397	*	*				T212C565J100(2)S				
5.6	C	10	T110C565K100AS	2.5	3	5165	5365	5565	5765	6398	*	*				T212C565K100(2)S				
6.8	C	5	T110C685J100AS	2.5	3	5166	5366	5566	5766	6399	*	*				T212C685J100(2)S				
6.8	C	10	T110C685K100AS	2.5	3	5167	5367	5567	5767	6400	*	*				T212C685K100(2)S				
6.8	C	20	T110C685M100AS	2.5	3	5168	5368	5568	5768	6401	*	*				T212C685M100(2)S				
8.2	D	5,10,20	T110D825(1)100AS	5.0	3															
10.0	D	5,10,20	T110D106(1)100AS	5.0	3															
125 VOLT RATING AT 85°C — 82 VOLT RATING AT 125°																				
0.0047	A	5,10,20	T110A472(1)125AS	0.5	3															
0.0056	A	5,10,20	T110A562(1)125AS	0.5	3															
0.0068	A	5,10,20	T110A682(1)125AS																	

TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T110 SERIES — POLAR TYPE & T212 (CSR13)



RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T110			MIL-PRF-39003 (CSR13) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/1H EXPONENTIAL				MIL-PRF-39003/1H GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
125 VOLT RATING AT 85°C — 82 VOLT RATING AT 125°C															
1.0	B	5,10,20	T110B105(1)125AS	1.5	3										
1.2	B	5,10,20	T110B125(1)125AS	1.5	3										
1.5	B	5,10,20	T110B155(1)125AS	1.5	3										
1.8	B	5,10,20	T110B185(1)125AS	1.5	3										
2.2	B	5,10,20	T110B225(1)125AS	1.5	3										
2.7	C	5,10,20	T110C275(1)125AS	2.0	3										
3.3	C	5,10,20	T110C335(1)125AS	2.0	3										
3.9	C	5,10,20	T110C395(1)125AS	2.0	3										
4.7	C	5,10,20	T110C475(1)125AS	3.0	3										
5.6	C	5,10,20	T110C565(1)125AS	3.0	3										
6.8	C	5,10,20	T110C685(1)125AS	3.0	3										
8.2	D	5,10,20	T110D825(1)125AS	6.0	3										
10.0	D	5,10,20	T110D106(1)125AS	6.0	3										

(1) To complete T110 Series Part Number, insert Capacitance Tolerance Symbol in the 9th Character as shown on Page 6.

(2) To complete the T212 Series Part Number, insert Failure Rate Symbol in the 13th Character.

Bold Face lines indicate popular part types and values.

T110/T140 Herm Seal ESR (OHMS) at 100 kHz @ +25°C

(The ESR values provided below are for reference only. No warranty, as stated on page 3 and reincorporated here, is made as to the accuracy of these values for any particular T110/T140 Series product.)

Cap μF	6 Volt	10 Volt	15 Volt	20 Volt	30 Volt	35 Volt	50 Volt	60 Volt	75 Volt	100 Volt	125 Volt
0.10				37.0		26.0	26.0	26.0	26.0	25.0	25.0
0.12				37.0		26.0	26.0	26.0	26.0	25.0	25.0
0.15				32.0		21.0	21.0	21.0	21.0	20.0	20.0
0.18				32.0		21.0	21.0	21.0	21.0	20.0	20.0
0.22				27.0		17.0	17.0	17.0	17.0	16.0	16.0
0.27				25.0		17.0	17.0	17.0	17.0	16.0	16.0
0.33			28.0	22.0		15.0	15.0	15.0	15.0	14.0	14.0
0.39			28.0	22.0		15.0	15.0	15.0	15.0	14.0	14.0
0.47			26.0	20.0		13.0	13.0	13.0	13.0	12.0	12.0
0.56			26.0	18.0		13.0	13.0	13.0	13.0	12.0	12.0
0.68			24.0	16.0		10.0	10.0	10.0	10.0	9.0	9.0
0.82			24.0	16.0		10.0	10.0	10.0	10.0	9.0	9.0
1.0		20.0	17.0	10.0		8.0	8.0	8.0	8.0	7.0	7.0
1.2		20.0	17.0	10.0	9.0	8.0	8.0	8.0	8.0	7.0	7.0
1.5		14.0	10.0	9.0	8.0	6.0	5.0	5.0	5.0	4.0	4.0
1.8		14.0	10.0	9.0	8.0	6.0	5.0	5.0	5.0	4.0	4.0
2.2	14.0	13.0	8.0	7.0	6.0	5.0	3.5	3.5	3.5	3.0	3.0
2.7	14.0	13.0	8.0	7.0	6.0	5.0	3.5	3.5	3.5	3.0	3.0
3.3	13.0	10.0	6.0	5.5		4.0	3.0	3.0	3.0	2.5	2.5
3.9	13.0	10.0	6.0	5.5		4.0	3.0	3.0	3.0	2.5	2.5
4.7	10.0	8.0	5.0	4.5		3.0	2.5	2.5	2.5	2.0	2.0
5.6	10.0	8.0	5.0	4.5		3.0	2.5	2.5	2.5	2.0	2.0
6.8	8.0	6.0	4.0	3.6		2.5	2.0	2.0	2.0	1.5	1.5
8.2	8.0	6.0	4.0	3.6		2.5	2.0	2.0	2.0	1.5	1.5
10.0	6.0	5.0	3.2	2.9		2.0	1.6	1.6	1.6	1.0	1.0
12.0	6.0	5.0	3.2	2.9	2.5	2.0	1.6	1.6	1.6		
15.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2	1.2	1.2		
18.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2	1.2			
22.0	3.7	2.7	2.0	1.8		1.3	1.0	1.0			
27.0	3.7	2.7	2.0	1.8		1.3	1.0	1.0			

Primarily designed for use in tuned low frequency circuits, phasing low voltage AC motors, servo systems and other applications where reversal of polarity is a primary consideration. The T111 unit consists of two polar T110 Series hermetically sealed tantalum capacitors, electrically and mechanically connected back-to-back and supported by an outer

corrosion-resistant metal sleeve. They exhibit comparable electrical and performance characteristics of T110 Series. Available in capacitance values ranging from .0023 to 160 μF in $\pm 20\%$, $\pm 10\%$, and $\pm 5\%$ tolerances in working voltages from 6 to 100 VDC at $+85^\circ\text{C}$. Also, the following table includes M39003/4 QPL Product.

DIMENSIONS — INCHES & (MILLIMETERS)

MARKING INFORMATION* A, B, C & D CASES

CASE SIZE	B ± 0.002 ($\pm .05$)	UNINSULATED		INSULATED		C MAX.
		D ± 0.010 ($\pm .25$)	L ± 0.031 ($\pm .79$)	D ± 0.010 ($\pm .25$) -0.015 ($-.38$)	L ± 0.031 ($\pm .79$)	
A	0.020 (.51)	0.147 (3.73)	0.565 (14.35)	0.161 (4.09)	0.575 (14.61)	0.750 (19.05)
B	0.020 (.51)	0.194 (4.93)	0.916 (23.27)	0.207 (5.26)	0.955 (24.26)	1.130 (28.70)
C	0.025 (.64)	0.300 (7.62)	1.340 (34.04)	0.314 (7.98)	1.350 (34.29)	1.525 (38.74)
D	0.025 (.64)	0.362 (9.19)	1.540 (39.12)	0.376 (9.55)	1.550 (39.37)	1.725 (43.82)

K 10%	— Manufacturer's Classification and Tolerance
6R0 μF	— Normal Capacitance — (μF) ("R" indicates decimal)
20V	— Voltage
0325AB	— Date Code and Batch Code

CAPACITOR OUTLINE DRAWINGS



* For Military Marking, see page 4.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE $\pm\%$	KEMET T111 SERIES			MIL-PRF-39003 (CSR91) CAPACITORS							
			KEMET PART NUMBER	D.C. LEAKAGE $\mu\text{A}@25^\circ\text{C}$ MAX.	MAX. DISSIP- ATION FACTOR $\%@25^\circ\text{C}$, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)							
						MIL-PRF-39003/4C EXPONENTIAL				MIL-PRF-39003/4C GRADED			
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)	KEMET EQUIVALENT MILITARY PART NUMBER
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C													
2.8	A	10	T111A285K006AS	0.3	4	0221	0441	0661	0881	3001	4001	5001	T213A285K006(1)S
3.4	A	10	T111A345K006AS	0.3	6	0222	0442	0662	0882	3002	4002	5002	T213A345K006(1)S
3.4	A	20	T111A345M006AS	0.3	6	0223	0443	0663	0883	3003	4003	5003	T213A345M006(1)S
23.0	B	10	T111B236K006AS	1.5	6	0224	0444	0664	0884	3004	4004	5004	T213B236K006(1)S
23.0	B	20	T111B236M006AS	1.5	6	0225	0445	0665	0885	3005	4005	5005	T213B236M006(1)S
28.0	B	10	T111B286K006AS	1.5	6	0226	0446	0666	0886	3006	4006	5006	T213B286K006(1)S
75.0	C	10	T111C756K006AS	4.5	6	0227	0447	0667	0887	3007	4007	5007	T213C756K006(1)S
75.0	C	20	T111C756M006AS	4.5	6	0228	0448	0668	0888	3008	4008	5008	T213C756M006(1)S
90.0	C	10	T111C906K006AS	4.5	6	0229	0449	0669	0889	3009	4009	5009	T213C906K006(1)S
90.0	C	20	T111C906M006AS	5.5	6	0230	0450	0670	0890				T213C906M006(1)S
130.0	D	10	T111D137K006AS	6.0	8	0231	0451	0671	0891	3010	4010	5010	T213D137K006(1)S
130.0	D	20	T111D137M006AS	6.0	8	0232	0452	0672	0892				T213D137M006(1)S
160.0	D	10	T111D167K006AS	7.5	8	0233	0453	0673	0893	3011	4011	5011	T213D167K006(1)S
160.0	D	20	T111D167M006AS	7.5	8	0234	0454	0674	0894	3012	4012	5012	T213D167M006(1)S
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C													
1.9	A	10	T111A195K010AS	0.3	4	0235	0455	0675	0895	3013	4013	5013	T213A195K010(1)S
2.3	A	10	T111A235K010AS	0.4	4	0236	0456	0676	0896	3014	4014	5014	T213A235K010(1)S
2.3	A	20	T111A235M010AS	0.4	4	0237	0457	0677	0897	3015	4015	5015	T213A235M010(1)S
13.0	B	10	T111B136K010AS	2.0	6	0238	0458	0678	0898	3016	4016	5016	T213B136K010(1)S
16.0	B	10	T111B166K010AS	2.0	6	0239	0459	0679	0899	3017	4017	5017	T213B166K010(1)S
16.0	B	20	T111B166M010AS	2.0	6	0240	0460	0680	0900</				

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T111 SERIES			MIL-PRF-39003 (CSR91) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSI- PATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/4C EXPONENTIAL				MIL-PRF-39003/4C GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C															
1.3	A	10	T111A135K015AS	0.3	4	0250	0470	0690	0910	3027	4027	5027	T213A135K015(1)S		
1.6	A	10	T111A165K015AS	0.4	4	0251	0471	0691	0911	3028	4028	5028	T213A165K015(1)S		
1.6	A	20	T111A165M015AS	0.4	4	0252	0472	0692	0912	3029	4029	5029	T213A165M015(1)S		
9.0	B	10	T111B905K015AS	2.0	6	0253	0473	0693	0913	3030	4030	5030	T213B905K015(1)S		
11.0	B	10	T111B116K015AS	2.0	6	0254	0474	0694	0914	3031	4031	5031	T213B116K015(1)S		
11.0	B	20	T111B116M015AS	2.0	6	0255	0475	0695	0915	3032	4032	5032	T213B116M015(1)S		
28.0	C	10	T111C286K015AS	4.0	6	0256	0476	0696	0916	3033	4033	5033	T213C286K015(1)S		
34.0	C	10	T111C346K015AS	5.0	6	0257	0477	0697	0917	3034	4034	5034	T213C346K015(1)S		
34.0	C	20	T111C346M015AS	5.0	6	0258	0478	0698	0918	3035	4035	5035	T213C346M015(1)S		
60.0	D	10	T111D606K015AS	6.0	6	0259	0479	0699	0919	3036	4036	5036	T213D606K015(1)S		
75.0	D	10	T111D756K015AS	10.0	6	0260	0480	0700	0920	3037	4037	5037	T213D756K015(1)S		
75.0	D	20	T111D756M015AS	10.0	6	0261	0481	0701	0921	3038	4038	5038	T213D756M015(1)S		
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C															
0.6	A	10	T111A604K020AS	0.3	4	0262	0482	0702	0922	3039	4039	5039	T213A604K020(1)S		
0.75	A	10	T111A754K020AS	0.3	4	0263	0483	0703	0923	3040	4040	5040	T213A754K020(1)S		
0.75	A	20	T111A754M020AS	0.3	4	0264	0484	0704	0924	3041	4041	5041	T213A754M020(1)S		
0.9	A	10	T111A904K020AS	0.3	4	0265	0485	0705	0925	3042	4042	5042	T213A904K020(1)S		
1.1	A	10	T111A115K020AS	0.4	4	0266	0486	0706	0926	3043	4043	5043	T213A115K020(1)S		
1.1	A	20	T111A115M020AS	0.4	4	0267	0487	0707	0927	3044	4044	5044	T213A115M020(1)S		
4.1	B	10	T111B415K020AS	1.0	6	0268	0488	0708	0928	3045	4045	5045	T213B415K020(1)S		
5.0	B	10	T111B505K020AS	1.0	6	0269	0489	0709	0929	3046	4046	5046	T213B505K020(1)S		
5.0	B	20	T111B505M020AS	1.0	6	0270	0490	0710	0930	3047	4047	5047	T213B505M020(1)S		
6.0	B	10	T111B605K020AS	1.0	6	0271	0491	0711	0931	3048	4048	5048	T213B605K020(1)S		
7.5	B	10	T111B755K020AS	2.0	6	0272	0492	0712	0932	3049	4049	5049	T213B755K020(1)S		
7.5	B	20	T111B755M020AS	2.0	6	0273	0493	0713	0933	3050	4050	5050	T213B755M020(1)S		
13.0	C	10	T111C136K020AS	2.5	6	0274	0494	0714	0934	3051	4051	5051	T213C136K020(1)S		
16.0	C	10	T111C166K020AS	3.0	6	0275	0495	0715	0935	3052	4052	5052	T213C166K020(1)S		
16.0	C	20	T111C166M020AS	3.0	6	0276	0496	0716	0936	3053	4053	5053	T213C166M020(1)S		
19.0	C	10	T111C196K020AS	3.0	6	0277	0497	0717	0937	3054	4054	5054	T213C196K020(1)S		
23.0	C	10	T111C236K020AS	4.5	6	0278	0498	0718	0938	3055	4055	5055	T213C236K020(1)S		
23.0	C	20	T111C236M020AS	4.5	6	0279	0499	0719	0939	3056	4056	5056	T213C236M020(1)S		
28.0	D	10	T111D286K020AS	5.5	6	0280	0500	0720	0940	3057	4057	5057	T213D286K020(1)S		
3															



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T111 SERIES — NON-POLAR & T213 (CSR91)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T111 SERIES			MIL-PRF-39003 (CSR91) CAPACITORS								
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIP- ATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)							KEMET EQUIVALENT MILITARY PART NUMBER	
						MIL-PRF-39003/4C EXPONENTIAL				MIL-PRF-39003/4C GRADED				
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)		
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)														
0.016	A	20	T111A163M050AS	0.1	2	1187	1257	1327	1397	3090	4090	5090	T213A163M050(1)S	
0.019	A	10	T111A193K050AS	0.1	2	1188	1258	1328	1398	3091	4091	5091	T213A193K050(1)S	
0.023	A	10	T111A233K050AS	0.1	2	1189	1259	1329	1399	3092	4092	5092	T213A233K050(1)S	
0.023	A	20	T111A233M050AS	0.1	2	1190	1260	1330	1400	3093	4093	5093	T213A233M050(1)S	
0.028	A	10	T111A283K050AS	0.1	2	1191	1261	1331	1401	3094	4094	5094	T213A283K050(1)S	
0.034	A	10	T111A343K050AS	0.1	2	1192	1262	1332	1402	3095	4095	5095	T213A343K050(1)S	
0.034	A	20	T111A343M050AS	0.1	2	1193	1263	1333	1403	3096	4096	5096	T213A343M050(1)S	
0.041	A	10	T111A413K050AS	0.1	2	1194	1264	1334	1404	3097	4097	5097	T213A413K050(1)S	
0.05	A	10	T111A503K050AS	0.3	2	1195	1265	1335	1405	3098	4098	5098	T213A503K050(1)S	
0.05	A	20	T111A503M050AS	0.3	2	1196	1266	1336	1406	3099	4099	5099	T213A503M050(1)S	
0.06	A	10	T111A603K050AS	0.3	2	1197	1267	1337	1407	3100	4100	5100	T213A603K050(1)S	
0.075	A	10	T111A753K050AS	0.3	2	1198	1268	1338	1408	3101	4101	5101	T213A753K050(1)S	
0.075	A	20	T111A753M050AS	0.3	2	1199	1269	1339	1409	3102	4102	5102	T213A753M050(1)S	
0.09	A	10	T111A903K050AS	0.3	2	1200	1270	1340	1410	3103	4103	5103	T213A903K050(1)S	
0.11	A	10	T111A114K050AS	0.3	2	1201	1271	1341	1411	3104	4104	5104	T213A114K050(1)S	
0.11	A	20	T111A114M050AS	0.3	2	1202	1272	1342	1412	3105	4105	5105	T213A114M050(1)S	
0.13	A	10	T111A134K050AS	0.3	2	1203	1273	1343	1413	3106	4106	5106	T213A134K050(1)S	
0.16	A	10	T111A164K050AS	0.3	2	1204	1274	1344	1414	3107	4107	5107	T213A164K050(1)S	
0.16	A	20	T111A164M050AS	0.3	2	1205	1275	1345	1415	3108	4108	5108	T213A164M050(1)S	
0.19	A	10	T111A194K050AS	0.3	2	1206	1276	1346	1416	3109	4109	5109	T213A194K050(1)S	
0.23	A	10	T111A234K050AS	0.3	2	1207	1277	1347	1417	3110	4110	5110	T213A234K050(1)S	
0.23	A	20	T111A234M050AS	0.3	2	1208	1278	1348	1418	3111	4111	5111	T213A234M050(1)S	
0.28	A	10	T111A284K050AS	0.3	2	1209	1279	1349	1419	3112	4112	5112	T213A284K050(1)S	
0.34	A	10	T111A344K050AS	0.3	2	1210	1280	1350	1420	3113	4113	5113	T213A344K050(1)S	
0.34	A	20	T111A344M050AS	0.3	2	1211	1281	1351	1421	3114	4114	5114	T213A344M050(1)S	
0.41	A	10	T111A414K050AS	0.3	2	0300	0520	0740	0960	3115	4115	5115	T213A414K050(1)S	
0.5	A	10	T111A504K050AS	0.4	2	0301	0521	0741	0961	3116	4116	5116	T213A504K050(1)S	
0.5	A	20	T111A504M050AS	0.4	2	0302	0522	0742	0962	3117	4117	5117	T213A504M050(1)S	
0.6	B	10	T111B604K050AS	0.4	4	1212	1282	1352	1422	3118	4118	5118	T213B604K050(1)S	
0.6	B	20	T111B604M050AS	0.4	4									
0.75	B	10	T111B754K050AS	0.5	4	2001	2101	2201	2301	3119	4119	5119	T213B754K050(1)S	
0.75	B	20	T111B754M050AS	0.5	4	2002	2102	2202	2302	3120	4120	5120	T213B754M050(1)S	
0.9	B	10	T111B904K050AS	0.5	4	1215	1285	1355	1425	3121	4121	5121	T213B904K050(1)S	
0.9	B	20	T111B904M050AS	0.5	4									

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T111 SERIES			MIL-PRF-39003 (CSR91) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISS- PATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/4C EXPONENTIAL				MIL-PRF-39003/4C GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
75 VOLT RATING AT 85°C — 50 VOLT RATING AT 125°C (Cont'd)															
0.9	B	10	T111B904K075AS	0.7	4	2014	2114	2214	2314	3150	4150	5150	T213B904K075(1)S		
1.1	B	10	T111B115K075AS	0.8	4	2015	2115	2215	2315	3151	4151	5151	T213B115K075(1)S		
1.1	B	20	T111B115M075AS	0.8	4	2016	2116	2216	2316	3152	4152	5152	T213B115M075(1)S		
1.3	B	10	T111B135K075AS	1.0	4	2017	2117	2217	2317	3153	4153	5153	T213B135K075(1)S		
1.6	B	10	T111B165K075AS	1.2	4	0311	0531	0751	0971	3154	4154	5154	T213B165K075(1)S		
1.6	B	20	T111B165M075AS	1.2	4	0312	0532	0752	0972	3155	4155	5155	T213B165M075(1)S		
1.9	B	10	T111B195K075AS	1.5	4	0313	0533	0753	0973	3156	4156	5156	T213B195K075(1)S		
2.3	C	10	T111C235K075AS	3.0	4	2003	2103	2203	2303	3157	4157	5157	T213C235K075(1)S		
2.3	C	20	T111C235M075AS	3.0	4	2004	2104	2204	2304	3158	4158	5158	T213C235M075(1)S		
2.8	C	10	T111C285K075AS	3.0	4	2005	2105	2205	2305	3159	4159	5159	T213C285K075(1)S		
3.4	C	10	T111C345K075AS	5.0	4	2006	2106	2206	2306	3160	4160	5160	T213C345K075(1)S		
3.4	C	20	T111C345M075AS	5.0	4	2007	2107	2207	2307	3161	4161	5161	T213C345M075(1)S		
4.1	C	10	T111C415K075AS	5.0	4	0314	0534	0754	0974	3162	4162	5162	T213C415K075(1)S		
5.0	C	10	T111C505K075AS	5.0	4	0315	0535	0755	0975	3163	4163	5163	T213C505K075(1)S		
5.0	C	20	T111C505M075AS	5.0	4	0316	0536	0756	0976	3164	4164	5164	T213C505M075(1)S		
6.0	D	10	T111D605K075AS	5.0	4	0317	0537	0757	0977	3165	4165	5165	T213D605K075(1)S		
7.5	D	10	T111D755K075AS	7.0	4	0318	0538	0758	0978	3166	4166	5166	T213D755K075(1)S		
7.5	D	20	T111D755M075AS	7.0	4	0319	0539	0759	0979	3167	4167	5167	T213D755M075(1)S		
100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°C															
0.0023	A	10	T111A232K100AS	0.3	2	0320	0540	0760	0980	3168	4168	*	T213A232K100(1)S		
0.0023	A	20	T111A232M100AS	0.3	2	0321	0541	0761	0981	3169	4169	*	T213A232M100(1)S		
0.0028	A	10	T111A282K100AS	0.3	2	0322	0542	0762	0982	3170	4170	*	T213A282K100(1)S		
0.0034	A	10	T111A342K100AS	0.3	2	0323	0543	0763	0983	3171	4171	*	T213A342K100(1)S		
0.0034	A	20	T111A342M100AS	0.3	2	0324	0544	0764	0984	3172	4172	*	T213A342M100(1)S		
0.0041	A	10	T111A412K100AS	0.3	2	0325	0545	0765	0985	3173	4173	*	T213A412K100(1)S		
0.005	A	10	T111A502K100AS	0.3	2	0326	0546	0766	0986	3174	4174	*	T213A502K100(1)S		
0.005	A	20	T111A502M100AS	0.3	2	0327	0547	0767	0987	3175	4175	*	T213A502M100(1)S		
0.006	A	10	T111A602K100AS	0.3	2	0328	0548	0768	0988	3176	4176	*	T213A602K100(1)S		
0.0075	A	10	T111A752K100AS	0.3	2	0329	0549	0769	0989	3177	4177	*	T213A752K100(1)S		
0.0075	A	20	T111A752M100AS	0.3	2	0330	0550	0770	0990	3178	4178	*	T213A752M100(1)S		
0.009	A	10	T111A902K100AS	0.3	2	0331	0551	0771	0991	3179	4179	*	T213A902K100(1)S		
0.011	A	10	T111A113K100AS	0.3	2	0332	0552	0772	0992	3180	4180	*	T213A113K100(1)S		
0.011	A	20	T111A113M100AS	0.3	2										

KEMET ultra-miniature T222 Series solid tantalum capacitors are designed especially for miniaturization.

The T222 Series capacitors employ a unique glass-to-metal compression end seal which has no protruding eyelet. This flush end seal construction makes T222 Series capacitors ideally suited for all miniature high density packaging applications. The capacitors con-

sist of a dry porous tantalum pellet hermetically sealed in a solder coated metal case with solder coated alloy 52 and solder coated nickel leads.

The T222 series is approved to MIL-PRF-39003/2, all ratings and failure rates.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	UNINSULATED		INSULATED		B WIRE DIAMETER
	D ± 0.005 ($\pm .13$)	L	D	L	
A	.085 (2.16)	.245 + .015 (6.22 + .38) - .010 (-.25)	.090 ± .009 (2.29 ± .23)	.250 + .031 (6.35 + .79) - .015 (-.38)	.016 + .005 (.41 + .13) - .001 (-.03)
B	.127 (3.23)	.375 ± .015 (.53 ± .38)	.138 ± .010 (3.51 ± .25)	.390 ± .015 (9.91 ± .38)	.016 + .005 (.41 + .13) - .001 (-.03)

ORDERING INFORMATION

TANTALUM — T

SERIES (CSR09) — 222

CASE SIZE — A / B

PICOFARAD CODE — A 225
First two digits represent significant figures.
3rd digit specifies no. of zeros to follow.

CAPACITANCE TOLERANCE — K
M — ±20 K — ±10 J — ±5

VOLTAGE — 010
at 85°C

LEAD MATERIAL — S
S — Standard
Positive: Alloy 52 (solder coated)
Negative: Solder coated nickel

FAILURE RATE LEVEL**

GRADED
B — 0.1%/k hrs.
C — 0.01%/k hrs.
D — 0.001%/k hrs.
.

EXPONENTIAL
M — 1%/k hrs.
P — 0.1%/k hrs.
R — 0.01%/k hrs.
S — 0.001%/k hrs.

***Part Number Example: T222A225K010BS (14 digits - no spaces)**

SPECIFICATION
All capacitors are sleeved unless specified.

****Failure Rates apply only to military products**
For Military Ordering, see page 4.

CSR09 CAPACITOR MARKINGS PER MIL-PRF-39003

39003	— Military specification number
02 - K	— Specification sheet number and trademark
2961J	— Nonsignificant dash number and "J" for JAN
+333	— Polarity, date code (1st digit indicates year and the next two digits indicate the week)
XX	— and lot symbol

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T222 SERIES			MIL-PRF-39003 (CSR09) CAPACITORS						
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSI- PATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)						
						MIL-PRF-39003/2D EXPONENTIAL				MIL-PRF-39003/2D GRADED		
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C												
2.7	A	5	T222A275J006(1)S	0.6	6	1001	1061	1121	1181	2001	3001	4001
2.7	A	10	T222A275K006(1)S	0.6	6	0001	0061	0121	0181	2002	3002	4002
18.0	B	5	T222B186J006(1)S	1.4	6	1002	1062	1122	1182	2003	3003	4003
18.0	B	10	T222B186K006(1)S	1.4	6	0002	0062	0122	0182	2004	3004	4004
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C												
1.8	A	5	T222A185J010(1)S	0.6	6	1007	1067	1127	1187	2005	3005	4005
1.8	A	10	T222A185K010(1)S	0.6	6	0007	0067	0127	0187	2006	3006	4006
2.2	A	5	T222A125J010(1)S	0.6	6	1008	1068	1128	1188	2007	3007	4007
2.2	A	10	T222A125K010(1)S	0.6	6	0008	0068	0128	0188	2008	3008	4008
10.0	B	5	T222B106J010(1)S	2.0	6	1009	1069	1129	1189	2009	3009	4009
10.0	B	10	T222B106K010(1)S	2.0	6	0009	0069	0129	0189	2010	3010	4010
12.0	B	5	T222B126J010(1)S	2.0	6	1010	1070	1130	1190	2011	3011	4011
12.0	B	10	T222B126K010(1)S	2.0	6	0010	0070	0130	0190	2012	3012	4012
15.0	B	5	T222B156J010(1)S	2.0	6	1011	1071	1131	1191	2013	3013	4013
15.0	B	10	T222B156K010(1)S	2.0	6	0011	0071	0131	0191	2014	3014	4014
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C												
1.0	A	5	T222A105J015(1)S	0.6	6	1012	1072	1132	1192	2015	3015	4015
1.0	A	10	T222A105K015(1)S	0.6	6	0012	0072	0132	0192	2016	3016	4016
1.2	A	5	T222A125J015(1)S	0.6	6	1013	1073	1133	1193	2017	3017	4017
1.2	A	10	T222A125K015(1)S	0.6	6	0013	0073	0133	0193	2018	3018	4018
1.5	A	5	T222A155J015(1)S	0.6	6	1014	1074	1134	1194	2019	3019	4019
1.5	A	10	T222A155K015(1)S	0.6	6	0014	0074	0134	0194	2020	3020	4020
8.2	B	5	T222B825J015(1)S	1.8	6	1015	1075	1135	1195	2021	3021	4021
8.2	B	10	T222B825K015(1)S	1.8	6	0015	0075	0135	0195	2022	3022	4022
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C												
0.56	A	5	T222A564J020(1)S	0.6	3	1016	1076	1136	1196	2023	3023	4023
0.56	A	10	T222A564K020(1)S	0.6	3	0016	0076	0136	0196	2024	3024	4024
0.68	A	5	T222A684J020(1)S	0.6	3	1017	1077	1137	1197	2025	3025	4025
0.68	A	10	T222A684K020(1)S	0.6	3	0017	0077	0137	0197	2026	3026	4026
0.82	A	5	T222A824J020(1)S	0.6	3	1018	1078	1138	1198	2027	3027	4027
0.82	A	10	T222A824K020(1)S	0.6	3	0018	0078	0138	0198	2028	3028	4028
1.0	A	5	T222A105J020(1)S	0.6	3	1019	1079	1139	1199	2029	3029	4029
1.0	A	10	T222A105K020(1)S	0.6	3	0019	0079	0139	0199	2030	3030	4030
3.3	B	5	T222B335J020(1)S	1.0	3	1020	1080	1140	1200	2031	3031	4031
3.3	B	10	T222B335K020(1)S	1.0	3	0020	0080	0140	0200	2032	3032</	



RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T222 SERIES			MIL-PRF-39003 (CSR09) CAPACITORS						
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSI- PATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE						
						FAILURE RATE LEVEL (%/1000 HRS.)						
						MIL-PRF-39003/2D EXPONENTIAL				MIL-PRF-39003/2D GRADED		
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C												
0.22	A	5	T222A224J050(1)S	0.6	3	1030	1090	1150	1210	2051	3051	4051
0.22	A	10	T222A224K050(1)S	0.6	3	0030	0090	0150	0210	2052	3052	4052
0.27	A	5	T222A274J050(1)S	0.6	3	1031	1091	1151	1211	2053	3053	4053
0.27	A	10	T222A274K050(1)S	0.6	3	0031	0091	0151	0211	2054	3054	4054
1.5	B	5	T222B155J050(1)S	1.4	3	1032	1092	1152	1212	2055	3055	4055
1.5	B	10	T222B155K050(1)S	1.4	3	0032	0092	0152	0212	2056	3056	4056
1.8	B	5	T222B185J050(1)S	1.4	3	1033	1093	1153	1213	2057	3057	4057
1.8	B	10	T222B185K050(1)S	1.4	3	0033	0093	0153	0213	2058	3058	4058
75 VOLT RATING AT 85°C — 50 VOLT RATING AT 125°C												
0.047	A	5	T222A473J075(1)S	0.6	3	1034	1094	1154	1214	2059	3059	4059
0.047	A	10	T222A473K075(1)S	0.6	3	0034	0094	0154	0214	2060	3060	4060
0.056	A	5	T222A563J075(1)S	0.6	3	1035	1095	1155	1215	2061	3061	4061
0.056	A	10	T222A563K075(1)S	0.6	3	0035	0095	0155	0215	2062	3062	4062
0.068	A	5	T222A683J075(1)S	0.6	3	1036	1096	1156	1216	2063	3063	4063
0.068	A	10	T222A683K075(1)S	0.6	3	0036	0096	0156	0216	2064	3064	4064
0.082	A	5	T222A823J075(1)S	0.6	3	1037	1097	1157	1217	2065	3065	4065
0.082	A	10	T222A823K075(1)S	0.6	3	0037	0097	0157	0217	2066	3066	4066
0.10	A	5	T222A104J075(1)S	0.6	3	1038	1098	1158	1218	2067	3067	4067
0.10	A	10	T222A104K075(1)S	0.6	3	0038	0098	0158	0218	2068	3068	4068
0.12	A	5	T222A124J075(1)S	0.6	3	1039	1099	1159	1219	2069	3069	4069
0.12	A	10	T222A124K075(1)S	0.6	3	0039	0099	0159	0219	2070	3070	4070
0.15	A	5	T222A154J075(1)S	0.6	3	1040	1100	1160	1220	2071	3071	4071
0.15	A	10	T222A154K075(1)S	0.6	3	0040	0100	0160	0220	2072	3072	4072
0.18	A	5	T222A184J075(1)S	0.6	3	1041	1101	1161	1221	2073	3073	4073
0.18	A	10	T222A184K075(1)S	0.6	3	0041	0101	0161	0221	2074	3074	4074
0.22	B	5	T222B224J075(1)S	0.6	3	1042	1102	1162	1222	2075	3075	4075
0.22	B	10	T222B224K075(1)S	0.6	3	0042	0102	0162	0222	2076	3076	4076
0.27	B	5	T222B274J075(1)S	0.6	3	1043	1103	1163	1223	2077	3077	4077
0.27	B	10	T222B274K075(1)S	0.6	3	0043	0103	0163	0223	2078	3078	4078
0.33	B	5	T222B334J075(1)S	0.6	3	1044	1104	1164	1224	2079	3079	4079
0.33	B	10	T222B334K075(1)S	0.6	3	0044	0104	0164	0224	2080	3080	4080
0.39	B	5	T222B394J075(1)S	0.6	3	1045	1105	1165	1225	2081	3081	4081
0.39	B	10	T222B394K075(1)S	0.6	3	0045	0105	0165	0225	2082	3082	4082
0.47	B	5	T222B474J075(1)S	0.6	3	1046	1106	1166	1226	2083	3083	4083
0.47	B	10	T222B474K075(1)S	0.6	3	0046	0106	0166	0226	2084	3084	4084
0.56	B	5	T222B564J075(1)S	0.6	3	1047	1107	1167	1227	2085	3085	4085
0.56	B	10	T222B564K075(1)S	0.6	3	0047	0					

KEMET standard MIL case hermetically sealed T140 Series (Extended Capacitance Range) are compact, ruggedly built, designed for miniturized circuitry, and are especially suited for coupling, bypass, filtering and R-C timing circuits. They exhibit excellent stability, low DC leakage current, dissipation factor, and ESR/impedance over a wide temperature and frequency range.

Available in standard EIA capacitance values from .82-1200 μ F in $\pm 20\%$, $\pm 10\%$, and $\pm 5\%$ tolerances and working voltages from 6-60 VDC.

Included in the following Series table is a complete listing of CSR23 qualified MIL-C-39003/3 capacitors.

DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	UNINSULATED		INSULATED		B ± 0.002 (.05)	C MAX.
	D ± 0.005 (.13)	L ± 0.031 (.79)	D ± 0.010 (.25)	L ± 0.031 (.79)		
A	0.125 (3.18)	0.250 (6.35)	0.135 (3.43)	0.286 (7.26)	0.020 (.51)	0.422 (10.72)
B	0.175 (4.45)	0.438 (11.13)	0.185 (4.70)	0.474 (12.04)	0.020 (.51)	0.610 (15.49)
C	0.279 (7.09)	0.650 (16.51)	0.289 (7.34)	0.686 (17.42)	0.025 (.64)	0.822 (20.88)
D	0.341 (8.66)	0.750 (19.05)	0.351 (8.92)	0.786 (19.96)	0.025 (.64)	0.922 (23.42)

MARKING INFORMATION*

A, B, C & D CASES

+K 10%	— Polarity, Manufacturer's Identification and Capacitance Tol.
5R6 μ F	— Normal Capacitance — (μ F) ("R" indicates decimal)
10V	— Voltage
0312	— Date Code (e.g.: 0312)

* For Military Marking, see page 4.

CAPACITOR OUTLINE DRAWINGS



Effective September 30, 2005, the KEMET T140 Series is RoHS compliant by ordering the "T" (100% tin) end termination in the 14th position of the part number.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μ F	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T140			MIL-PRF-39003 (CSR23) CAPACITORS									
			KEMET PART NUMBER	D.C. LEAKAGE μ A@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/3F EXPONENTIAL					MIL-PRF-39003/3F GRADED				
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)	KEMET EQUIVALENT MILITARY PART NUMBER		
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C															
8.2	A	10, 20	T140A825(1)006AS	0.9	6										
10.0	A	10	T140A106K006AS	0.9	6	0101	0201	0301	0401	2001	3001	4001	T242A106K006(2)S		
10.0	A	20	T140A106M006AS	0.9	6	0102	0202	0302	0402	2002	3002	4002	T242A106M006(2)S		
12.0	A	10	T140A126K006AS	1.0	6	0103	0203	0303	0403	2003	3003	4003	T242A126K006(2)S		
12.0	A	20	T140A126M006AS	1.0	6										
68.0	B	10, 20	T140B686(1)006AS	3.0	6										
82.0	B	10, 20	T140B826(1)006AS	3.0	6										
100.0	B	10	T140B107K006AS	6.0	6	0104	0204	0304	0404	2004	3004	4004	T242B107K006(2)S		
100.0	B	20	T140B107M006AS	6.0	6	0105	0205	0305	0405	2005	3005	4005	T242B107M006(2)S		
220.0	C	10, 20	T140C227(1)006AS	10.0	8										
270.0	C	10, 20	T140C277(1)006AS	10.0	8										
330.0	C	10	T140C337K006AS	10.0	8	0106	0206	0306	0406	2006	3006	4006	T242C337K006(2)S		
330.0	C	20	T140C337M006AS	10.0	8	0107	0207	0307	0407	2007	3007	4007	T242C337M006(2)S		
390.0	C	10	T140C397K006AS	10.0	10	0108	0208	0308	0408	2008	3008	4008	T242C397K006(2)S		
390.0	C	20	T140C397M006AS	10.0	10										
470.0	C	10	T140C477K006AS	10.0	10	0109	0209	0309	0409	2009	3009	4009	T242C477K006(2)S		
470.0	C	20	T140C477M006AS	10.0	10	0110	0210	0310	0410	2010	3010	4010	T242C477M006(2)S		
560.0	D	10, 20	T140D567(1)006AS	20.0	10										
680.0	D	10	T140D687K006AS	20.0	10	0111									



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T140 SERIES — POLAR TYPE & T242 (CSR23)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T140			MIL-PRF-39003 (CSR23) CAPACITORS										KEMET EQUIVALENT MILITARY PART NUMBER				
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)								MIL-PRF-39003/3F EXPONENTIAL	MIL-PRF-39003/3F GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)								
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C																				
5.6	A	10, 20	T140A565(1)010AS	1.0	4															
6.8	A	10	T140A685K010AS	1.0	6	0116	0216	0316	0416	2016	3016	4016				T242A685K010(2)S				
6.8	A	20	T140A685M010AS	1.0	6	0117	0217	0317	0417	2017	3017	4017				T242A685M010(2)S				
8.2	A	10	T140A825K010AS	1.2	6	0118	0218	0318	0418	2018	3018	4018				T242A825K010(2)S				
8.2	A	20	T140A825M010AS	1.2	6															
47.0	B	10	T140B476K010AS	4.0	6	0119	0219	0319	0419	2019	3019	4019				T242B476K010(2)S				
47.0	B	20	T140B476M010AS	4.0	6	0120	0220	0320	0420	2020	3020	4020				T242B476M010(2)S				
56.0	B	10	T140B566K010AS	5.0	6	0121	0221	0321	0421	2021	3021	4021				T242B566K010(2)S				
56.0	B	20	T140B566M010AS	5.0	6															
68.0	B	10	T140B686K010AS	6.0	6	0122	0222	0322	0422	2022	3022	4022				T242B686K010(2)S				
68.0	B	20	T140B686M010AS	6.0	6	0123	0223	0323	0423	2023	3023	4023				T242B686M010(2)S				
82.0	B	10	T140B826K010AS	7.0	6	0124	0224	0324	0424	2024	3024	4024				T242B826K010(2)S				
82.0	B	20	T140B826M010AS	7.0	6															
150.0	C	10, 20	T140C157(1)010AS	8.0	8															
180.0	C	10, 20	T140C187(1)010AS	8.0	8															
220.0	C	10	T140C227K010AS	12.0	8	0125	0225	0325	0425	2025	3025	4025				T242C227K010(2)S				
220.0	C	20	T140C227M010AS	12.0	8	0126	0226	0326	0426	2026	3026	4026				T242C227M010(2)S				
270.0	C	10	T140C277K010AS	13.0	8	0127	0227	0327	0427	2027	3027	4027				T242C277K010(2)S				
270.0	C	20	T140C277M010AS	13.0	8															
330.0	D	10, 20	T140D337(1)010AS	16.0	8															
390.0	D	10	T140D397K010AS	16.0	10	0128	0228	0328	0428	2028	3028	4028				T242D397K010(2)S				
390.0	D	20	T140D397M010AS	16.0	10															
470.0	D	10	T140D477K010AS	16.0	10	0129	0229	0329	0429	2029	3029	4029				T242D477K010(2)S				
470.0	D	20	T140D477M010AS	16.0	10	0130	0230	0330	0430	2030	3030	4030				T242D477M010(2)S				
560.0	D	10	T140D567K010AS	20.0	10	0131	0231	0331	0431	2031	3031	4031				T242D567K010(2)S				
560.0	D	20	T140D567M010AS	20.0	10															
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C																				
3.9	A	10, 20	T140A395(1)015AS	1.0	4															
4.7	A	10	T140A475K015AS	1.0	4	0132	0232	0332	0432	2032	3032	4032				T242A475K015(2)S				
4.7	A	20	T140A475M015AS	1.0	4	0133	0233	0333	0433	2033	3033	4033				T242A475M015(2)S				
5.6	A	10	T140A565K015AS	1.3	4</															



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003

T140 SERIES — POLAR TYPE & T242 (CSR23)

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T140			MIL-PRF-39003 (CSR23) CAPACITORS								KEMET EQUIVALENT MILITARY PART NUMBER	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
						MIL-PRF-39003/3F EXPONENTIAL				MIL-PRF-39003/3F GRADED					
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C															
1.2	A	10, 20	T140A125(1)035AS	0.6	4										
1.5	A	10, 20	T140A155(1)035AS	0.8	4										
1.8	A	10	T140A185K035AS	1.0	4	0164	0264	0364	0464	2064	3064	4064	T242A185K035(2)S		
1.8	A	20	T140A185M035AS	1.0	4										
8.2	B	10	T140B825K035AS	3.0	4	0165	0265	0365	0465	2065	3065	4065	T242B825K035(2)S		
8.2	B	20	T140B825M035AS	3.0	4										
10.0	B	10	T140B106K035AS	3.0	4	0166	0266	0366	0466	2066	3066	4066	T242B106K035(2)S		
10.0	B	20	T140B106M035AS	3.0	4	0167	0267	0367	0467	2067	3067	4067	T242B106M035(2)S		
27.0	C	10, 20	T140C276(1)035AS	7.0	6										
33.0	C	10	T140C336K035AS	8.0	6	0168	0268	0368	0468	2068	3068	4068	T242C336K035(2)S		
33.0	C	20	T140C336M035AS	8.0	6	0169	0269	0369	0469	2069	3069	4069	T242C336M035(2)S		
39.0	C	10	T140C396K035AS	10.0	6	0170	0270	0370	0470	2070	3070	4070	T242C396K035(2)S		
39.0	C	20	T140C396M035AS	10.0	6										
47.0	C	10	T140C476K035AS	10.0	6	0171	0271	0371	0471	2071	3071	4071	T242C476K035(2)S		
47.0	C	20	T140C476M035AS	10.0	6	0172	0272	0372	0472	2072	3072	4072	T242C476M035(2)S		
56.0	D	10	T140D566K035AS	12.0	6	0173	0273	0373	0473	2073	3073	4073	T242D566K035(2)S		
56.0	D	20	T140D566M035AS	12.0	6										
68.0	D	10	T140D686K035AS	12.0	6	0174	0274	0374	0474	2074	3074	4074	T242D686K035(2)S		
68.0	D	20	T140D686M035AS	12.0	6	0175	0275	0375	0475	2075	3075	4075	T242D686M035(2)S		
82.0	D	10, 20	T140D826(1)035AS	20.0	8										
100.0	D	10, 20	T140D107(1)035AS	20.0	8										
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C															
1.2	A	10	T140A125K050AS	0.6	4	0176	0276	0376	0476	2076	3076	4076	T242A125K050(2)S		
1.2	A	20	T140A125M050AS	0.6	4										
1.5	A	10	T140A155K050AS	0.8	4	0177	0277	0377	0477	2077	3077	4077	T242A155K050(2)S		
1.5	A	20	T140A155M050AS	0.8	4	0178	0278	0378	0478	2078	3078	4078	T242A155M050(2)S		
5.6	B	10	T140B565K050AS	2.5	4	0179	0279	0379	0479	2079	3079	4079	T242B565K050(2)S		
5.6	B	20	T140B565M050AS	2.5	4										
6.8	B	10	T140B685K050AS	2.5	4	0180	0280	0380	0480	2080	3080	4080	T242B685K050(2)S		
6.8	B	20	T140B685M050AS	2.5	4	0181	0281	0381	0481	2081	3081	4081	T242B685M050(2)S		
22.0	C	10	T140C226K050AS	7.0	6	0182	0282	0382	0482	2082	3082	4082	T242C226K050(2)S		
22.0	C	20	T140C226M050AS	7.0	6	0183	0283	0383	0483	2083	3083	4083	T242C226M050(2)S		

Available from 1.2 μ F to 1000 μ F, 6VDC to 50 VDC, these high capacitance-to-volume ratio, hermetically sealed solid tantalum capacitors are offered in standard MIL style A, B, C, and D cases. They meet or exceed the environmental and mechanical requirements of MIL-C-39003. Designed to operate from -55°C to +125°C, they exhibit

exceptionally low DC leakage, dissipation factor and impedance characteristics. They are ideal for coupling, bypass, filtering and timing circuits, and are excellent substitutes for wet tantalums in low voltage applications. They are available in style CSR33 (T252 Series) per MIL-PRF-39003/06.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	UNINSULATED		INSULATED		B ± 0.002 ($\pm .05$)	C MAX.
	D ± 0.005 ($\pm .13$)	L ± 0.031 ($\pm .79$)	D ± 0.010 ($\pm .25$)	L ± 0.031 ($\pm .79$)		
A	0.125 (3.18)	0.250 (6.35)	0.135 (3.43)	0.286 (7.26)	0.020 (.51)	0.422 (10.72)
B	0.175 (4.45)	0.438 (11.13)	0.185 (4.70)	0.474 (12.04)	0.020 (.51)	0.610 (15.49)
C	0.279 (7.09)	0.650 (16.51)	0.289 (7.34)	0.686 (17.42)	0.025 (.64)	0.822 (20.88)
D	0.341 (8.66)	0.750 (19.05)	0.351 (8.92)	0.786 (19.96)	0.025 (.64)	0.922 (23.42)

ORDERING INFORMATION



For Military Marking Information, see page 4.



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003 T252 (CSR33) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T252 SERIES				MIL-PRF-39003 (CSR33) CAPACITORS						KEMET EQUIVALENT MILITARY PART NUMBER	
			D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)									
					MIL-PRF-39003/6C EXPONENTIAL				MIL-PRF-39003/6C GRADED					
					M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
6 VOLT RATING AT 85°C														
10.0	A	10	0.5	6	0001	0101	0201	0301	2001	3001	4001	T252A106K006(1)S	T252A106M006(1)S T252A126K006(1)S	
10.0	A	20	0.5	6	0002	0102	0202	0302	2002	3002	4002			
12.0	A	10	0.5	6	0003	0103	0203	0303	2003	3003	4003			
100.0	B	10	1.0	8	0004	0104	0204	0304	2004	3004	4004	T252B107K006(1)S	T252B107M006(1)S	
100.0	B	20	1.0	8	0005	0105	0205	0305	2005	3005	4005			
330.0	C	10	2.0	8	0006	0106	0206	0306	2006	3006	4006	T252C337K006(1)S	T252C337M006(1)S T252C397K006(1)S T252C477K006(1)S T252C477M006(1)S	
330.0	C	20	2.0	8	0007	0107	0207	0307	2007	3007	4007			
390.0	C	10	2.0	10	0008	0108	0208	0308	2008	3008	4008			
470.0	C	10	2.0	10	0009	0109	0209	0309	2009	3009	4009			
470.0	C	20	2.0	10	0010	0110	0210	0310	2010	3010	4010			
680.0	D	10	5.0	10	0011	0111	0211	0311	2011	3011	4011	T252D687K006(1)S		
680.0	D	20	5.0	10	0012	0112	0212	0312	2012	3012	4012			
820.0	D	10	5.0	10	0013	0113	0213	0313	2013	3013	4013	T252D827K006(1)S	T252D108K006(1)S T252D108M006(1)S	
1000.0	D	10	5.0	10	0014	0114	0214	0314	2014	3014	4014			
1000.0	D	20	5.0	10	0015	0115	0215	0315	2015	3015	4015			
10 VOLT RATING AT 85°C														
6.8	A	10	.5	6	0016	0116	0216	0316	2016	3016	4016	T252A685K010(1)S	T252A685M010(1)S T252A825K010(1)S	
6.8	A	20	.5	6	0017	0117	0217	0317	2017	3017	4017			
8.2	A	10	.5	6	0018	0118	0218	0318	2018	3018	4018			
47.0	B	10	1.0	6	0019	0119	0219	0319	2019	3019	4019	T252B476K010(1)S	T252B476M010(1)S T252B566K010(1)S T252B686K010(1)S T252B686M010(1)S T252B826K010(1)S	
47.0	B	20	1.0	6	0020	0120	0220	0320	2020	3020	4020			
56.0	B	10	1.0	6	0021	0121	0221	0321	2021	3021	4021			
68.0	B	10	1.0	6	0022	0122	0222	0322	2022	3022	4022			
68.0	B	20	1.0	6	0023	0123	0223	0323	2023	3023	4023			
82.0	B	10	1.0	6	0024	0124	0224	0324	2024	3024	4024			
220.0	C	10	1.0	8	0025	0125	0225	0325	2025	3025	4025	T252C227K010(1)S	T252C227M010(1)S T252C277K010(1)S	
220.0	C	20	1.0	8	0026	0126	0226	0326	2026	3026	4026			
270.0	C	10	2.0	8	0027	0127	0227	0327	2027	3027	4027			
390.0	D	10	2.0	10	0028	0128	0228	0328	2028	3028	4028	T252D397K010(1)S	T252D477K010(1)S T252D477M010(1)S T252D567K010(1)S	
470.0	D	10	4.0	10	0029	0129	0229	0329	2029	3029	4029			
470.0	D	20	4.0	10	0030	0130	0230	0330	2030	3030	4030			
560.0	D	10	4.0	10	0031	0131	0231	0331	2031	3031	4031			
15 VOLT RATING AT 85°C														
4.7	A	10	.5	4	0032	0132	0232	0332	2032	3032	4032	T252A475K015(1)S	T252A475M015(1)S T252A565K015(1)S	
4.7	A	20	.5	4	0033	0133	0233	0333	2033	3033				

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T252 SERIES				MIL-PRF-39003 (CSR33) CAPACITORS						
			D.C. LEAKAGE μA@25°C MAX.	MAX. DISSIPATION FACTOR %@25°C, 120Hz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)							KEMET EQUIVALENT MILITARY PART NUMBER	
					MIL-PRF-39003/6C EXPONENTIAL				MIL-PRF-39003/6C GRADED				
					M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)		
20 VOLT RATING AT 85°C													
2.7	A	10	.5	4	0046	0146	0246	0346	2046	3046	4046	T252A275K020(1)S	
3.3	A	10	.5	4	0047	0147	0247	0347	2047	3047	4047	T252A335K020(1)S	
3.3	A	20	.5	4	0048	0148	0248	0348	2048	3048	4048	T252A335M020(1)S	
3.9	A	10	.5	4	0049	0149	0249	0349	2049	3049	4049	T252A395K020(1)S	
18.0	B	10	1.0	6	0050	0150	0250	0350	2050	3050	4050	T252B186K020(1)S	
22.0	B	10	1.0	6	0051	0151	0251	0351	2051	3051	4051	T252B226K020(1)S	
22.0	B	20	1.0	6	0052	0152	0252	0352	2052	3052	4052	T252B226M020(1)S	
27.0	B	10	1.0	6	0053	0153	0253	0353	2053	3053	4053	T252B276K020(1)S	
56.0	C	10	1.0	6	0054	0154	0254	0354	2054	3054	4054	T252C566K020(1)S	
68.0	C	10	1.0	6	0055	0155	0255	0355	2055	3055	4055	T252C686K020(1)S	
68.0	C	20	1.0	6	0056	0156	0256	0356	2056	3056	4056	T252C686M020(1)S	
82.0	C	10	1.0	6	0057	0157	0257	0357	2057	3057	4057	T252C826K020(1)S	
100.0	C	10	1.0	6	0058	0158	0258	0358	2058	3058	4058	T252C107K020(1)S	
100.0	C	20	1.0	6	0059	0159	0259	0359	2059	3059	4059	T252C107M020(1)S	
120.0	C	10	1.0	6	0060	0160	0260	0360	2060	3060	4060	T252C127K020(1)S	
150.0	D	10	2.0	8	0061	0161	0261	0361	2061	3061	4061	T252D157K020(1)S	
150.0	D	20	2.0	8	0062	0162	0262	0362	2062	3062	4062	T252D157M020(1)S	
180.0	D	10	2.0	8	0063	0163	0263	0363	2063	3063	4063	T252D187K020(1)S	
35 VOLT RATING AT 85°C													
1.8	A	10	.5	4	0064	0164	0264	0364	2064	3064	4064	T252A185K035(1)S	
8.2	B	10	1.0	6	0065	0165	0265	0365	2065	3065	4065	T252B825K035(1)S	
10.0	B	10	1.0	6	0066	0166	0266	0366	2066	3066	4066	T252B106K035(1)S	
10.0	B	20	1.0	6	0067	0167	0267	0367	2067	3067	4067	T252B106M035(1)S	
33.0	C	10	1.0	6	0068	0168	0268	0368	2068	3068	4068	T252C336K035(1)S	
33.0	C	20	1.0	6	0069	0169	0269	0369	2069	3069	4069	T252C336M035(1)S	
39.0	C	10	1.0	6	0070	0170	0270	0370	2070	3070	4070	T252C396K035(1)S	
47.0	C	10	1.0	6	0071	0171	0271	0371	2071	3071	4071	T252C476K035(1)S	
47.0	C	20	1.0	6	0072	0172	0272	0372	2072	3072	4072	T252C476M035(1)S	
56.0	D	10	2.0	6	0073	0173	0273	0373	2073	3073	4073	T252D566K035(1)S	
68.0	D	10	2.0	6	0074	0174	0274	0374	2074	3074	4074	T252D686K035(1)S	
68.0	D	20	2.0	6	0075	0175	0275	0375	2075	3075	4075	T252D686M035(1)S	
50 VOLT RATING AT 85°C													
1.2	A	10	.5	4	0076	0176	0276	0376	2076	3076	4076	T252A125K050(1)S	
1.5	A	10	.5	4	0077	0177	0277	0377	2077	3077	4077	T252A155K050(1)S	
1.5	A	20	.5	4	0078	0178	0278	0378	2078	3078	4078	T252A155M050(1)S	
5.6	B	10	1.0	4	0079	0179	0279	0379	2079	3079	4079	T252B565K050(1)S	
6.8	B	10	1.0	6	0080	0180	0280	0380	2080	3080	4080	T252B685K050(1)S	
6.8	B	20	1.0	6	0081	0181	0281	0381	2081	3081	4081	T252B685M050(1)S	
22.0	C	10	1.0	6	0082	0182	0282</						

KEMET's T262 (CSR21) per MIL-C-39003/09 hermetically sealed solid tantalum capacitors are similar to KEMET's popular T212 (CSR13 per MIL-PRF-39003/01) capacitors shown on page 6, but offer higher ripple current handling capability and exhibit exceptionally low Equivalent Series Resistance (ESR).

The T262 Series is ideal for filtering applications and in military power supplies where low ESR is essential. T262s are 100% surge current tested and their dissipation factor is screened at 1kHz. Available in C & D case sizes only, 5.6 to 330 μ F, 6 to 50 VDC.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	UNINSULATED		INSULATED		B ± 0.002 ($\pm .05$)	C MAX.
	D ± 0.005 ($\pm .13$)	L ± 0.031 ($\pm .79$)	D ± 0.010 ($\pm .25$)	L ± 0.031 ($\pm .79$)		
C	0.279 (7.09)	0.650 (16.51)	0.289 (7.34)	0.686 (17.42)	0.025 (.64)	0.822 (20.88)
D	0.341 (8.66)	0.750 (19.05)	0.351 (8.92)	0.786 (19.96)	0.025 (.64)	0.922 (23.42)

ORDERING INFORMATION



For Military Marking Information, see page 4.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T262 SERIES				MIL-PRF-39003/09 (CSR21) CAPACITORS									
			D.C. LEAKAGE μA@25°C MAX.	MAX. DISSI- PATION FACTOR %@25°C, 1 kHz	MAX. ESR Ω@25°C, 100 kHz	MAX. RIPPLE CURRENT Arms@25°C 40 kHz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)								KEMET EQUIVALENT MILITARY PART NUMBER	
							MIL-PRF-39003/9D EXPONENTIAL				MIL-PRF-39003/9D GRADED					
							M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)			
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C																
150.0	C	5	4.5	10	.065	3.3	0001	0101	0201	0301	2001	3001	4001	T262C157J006(1)S		
150.0	C	10	4.5	10	.065	3.3	0002	0102	0202	0302	2002	3002	4002	T262C157K006(1)S		
150.0	C	20	4.5	10	.065	3.3	0003	0103	0203	0303	2003	3003	4003	T262C157M006(1)S		
180.0	C	5	5.5	10	.060	3.4	0004	0104	0204	0304	2004	3004	4004	T262C187J006(1)S		
180.0	C	10	5.5	10	.060	3.4	0005	0105	0205	0305	2005	3005	4005	T262C187K006(1)S		
270.0	D	5	6.5	10	.050	4.1	0006	0106	0206	0306	2006	3006	4006	T262D277J006(1)S		
270.0	D	10	6.5	10	.050	4.1	0007	0107	0207	0307	2007	3007	4007	T262D277K006(1)S		
330.0	D	5	7.5	12	.045	4.3	0008	0108	0208	0308	2008	3008	4008	T262D337J006(1)S		
330.0	D	10	7.5	12	.045	4.3	0009	0109	0209	0309	2009	3009	4009	T262D337K006(1)S		
330.0	D	20	7.5	12	.045	4.3	0010	0110	0210	0310	2010	3010	4010	T262D337M006(1)S		
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C																
82.0	C	5	4.0	8	.085	2.9	0011	0111	0211	0311	2011	3011	4011	T262C826J010(1)S		
82.0	C	10	4.0	8	.085	2.9	0012	0112	0212	0312	2012	3012	4012	T262C826K010(1)S		
100.0	C	5	5.0	8	.075	3.0	0013	0113	0213	0313	2013	3013	4013	T262C107J010(1)S		
100.0	C	10	5.0	8	.075	3.0	0014	0114	0214	0314	2014	3014	4014	T262C107K010(1)S		
100.0	C	20	5.0	8	.075	3.0	0015	0115	0215	0315	2015	3015	4015	T262C107M010(1)S		
120.0	C	5	6.0	8	.070	3.2	0016	0116	0216	0316	2016	3016	4016	T262C127J010(1)S		
120.0	C	10	6.0	8	.070	3.2	0017	0117	0217	0317	2017	3017	4017	T262C127K010(1)S		
180.0	D	5	9.0	8	.060	3.7	0018	0118	0218	0318	2018	3018	4018	T262D187J010(1)S		
180.0	D	10	9.0	8	.060	3.7	0019	0119	0219	0319	2019	3019	4019	T262D187K010(1)S		
220.0	D	5	10.0	10	.055	3.9	0020	0120	0220	0320	2020	3020	4020	T262D227J010(1)S		
220.0	D	10	10.0	10	.055	3.9	0021	0121	0221	0321	2021	3021	4021	T262D227K010(1)S		
220.0	D	20	10.0	10	.055	3.9	0022	0122	0222	0322	2022	3022	4022	T262D227M010(1)S		
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C																
56.0	C	5	4.0	6	.100	2.6	0023	0123	0223	0323	2023	3023	4023	T262C566J015(1)S		
56.0	C	10	4.0	6	.100	2.6	0024	0124	0224	0324	2024	3024	4024	T262C566K015(1)S		
68.0	C	5	5.0	6	.095	2.7	0025	0125	0225	0325	2025	3025	4025	T262C686J015(1)S		
68.0	C	10	5.0	6	.095	2.7	0026	0126	0226	0326	2026	3026	4026	T262C686K015(1)S		
68.0	C	20	5.0	6	.095	2.7	0027	0127	0227	0327	2027	3027	4027	T262C686M015(1)S		
120.0	D	5	9.0	8	.070	3.5	0028	0128	0228	0328	2028	3028	4028	T262D127J015(1)S		
120.0	D	10	9.0	8	.070	3.5	0029	0129	0229	0329	2029	3029	4029	T262D127K015(1)S		
150.0	D	5	10.0	8	.065	3.6	0030	0130	0230	0330	2030	3030	4030	T262D157J015(1)S		
15																



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003 T262 (CSR21) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T262 SERIES				MIL-PRF-39003/09 (CSR21) CAPACITORS								
			D.C. LEAKAGE μA@25°C MAX.	MAX. DISSI- PATION FACTOR %@25°C, 1 kHz	MAX. ESR Ω@25°C, 100 kHz	MAX. RIPPLE CURRENT Arms@25°C 40 kHz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS.)							KEMET EQUIVALENT MILITARY PART NUMBER	
							MIL-PRF-39003/9D EXPONENTIAL				MIL-PRF-39003/9D GRADED				
							M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)		
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C															
22.0	C	5	4.0	4	.160	2.1	0053	0153	0253	0353	2053	3053	4053	T262C226J035(1)S	
22.0	C	10	4.0	4	.160	2.1	0054	0154	0254	0354	2054	3054	4054	T262C226K035(1)S	
22.0	C	20	4.0	4	.160	2.1	0055	0155	0255	0355	2055	3055	4055	T262C226M035(1)S	
27.0	D	5	4.5	4	.145	2.4	0056	0156	0256	0356	2056	3056	4056	T262D276J035(1)S	
27.0	D	10	4.5	4	.145	2.4	0057	0157	0257	0357	2057	3057	4057	T262D276K035(1)S	
33.0	D	5	5.5	5	.130	2.5	0058	0158	0258	0358	2058	3058	4058	T262D336J035(1)S	
33.0	D	10	5.5	5	.130	2.5	0059	0159	0259	0359	2059	3059	4059	T262D336K035(1)S	
33.0	D	20	5.5	5	.130	2.5	0060	0160	0260	0360	2060	3060	4060	T262D336M035(1)S	
39.0	D	5	7.0	5	.120	2.6	0061	0161	0261	0361	2061	3061	4061	T262D396J035(1)S	
39.0	D	10	7.0	5	.120	2.6	0062	0162	0262	0362	2062	3062	4062	T262D396K035(1)S	
47.0	D	5	8.0	5	.110	2.7	0063	0163	0263	0363	2063	3063	4063	T262D476J035(1)S	
47.0	D	10	8.0	5	.110	2.7	0064	0164	0264	0364	2064	3064	4064	T262D476K035(1)S	
47.0	D	20	8.0	5	.110	2.7	0065	0165	0265	0365	2065	3065	4065	T262D476M035(1)S	
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C															
5.6	C	5	2.2	3	.300	1.5	0066	0166	0266	0366	2066	3066	4066	T262C565J050(1)S	
5.6	C	10	2.2	3	.300	1.5	0067	0167	0267	0367	2067	3067	4067	T262C565K050(1)S	
6.8	C	5	2.2	3	.275	1.6	0068	0168	0268	0368	2068	3068	4068	T262C685J050(1)S	
6.8	C	10	2.2	3	.275	1.6	0069	0169	0269	0369	2069	3069	4069	T262C685K050(1)S	
6.8	C	20	2.2	3	.275	1.6	0070	0170	0270	0370	2070	3070	4070	T262C685M050(1)S	
8.2	C	5	2.5	3	.250	1.6	0071	0171	0271	0371	2071	3071	4071	T262C825J050(1)S	
8.2	C	10	2.5	3	.250	1.6	0072	0172	0272	0372	2072	3072	4072	T262C825K050(1)S	
10.0	C	5	2.5	3	.230	1.7	0073	0173	0273	0373	2073	3073	4073	T262C106J050(1)S	
10.0	C	10	2.5	3	.230	1.7	0074	0174	0274	0374	2074	3074	4074	T262C106K050(1)S	
10.0	C	20	2.5	3	.230	1.7	0075	0175	0275	0375	2075	3075	4075	T262C106M050(1)S	
12.0	C	5	3.0	3	.210	1.8	0076	0176	0276	0376	2076	3076	4076	T262C126J050(1)S	
12.0	C	10	3.0	3	.210	1.8	0077	0177	0277	0377	2077	3077	4077	T262C126K050(1)S	
15.0	C	5	4.0	3	.190	1.9	0078	0178	0278	0378	2078	3078	4078	T262C156J050(1)S	
15.0	C	10	4.0	3	.190	1.9	0079	0179	0279	0379	2079	3079	4079	T262C156K050(1)S	
15.0	C	20	4.0	3	.190	1.9	0080	0180	0280	0380	2080	3080	4080	T262C156M050(1)S	
18.0	C	5	4.5	4	.175	2.0	0081	0181	0281	0381	2081	3081	4081	T262C186J050(1)S	
18.0	C	10	4.5	4	.175	2.0	0082	0182	0282	0382	2082	3082	4082	T262C186K050(1)S	
22.0	D	5	5.5	4	.160	2.3	0083	0183	0283	0383	2083	3083	4083	T262D226J050(1)S	
22.0	D	10	5.5	4	.160	2.3	0084	0184	0284	0384	2084	3084	4084	T262D226K050(1)S	
22.0	D	20	5.5												

TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003 T216 (CSS13) & T256 (CSS33) SERIES



T216 and T256 are KEMET's new designation for MIL-Style CSS13 and CSS33 capacitors. The T216/T256 Series is qualified to all failure rates per MIL-PRF-39003/10. Products meeting this specification have passed rigorous test requirements and are used in space applications or other equally demanding environments.

These capacitors provide circuit designers an excellent choice for blocking, bypass, decoupling, filtering and timing applications.

The T216 is available in capacitance ratings from .15 μ F to 330 μ F; voltage ratings from 6 VDC to 75 VDC. The T256 is available in capacitance ratings from 1.2 μ F to 1000 μ F with voltage ratings of 6 VDC to 50 VDC.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	UNINSULATED		INSULATED		B ± 0.002 ($\pm .05$)	C MAX.
	D ± 0.005 ($\pm .13$)	L ± 0.031 ($\pm .79$)	D ± 0.010 ($\pm .25$)	L ± 0.031 ($\pm .79$)		
A	0.125 (3.18)	0.250 (6.35)	0.135 (3.43)	0.286 (7.26)	0.020 (.51)	0.422 (10.72)
B	0.175 (4.45)	0.438 (11.13)	0.185 (4.70)	0.474 (12.04)	0.020 (.51)	0.610 (15.49)
C	0.279 (7.09)	0.650 (16.51)	0.289 (7.34)	0.686 (17.42)	0.025 (.64)	0.822 (20.88)
D	0.341 (8.66)	0.750 (19.05)	0.351 (8.92)	0.786 (19.96)	0.025 (.64)	0.922 (23.42)

ORDERING INFORMATION



*Part Number Example: T216A105K050CS (14 digits – no spaces)

T216/T256 Series Tantalum
Hermetically Sealed



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003 T216 (CSS13) & T256 (CSS33) SERIES

MIL-PRF-39003/10 ORDERING INFORMATION

M39003/10 — 3078S

Military Specification
Document Number

S — designates sleeved
U — designates unsleeved

Slash Sheet Number

MIL dash number signifies
capacitance, voltage and failure
rate (see ratings and part number
tables).

MARKING INFORMATION

A CASE

39003	Military specification number
10 - K	Specification sheet number and trademark
3078S	Military dash number and "S" for sleeved
+J310	Polarity, "J" for JAN date code (1st digit indicates year and the next two digits indicate the week)
XYA	Lot, unique lot code

C & D CASE

M39003	Military specification number
10-2049SJ	Specification sheet number, military dash number and "J" for Jan.
+6.8 μ F	Positive terminal identifier and capacitance value
10% 35V	Capacitance tolerance and voltage rating
31433	Source code
0310 NAB K	Date code, lot code, unique lot code, and trademark

B CASE

M39003	Military specification number
10 -	Specification sheet number
3082SJ	Military dash number and "J" for JAN
31433	Source code
+310	Polarity, date code (1st digit indicates year and the next two digits indicate the week)
NABK	Lot code, unique lot code and trademark.

NOTE: Marking will include S or U after the MIL dash number, a third letter following lot symbol or lot code designates a unique lot identifier, and a black band on negative end of case.

■ Black band on negative end.

T216/(CSS13) RATINGS & PART NUMBER REFERENCE

CAPACITANCE μ F	CASE SIZE	KEMET EQUIVALENT PART NUMBER FOR CSS13 CAPACITORS	KEMET T216						MIL-PRF-39003 (CSS13) CAPACITORS	
			DC LEAKAGE			MAX. DISSIPATION FACTOR		MAX. ESR Ω @ 25°C 100kHz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS)	
			μ A @ +25° MAX.	μ A @ +85° MAX.	μ A @ +125° MAX.	% @ -55°C +25°C MAX.	% @ -85°C +125°C MAX.		B (0.1)	C (0.01)
6 VOLT RATING AT 85°C										
5.6	A	T216A565K006CS	.3	6.0	7.5	4	4	.90		3001(1)
6.8	A	T216A685K006CS	.3	6.0	7.5	6	6	.80		3002(1)
47.0	B	T216B476K006CS	1.5	24.0	30.0	6	6	.24		3003(1)
56.0	B	T216B566K006CS	1.5	24.0	30.0	6	6	.24		3004(1)
150.0	C	T216C157K006CS	4.5	90.0	113.0	8	8	.09		3005(1)
180.0	C	T216C187K006CS	5.5	110.0	138.0	8	8	.08		3006(1)
270.0	D	T216D277K006CS	6.5	130.0	163.0	8	8	.07		3007(1)
330.0	D	T216D337K006CS	7.5	150.0	188.0	8	8	.06		3008(1)
10 VOLT RATING AT 85°C										
3.9	A	T216A395K010CS	.3	6.0	7.5	4	4	1.00		3009(1)
4.7	A	T216A475K010CS	.4	7.0	8.8	4	4	.90		3010(1)
27.0	B	T216B276K010CS	2.0	40.0	50.0	6	6	.25		3011(1)
33.0	B	T216B336K010CS	2.5	50.0	63.0	6	6	.24		3012(1)
39.0	B	T216B396K010CS	2.5	50.0	63.0	6	6	.24		3013(1)
82.0	C	T216C826K010CS	4.0	80.0	100.0	6	6	.12		3014(1)
100.0	C	T216C107K010CS	5.0	100.0	125.0	8	8	.11		3015(1)
120.0	C	T216C127K010CS	6.0	120.0	150.0	8	8	.10		3016(1)
180.0	D	T216D187K010CS	9.0	180.0	226.0	8	8	.08		3017(1)
220.0	D	T216D227K010CS	10.0	200.0	250.0	8	8	.07		3018(1)

(1) To complete, insert S for sleeved or U for unsleeved, if "U" ordered also use C-0100.

RATINGS & PART NUMBER REFERENCE T216/(CSS13) (Cont'd)

CAPACITANCE μF	CASE SIZE	KEMET EQUIVALENT PART NUMBER FOR CSS13 CAPACITORS	KEMET T216						MIL-PRF-39003 (CSS13) CAPACITORS	
			DC LEAKAGE			MAX. DISSIPATION FACTOR		MAX. ESR Ω @ 25°C 100kHz	DASH NUMBER REFERENCE	
			μA @ +25° MAX.	μA @ +85° MAX.	μA @ +125° MAX.	% @ -55°C +25°C MAX.	% @ -85°C +125°C MAX.		FAILURE RATE LEVEL (%/1000 HRS)	MIL-PRF-39003/10 GRADED
									B (0.1)	C (0.01)
15 VOLT RATING AT 85°C										
2.7	A	T216A275K015CS	.3	6.0	7.5	4	4	1.20		3019(1)
3.3	A	T216A335K015CS	.4	8.0	10.0	4	4	1.00		3020(1)
18.0	B	T216B186K015CS	2.0	35.0	44.0	6	6	.27		3021(1)
22.0	B	T216B226K015CS	2.0	40.0	50.0	6	6	.26		3022(1)
56.0	C	T216C566K015CS	4.0	80.0	100.0	6	6	.15		3023(1)
68.0	C	T216C686K015CS	5.0	100.0	125.0	6	6	.13		3024(1)
120.0	D	T216D127K015CS	9.0	180.0	226.0	8	8	.09		3025(1)
150.0	D	T216D157K015CS	10.0	220.0	250.0	8	8	.09		3026(1)
20 VOLT RATING AT 85°C										
1.2	A	T216A125K020CS	.3	6.0	7.5	4	4	1.40		3027(1)
1.5	A	T216A155K020CS	.3	6.0	7.5	4	4	1.30		3028(1)
1.8	A	T216A185K020CS	.3	6.0	7.5	4	4	1.25		3029(1)
2.2	A	T216A225K020CS	.4	8.0	10.0	4	4	1.20		3030(1)
8.2	B	T216B825K020CS	1.0	20.0	25.0	6	6	.39		3031(1)
10.0	B	T216B106K020CS	1.5	30.0	38.0	6	6	.35		3032(1)
12.0	B	T216B126K020CS	1.8	35.0	44.0	6	6	.32		3033(1)
15.0	B	T216B156K020CS	2.0	40.0	50.0	6	6	.29		3034(1)
27.0	C	T216C276K020CS	2.5	50.0	63.0	6	6	.21		3035(1)
33.0	C	T216C336K020CS	3.5	70.0	88.0	6	6	.19		3036(1)
39.0	C	T216C396K020CS	4.0	80.0	100.0	6	6	.17		3037(1)
47.0	C	T216C476K020CS	4.5	90.0	113.0	6	6	.16		3038(1)
56.0	D	T216D566K020BS	5.5	110.0	138.0	6	6	.13	2039(1)	
68.0	D	T216D686K020BS	7.0	140.0	175.0	6	6	.12	2040(1)	
82.0	D	T216D826K020BS	8.0	160.0	200.0	6	6	.11	2041(1)	
100.0	D	T216D107K020BS	10.0	200.0	250.0	8	8	.10	2042(1)	
35 VOLT RATING AT 85°C										
5.6	B	T216B565K035BS	1.3	25.0	32.0	4	4	.47	2043(1)	
6.8	B	T216B685K035BS	1.5	30.0	38.0	6	6	.43	2044(1)	
22.0	C	T216C226K035BS	4.0	40.0	100.0	6	6	.25	2045(1)	
27.0	D	T216D276K035BS	4.5	90.0	113.0	6	6	.18	2046(1)	
33.0	D	T216D336K035BS	5.5	110.0	138.0	6	6	.17	2047(1)	
39.0	D	T216D396K035BS	7.0	140.0	175.0	6	6	.15	2048(1)	
47.0	D	T216D476K035BS	8.0	160.0	200.0	6	6	.14	2049(1)	
50 VOLT RATING AT 85°C										
.12	A	T216A124K050CS	.3	5.0	6.3	2	4	6.50		3067(1)
.15	A	T216A154K050CS	.3	5.0	6.3	2	4	5.50		3068(1)
.18	A	T216A184K050CS	.3	5.0	6.3	2	4	5.00		3069(1)
.22	A	T216A224K050CS	.3	5.0	6.3	2	4	4.00		3070(1)
.27	A	T216A274K050CS	.3	5.0	6.3	2	4	3.50		3071(1)
.33	A	T216A334K050CS	.3	5.0	6.3	2	4	3.30		3072(1)
.39	A	T216A394K050CS	.3	5.0	6.3	2	4	3.20		3073(1)
.47	A	T216A474K050CS	.3	5.0	6.3	2	4	3.00		3074(1)
.56	A	T216A564K050CS	.3	5.0	6.3	2	4	2.50		3075(1)
.68	A	T216A684K050CS	.3	5.0	6.3	2	4	1.80		3076(1)
.82	A	T216A824K050CS	.3	5.0	6.3	2	4	1.60		3077(1)
1.0	A	T216A105K050CS	.4	8.0	10.0	2	4	1.40		3078(1)
1.2	B	T216B125K050CS	.4	9.0	11.0	4	4	1.20		3079(1)
1.5	B	T216B155K050CS	.6	12.0	15.0	4	4	1.10		3080(1)
1.8	B	T216B185K050CS	.7	14.0	18.0	4	4	.92		3081(1)
2.2	B	T216B225K050CS	.8	17.0	22.0	4	4	.80		3082(1)
2.7	B									



TANTALUM HERMETICALLY SEALED / AXIAL — MIL-PRF-39003 T216 (CSS13) & T256 (CSS33) SERIES

RATINGS & PART NUMBER REFERENCE T216/(CSS13) (Cont'd)

CAPACITANCE μF	CASE SIZE	KEMET EQUIVALENT PART NUMBER FOR CSS13 CAPACITORS	KEMET T216 SERIES						MIL-PRF-39003 (CSS13) CAPACITORS	
			DC LEAKAGE			MAX. DISSIPATION FACTOR		MAX. ESR Ω @ 25°C 100kHz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS) MIL-PRF-39003/10 GRADED	
			μA @ +25° MAX.	μA @ +85° MAX.	μA @ +125° MAX.	% @ -55°C +25°C MAX.	% @ -85°C +125°C MAX.		B (0.1)	C (0.01)
75 VOLT RATING AT 85°C										
.15	A	T216A154K075CS	.3	5.0	6.3	2	4	4.4		3097(1)
.18	A	T216A184K075CS	.3	5.0	6.3	2	4	4.0		3098(1)
.22	A	T216A224K075CS	.3	5.0	6.3	2	4	3.5		3099(1)
.27	A	T216A274K075CS	.3	5.0	6.3	2	4	3.1		3100(1)
.33	A	T216A334K075CS	.3	5.0	6.3	2	4	2.8		3101(1)
.39	A	T216A394K075CS	.3	5.0	6.3	2	4	2.6		3102(1)
.47	A	T216A474K075CS	.3	5.0	6.3	2	4	2.4		3103(1)
.56	A	T216A564K075CS	.3	5.0	6.3	2	4	2.25		3104(1)
.68	A	T216A684K075CS	.3	5.0	6.3	2	4	2.10		3105(1)
.82	B	T216B824K075CS	.3	5.0	6.3	2	4	1.47		3106(1)
1.0	B	T216B105K075CS	.4	5.0	6.3	2	4	1.40		3107(1)
1.2	B	T216B125K075CS	.4	5.0	6.3	4	4	1.33		3108(1)
1.5	B	T216B155K075CS	.6	10.0	13.0	4	4	1.06		3109(1)
1.8	B	T216B185K075CS	.7	10.0	13.0	4	4	.92		3110(1)
2.2	B	T216B225K075CS	.8	15.0	19.0	4	4	.80		3111(1)
2.7	B	T216B275K075BS	1.0	15.0	19.0	4	4	.68	2112(1)	
3.3	B	T216B335K075BS	1.2	20.0	25.0	4	4	.62	2113(1)	
3.9	B	T216B395K075BS	1.5	20.0	25.0	4	4	.56	2114(1)	
4.7	C	T216C475K075BS	3.0	60.0	75.0	4	4	.47	2115(1)	
5.6	C	T216C565K075BS	3.0	60.0	75.0	4	4	.44	2116(1)	
6.8	C	T216C685K075BS	5.0	100.0	125.0	6	6	.44	2117(1)	
8.2	C	T216C825K075BS	5.0	100.0	125.0	6	6	.36	2118(1)	
10.0	C	T216C106K075BS	5.0	100.0	125.0	6	6	.33	2119(1)	
12.0	D	T216D126K075BS	5.0	100.0	125.0	6	6	.26	2120(1)	
15.0	D	T216D156K075BS	7.0	140.0	175.0	6	6	.23	2121(1)	

T256/(CSS33) RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET EQUIVALENT PART NUMBER FOR CSS33 CAPACITORS	KEMET T256 SERIES						MIL-PRF-39003 (CSS33) CAPACITORS	
			DC LEAKAGE			MAX. DISSIPATION FACTOR		MAX. ESR Ω @ 25°C 100kHz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS) MIL-PRF-39003/10 GRADED	
			μA @ +25° MAX.	μA @ +85° MAX.	μA @ +125° MAX.	% @ -55°C +25°C MAX.	% @ -85°C +125°C MAX.		B (0.1)	C (0.01)
6 VOLT RATING AT 85°C										
10.0	A	T256A106K006CS	.5	2.0	2.0	6	6	.70		3500(1)
12.0	A	T256A126K006CS	.5	2.0	2.0	6	6	.60		3501(1)
100.0	B	T256B107K006CS	1.0	3.0	3.0	8	8	.20		3502(1)
330.0	C	T256C337K006BS	2.0	8.0	8.0	8	8	.065	2503(1)	
390.0	C	T256C397K006BS	2.0	8.0	8.0	10	10	.065	2504(1)	
470.0	C	T256C477K006BS	2.0	8.0	8.0	10	10	.060	2505(1)	
680.0	D	T256D687K006CS	5.0	10.0	10.0	10	10	.060		3506(1)
820.0	D	T256D827K006CS	5.0	10.0	10.0	10	10	.055		3507(1)
1000.0	D	T256D108K006CS	5.0	10.0	10.0	10	10	.050		3508(1)
10 VOLT RATING AT 85°C										
6.8	A	T256A685K010CS	.5	2.0	2.0	6	6	.80		3509(1)
8.2	A	T256A825K010CS	.5	2.0	2.0	6	6	.70		3510(1)
47.0	B	T256B476K010CS	1.0	2.0	2.0	6	6	.22		3511(1)
56.0	B	T256B566K010CS	1.0	4.0	4.0	6	6	.20		3512(1)
68.0	B	T256B686K010CS	1.0	4.0	4.0	6	6	.18		3513(1)
82.0	B	T256B826K010CS	1.0	4.0	4.0	6	6	.15		3514(1)
220.0	C	T256C227K010BS	1.0	7.0	7.0	8	8	.090	2515(1)	
270.0	C	T256C277K010BS	2.0	10.0	10.0	8	8	.075	2516(1)	
390.0	D	T256D397K010CS	2.0	16.0	16.0	10	10	.070		3517(1)

RATINGS AND PART NUMBER REFERENCE T256/(CSS33) (Cont'd)

CAPACITANCE μF	CASE SIZE	KEMET EQUIVALENT PART NUMBER FOR CSS33 CAPACITORS	KEMET T256 SERIES						MIL-PRF-39003 (CSS33) CAPACITORS	
			DC LEAKAGE			MAX. DISSIPATION FACTOR		MAX. ESR Ω @ 25°C 100kHz	DASH NUMBER REFERENCE FAILURE RATE LEVEL (%/1000 HRS) MIL-PRF-39003/10 GRADED	
			μA @ +25° MAX.	μA @ +85° MAX.	μA @ +125° MAX.	% @ -55°C +25°C MAX.	% @ -85°C +125°C MAX.		B (0.1)	C (0.01)
15 VOLT RATING AT 85°C										
4.7	A	T256A475K015CS	.5	2.0	2.0	4	4	.90		3520(1)
5.6	A	T256A565K015CS	.5	2.0	2.0	4	4	.80		3521(1)
33.0	B	T256B336K015CS	1.0	2.0	2.0	6	6	.24		3522(1)
39.0	B	T256B396K015CS	1.0	2.0	2.0	6	6	.22		3523(1)
150.0	C	T256C157K015BS	1.0	7.0	7.0	8	8	.10	2524(1)	
180.0	C	T256C187K015BS	2.0	10.0	10.0	8	8	.09	2525(1)	
220.0	D	T256D227K015BS	2.0	10.0	10.0	8	8	.07	2526(1)	
270.0	D	T256D277K015BS	2.0	16.0	16.0	8	8	.065	2527(1)	
330.0	D	T256D337K015BS	2.0	16.0	16.0	8	8	.060	2528(1)	
20 VOLT RATING AT 85°C										
2.7	A	T256A275K020CS	.5	2.0	2.0	4	4	1.15		3529(1)
3.3	A	T256A335K020CS	.5	2.0	2.0	4	4	.95		3530(1)
3.9	A	T256A395K020CS	.5	2.0	2.0	4	4	.90		3531(1)
18.0	B	T256B186K020CS	1.0	2.0	2.0	6	6	.27		3532(1)
22.0	B	T256B226K020BS	1.0	2.0	2.0	6	6	.26	2533(1)	
27.0	B	T256B276K020BS	1.0	2.0	2.0	6	6	.24	2534(1)	
56.0	C	T256C566K020CS	1.0	10.0	10.0	6	6	.15		3535(1)
68.0	C	T256C686K020CS	1.0	10.0	10.0	6	6	.14		3536(1)
82.0	C	T256C826K020BS	1.0	10.0	10.0	6	6	.12	2537(1)	
100.0	C	T256C107K020BS	1.0	10.0	10.0	6	6	.10	2538(1)	
120.0	C	T256C127K020BS	1.0	10.0	10.0	6	6	.09	2539(1)	
150.0	D	T256D157K020BS	2.0	10.0	10.0	8	8	.08	2540(1)	
180.0	D	T256D187K020BS	2.0	10.0	10.0	8	8	.07	2541(1)	
35 VOLT RATING AT 85°C										
1.8	A	T256A185K035BS	.5	2.0	2.0	4	4	.20	2542(1)	
8.2	B	T256B825K035BS	1.0	2.0	2.0	6	6	.40	2543(1)	
10.0	B	T256B106K035BS	1.0	2.0	2.0	6	6	.35	2544(1)	
33.0	C	T256C336K035BS	1.0	5.0	5.0	6	6	.19	2545(1)	
39.0	C	T256C396K035BS	1.0	5.0	5.0	6	6	.17	2546(1)	
47.0	C	T256C476K035BS	1.0	5.0	5.0	6	6	.15	2547(1)	
56.0	D	T256D566K035BS	2.0	10.0	10.0	6	6	.13	2548(1)	
68.0	D	T256D686K035BS	2.0	10.0	10.0	6	6	.12	2549(1)	
50 VOLT RATING AT 85°C										
1.2	A	T256A125K050BS	.5	2.0	2.0	4	4	1.30	2550(1)	
1.5	A	T256A155K050BS	.5	2.0	2.0	4	4	1.20	2551(1)	
5.6	B	T256B565K050BS	1.0	2.0	2.0	4	4	.47	2552(1)	
6.8	B	T256B685K050BS	1.0	2.0	2.0	6	6	.43	2553(1)	
22.0	C	T256C226K050BS	1.0	5.0	5.0	6	6	.22	2554(1)	
27.0	C	T256C276K050BS	1.0	5.0	5.0	6	6	.20	2555(1)	
33.0	D	T256D336K050BS	1.0	9.0	9.0	6	6	.18	2556(1)	
39.0	D	T256D396K050BS	1.0	9.0	9.0	6	6	.16	2557(1)	

(1) To complete, insert S for sleeved or U for unsleeved, if "U" ordered also use C-0100.



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1&5

T322 & T323 (CX01 & CX05) SERIES

The KEMET T322 AND T323 (CX01 & CX05) Series offers a complete line of extended range molded solid tantalum capacitors designed specifically for high speed automatic insertion applications. These capacitors offer an extremely high capacitance-to-volume ratio while still maintaining excellent performance characteristics.

Supplied in six axial lead tubular case sizes, these capacitors are ideally suited for use in printed wiring boards and all applications requiring a high degree of packaging density and can be supplied in bulk packaging or lead-taped on reels.

The T322/T323 Series dimensions and tight lead wire-to-body concentricity permit installation by the same automatic insertion equipment used for diodes and resistors. Available in working voltages of

2, 4, 6, 10, 15, 20, 25, 35, and 50 volts. Operating temperature range -55°C to +85°C at full rated voltage and with $\frac{2}{3}$ 85°C rated voltage at 125°C.

The gold color epoxy utilized permits laser marking with outstanding permanency and legibility.

T323 Series capacitors are qualified under MIL-PRF-49137/1 & 5 as Military Style CX01 & CX05.

Typical applications include decoupling, blocking, bypassing and filtering in commercial computers, data processing, communications, and other electronic equipment. The low ESR/impedance at high frequencies offered by this capacitor is especially suitable for decoupling required by high speed computers.

PERFORMANCE CHARACTERISTICS

- CAPACITANCE/VOLTAGE RANGE:**
0.1-330 μ F, 2-50 Volts.
- CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$, $\pm 10\%$ and $\pm 5\%$ tolerance.
- DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings on pages 44-48. See Application Notes Section, page 76 for additional description.
- DC LEAKAGE CURRENT:** Each corresponding part number table lists maximum leakage current for each capacitor on pages 44 through 48. See Application Notes Section, page 76 for additional description.
- RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, page 76 & 77 for description.
- AC RIPPLE VOLTAGE:** Permissible AC ripple voltage is related to equivalent series resistance (ESR) and power dissipation capability. Maximum power dissipation for each case size is listed in Table below. For additional description see page 79.

Case Size	Power Dissipation (max.) @ 25°C (watts)
A	.060
B	.070
C	.080
D	.090
E	.100
F	.110

Maximum Power Dissipation Capability @ 25°C

- IMPEDANCE and ESR:** See Application Notes Section, pages 77 & 78 for description. Reference ESR values are shown in adjoining column, this page.
- ENVIRONMENTAL CONSIDERATIONS:**
 - Shock Test: MIL-STD-202, Method 213.
 - Thermal Shock, MIL-STD-202, Method 107.
 - Moisture Resistance: MIL-STD-202, Method 106.
 - Solderability: MIL-STD-202, Method 208.

T322 ESR (OHMS) at 100 kHz @ +25°C
(The ESR values provided below are for reference only. No warranty, as stated on page 3 and reincorporated here, is made as to the accuracy of these values for any particular T322 Series product.)

Cap. μ F	6 Volt	10 Volt	15 Volt	20 Volt	25 Volt	35 Volt	50 Volt
0.10						26.0	26.0
0.12						26.0	26.0
0.15						21.0	21.0
0.18						21.0	21.0
0.22						17.0	17.0
0.27						17.0	17.0
0.33						15.0	15.0
0.39						15.0	15.0
0.47					16.0	13.0	13.0
0.56					14.0	13.0	13.0
0.68					12.0	10.0	10.0
0.82					12.0	10.0	10.0
1.00				10.0	10.0	8.0	8.0
1.20				10.0	10.0	8.0	8.0
1.50			10.0	9.0	8.0	6.0	5.0
1.80			10.0	9.0	8.0	6.0	5.0
2.20		13.0	8.0	7.0	6.0	5.0	3.5
2.70		13.0	8.0	7.0	6.0	5.0	3.5
3.30	13.0	10.0	6.0	5.5	5.0	4.0	3.0
3.90	13.0	10.0	6.0	5.5	5.0	4.0	3.0
4.70	10.0	8.0	5.0	4.5	4.0	3.0	2.5
5.60	10.0	8.0	5.0	4.5	4.0	3.0	2.5
6.80	8.0	6.0	4.0	3.6	3.1	2.5	2.0
8.20	8.0	6.0	4.0	3.6	3.1	2.5	2.0
10.0	6.0	5.0	3.2	2.9	2.5	2.0	1.6
12.0	6.0	5.0	3.2	2.9	2.5	2.0	1.6
15.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2
18.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2
22.0	3.7	2.7	2.0	1.8	1.5	1.3	1.0
27.0	3.7	2.7	2.0	1.8	1.5	1.3	1.0
33.0	3.0	2.1	1.6	1.4	1.2	1.0	
39.0	3.0	2.1	1.6	1.4	1.2	1.0	
47.0	2.0	1.7	1.3	1.2	1.0	0.8	
56.0	2.0	1.7	1.3	1.2	1.0		
68.0	1.8	1.3	1.0	0.9	0.8		
82.0	1.8	1.3	1.0	0.9			
100.0	1.6	1.0	0.8	0.6			
120.0	1.6	1.0	0.8				
150.0	0.9	0.8	0.6				
180.0	0.9	0.8					
220.0	0.9	0.6					
270.0	0.9						
330.0	0.7						

For additional Environmental Test Information see pages 80, 81 and 82.

- LEAD MATERIAL:** Solder coated steel core with copper ply per MIL-STD-1276.
- LEAD TAPE and REEL:** Reeling per specification RS-296. See pages 71 and 73 for additional information.

Effective September 30, 2005, the KEMET T322 Series is RoHS compliant.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	D (MAX)	L (MAX)	W
A	.095 (2.41)	.260 (6.6)	.020 (.51)
B	.110 (2.79)	.290 (7.37)	.020 (.51)
C	.180 (4.57)	.345 (8.76)	.020 (.51)
D	.180 (4.57)	.420 (10.67)	.020 (.51)
E	.280 (7.11)	.530 (13.46)	.025 (.64)
F	.300 (7.62)	.710 (18.03)	.025 (.64)

T322 & T323 ORDERING INFORMATION

T	32X	A	474	M	035	A	S	C*
TANTALUM	SERIES	CASE SIZE	CAPACITANCE IN PICO FARADS		VOLTAGE RATING	CAPACITANCE TOLERANCE	LEAD MATERIAL	SPECIFICATION (when necessary)
	Sub-Miniature, Molded, Polar, Solid Tantalum, Insert appropriate number to replace letter "X" — 322 or 323 (CX01, CX05).	A, B, C, D, E, or F	First two digits are significant figures. Third digit is number of zeros following.			*M — ±20% *K — ±10% *J — ±5%	S — Standard T — 100% Tin	— Reeling Per EIA Specification RS-296
								FAILURE RATE LEVEL A — Not Applicable

*Part Number Example: T322A474M035AS (14 digits – no spaces)

* M & K only tolerances available for T323 Series.

MIL-PRF-49137/5 MILITARY ORDERING INFORMATION

CX	05	D	225	K
TYPE	STYLE	VOLTAGE	CAPACITANCE TOLERANCE	CAPACITANCE TOLERANCE
Capacitor, Fixed, Solid Tantalum, Molded, Non-hermetically Sealed	01, 05 (T323) A, B, C, and D			The nominal capacitance value, expressed in picofarads (pF), is identified by a three-digit number; the first two digits represent significant figures and the last digit specifies the number of zeros to follow.

Symbol	Rated (85°C) Volts, DC	Surge (85°C) Volts, DC
D	6	8.0
F	10	13.0
H	15	20.0
J	20	26.0
K	25	32.0
M	35	46.0
N	50	65.0

Symbol	Capacitance Tolerance Percent (±)
K	10
M	20

CAPACITOR MARKING

105M	Capacitance Value (pF), Capacitance Tolerance
+25 K	Polarity, Voltage, KEMET
0324	Date Code (Year, Week)



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
2 VOLT RATING AT 85°C — 1.3 VOLT RATING AT 125°C							
6.8	A	5,10,20	T322A685(1)002AS	0.5	10		
8.2	A	5,10,20	T322A825(1)002AS	0.5	10		
10.0	A	5,10,20	T322A106(1)002AS	0.5	10		
12.0	B	5,10,20	T322B126(1)002AS	0.5	10		
15.0	B	5,10,20	T322B156(1)002AS	0.5	10		
18.0	B	5,10,20	T322B186(1)002AS	0.5	10		
22.0	B	5,10,20	T322B226(1)002AS	0.5	10		
27.0	B	5,10,20	T322B276(1)002AS	0.5	10		
33.0	B	5,10,20	T322B336(1)002AS	0.5	10		
39.0	C	5,10,20	T322C396(1)002AS	0.6	10		
47.0	C	5,10,20	T322C476(1)002AS	0.8	10		
56.0	C	5,10,20	T322C566(1)002AS	0.9	10		
68.0	C	5,10,20	T322C686(1)002AS	1.1	10		
4 VOLT RATING AT 85°C — 2.7 VOLT RATING AT 125°C							
4.7	A	5,10,20	T322A475(1)004AS	0.5	8		
5.6	A	5,10,20	T322A565(1)004AS	0.5	8		
6.8	A	5,10,20	T322A685(1)004AS	0.5	8		
8.2	B	5,10,20	T322B825(1)004AS	0.5	8		
10.0	B	5,10,20	T322B106(1)004AS	0.5	8		
12.0	B	5,10,20	T322B126(1)004AS	0.5	8		
15.0	B	5,10,20	T322B156(1)004AS	0.5	8		
18.0	B	5,10,20	T322B186(1)004AS	0.6	8		
22.0	B	5,10,20	T322B226(1)004AS	0.7	8		
27.0	C	5,10,20	T322C276(1)004AS	0.9	8		
33.0	C	5,10,20	T322C336(1)004AS	1.1	8		
39.0	C	5,10,20	T322C396(1)004AS	1.2	8		
47.0	C	5,10,20	T322C476(1)004AS	1.5	8		
56.0	D	5,10,20	T322D566(1)004AS	1.8	8		
68.0	D	5,10,20	T322D686(1)004AS	2.2	8		
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C							
3.3	A	5,10,20	T322A335(1)006AS	0.5	4		
3.9	A	5,10,20	T322A395(1)006AS	0.5	4		
4.7	A	5	T322A475J006AS	0.5	4		
4.7	A	10	T322A475K006AS	0.5	4	CX05D475K	T323A475K006AS
4.7	A	20	T322A475M006AS	0.5	4	CX05D475M	T323A475M006AS
5.6	B	5	T322B565J006AS	0.5	4		
5.6	B	10	T322B565K006AS	0.5	4	CX01D565K	T323B565K 006AS
5.6	B	20	T322B565M006AS	0.5	4	CX01D565M	T323B565M006AS
6.8	B	5	T322B685J006AS	0.5	6		
6.8	B	10	T322B685K006AS	0.5	6	CX01D685K	T323B685K006AS
6.8	B	20	T322B685M006AS	0.5	6	CX01D685M	T323B685M006AS
8.2	B	5	T322B825J006AS	0.5	6		
8.2	B	10	T322B825K006AS	0.5	6	CX01D825K	T323B825K 006AS
8.2	B	20	T322B825M006AS	0.5	6	CX01D825M	T323B825M006AS
10.0	B	5	T322B106J006AS	0.5	6		
10.0	B	10	T322B106K006AS	0.5	6	CX01D106K	T323B106K006AS
10.0	B	20	T322B106M006AS	0.5	6	CX01D106M	T323B106M006AS
12.0	B	5	T322B126J006AS	0.6	6		
12.0	B	10	T322B126K006AS	0.6	6	CX01D126K	T323B126K 006AS
12.0	B	20	T322B126M006AS	0.6	6	CX01D126M	T323B126M006AS
15.0	B	5	T322B156J006AS	0.7	6		
15.0	B	10	T322B156K006AS	0.7	6	CX05D156K	T323B156K006AS
15.0	B	20	T322B156M006AS	0.7	6	CX05D156M	T323B156M006AS
18.0	C	5,10,20	T322C186(1)006AS	0.9	6		
22.0	C	5,10,20	T322C226(1)006AS	1.1	6		
27.0	C	5,10,20	T322C276(1)006AS	1.3	6		
33.0	C	5	T322C336J006AS	1.5	6		
33.0	C	10	T322C336K006AS	1.5	6	CX05D336K	T323C336K006AS
33.0	C	20	T322C336M006AS	1.5	6	CX05D336M	T323C336M006AS
39.0	D	5,10,20	T322D396(1)006AS	1.9	6		
47.0	D	5	T322D476J006AS	2.3	6		
47.0	D	10	T322D476K006AS	2.3	6	CX05D476K	T323D476K006AS
47.0	D	20	T322D476M006AS	2.3	6	CX05D476M	T323D476M006AS
56.0	D	5,10,20	T322D566(1)006AS	2.7	6		
68.0	D	5,10,20	T322D686(1)006AS	3.3	6		

(1) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: M — ±20%, K — ±10%, J — ±5%

Bold Face lines indicate preferred part types and values.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C (Cont'd)							
82.0	E	5,10,20	T322E826(1)006AS	3.9	8		
100.0	E	5,10,20	T322E107(1)006AS	4.8	8		
120.0	E	5,10,20	T322E127(1)006AS	5.0	8		
150.0	E	5,10,20	T322E157(1)006AS	5.0	8		
180.0	E	5,10,20	T322E187(1)006AS	8.6	8		
220.0	E	5,10,20	T322E227(1)006AS	10.0	8		
270.0	F	5,10,20	T322F277(1)006AS	10.0	8		
330.0	F	5,10,20	T322F337(1)006AS	10.0	8		
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C							
2.2	A	5,10,20	T322A225(1)010AS	0.5	4		
2.7	A	5,10,20	T322A275(1)010AS	0.5	4		
3.3	A	5	T322A335J010AS	0.5	4		
3.3	A	10	T322A335K010AS	0.5	4	CX05F335K	T323A335K010AS
3.3	A	20	T322A335M010AS	0.5	4	CX05F335M	T323A335M010AS
3.9	B	5,10,20	T322B395(1)010AS	0.5	4		
4.7	B	5,10,20	T322B475(1)010AS	0.5	4		
5.6	B	5,10,20	T322B565(1)010AS	0.5	4		
6.8	B	5,10,20	T322B685(1)010AS	0.5	6		
8.2	B	5,10,20	T322B825(1)010AS	0.7	6		
10.0	B	5	T322B106J010AS	0.8	6		
10.0	B	10	T322B106K010AS	0.8	6	CX05F106K	T323B106K010AS
10.0	B	20	T322B106M010AS	0.8	6	CX05F106M	T323B106M010AS
12.0	C	5,10,20	T322C126(1)010AS	1.0	6		
15.0	C	5,10,20	T322C156(1)010AS	1.2	6		
18.0	C	5,10,20	T322C186(1)010AS	1.4	6		
22.0	C	5	T322C226J010AS	1.5	6		
22.0	C	10	T322C226K010AS	1.5	6	CX05F226K	T323C226K010AS
22.0	C	20	T322C226M010AS	1.5	6	CX05F226M	T323C226M010AS
27.0	D	5	T322D276J010AS	2.2	6		
27.0	D	10	T322D276K010AS	2.2	6	CX05F276K	T323D276K010AS
27.0	D	20	T322D276M010AS	2.2	6	CX05F276M	T323D276M010AS
33.0	D	5	T322D336J010AS	2.6	6		
33.0	D	10	T322D336K010AS	2.6	6	CX05F336K	T323D336K010AS
33.0	D	20	T322D336M010AS	2.6	6	CX05F336M	T323D336M010AS
39.0	D	5	T322D396J010AS	3.1	6		
39.0	D	10	T322D396K010AS	3.1	6	CX05F396K	T323D396K010AS
39.0	D	20	T322D396M010AS	3.1	6	CX05F396M	T323D396M010AS
47.0	D	5	T322D476J010AS	3.8	6		
47.0	D	10	T322D476K010AS	3.8	6	CX05F476K	T323D476K010AS
47.0	D	20	T322D476M010AS	3.8	6	CX05F476M	T323D476M010AS
56.0	E	5,10,20	T322E566(1)010AS	4.4	6		
68.0	E	5,10,20	T322E686(1)010AS	5.0	6		
82.0	E	5,10,20	T322E826(1)010AS	5.0	8		
100.0	E	5,10,20	T322E107(1)010AS	8.0	8		
120.0	E	5,10,20	T322E127(1)010AS	9.6	8		
150.0	E	5,10,20	T322E157(1)010AS	10.0	8		
180.0	F	5,10,20	T322F187(1)010AS	10.0	8		
220.0	F	5,10,20	T322F227(1)010AS	10.0	8		
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C							
1.5	A	5,10,20	T322A155(1)015AS	0.5	4		
1.8	A	5,10,20	T322A185(1)015AS	0.5	4		
2.2	A	5	T322A225J015AS	0.5	4		
2.2	A	10	T322A225K015AS	0.5	4	CX05H225K	T323A225K015AS
2.2	A	20	T322A225M015AS	0.5	4	CX05H225M	T323A225M015AS
2.7	B	5,10,20	T322B275(1)015AS	0.5	4		
3.3	B	5,10,20	T322B335(1)015AS	0.5	4		
3.9	B	5,10,20	T322B395(1)015AS	0.5	4		
4.7	B	5,10,20	T322B475(1)015AS	0.6	4		
5.6	B	5,10,20	T322B565(1)015AS	0.7	4		
6.8	B	5	T322B685J015AS	0.8	6		
6.8	B	10	T322B685K015AS	0.8	6	CX05H685K	T323B685K015AS
6.8	B	20	T322B685M015AS	0.8	6	CX05H685M	T323B685M015AS
8.2	C	5,10,20	T322C825(1)015AS	1.0	6		
10.0	C	5,10,20	T322C106(1)015AS	1.2	6		
12.0	C	5,10,20	T322C126(1)015AS	1.4	6		
15.0	C	5	T322C156J015AS	1.5	6		
15.0	C	10	T322C156K015AS	1.5	6	CX05H156K	T323C156K015AS
15.0	C	20	T322C156M015AS				



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C (Cont'd)							
18.0	D	5,10,20	T322D186(1)015AS	2.2	6	CX05H226K CX05H226M	T323D226K015AS T323D226M015AS
22.0	D	5	T322D226J015AS	2.6	6		
22.0	D	10	T322D226K015AS	2.6	6		
22.0	D	20	T322D226M015AS	2.6	6		
27.0	D	5,10,20	T322D276(1)015AS	3.2	6		
33.0	D	5	T322D336J015AS	4.0	6	CX05H336K CX05H336M	T323D336K015AS T323E336M015AS
33.0	D	10	T322D336K015AS	4.0	6		
33.0	D	20	T322D336M015AS	4.0	6		
39.0	E	5,10,20	T322E396(1)015AS	4.7	6		
47.0	E	5,10,20	T322E476(1)015AS	5.0	6		
56.0	E	5,10,20	T322E566(1)015AS	6.7	6		
68.0	E	5,10,20	T322E686(1)015AS	8.2	6		
82.0	E	5,10,20	T322E826(1)015AS	9.8	8		
100.0	E	5,10,20	T322E107(1)015AS	10.0	8		
120.0	F	5,10,20	T322F127(1)015AS	10.0	8		
150.0	F	5,10,20	T322F157(1)015AS	10.0	8		
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C							
1.0	A	5,10,20	T322A105(1)020AS	0.5	4	CX05J155K CX05J155M	T323A155K020AS T323A155M020AS
1.2	A	5,10,20	T322A125(1)020AS	0.5	4		
1.5	A	5	T322A155J020AS	0.5	4		
1.5	A	10	T322A155K020AS	0.5	4		
1.5	A	20	T322A155M020AS	0.5	4		
1.8	B	5,10,20	T322B185(1)020AS	0.5	4	CX05J475K CX05J475M	T323B475K020AS T323B475M020AS
2.2	B	5,10,20	T322B225(1)020AS	0.5	4		
2.7	B	5,10,20	T322B275(1)020AS	0.5	4		
3.3	B	5,10,20	T322B335(1)020AS	0.5	4		
3.9	B	5,10,20	T322B395(1)020AS	0.6	4		
4.7	B	5	T322B475J020AS	0.8	4		
4.7	B	10	T322B475K020AS	0.8	4		
4.7	B	20	T322B475M020AS	0.8	4		
5.6	C	5,10,20	T322C565(1)020AS	0.9	4		
6.8	C	5,10,20	T322C685(1)020AS	1.1	6		
8.2	C	5,10,20	T322C825(1)020AS	1.3	6		
10.0	C	5,10,20	T322C106(1)020AS	1.6	6		
12.0	D	5	T322D126J020AS	1.9	6	CX05J126K CX05J126M	T323D126K020AS T323D126M020AS
12.0	D	10	T322D126K020AS	1.9	6		
12.0	D	20	T322D126M020AS	1.9	6		
15.0	D	5	T322D156J020AS	2.4	6	CX05J156K CX05J156M	T323D156K020AS T323D156M020AS
15.0	D	10	T322D156K020AS	2.4	6		
15.0	D	20	T322D156M020AS	2.4	6		
18.0	D	5,10,20	T322D186(1)020AS	2.9	6		
22.0	D	5,10,20	T322D226(1)020AS	3.5	6		
27.0	E	5,10,20	T322E276(1)020AS	4.3	6		
33.0	E	5,10,20	T322E336(1)020AS	5.0	6		
39.0	E	5,10,20	T322E396(1)020AS	6.2	6		
47.0	E	5,10,20	T322E476(1)020AS	7.5	6		
56.0	E	5,10,20	T322E566(1)020AS	8.9	6		
68.0	E	5,10,20	T322E686(1)020AS	10.0	6		
82.0	F	5,10,20	T322F826(1)020AS	10.0	8		
100.0	F	5,10,20	T322F107(1)020AS	10.0	8		
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C							
0.47	A	5,10,20	T322A474(1)025AS	0.5	3	CX05K105K CX05K105M	T323A105K025AS T323A105M025AS
0.56	A	5,10,20	T322A564(1)025AS	0.5	3		
0.68	A	5,10,20	T322A684(1)025AS	0.5	3		
0.82	A	5,10,20	T322A824(1)025AS	0.5	3		
1.0	A	5	T322A105J025AS	0.5	3		
1.0	A	10	T322A105K025AS	0.5	3	CX01K155K CX01K155M	T323B155K025AS T323B155M020AS
1.0	A	20	T322A105M025AS	0.5	3		
1.2	B	5,10,20	T322B125(1)0				

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C (Cont'd)							
2.2	B	20	T322B225M025AS	0.5	3	CX01/5K225M	T323B225M025AS
2.7	B	5,10,20	T322B275(1)025AS	0.5	3		
3.3	B	5	T322B335J025AS	0.7	3	CX05K335K CX05K335M	T323B335K025AS
3.3	B	10	T322B335K025AS	0.7	3		T323B335M025AS
3.3	B	20	T322B335M025AS	0.7	3		
3.9	C	5,10,20	T322C395(1)025AS	0.8	3	CX05K685K CX05K685M	T323C685K025AS T323C685M025AS
4.7	C	5,10,20	T322C475(1)025AS	0.9	4		
5.6	C	5,10,20	T322C565(1)025AS	1.1	4		
6.8	C	5	T322C685J025AS	1.4	4		
6.8	C	10	T322C685K025AS	1.4	4		
6.8	C	20	T322C685M025AS	1.4	4		
8.2	C	5,10,20	T322C825(1)025AS	1.5	4	CX05K106K CX05K106M	T323C106K025AS T323C106M025AS
10.0	C	5	T322C106J025AS	1.5	4		
10.0	C	10	T322C106K025AS	1.5	4		
10.0	C	20	T322C106M025AS	1.5	4		
12.0	D	5,10,20	T322D126(1)025AS	2.4	4		
15.0	D	5,10,20	T322D156(1)025AS	3.0	4		
18.0	E	5,10,20	T322E186(1)025AS	3.6	6		
22.0	E	5,10,20	T322E226(1)025AS	4.4	6		
27.0	E	5,10,20	T322E276(1)025AS	5.4	6		
33.0	E	5,10,20	T322E336(1)025AS	6.6	6		
39.0	E	5,10,20	T322E396(1)025AS	7.8	6		
47.0	E	5,10,20	T322E476(1)025AS	9.4	6		
56.0	F	5,10,20	T322F566(1)025AS	10.0	6		
68.0	F	5,10,20	T322F686(1)025AS	10.0	6		
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C							
0.1	A	5,10,20	T322A104(1)035AS	0.5	3	CX05M334K CX05M334M	T323A334K035AS T323A334M035AS
0.12	A	5,10,20	T322A124(1)035AS	0.5	3		
0.15	A	5,10,20	T322A154(1)035AS	0.5	3		
0.18	A	5,10,20	T322A184(1)035AS	0.5	3		
0.22	A	5,10,20	T322A224(1)035AS	0.5	3		
0.27	A	5,10,20	T322A274(1)035AS	0.5	3		
0.33	A	5	T322A334J035AS	0.5	3		
0.33	A	10	T322A334K035AS	0.5	3		
0.33	A	20	T322A334M035AS	0.5	3		
0.39	A	5,10,20	T322A394(1)035AS	0.5	3	CX05M474K CX05M474M	T323A474K035AS T323A474M035AS
0.47	A	5	T322A474J035AS	0.5	3		
0.47	A	10	T322A474K035AS	0.5	3		
0.47	A	20	T322A474M035AS	0.5	3		
0.56	B	5	T322B564J035AS	0.5	3	CX01M564K CX01M564M	T323B564K035AS T323B564M035AS
0.56	B	10	T322B564K035AS	0.5	3		
0.56	B	20	T322B564M035AS	0.5	3	CX01M684K CX01M684M	T323B684K035AS T323B684M035AS
0.68	B	5	T322B684J035AS	0.5	3		
0.68	B	10	T322B684K035AS	0.5	3	CX01M824K CX01M824M	T323B824K035AS T323B824M035AS
0.68	B	20	T322B684M035AS	0.5	3		
0.82	B	5	T322B824J035AS	0.5	3	CX01M105K CX01M105M	T323B105K035AS T323B105M035AS
0.82	B	10	T322B824K035AS	0.5	3		
0.82	B	20	T322B824M035AS	0.5	3	CX01M125K CX01M125M	T323B125K035AS T323B125M035AS
1.0	B	5	T322B105J035AS	0.5	3		
1.0	B	10	T322B105K035AS	0.5	3	CX05M155K CX05M155M	T323B155K035AS T323B155M035AS
1.0	B	20	T322B105M035AS	0.5	3		
1.2	B	5	T322B125J035AS	0.5	3		
1.2	B	10	T322B125K035AS	0.5	3		
1.2	B	20	T322B125M035AS	0.5	3		
1.5	B	5	T322B155J035AS	0.5	3		
1.5	B	10	T322B155K035AS	0.5	3		
1.5	B	20	T322B155M035AS	0.5	3		
1.8	C	5,10,20	T322C185(1)035AS	0.5	3		



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C							
5.6	D	5,10,20	T322D565(1)035AS	1.6	4	CX05M685K CX05M685M	T323D685K035AS T323D685M035AS
6.8	D	5	T322D685J035AS	1.9	4		
6.8	D	10	T322D685K035AS	1.9	4		
6.8	D	20	T322D685M035AS	1.9	4		
8.2	D	5,10,20	T322D825(1)035AS	2.3	4	CX05M106K CX05M106M	T323D106K035AS T323D106M035AS
10.0	D	5	T322D106J035AS	2.8	4		
10.0	D	10	T322D106K035AS	2.8	4		
10.0	D	20	T322D106M035AS	2.8	4		
12.0	E	5,10,20	T322E126(1)035AS	3.3	4		
15.0	E	5,10,20	T322E156(1)035AS	4.2	6		
18.0	E	5,10,20	T322E186(1)035AS	5.0	6		
22.0	E	5,10,20	T322E226(1)035AS	6.2	6		
27.0	E	5,10,20	T322E276(1)035AS	7.5	6		
33.0	E	5,10,20	T322E336(1)035AS	9.2	6		
39.0	F	5,10,20	T322F396(1)035AS	10.0	6		
47.0	F	5,10,20	T322F476(1)035AS	10.0	6		
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C							
0.1	A	5	T322A104J050AS	0.5	3	CX05N104K CX05N104M	T323A104K050AS T323A104M050AS
0.1	A	10	T322A104K050AS	0.5	3		
0.1	A	20	T322A104M050AS	0.5	3		
0.12	A	5,10,20	T322A124(1)050AS	0.5	3		
0.15	A	5	T322A154J050AS	0.5	3	CX05N154K CX05N154M	T323A154K050AS T323A154M050AS
0.15	A	10	T322A154K050AS	0.5	3		
0.15	A	20	T322A154M050AS	0.5	3		
0.18	A	5,10,20	T322A184(1)050AS	0.5	3		
0.22	A	5	T322A224J050AS	0.5	3	CX05N224K CX05N224M	T323A224K050AS T323A224M050AS
0.22	A	10	T322A224K050AS	0.5	3		
0.22	A	20	T322A224M050AS	0.5	3		
0.27	A	5,10,20	T322A274(1)050AS	0.5	3		
0.33	B	5	T322B334J050AS	0.5	3	CX05N334K CX05N334M	T323B334K050AS T323B334M050AS
0.33	B	10	T322B334K050AS	0.5	3		
0.33	B	20	T322B334M050AS	0.5	3		
0.39	B	5	T322B394J050AS	0.5	3		
0.39	B	10	T322B394K050AS	0.5	3	CX05N394K CX05N394M	T323B394K050AS T323B394M050AS
0.39	B	20	T322B394M050AS	0.5	3		
0.47	B	5	T322B474J050AS	0.5	3		
0.47	B	10	T322B474K050AS	0.5	3		
0.47	B	20	T322B474M050AS	0.5	3	CX05N474K CX05N474M	T323B474K050AS T323B474M050AS
0.56	B	5,10,20	T322B564(1)050AS	0.5	3		
0.68	B	5	T322B684J050AS	0.5	3		
0.68	B	10	T322B684K050AS	0.5	3		
0.68	B	20	T322B684M050AS	0.5	3	CX05N684K CX05N684M	T323B684K050AS T323B684M050AS
0.82	B	5,10,20	T322B824(1)050AS	0.5	3		
1.0	B	5	T322B105J050AS	0.5	3		
1.0	B	10	T322B105K050AS	0.5	3		
1.0	B	20	T322B105M050AS	0.5	3	CX05N105K CX05N105M	T323B105K050AS T323B105M050AS
1.2	C	5,10,20	T322C125(1)050AS	0.5	3		
1.5	C	5	T322C155J050AS	0.6	4		
1.5	C	10	T322C155K050AS	0.6	4		
1.5	C	20	T322C155M050AS	0.6	4	CX05N155K CX05N155M	T323C155K050AS T323C155M050AS
1.8	C	5,10,20	T322C185(1)050AS	0.7	4		
2.2	C	5	T322C225J050AS	0.9	4		
2.2	C	10	T322C225K050AS	0.9	4		
2.2	C	20	T322C225M050AS	0.9	4	CX05N225K CX05N225M	T323C225K050AS T323C225M050AS
2.7	D	5,10,20	T322D275(1)050AS	1.1	4		
3.3	D	5	T322D335J050AS	1.3	4		
3.3	D	10	T322D335K050AS	1.3	4		
3.3	D	20	T322D335M050AS	1.3	4	CX05N335K CX05N335M	T323D335K050AS T323D335M050AS

T330 Series

KEMET T330 Series, polar-type, radial lead rectangular Precision Molded Tantalum (PMT) capacitors are primarily designed for applications that demand full use of the premium space available in printed circuitry and high density packaging. Compact, space saving T330 Series capacitors provide superior packing factor and space utilization compared with tubular units of the same microcoulomb (CV) rating.

T330 Series capacitors employ a rectangular sintered, dry tantalum anode, transfer molded in precision dies with a high impact resistant plastic having excellent electrical, physical, and moisture resistant properties. All cases utilize gold color plastic which permits laser marking with outstanding permanency and legibility. The polarity is indicated by a + sign permanently marked on the case. The radius on the two vertical edges at the positive end of B, C, and D Cases can be used as a sensing dimension for automatic insertion processes.

T340 Series

The compact space saving T340 Series is transfer molded in precision dies with a high impact resistant plastic having excellent electrical, physical, and moisture resistant properties. The gold color plastic case utilized permits laser marking with outstanding permanency and legibility.

Marking is provided on the top of the case to allow visual inspection for proper polarity and placement after insertion. In addition, positive polarity identification is achieved by an easily recognized molded radius on the positive end of the case. This physical polarity identification is readily observed after capacitor placement as a further aid to the top marking in prevention of possible reverse insertion.

The location of the standoffs may serve a similar sensing function for the A Case. These standoffs, located in the base of all case sizes, provide vents for air circulation and also allow easy removal of flux residues from leadwire and circuit board solder joints.

T330 Series capacitors are highly reliable and exhibit performance characteristics typical of military test standards. They are available in capacitance values ranging from 0.1 to 220 microfarads in ± 20 , ± 10 , $\pm 5\%$ tolerance levels, and in working voltages from 6 to 50 volts. At 85°C the capacitors will operate continuously at full rated voltage. They are rated to 125°C when operated at 2/3 of nameplate voltage. In addition, they feature exceptionally low DC leakage and Dissipation Factor characteristics.

They are ideal for bypass, coupling, and timing applications in computers, military ordinance, industrial, entertainment, and consumer electronic equipment.

Standoffs, located in the base of all case sizes, provide vents for air circulation and also allow easy removal of flux residues from leadwire and circuit board solder joints. With very low impedance and ESR values, the T340 Series features exceptionally low DC leakage and DF characteristics. The T340 Series is available in standard $\pm 20\%$; $\pm 10\%$; $\pm 5\%$ (special order) capacitance tolerance.

T340 Series capacitors are highly reliable and exhibit performance characteristics typical of military test standards.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
T330: 0.1-220 μ F, 6-50 Volts.
T340: 0.1-330 μ F, 6-50 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$ tolerance standard, $\pm 10\%$ and $\pm 5\%$ available on special order.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listing. See Application Notes Section, page 78.
- **DC LEAKAGE CURRENT:** Maximum leakage values at 25°C are shown in part number listings, pages 51, 52, 55, 56 and 57. See Application Notes Section, page 76.
- **RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, pages 76 & 77 for description.
- **IMPEDANCE and ESR:** See Application Notes Section, page 77 & 78 for additional information. Reference ESR values are shown in table below.
- **AC RIPPLE VOLTAGE:** Permissible AC ripple voltage is related to ESR of the capacitor and the power dissipation capabilities of a particular case size. Thermal capacities for the various case sizes have been determined and are listed in Table below. For additional description see page 78.

T330/T340 ESR (OHMS) at 100 kHz @ +25°C

(The ESR values provided below are for reference only.
No warranty, as stated on page 3 and reincorporated here, is made as to the accuracy of these values for any particular T330/T340 Series product.)

Cap. μ F	6 Volt	10 Volt	15 Volt	20 Volt	25 Volt	35 Volt	50 Volt
0.10						26.0	26.0
0.15						21.0	21.0
0.22						17.0	17.0
0.33						15.0	15.0
0.47						13.0	13.0
0.68						10.0	10.0
1.00						8.0	8.0
1.50					8.0	6.0	5.0
2.20				7.0	6.0	5.0	3.5
3.30			6.0	5.5	5.0	4.0	3.0
4.70		8.0	5.0	4.5	4.0	3.0	2.5
6.80	8.0	6.0	4.0	3.6	3.1	2.5	2.0
10.0	6.0	5.0	3.2	2.9	2.5	2.0	1.6
15.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2
22.0	3.7	2.7	2.0	1.8	1.5	1.3	1.0
33.0	3.0	2.1	1.6	1.4	1.2	1.0	
47.0	2.0	1.7	1.3	1.2	1.0	0.8	
68.0	1.8	1.3	1.0	0.9	0.8		
100.0	1.6	1.0	0.8	0.6			
150.0	0.9	0.8	0.6				
220.0	0.9	0.6					
330.0	0.7						

Series	Case Size	Watts
T330/T340	A	.09
	B	.09
	C	.100
T330	D	.125
T340 only	D/F	.125
	E	.180

Maximum Power Dissipation: 25°C Ambient

- **ENVIRONMENTAL CONSIDERATIONS:**
 - A. Shock Test: MIL-STD-202, Method 213.
 - B. Thermal Shock, MIL-STD-202, Method 107.
 - C. Moisture Resistance: MIL-STD-202, Method 106.
 - D. Solderability: MIL-STD-202, Method 208.
For additional Environmental Test Information see pages 80, 81 and 82.
- **LEAD MATERIAL:** Solder coated steel core with copper ply per MIL-STD-1276.
- **LEAD TAPE and REEL:** Reeling per specification RS-468. See pages 71 and 73 for additional information.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	H CASE HEIGHT	W CASE WIDTH	T CASE THICKNESS	E CASE TO WIRE	S LEAD SPACING
A	.345 ± .008 (8.76 ± .203)	.230 ± .005 (5.84 ± .127)	.105 ± .005 (2.67 ± .127)	.050 ± .010 (1.27 ± .25)	.125 ± .005 (3.18 ± .127)
B	.225 ± .015 (5.71 ± 0.38)	.285 ± .015 (7.24 ± 0.38)	.170 ± .015 (4.32 ± 0.38)	.042 ± .010 (1.07 ± .25)	.200 ± .005 (5.08 ± .127)
C	.325 ± .015 (8.26 ± 0.38)	.325 ± .015 (8.26 ± 0.38)	.170 ± .015 (4.32 ± 0.38)	.062 ± .010 (1.57 ± 0.25)	.200 ± .005 (5.08 ± .127)
D	.375 ± .015 (9.53 ± 0.38)	.600 ± .015 (15.24 ± 0.38)	.195 ± .015 (4.95 ± 0.38)	.200 ± .010 (5.08 ± 0.25)	.200 ± .005 (5.08 ± .127)

ORDERING INFORMATION



***Part Number Example: T330B104M035AS (14 digits – no spaces)**

MARKING INFORMATION



RATINGS & PART NUMBER REFERENCE

A CASE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C				
18.0	A	T330A186(1)006AS	1	6
22.0	A	T330A226(1)006AS	1	6
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
10.0	A	T330A106(1)010AS	1	6
12.0	A	T330A126(1)010AS	1	6
15.0	A	T330A156(1)010AS	1	6
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
8.2	A	T330A825(1)015AS	1	6
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C				
5.6	A	T330A565(1)020AS	1	6
6.8	A	T330A685(1)020AS	1	6
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C				
3.3	A	T330A335(1)025AS	1	4
3.9	A	T330A395(1)025AS	1	4
4.7	A	T330A475(1)025AS	1	4
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
0.10	A	T330A104(1)035AS	1	3
0.12	A	T330A124(1)035AS	1	3
0.15	A	T330A154(1)035AS	1	3
0.18	A	T330A184(1)035AS	1	3
0.22	A	T330A224(1)035AS	1	3
0.27	A	T330A274(1)035AS	1	3
0.33	A	T330A334(1)035AS	1	3

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
0.39	A	T330A394(1)035AS	1	3
0.47	A	T330A474(1)035AS	1	3
0.56	A	T330A564(1)035AS	1	3
0.68	A	T330A684(1)035AS	1	3
0.82	A	T330A824(1)035AS	1	3
1.0	A	T330A105(1)035AS	1	3
1.2	A	T330A125(1)035AS	1	4
1.5	A	T330A155(1)035AS	1	4
1.8	A	T330A185(1)035AS	1	4
2.2	A	T330A225(1)035AS	1	4
2.7	A	T330A275(1)035AS	1	4
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C				
0.10	A	T330A104(1)050AS	1	3
0.12	A	T330A124(1)050AS	1	3
0.15	A	T330A154(1)050AS	1	3
0.18	A	T330A184(1)050AS	1	3
0.22	A	T330A224(1)050AS	1	3
0.27	A	T330A274(1)050AS	1	3
0.33	A	T330A334(1)050AS	1	3
0.39	A	T330A394(1)050AS	1	3
0.47	A	T330A474(1)050AS	1	3
0.56	A	T330A564(1)050AS	1	3
0.68	A	T330A684(1)050AS	1	3
0.82	A	T330A824(1)050AS	1	4
1.0	A	T330A105(1)050AS	1	4
1.2	A	T330A125(1)050AS	1	4
1.5	A	T330A155(1)050AS	1	4

B, C & D CASES

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C				
10.0	B	T330B106(1)006AS	1	6
12.0	B	T330B126(1)006AS	1	6
15.0	B	T330B156(1)006AS	1	6
18.0	B	T330B186(1)006AS	1	6
22.0	B	T330B226(1)006AS	1	6
27.0	C	T330C276(1)006AS	1	6
33.0	C	T330C336(1)006AS	1	6
39.0	C	T330C396(1)006AS	1	6
47.0	C	T330C476(1)006AS	2	6
56.0	C	T330C566(1)006AS	5	6
68.0	C	T330C686(1)006AS	5	6
82.0	D	T330D826(1)006AS	5	6
100.0	D	T330D107(1)006AS	5	6
120.0	D	T330D127(1)006AS	5	6
150.0	D	T330D157(1)006AS	5	6
180.0	D	T330D187(1)006AS	10	6
220.0	D	T330D227(1)006AS	10	8
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
5.6	B	T330B565(1)010AS	1	6
6.8	B	T330B685(1)010AS	1	6
8.2	B	T330B825(1)010AS	1	6
10.0	B	T330B106(1)010AS	1	6
12.0	B	T330B126(1)010AS	1	6
15.0	B	T330B156(1)010AS	1	6
18.0	C	T330C186(1)010AS	1	6
22.0	C	T330C226(1)010AS	2	6
27.0	C	T330C276(1)010AS	2	6

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
33.0	C	T330C336(1)010AS	2	6
39.0	C	T330C396(1)010AS	5	6
47.0	D	T330D476(1)010AS	5	6
56.0	D	T330D566(1)010AS	5	6
68.0	D	T330D686(1)010AS	5	6
82.0	D	T330D826(1)010AS	5	6
100.0	D	T330D107(1)010AS	10	6
120.0	D	T330D127(1)010AS	10	6
150.0	D	T330D157(1)010AS	10	6
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
3.9	B	T330B395(1)015AS	1	



TANTALUM MOLDED / RADIAL

T330 SERIES - PRECISION MOLDED - RADIAL LEADS

B, C & D CASES (Cont'd)

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C				
2.7	B	T330B275(1)025AS	1	6
3.3	B	T330B335(1)025AS	1	6
3.9	B	T330B395(1)025AS	1	6
4.7	B	T330B475(1)025AS	1	6
5.6	C	T330C565(1)025AS	1	6
6.8	C	T330C685(1)025AS	1	6
8.2	C	T330C825(1)025AS	1	6
10.0	C	T330C106(1)025AS	1	6
12.0	C	T330C126(1)025AS	1	6
15.0	C	T330C156(1)025AS	2	6
18.0	D	T330D186(1)025AS	5	6
22.0	D	T330D226(1)025AS	5	6
27.0	D	T330D276(1)025AS	5	6
33.0	D	T330D336(1)025AS	5	6
39.0	D	T330D396(1)025AS	10	6
47.0	D	T330D476(1)025AS	10	6
35 VOLT RATING AT 85°C—23 VOLT RATING AT 125°C				
0.10	B	T330B104(1)035AS	1	6
0.12	B	T330B124(1)035AS	1	6
0.15	B	T330B154(1)035AS	1	6
0.18	B	T330B184(1)035AS	1	6
0.22	B	T330B224(1)035AS	1	6
0.27	B	T330B274(1)035AS	1	6
0.33	B	T330B334(1)035AS	1	6
0.39	B	T330B394(1)035AS	1	6
0.47	B	T330B474(1)035AS	1	6
0.56	B	T330B564(1)035AS	1	6
0.68	B	T330B684(1)035AS	1	6
0.82	B	T330B824(1)035AS	1	6
1.0	B	T330B105(1)035AS	1	6
1.2	B	T330B125(1)035AS	1	6
1.5	B	T330B155(1)035AS	1	6
1.8	B	T330B185(1)035AS	1	6
2.2	B	T330B225(1)035AS	1	6
2.7	B	T330B275(1)035AS	1	6
3.3	B	T330B335(1)035AS	1	6
3.9	C	T330C395(1)035AS	1	6
4.7	C	T330C475(1)035AS	1	6
5.6	C	T330C565(1)035AS	1	6

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
6.8	C	T330C685(1)035AS	2	6
8.2	C	T330C825(1)035AS	5	6
10.0	C	T330C106(1)035AS	5	6
12.0	D	T330D126(1)035AS	5	6
15.0	D	T330D156(1)035AS	5	6
18.0	D	T330D186(1)035AS	10	6
22.0	D	T330D226(1)035AS	10	6
27.0	D	T330D276(1)035AS	10	6
33.0	D	T330D336(1)035AS	10	6
50 VOLT RATING AT 85°C—33 VOLT RATING AT 125°C				
0.10	B	T330B104(1)050AS	1	6
0.12	B	T330B124(1)050AS	1	6
0.15	B	T330B154(1)050AS	1	6
0.18	B	T330B184(1)050AS	1	6
0.22	B	T330B224(1)050AS	1	6
0.27	B	T330B274(1)050AS	1	6
0.33	B	T330B334(1)050AS	1	6
0.39	B	T330B394(1)050AS	1	6
0.47	B	T330B474(1)050AS	1	6
0.56	B	T330B564(1)050AS	1	6
0.68	B	T330B684(1)050AS	1	6
0.82	B	T330B824(1)050AS	1	6
1.0	B	T330B105(1)050AS	1	6
1.2	B	T330B125(1)050AS	1	6
1.5	B	T330B155(1)050AS	1	6
1.8	B	T330B185(1)050AS	1	6
2.2	B	T330B225(1)050AS	1	6
2.7	C	T330C275(1)050AS	1	6
3.3	C	T330C335(1)050AS	2	6
3.9	C	T330C395(1)050AS	5	6
4.7	C	T330C475(1)050AS	5	6
5.6	C	T330C565(1)050AS	5	6
6.8	D	T330D685(1)050AS	5	6
8.2	D	T330D825(1)050AS	5	6
10.0	D	T330D106(1)050AS	5	6
12.0	D	T330D126(1)050AS	5	6
15.0	D	T330D156(1)050AS	10	6
18.0	D	T330D186(1)050AS	10	6

(1) To complete Part Number insert Capacitance Tolerance Symbol in the 9th character, M — ±20%, K — ±10%, J — ±5%.

Bold face lines indicate popular part types and values.

Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET'S option.

TANTALUM MOLDED / RADIAL

T340 SERIES - PRECISION MOLDED - RADIAL LEADS



Effective September 30, 2005, the KEMET T340 Series is RoHS compliant.

CAPACITOR OUTLINE DRAWINGS



T340 Series Tantalum Molded / Radial

DIMENSIONS — INCHES & MILLIMETERS

CASE SIZE	H** (MAX)		W (MAX)		T (MAX)		LEAD SPACING S		LEAD LENGTH L		LEAD DIAMETER D	
	H		W		T		Inches	mm	Inches	mm	Inches	mm
	Inches	mm	Inches	mm	inches	mm						
A	.287	7.3	.185	4.7	.165	4.2	.100	2.5	.600	15.0	.020	0.50
B	.327	8.3	.283	7.2	.157	4.0	.200	5.0	.600	15.0	.020	0.50
C	.413	10.5	.287	7.3	.169	4.3	.200	5.0	.600	15.0	.020	0.50
D	.413	10.5	.484	12.3	.287	7.3	.400	10.0	.600	15.0	.025	0.64
E	.413	10.5	.484	12.3	.484	12.3	.400	10.0	.600	15.0	.025	0.64
F	.413	10.5	.484	12.3	.287	7.3	.200	5.0	.600	15.0	.025	0.64

**Includes Standoff Height of .015 ± .005" (.38 ± .13 mm) for All Case Sizes.

ORDERING INFORMATION



*Part Number Example: T340A105M035AS (14 digits – no spaces)

MARKING INFORMATION

American



European



□ □ = DIN. Specification Date Code

Insert Date Code as follows:

- | | |
|-------------------------------|--------------------------------|
| □ 1st digit - represents year | □ 2nd digit - represents month |
| L - 2000 | Q - 2005 |
| M - 2001 | R - 2006 |
| N - 2002 | S - 2007 |
| O - 2003 | T - 2008 |
| P - 2004 | U - 2009 |
| | 1 - 9 for January - September |
| | O for October |
| | N for November |
| | D for December |

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	MAX. DC LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MAX. IMPEDANCE Ω@ 10 kHz
3 VOLT RATING AT 85°C — 2 VOLT AT 125°C					
10.0	A	T340A106(1)003AS	1.0	6	6.0
15.0	A	T340A156(1)003AS	1.0	6	3.2
33.0	B	T340B336(1)003AS	1.5	6	2.1
47.0	B	T340B476(1)003AS	3.0	6	1.8
68.0	C	T340C686(1)003AS	4.0	6	1.5
100.0	C	T340C107(1)003AS	5.0	6	1.2
6/6.3 VOLT RATING AT 85°C — 4 VOLT AT 125°C					
6.8	A	T340A685(1)006AS	1.0	6	6.0
10.0	B	T340B106(1)006AS	1.0	6	2.1
12.0	B	T340B126(1)006AS	1.0	6	
15.0	B	T340B156(1)006AS	1.0	6	
18.0	B	T340B186(1)006AS	1.0	6	
22.0	B	T340B226(1)006AS	2.5	6	
27.0	C	T340C276(1)006AS	2.5	6	1.5
33.0	C	T340C336(1)006AS	2.5	6	
39.0	C	T340C396(1)006AS	2.5	6	
47.0	C	T340C476(1)006AS	3.0	6	
56.0	C	T340C566(1)006AS	5.0	6	
68.0	C	T340C686(1)006AS	5.0	6	0.8
82.0	D/F	T340(2)826(1)006AS	5.0	6	
100.0	D/F	T340(2)107(1)006AS	5.0	6	
120.0	D/F	T340(2)127(1)006AS	5.0	6	
150.0	D/F	T340(2)157(1)006AS	8.0	6	
180.0	D/F	T340(2)187(1)006AS	10.0	6	
220.0	D/F	T340(2)227(1)006AS	10.0	6	
330.0	E	T340E337(1)006AS	10.0	8	0.5
10 VOLT RATING AT 85°C — 6 VOLT AT 125°C					
4.7	A	T340A475(1)010AS	1.0	6	7.5
5.6	B	T340B565(1)010AS	1.0	6	2.5
6.8	B	T340B685(1)010AS	1.0	6	
8.2	B	T340B825(1)010AS	1.0	6	
10.0	B	T340B106(1)010AS	1.0	6	
12.0	B	T340B126(1)010AS	1.0	6	
15.0	B	T340B156(1)010AS	3.0	6	
18.0	C	T340C186(1)010AS	3.0	6	1.7
22.0	C	T340C226(1)010AS	3.0	6	
27.0	C	T340C276(1)010AS	3.0	6	
33.0	C	T340C336(1)010AS	5.0	6	
39.0	C	T340C396(1)010AS	5.0	6	
47.0	D/F	T340(2)476(1)010AS	5.0	6	1.0
56.0	D/F	T340(2)566(1)010AS	5.0	6	
68.0	D/F	T340(2)686(1)010AS	5.0	6	
82.0	D/F	T340(2)826(1)010AS	8.0	6	
100.0	D/F	T340(2)107(1)010AS	10.0	6	
120.0	D/F	T340(2)127(1)010AS	10.0	6	
150.0	D/F	T340(2)157(1)010AS	10.0	6	
220.0	E	T340E227(1)010AS	10.0	6	0.5
15/16 VOLT RATING AT 85°C — 10 VOLT AT 125°C					
3.3	A	T340A335(1)015AS	1.0	6	9.0
3.9	B	T340B395(1)015AS	1.0	6	3.2
4.7	B	T340B475(1)015AS	1.0	6	
5.6	B	T340B565(1)015AS	1.0	6	
6.8	B	T340B685(1)015AS	1.0	6	
8.2	B	T340B825(1)015AS	1.0	6	
10.0	B	T340B106(1)015AS	3.0	6	

(1) To complete KEMET Part Number, insert M — ±20%, K — ±10%, or J — ±5% for capacitance tolerance as shown in T340 ordering information.
 (2) To complete KEMET Part Number, insert letter "D" for 10.0 mm (.394) lead spacing or letter "F" for 5.0 mm (.197) lead spacing. See page 53 for outline drawings.
Bold face lines indicate popular part types and values.
 Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET'S option.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	MAX. DC LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MAX IMPEDANCE Ω@ 10 kHz
15/16 VOLT RATING AT 85°C — 10 VOLT AT 125°C (Cont'd)					
12.0	C	T340C126(1)015AS	3.0	6	2.5
15.0	C	T340C156(1)015AS	3.5	6	
18.0	C	T340C186(1)015AS	4.0	6	2.1
22.0	C	T340C226(1)015AS	4.0	6	
27.0	C	T340C276(1)015AS	5.0	6	
33.0	C	T340C336(1)015AS	5.0	6	
39.0	D/F	T340(2)396(1)015AS	7.0	6	1.3
47.0	D/F	T340(2)476(1)015AS	7.0	6	
56.0	D/F	T340(2)566(1)015AS	8.0	6	1.1
68.0	D/F	T340(2)686(1)015AS	9.0	6	
82.0	D/F	T340(2)826(1)015AS	10.0	6	
100.0	E	T340E107(1)015AS	10.0	6	0.8
150.0	E	T340E157(1)015AS	10.0	6	0.6
20 VOLT RATING AT 85°C — 13 VOLT AT 125°C					
2.2	A	T340A225(1)020AS	1.0	6	12.0
3.3	B	T340B335(1)020AS	1.0	6	8.0
4.7	B	T340B475(1)020AS	1.5	6	5.5
6.8	B	T340B685(1)020AS	2.5	6	4.2
15.0	C	T340C156(1)020AS	5.0	6	2.5
47.0	D	T340D476(1)020AS	9.0	6	1.3
100.0	E	T340E107(1)020AS	10.0	6	0.8
25 VOLT RATING AT 85°C — 16 VOLT AT 125°C					
1.5	A	T340A155(1)025AS	1.0	6	17.0
2.7	B	T340B275(1)025AS	1.0	6	5.5
3.3	B	T340B335(1)025AS	1.0	6	
3.9	B	T340B395(1)025AS	1.0	6	
4.7	B	T340B475(1)025AS	2.0	6	
5.6	C	T340C565(1)025AS	2.0	6	4.2
6.8	C	T340C685(1)025AS	3.0	6	
8.2	C	T340C825(1)025AS	3.0	6	
10.0	C	T340C106(1)025AS	3.5	6	
12.0	C	T340C126(1)025AS	3.5	6	3.0
15.0	C	T340C156(1)025AS	4.0	6	
18.0	D/F	T340(2)186(1)025AS	5.0	6	2.0
22.0	D/F	T340(2)226(1)025AS	5.5	6	
27.0	D/F	T340(2)276(1)025AS	7.0	6	1.5
33.0	D/F	T340(2)336(1)025AS	8.0	6	
39.0	D/F	T340(2)396(1)025AS	10.0	6	
47.0	D/E/F	T340(2)476(1)025AS	10.0	6	1.3
68.0	E	T340E686(1)025AS	10.0	6	0.9
35 VOLT RATING AT 85°C — 23 VOLT AT 125°C					
0.1	A	T340A104(1)035AS	1.0	6	220.0
0.15	A	T340A154(1)035AS	1.0	6	150.0
0.22	A	T340A224(1)035AS	1.0	6	100.0
0.33	A	T340A334(1)035AS	1.0	6	75.0
0.47	A	T340A474(1)035AS	1.0	6	50.0
0.68	A	T340A684(1)035AS	1.0	6	36.0
1.0	A	T340A105(1)035AS	1.0	6	25.0
1.2	B	T340B125(1)035AS	1.0	6	15.0
1.5	B	T340B155(1)035AS	1.0	6	
1.8	B	T340B185(1)035AS	1.0	6	11.0
2.2	B	T340B225(1)035AS	1.0	6	
2.7	B	T340B275(1)035AS	1.0	6	
3.3	B/C	T340(2)335(1)035AS	1.0	6	7.5

(1) To complete KEMET Part Number, insert M — ±20%, K — ±10%, or J — ±5% for capacitance tolerance as shown in T340 ordering information.

(2) To complete KEMET Part Number, insert letter "C" for 5.0 mm (.197") lead spacing, "D" for 10.0 mm (.394") lead spacing, "E" for 10.0 mm (.394") lead spacing or "F" for 5.0 mm (.197") lead spacing. See page 53 for outline drawings.

Bold face lines indicate popular part types and values.

Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET'S option.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	MAX. DC LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MAX IMPEDANCE Ω@ 10 kHz
35 VOLT RATING AT 85°C — 23 VOLT AT 125°C (Cont'd)					
3.9	C	T340C395(1)035AS	1.0	6	5.5
4.7	C	T340C475(1)035AS	2.5	6	
5.6	C	T340C565(1)035AS	2.5	6	
6.8	C	T340C685(1)035AS	3.0	6	
8.2	C	T340C825(1)035AS	4.0	6	
10.0	C	T340(2)106(1)035AS	4.0	6	2.8
12.0	D/F	T340(2)126(1)035AS	5.0	6	2.2
15.0	D/F	T340(2)156(1)035AS	5.0	6	
18.0	D/F	T340(2)186(1)035AS	8.0	6	
22.0	D/F	T340(2)226(1)035AS	8.0	6	1.9
27.0	D/F	T340(2)276(1)035AS	10.0	6	1.4
33.0	D/E/F	T340(2)336(1)035AS	10.0	6	
47.0	E	T340E476(1)035AS	10.0	6	1.1
40 VOLT RATING AT 85°C — 32 VOLT AT 100°C					
0.1	A	T340A104(1)040AS	1.0	6	200.0
0.15	A	T340A154(1)040AS	1.0	6	140.0
0.22	A	T340A224(1)040AS	1.0	6	95.0
0.33	A	T340A334(1)040AS	1.0	6	70.0
0.47	A	T340A474(1)040AS	1.0	6	46.0
0.68	A	T340A684(1)040AS	1.0	6	34.0
1.0	A	T340A105(1)040AS	1.0	6	23.0
1.5	B	T340B155(1)040AS	1.0	6	14.0
2.2	B	T340B225(1)040AS	1.7	6	10.0
3.3	C	T340C335(1)040AS	2.3	6	7.0
4.7	C	T340C475(1)040AS	3.0	6	5.0
6.8	C	T340C685(1)040AS	3.5	6	3.9
10.0	D	T340D106(1)040AS	4.5	6	2.6
15.0	D	T340D156(1)040AS	6.0	6	2.0
22.0	D	T340D226(1)040AS	9.0	6	1.7
33.0	E	T340E336(1)040AS	10.0	6	1.3
47.0	E	T340E476(1)040AS	10.0	6	1.0
50 VOLT RATING AT 85°C — 33 VOLT AT 125°C					
0.1	A	T340A104(1)050AS	1.0	6	220.0
0.15	A	T340A154(1)050AS	1.0	6	150.0
0.22	A	T340A224(1)050AS	1.0	6	100.0
0.33	A	T340A334(1)050AS	1.0	6	75.0
0.39	B	T340B394(1)050AS	1.0	6	50.0
0.47	B	T340B474(1)050AS	1.0	6	
0.56	B	T340B564(1)050AS	1.0	6	
0.68	B	T340B684(1)050AS	1.0	6	36.0
0.82	B	T340B824(1)050AS	1.0	6	25.0
1.0	B	T340B105(1)050AS	1.0	6	
1.2	B	T340B125(1)050AS	1.0	6	
1.5	B/C	T340(2)155(1)050AS	1.1	6	15.0
1.8	B	T340B185(1)050AS	1.1	6	11.0
2.2	B/C	T340(2)225(1)050AS	1.5	6	
2.7	C	T340C275(1)050AS	1.5	6	7.5
3.3	C/D	T340(2)335(1)050AS	2.5	6	
3.9	C	T340C395(1)050AS	3.0	6	
4.7	C/D	T340(2)475(1)050AS	3.5	6	5.5
5.6	C	T340C565(1)050AS	4.0	6	4.0
6.8	D/F	T340(2)685(1)050AS	5.0	6	
8.2	D/F	T340(2)825(1)050AS	6.0	6	
10.0	D/F	T340(2)106(1)050AS	7.0	6	
12.0	D/F	T340(2)126(1)050AS	8.0	6	
15.0	D/F	T340(2)156(1)050AS	9.0	6	
18.0	D/F	T340(2)186(1)050AS	10.0	6	
22.0	E	T340E226(1)050AS	10.0	6	1.7

(1) To complete KEMET Part Number, insert M — ±20%, K — ±10%, or J — ±5% for capacitance tolerance as shown in T340 ordering information.

(2) To complete KEMET Part Number, insert letter "C" for 5.0 mm (.197") lead spacing, "D" for 10.0 mm (.394") lead spacing, "E" for 10.0 mm (.394") lead spacing or letter "F" for 5.0 mm (.197") lead spacing. See page 53 for outline drawings.

Bold face lines indicate popular part types and values.

Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET'S option.



TANTALUM MOLDED / RADIAL — MIL-C-49137/6

T370/T378 (CX06) MIL-PRF-49137/6 SERIES

The KEMET Micron Series is available in a variety of case styles and sizes. They are designed to operate from -55°C to +85°C at full voltage and to +125°C with derating. Typical applications include use in bypass coupling, filtering, and timing circuits.

The KEMET Micron Series is qualified under MIL-PRF-49137/6 as military styles CX06 (T378 Series).

The KEMET T370 Series is encapsulated in a molded gold color epoxy. This encasement technique allows maximum utilization of circuit board real estate with precisely centered leads in a microminiature case.

These molded packages also provide significant improvements in overall dimensional consistency as well as lead wires precisely spaced to within .010 inches (.25mm).

With our new molded packaging design, these capacitors can now be marked using our laser printing technique. The KEMET laser marking system ensures legibility and permanency while offering a complete alphanumeric print format. Laser print meets all requirements of the Resistance to Solvents Test, method 215 of MIL-STD-202.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
T370 Series: 0.68-220 μ F, 3-35 Volts.
T378 Series: 2.2-220 μ F, 3-35 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$ tolerance standard, +40% -20%, $\pm 10\%$ and $\pm 5\%$ are also available.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings on page 60. See Application Notes Section, page 76 for additional information.
- **DC LEAKAGE CURRENT:** Maximum leakage values at 25° are shown in part number listings, page 60. See Application Notes Section, page 76 for additional information.
- **RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, pages 76 & 77 for description.
- **IMPEDANCE and ESR:** See Application Notes Section, pages 78 for description. Reference ESR values are listed in table below.
- **AC RIPPLE VOLTAGE:** Permissible AC ripple volt-

T370 ESR (OHMS) at 100 kHz @ +25°C
(The ESR values provided below are for reference only. No warranty, as stated on page 3 and reincorporated here, is made as to the accuracy of these values for any particular T370 Series product.)

Cap. μ F	6 Volt	10 Volt	15 Volt	20 Volt	25 Volt	35 Volt
0.68						10.0
1.00						8.0
1.50						6.0
2.20					6.0	5.0
3.30				5.5	5.0	4.0
4.70				4.5	4.0	3.0
6.80		6.0		3.6	3.1	2.5
10.0	6.0	5.0		2.9	2.5	2.0
15.0	5.0	3.7	2.5	2.3	2.0	1.6
22.0	3.7	2.7	2.0	1.8	1.5	1.3
33.0	3.0	2.1	1.6	1.4	1.2	
47.0	2.0	1.7	1.3	1.2		
68.0	1.8	1.3	1.0			
100.0	1.6	1.0				
150.0	0.9					

age is related to the ESR of the capacitor and the power dissipation capabilities of a particular case size. Thermal capacities for the various case sizes have been determined and are listed in Table below. For additional description see page 78.

ENVIRONMENTAL CONSIDERATIONS:

Case Size	Watts
C	.070
D	.080
E	.090
F	.100

Maximum Power Dissipation Capability @ 25°C

- A. Shock Test: MIL-STD-202, Method 213 Condition 1.
- B. Thermal Shock, MIL-STD-202, Method 107.
- C. Moisture Resistance: MIL-STD-202, Method 106.
- D. Solderability: MIL-STD-202, Method 208.

For additional Environmental Test Information see pages 80, 81 and 82.

- **LEAD MATERIAL:** Solder coated nickel per MIL-STD1266, type N32.
- **LEAD TAPE and REEL:** Reeling per specification RS-468. See pages 72 and 74 for additional information.

CAPACITOR OUTLINE DRAWING



DIMENSIONS - INCHES (MILLIMETER)

CASE SIZE	H MAX.	W MAX.	T MAX.	S LEAD SPACING	LEAD DIAMETER ± .001 (.03)
*C	.225 (5.72)	.185 (4.70)	.075 (1.91)	.150 ± .010 (3.81 ± .25)	.016 (.41)
D	.290 (7.37)	.220 (5.59)	.110 (2.79)	.180 ± .010 (4.57 ± .25)	.016 (.41)
E	.310 (7.87)	.230 (5.84)	.130 (3.30)	.200 ± .010 (5.08 ± .25)	.016 (.41)
F	.475 (12.07)	.375 (9.53)	.150 (3.81)	.300 ± .010 (7.62 ± .25)	.016 (.41)

*C case size T370 style only.

CAPACITOR MARKING

INDUSTRIAL PRODUCT

MILITARY PRODUCT

ORDERING INFORMATION
KEMET PART NUMBER

*Part Number Example: T370D475M035AS (14 digits – no spaces)

MIL-PRF-49137/6 PART NUMBER
CX06(T378) STYLE

Symbol	Rated (85°C) Volts, dc	Surge (85°C) Volts, dc
A	2	2.6
B	3	4
C	4	5
D	6	8
F	10	13
H	15	20
J	20	26
K	25	32
M	35	46

CAPACITANCE

The nominal capacitance value, expressed in picofarads (pF), is identified by a three digit number. The first two digits represent significant figures and the last digit specifies the number of zeros to follow.



TANTALUM MOLDED / RADIAL — MIL-PRF-49137/6

T370/T378 (CX06) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	INDUSTRIAL PRODUCT T370 PART NO.	MILITARY PRODUCT		DC LEAKAGE μA@25°C MAXIMUM	DISSIPATION FACTOR %@25°C 120HZ MAXIMUM
			CX06 PART NO.	T378 PART NO.		
3 VOLT RATING AT 85°C—2.0 VOLT RATING AT 125°C						
220.0	F	T370F227(1)003AS	CX06B227(2)	T378F227(3)003AS	9.0	15
4 VOLT RATING AT 85°C—2.7 VOLT RATING AT 125°C						
15.0	C	T370C156(1)004AS	CX06C476(2)	T378D476(3)004AS	1.0	8
47.0	D	T370D476(1)004AS		T378E476(3)004AS	2.0	8
68.0	E	T370E686(1)004AS	CX06C686(2)	T378E686(3)004AS	3.0	8
6 VOLT RATING AT 85°C—4.0 VOLT RATING AT 125°C						
10.0	C	T370C106(1)006AS	CX06D336(2)	T378D336(3)006AS	1.0	6
33.0	D	T370D336(1)006AS		T378E476(3)006AS	2.0	6
47.0	E	T370E476(1)006AS	CX06D476(2)	T378E476(3)006AS	3.0	6
150.0	F	T370F157(1)006AS	CX06D157(2)	T378F157(3)006AS	9.0	10
10 VOLT RATING AT 85°C—7.0 VOLT RATING AT 125°C						
6.8	C	T370C685(1)010AS	CX06F226(2)	T378D226(3)010AS	1.0	6
22.0	D	T370D226(1)010AS		T378E336(3)010AS	2.0	6
33.0	E	T370E336(1)010AS	CX06F336(2)	T378E336(3)010AS	3.0	6
100.0	F	T370F107(1)010AS	CX06F107(2)	T378F107(3)010AS	9.0	8
15 VOLT RATING AT 85°C—10 VOLT RATING AT 125°C						
15.0	D	T370D156(1)015AS	CX06H156(2)	T378D156(3)015AS	2.0	6
22.0	E	T370E226(1)015AS	CX06H226(2)	T378E226(3)015AS	3.0	6
68.0	F	T370F686(1)015AS	CX06H686(2)	T378F686(3)015AS	9.0	8
20 VOLT RATING AT 85°C—13 VOLT RATING AT 125°C						
3.3	C	T370C335(1)020AS	CX06J106(2)	T378D106(3)020AS	1.0	6
4.7	C	T370C475(1)020AS		T378D106(3)020AS	1.0	6
10.0	D	T370D106(1)020AS	CX06J106(2)	T378D106(3)020AS	2.0	6
15.0	E	T370E156(1)020AS	CX06J156(2)	T378E156(3)020AS	3.0	6
47.0	F	T370F476(1)020AS	CX06J476(2)	T378F476(3)020AS	9.0	8
25 VOLT RATING AT 85°C—17 VOLT RATING AT 125°C						
2.2	C	T370C225(1)025AS	CX06K685(2)	T378D685(3)025AS	1.0	6
6.8	D	T370D685(1)025AS		T378D685(3)025AS	2.0	6
10.0	E	T370E106(1)025AS	CX06K106(2)	T378E106(3)025AS	3.0	6
33.0	F	T370F336(1)025AS	CX06K336(2)	T378F336(3)025AS	9.0	6
35 VOLT RATING AT 85°C—23 VOLT RATING AT 125°C						
0.68	C	T370C684(1)035AS	CX06M225(2)	T378D225(3)035AS	1.0	6
1.0	C	T370C105(1)035AS		T378D225(3)035AS	1.0	6
1.5	C	T370C155(1)035AS	CX06M335(2)	T378D335(3)035AS	1.0	6
2.2	D	T370D225(1)035AS		T378D335(3)035AS	2.0	6
3.3	D	T370D335(1)035AS	CX06M335(2)	T378D335(3)035AS	2.0	6
4.7	D	T370D475(1)035AS	CX06M475(2)	T378D475(3)035AS	2.0	6
6.8	E	T370E685(1)035AS	CX06M685(2)	T378E685(3)035AS	3.0	6
10.0	F	T370F106(1)035AS	CX06M106(2)	T378F106(3)035AS	9.0	6
15.0	F	T370F156(1)035AS	CX06M156(2)	T378F156(3)035AS	9.0	6
22.0	F	T370F226(1)035AS	CX06M226(2)	T378F226(3)035AS	9.0	6

(1) To complete KEMET part number, insert capacitance tolerance symbol as follows: L = +40%, -20%; M = ±20%; K = ±10%; J = ±5%.

(2) To complete military part number, insert capacitance tolerance symbol as follows: M = ±20%; K = ±10%.

(3) To complete KEMET part number, insert capacitance tolerance symbol as follows: M = ±20%; K = ±10%.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
T35X/T39X: 0.1-680 μ F, 3-50 Volts.
T36X: 0.1-330 μ F, 6-50 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$ and $\pm 10\%$ standard.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings. See Application Notes Section, page 76 for additional information.
- **DC LEAKAGE CURRENT:** Maximum leakage values at 25° are shown in part number listings, pages 63-65, 67, 68 and 70. See Application Notes Section, pages 76 & 77 for additional information.
- **RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, pages 76 & 77 for description.
- **IMPEDANCE and ESR:** See Application Notes Section, page 77 & 78 for description. Reference ESR values are shown in table below.

Commercial T35X/T36X/T39X ESR (OHMS) at 100 kHz @ +25°C
(The ESR values provided below are for reference only. No warranty, as stated on page 3 and reincorporated here, is made as to the accuracy of these values for any particular T35X, T36X, T39X Series product.)

Cap. μ F	6 Volt	10 Volt	16 Volt	20 Volt	25 Volt	35 Volt	50 Volt
0.10						26.0	26.0
0.15						21.0	21.0
0.22						17.0	17.0
0.33						15.0	15.0
0.47						13.0	13.0
0.68						10.0	10.0
1.00				10.0	10.0	8.0	8.0
1.50			10.0	9.0	8.0	6.0	5.0
2.20		13.0	8.0	7.0	6.0	5.0	3.5
3.30	13.0	10.0	6.0	5.5	5.0	4.0	3.0
4.70	10.0	8.0	5.0	4.5	4.0	3.0	2.5
6.80	8.0	6.0	4.0	3.6	3.1	2.5	2.0
10.0	6.0	5.0	3.2	2.9	2.5	2.0	1.6
15.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2
22.0	3.7	2.7	2.0	1.8	1.5	1.3	1.0
33.0	3.0	2.1	1.6	1.4	1.2	1.0	
47.0	2.0	1.7	1.3	1.2	1.0	0.8	
68.0	1.8	1.3	1.0	0.9	0.8		
100.0	1.6	1.0	0.8	0.6			
150.0	0.9	0.8	0.6				
220.0	0.9	0.6					
330.0	0.7						

- **AC RIPPLE VOLTAGE:** Permissible AC ripple voltage is related to equivalent series resistance (ESR) and power dissipation capability. Maximum power dissipation for each case size is listed in Table below. For additional description see page 78.

Case Size	Power Dissipation (max.) @ 25°C (watts)
T35X, A	.040
T39X B	.050
C	.060
D	.065
E	.070
F	.080
G	.090
H	.100
J	.110
K	.120
L	.130
M	.140
T36X A	.050
B	.075
C	.090
D	.135

Maximum Power Dissipation Capability @ 25°C

- **ENVIRONMENTAL CONSIDERATIONS:**
 - A. Shock Test: MIL-STD-202, Method 213.
 - B. Thermal Shock, MIL-STD-202, Method 107, Condition A.
 - C. Moisture Resistance: MIL-STD-202, Method 106.
 - D. Solderability: MIL-STD-202, Method 208.
For additional Environmental Test Information see pages 80, 81 and 82.
- **LEAD MATERIAL:** Effective June 30, 2005 the T35x, T368 and T39x Series will be available, as an option, with 100% Matte Tin (RoHS compliant) lead wire or Sn/Pb lead wire. Please see page 63 for part number ordering information. The T363 and T369 lead material will remain Sn/Pb solder coated steel core with a copper ply per MIL-STD-127 and at this time will not be available with a 100% Sn option.
- **LEAD TAPE AND REEL:** Reeling per specification RS-468. See pages 72 - 74 for additional information.

The KEMET 'UltraDip II' Capacitors offer the designer of quality instruments and entertainment systems the widely recognized advantages inherent in solid tantalum capacitors at competitive prices.

The 'UltraDip II' Series, miniature dipped solid tantalum capacitors, provide the designer with the advantage of compactness plus low leakage and low DF performance characteristics for filtering, bypassing, coupling, blocking and RC timing circuits. This series features a capacitance range from 0.1 to 680 microfarads at voltages from 3 to 50 VDC. 'UltraDip II' capacitors utilize the same sophisticated materials and processes which have advanced KEMET Electronics Corporation to the leadership position in solid tantalum capacitors.

The plastic case provides a tough barrier coating and maintains precision of lead wire spacing within ± 0.015 inch. The gold color epoxy utilized permits Laser marking with outstanding permanency and legibility. All case sizes are printed with capacitance, voltage, polarity and vendor identification.

Solid tantalum devices exhibit no degradation failure mode during shelf storage and show a constantly decreasing failure rate (i.e., absence of wearout mechanism) during life tests.

The 'UltraDip II' Series provides self-insulating cases which are resistant to shock and vibration. These capacitors exhibit low DCL, ESR and Impedance and have excellent temperature stability.

Effective June 30, 2005 the T35x Series is RoHS compliant.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES (MILLIMETERS)

	All	T350	T351	T352	T353	T354	T355	T356
Case Size	D Max Diameter	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height
A	.175 (4.5)	.280 (7.1)	.380 (9.6)	.400 (10.2)	.400 (10.2)	.340 (8.6)	.340 (8.6)	.340 (8.6)
B	.175 (4.5)	.300 (7.6)	.390 (9.9)	.410 (10.4)	.410 (10.4)	.350 (8.9)	.350 (8.9)	.350 (8.9)
C	.196 (5.0)	.330 (8.4)	.420 (10.7)	.440 (11.2)	.440 (11.2)	.380 (9.6)	.380 (9.6)	.380 (9.6)
D	.196 (5.0)	.340 (8.6)	.430 (10.9)	.450 (11.4)	.450 (11.4)	.390 (9.9)	.390 (9.9)	.390 (9.9)
E	.216 (5.5)	.350 (8.9)	.440 (11.2)	.460 (11.7)	.460 (11.7)	.400 (10.2)	.400 (10.2)	.400 (10.2)
F	.236 (6.0)	.390 (9.9)	.480 (12.2)	.500 (12.7)	.500 (12.7)	.440 (11.2)	.440 (11.2)	.440 (11.2)
G	.250 (6.3)	.400 (10.2)	.490 (12.4)	.510 (13.0)	.510 (13.0)	.450 (11.4)	.450 (11.4)	.450 (11.4)
H	.300 (7.6)	.400 (10.2)	.500 (12.7)	.520 (13.2)	.520 (13.2)	.470 (11.9)	.470 (11.9)	.470 (11.9)
J ⁽²⁾	.330 (8.4)	.500 (12.7)	Note 3	Note 3	.580 (14.7)	.550 (14.0)	Note 3	.550 (14.0)
K ⁽²⁾	.350 (8.9)	.530 (13.5)			.630 (16.0)	.610 (15.5)		.610 (15.5)
L ⁽²⁾	.350 (8.9)	.630 (16.0)			.730 (18.5)	.710 (18.1)		.710 (18.1)
M ⁽²⁾	.400 (10.2)	.670 (17.0)			.760 (19.3)	.740 (18.8)		.740 (18.8)

NOTES: (1) All "H" Dimensions are from Capacitor seating plane to top of Capacitor.
 (2) On T350 Series, case sizes A-H are supplied with .100" (2.54) lead spacing—case sizes J-M are supplied with .200" (5.08) lead spacing.
 (3) These case sizes are not available for T351, T352 & T355 capacitors.

LEAD CONFIGURATION & SPACING CHART

CASE	LEAD CONFIGURATION	SERIES						
		T350	T351	T352	T353	T354	T355	T356
A-H	.100	X	X					
	.125						X	
	.200			X	X			X
	.250					X		
	STRAIGHT LEAD	X						
	STAND OFF		X	X		X	X	X
J-M	SNAP-IN				X			
	.100		NOT AVAILABLE	NOT AVAILABLE			NOT AVAILABLE	
	.125							
	.200	X			X			X
	.250					X		
	STRAIGHT LEAD	X						
	STAND OFF					X		X
	SNAP-IN				X			



TANTALUM DIPPED / RADIAL - POLAR

T350, T351, T352, T353, T354, T355 & T356 SERIES "ULTRADIP II"

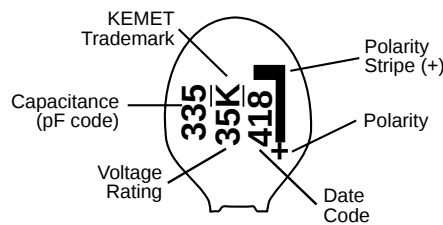


T35X & T36X ORDERING INFORMATION



***Part Number Example: T350A105M035AS (14 digits – no spaces)**

T35X & T36X MARKING INFORMATION



T35X RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE $\mu\text{A}@25^\circ\text{C}$	MAX. DISSIPATION FACTOR %@25°C, 120Hz
3 VOLT RATING AT 85°C — 2 VOLT RATING AT 125°C				
4.7	A	T35(1)A475(3)003A(4)	0.5	5
5.6	A	T35(1)A565(3)003A(4)	0.5	5
6.8	A	T35(1)A685(3)003A(4)	0.5	5
8.2	A	T35(1)A825(3)003A(4)	0.5	6
10.0	A	T35(1)A106(3)003A(4)	0.5	6
12.0	B	T35(1)B126(3)003A(4)	0.5	6
15.0	B	T35(1)B156(3)003A(4)	0.5	6
18.0	C	T35(1)C186(3)003A(4)	0.5	6
22.0	C	T35(1)C226(3)003A(4)	0.5	6
27.0	D	T35(1)D276(3)003A(4)	0.6	6
33.0	D	T35(1)D336(3)003A(4)	0.8	6
39.0	E	T35(1)E396(3)003A(4)	0.9	6
47.0	E	T35(1)E476(3)003A(4)	1.1	6
56.0	F	T35(1)F566(3)003A(4)	1.3	6
68.0	F	T35(1)F686(3)003A(4)	1.6	6
82.0	G	T35(1)G826(3)003A(4)	2.0	8
100.0	G	T35(1)G107(3)003A(4)	2.4	8
120.0	H	T35(1)H127(3)003A(4)	2.9	8
150.0	H	T35(1)H157(3)003A(4)	3.6	8
180.0	J	T35(2)J187(3)003A(4)	4.3	8
220.0	J	T35(2)J227(3)003A(4)	5.3	8
270.0	K	T35(2)K277(3)003A(4)	6.5	8
330.0	K	T35(2)K337(3)003A(4)	7.9	8
390.0	L	T35(2)L397(3)003A(4)	9.4	9
470.0	L	T35(2)L477(3)003A(4)	10.0	9
560.0	M	T35(2)M567(3)003A(4)	10.0	9
680.0	M	T35(2)M687(3)003A(4)	10.0	9

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE $\mu\text{A}@25^\circ\text{C}$	MAX. DISSIPATION FACTOR %@25°C, 120Hz
6.3 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C				
3.3	A	T35(1)A335(3)006A(4)	0.5	5
3.9	A	T35(1)A395(3)006A(4)	0.5	5
4.7	A	T35(1)A475(3)006A(4)	0.5	5
5.6	A	T35(1)A565(3)006A(4)	0.5	5
6.8	A	T35(1)A685(3)006A(4)	0.5	5
8.2	B	T35(1)B825(3)006A(4)	0.5	6
10.0	B	T35(1)B106(3)006A(4)	0.5	6
12.0	C	T35(1)C126(3)006A(4)	0.6	6
15.0	C	T35(1)C156(3)006A(4)	0.7	6
18.0	D	T35(1)D186(3)006A(4)	0.9	6
22.0	D	T35(1)D226(3)006A(4)	1.1	6
27.0	E	T35(1)E276(3)006A(4)	1.3	6
33.0	E	T35(1)E336(3)006A(4)	1.6	6
39.0	F	T35(1)F396(3)006A(4)	1.9	6
47.0	F	T35(1)F476(3)006A(4)	2.3	6
56.0	G	T35(1)G566(3)006A(4)	2.7	6
68.0	G	T35(1)G686(3)006A(4)	3.3	6
82.0	H	T35(1)H826(3)006A(4)	3.9	8
100.0	H	T35(1)H107(3)006A(4)	4.8	8
120.0	J	T35(2)J127(3)006A(4)	5.8	8
150.0	J	T35(2)J157(3)006A(4)	7.2	8
180.0	K	T35(2)K187(3)006A(4)	8.6	8
220.0	K	T35(2)K227(3)006A(4)	10.0	8
270.0	L	T35(2)L277(3)006A(4)	10.0	8
330.0	L	T35(2)L337(3)006A(4)	10.0	8

(1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.

(2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.

(3) To complete KEMET Part Number, insert Capacitance Tolerance Symbol: "M" = $\pm 20\%$, "K" = $\pm 10\%$.

(4) To complete KEMET Part Number, insert Lead Material designation: S = Sn/Pb (tin/lead) and T = 100% Sn (tin).

NOTE: Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET's option.



TANTALUM DIPPED / RADIAL — POLAR

T350, T351, T352, T353, T354, T355 & T356 SERIES “ULTRADIP II”

T35X

RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
2.2	A	T35(1)A225(3)010A(4)	0.5	5
2.7	A	T35(1)A275(3)010A(4)	0.5	5
3.3	A	T35(1)A335(3)010A(4)	0.5	5
3.9	A	T35(1)A395(3)010A(4)	0.5	5
4.7	A	T35(1)A475(3)010A(4)	0.5	5
5.6	B	T35(1)B565(3)010A(4)	0.5	5
6.8	B	T35(1)B685(3)010A(4)	0.5	5
8.2	C	T35(1)C825(3)010A(4)	0.7	6
10.0	C	T35(1)C106(3)010A(4)	0.8	6
12.0	E	T35(1)E126(3)010A(4)	1.0	6
15.0	E	T35(1)E156(3)010A(4)	1.2	6
18.0	E	T35(1)E186(3)010A(4)	1.4	6
22.0	E	T35(1)E226(3)010A(4)	1.8	6
27.0	F	T35(1)F276(3)010A(4)	2.2	6
33.0	F	T35(1)F336(3)010A(4)	2.6	6
39.0	G	T35(1)G396(3)010A(4)	3.1	6
47.0	H	T35(1)H476(3)010A(4)	3.8	6
56.0	H	T35(1)H566(3)010A(4)	4.5	6
68.0	H	T35(1)H686(3)010A(4)	5.4	6
82.0	J	T35(2)J826(3)010A(4)	6.6	8
100.0	J	T35(2)J107(3)010A(4)	8.0	8
120.0	K	T35(2)K127(3)010A(4)	9.6	8
150.0	K	T35(2)K157(3)010A(4)	10.0	8
180.0	L	T35(2)L187(3)010A(4)	10.0	8
220.0	L	T35(2)L227(3)010A(4)	10.0	8
16 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
1.5	A	T35(1)A155(3)016A(4)	0.5	5
1.8	A	T35(1)A185(3)016A(4)	0.5	5
2.2	A	T35(1)A225(3)016A(4)	0.5	5
2.7	A	T35(1)A275(3)016A(4)	0.5	5
3.3	A	T35(1)A335(3)016A(4)	0.5	5
3.9	B	T35(1)B395(3)016A(4)	0.5	5
4.7	B	T35(1)B475(3)016A(4)	0.6	5
5.6	C	T35(1)C565(3)016A(4)	0.7	5
6.8	C	T35(1)C685(3)016A(4)	0.9	5
8.2	E	T35(1)E825(3)016A(4)	1.0	6
10.0	E	T35(1)E106(3)016A(4)	1.3	6
12.0	E	T35(1)E126(3)016A(4)	1.5	6
15.0	E	T35(1)E156(3)016A(4)	1.8	6
18.0	F	T35(1)F186(3)016A(4)	2.2	6
22.0	F	T35(1)F226(3)016A(4)	2.6	6
27.0	H	T35(1)H276(3)016A(4)	3.2	6
33.0	H	T35(1)H336(3)016A(4)	4.0	6
39.0	J	T35(2)J396(3)016A(4)	4.7	6
47.0	J	T35(2)J476(3)016A(4)	5.6	6
56.0	K	T35(2)K566(3)016A(4)	6.8	6
68.0	K	T35(2)K686(3)016A(4)	8.2	6
82.0	L	T35(2)L826(3)016A(4)	9.8	8
100.0	L	T35(2)L107(3)016A(4)	10.0	8
120.0	M	T35(2)M127(3)016A(4)	10.0	8
150.0	M	T35(2)M157(3)016A(4)	10.0	8

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C				
1.0	A	T35(1)A105(3)020A(4)	0.5	5
1.2	A	T35(1)A125(3)020A(4)	0.5	5
1.5	A	T35(1)A155(3)020A(4)	0.5	5
1.8	A	T35(1)A185(3)020A(4)	0.5	5
2.2	A	T35(1)A225(3)020A(4)	0.5	5
2.7	B	T35(1)B275(3)020A(4)	0.5	5
3.3	B	T35(1)B335(3)020A(4)	0.5	5
3.9	C	T35(1)C395(3)020A(4)	0.6	5
4.7	C	T35(1)C475(3)020A(4)	0.8	5
5.6	D	T35(1)D565(3)020A(4)	0.9	5
6.8	D	T35(1)D685(3)020A(4)	1.1	5
8.2	E	T35(1)E825(3)020A(4)	1.3	6
10.0	E	T35(1)E106(3)020A(4)	1.6	6
12.0	F	T35(1)F126(3)020A(4)	1.9	6
15.0	F	T35(1)F156(3)020A(4)	2.4	6
18.0	G	T35(1)G186(3)020A(4)	2.9	6
22.0	G	T35(1)G226(3)020A(4)	3.5	6
27.0	J	T35(2)J276(3)020A(4)	4.3	6
33.0	J	T35(2)J336(3)020A(4)	5.3	6
39.0	K	T35(2)K396(3)020A(4)	6.2	6
47.0	K	T35(2)K476(3)020A(4)	7.5	6
56.0	L	T35(2)L566(3)020A(4)	9.0	6
68.0	L	T35(2)L686(3)020A(4)	10.0	6
82.0	M	T35(2)M826(3)020A(4)	10.0	8
100.0	M	T35(2)M107(3)020A(4)	10.0	8
25 VOLT RATING AT 85°C — 16.5 VOLT RATING AT 125°C				
1.0	A	T35(1)A105(3)025A(4)	0.5	5
1.2	A	T35(1)A125(3)025A(4)	0.5	5
1.5	A	T35(1)A155(3)025A(4)	0.5	5
1.8	A	T35(1)A185(3)025A(4)	0.5	5
2.2	B	T35(1)B225(3)025A(4)	0.5	5
2.7	B	T35(1)B275(3)025A(4)	0.5	5
3.3	B	T35(1)B335(3)025A(4)	0.7	5
3.9	C	T35(1)C395(3)025A(4)	0.8	5
4.7	C	T35(1)C475(3)025A(4)	0.9	5
5.6	E	T35(1)E565(3)025A(4)	1.1	5
6.8	E	T35(1)E685(3)025A(4)	1.4	5
8.2	E	T35(1)E825(3)025A(4)	1.6	6
10.0	E	T35(1)E10		

TANTALUM DIPPED / RADIAL - POLAR

T350, T351, T352, T353, T354, T355 & T356 SERIES "ULTRADIP II"



T35X

RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
0.10	A	T35(1)A104(3)035A(4)	0.5	3
0.12	A	T35(1)A124(3)035A(4)	0.5	3
0.15	A	T35(1)A154(3)035A(4)	0.5	3
0.18	A	T35(1)A184(3)035A(4)	0.5	3
0.22	A	T35(1)A224(3)035A(4)	0.5	3
0.27	A	T35(1)A274(3)035A(4)	0.5	3
0.33	A	T35(1)A334(3)035A(4)	0.5	3
0.39	A	T35(1)A394(3)035A(4)	0.5	3
0.47	A	T35(1)A474(3)035A(4)	0.5	3
0.56	A	T35(1)A564(3)035A(4)	0.5	3
0.68	A	T35(1)A684(3)035A(4)	0.5	3
0.82	A	T35(1)A824(3)035A(4)	0.5	3
1.0	A	T35(1)A105(3)035A(4)	0.5	3
1.2	B	T35(1)B125(3)035A(4)	0.5	5
1.5	B	T35(1)B155(3)035A(4)	0.5	5
1.8	C	T35(1)C185(3)035A(4)	0.5	5
2.2	C	T35(1)C225(3)035A(4)	0.6	5
2.7	D	T35(1)D275(3)035A(4)	0.7	5
3.3	D	T35(1)D335(3)035A(4)	0.9	5
3.9	E	T35(1)E395(3)035A(4)	1.0	5
4.7	E	T35(1)E475(3)035A(4)	1.3	5
5.6	F	T35(1)F565(3)035A(4)	1.6	5
6.8	F	T35(1)F685(3)035A(4)	1.9	5
8.2	G	T35(1)G825(3)035A(4)	2.3	6
10.0	G	T35(1)G106(3)035A(4)	2.8	6
12.0	J	T35(2)J126(3)035A(4)	3.4	6
15.0	J	T35(2)J156(3)035A(4)	4.2	6
18.0	K	T35(2)K186(3)035A(4)	5.0	6
22.0	K	T35(2)K226(3)035A(4)	6.2	6
27.0	L	T35(2)L276(3)035A(4)	7.6	6
33.0	L	T35(2)L336(3)035A(4)	9.2	6
39.0	M	T35(2)M396(3)035A(4)	10.0	6
47.0	M	T35(2)M476(3)035A(4)	10.0	6

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C				
0.10	A	T35(1)A104(3)050A(4)	0.5	3
0.12	A	T35(1)A124(3)050A(4)	0.5	3
0.15	A	T35(1)A154(3)050A(4)	0.5	3
0.18	A	T35(1)A184(3)050A(4)	0.5	3
0.22	A	T35(1)A224(3)050A(4)	0.5	3
0.27	A	T35(1)A274(3)050A(4)	0.5	3
0.33	A	T35(1)A334(3)050A(4)	0.5	3
0.39	B	T35(1)B394(3)050A(4)	0.5	3
0.47	B	T35(1)B474(3)050A(4)	0.5	3
0.56	B	T35(1)B564(3)050A(4)	0.5	3
0.68	B	T35(1)B684(3)050A(4)	0.5	3
0.82	B	T35(1)B824(3)050A(4)	0.5	3
1.0	B	T35(1)B105(3)050A(4)	0.5	3
1.2	D	T35(1)D125(3)050A(4)	0.5	5
1.5	E	T35(1)E155(3)050A(4)	0.6	5
1.8	E	T35(1)E185(3)050A(4)	0.7	5
2.2	E	T35(1)E225(3)050A(4)	0.9	5
2.7	F	T35(1)F275(3)050A(4)	1.1	5
3.3	F	T35(1)F335(3)050A(4)	1.3	5
3.9	G	T35(1)G395(3)050A(4)	1.6	5
4.7	G	T35(1)G475(3)050A(4)	1.9	5
5.6	H	T35(1)H565(3)050A(4)	2.2	5
6.8	J	T35(2)J685(3)050A(4)	2.7	5
8.2	J	T35(2)J825(3)050A(4)	3.3	6
10.0	K	T35(2)K106(3)050A(4)	4.0	6
12.0	K	T35(2)K126(3)050A(4)	4.8	6
15.0	L	T35(2)L156(3)050A(4)	6.0	6
18.0	L	T35(2)L186(3)050A(4)	7.2	6
22.0	M	T35(2)M226(3)050A(4)	8.8	6

(1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.

(2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.

(3) To complete KEMET Part Number, insert Capacitance Tolerance Symbol: "M" = ±20%, "K" = ±10%.

(4) To complete KEMET Part Number, insert Lead Material Designation as follows: S = Sn/Pb (tin/lead) and T = 100% Tin.

Note: Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET's option.

