

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  $\mu\text{F}$  in  $\pm 20\%$ ,  $\pm 10\%$ , and  $\pm 5\%$  tolerances and working voltages from 6-125 VDC.

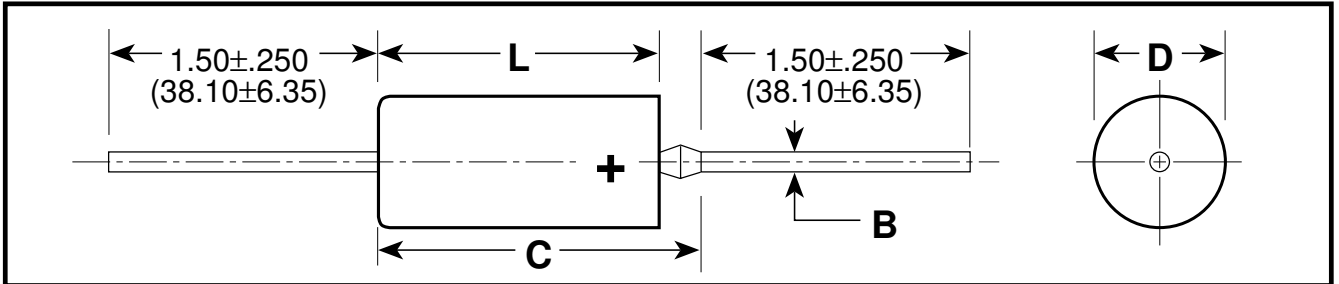
Higher CV values in comparable case sizes are available in KEMET T140 Series. Refer to page 27.

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 $\pm 0.002$ (.05)	C MAX.
	D $\pm 0.005$ (.13)	L $\pm 0.031$ (.79)	D $\pm 0.010$ (.25)	L $\pm 0.031$ (.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  
A / B / C / D

**PICOFARAD CODE** — A 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** — S  
S — Standard  
T — 100% Tin (T110, T140 Series only)

**FAILURE RATE\*\***  
**GRADED**  
A — Not Applicable  
B — 0.1%/k hrs.  
C — 0.01%/k hrs.  
D — 0.001%/k hrs.

**EXponential**  
**GRADED**  
M — 1%/k hrs.  
P — 0.1%/k hrs.  
R — 0.01%/k hrs.  
S — 0.001%/k hrs.

**SPECIFICATION**  
All capacitors are sleeved unless specified.

**\*\*Failure Rates apply only to military products.**

**\*\*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 $\mu\text{F}$	— Nominal Capacitance — ( $\mu\text{F}$ ) ("R" indicates decimal)
100V	— Voltage
0312XY	— Date Code (e.g.: 0312XY)

\* For Military Marking, see page 4.











RATINGS & PART NUMBER REFERENCE

T110/T212 Series Tantalum  
Hermetically Sealed

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)		
<b>35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125° (Cont'd)</b>														
0.068	A	5,10,20	T110A683(1)035AS	0.1	3									
0.082	A	5,10,20	T110A823(1)035AS	0.1	3									
<b>0.1</b>	<b>A</b>	<b>5,10,20</b>	<b>T110A104(1)035AS</b>	<b>0.5</b>	<b>3</b>									
0.12	A	5,10,20	T110A124(1)035AS	0.5	3									
0.15	A	5,10,20	T110A154(1)035AS	0.5	3									
0.18	A	5,10,20	T110A184(1)035AS	0.5	3									
<b>0.22</b>	<b>A</b>	<b>5,10,20</b>	<b>T110A224(1)035AS</b>	<b>0.5</b>	<b>3</b>									
0.27	A	5,10,20	T110A274(1)035AS	0.5	3									
<b>0.33</b>	<b>A</b>	<b>5,10,20</b>	<b>T110A334(1)035AS</b>	<b>0.5</b>	<b>3</b>									
0.39	A	5,10,20	T110A394(1)035AS	0.5	3									
0.47	A	5,10,20	T110A474(1)035AS	0.5	3									
0.56	A	5,10,20	T110A564(1)035AS	0.5	3									
<b>0.68</b>	<b>A</b>	<b>5,10,20</b>	<b>T110A684(1)035AS</b>	<b>0.5</b>	<b>3</b>									
0.82	A	5,10,20	T110A824(1)035AS	0.5	3									
<b>1.0</b>	<b>A</b>	<b>5,10,20</b>	<b>T110A105(1)035AS</b>	<b>0.5</b>	<b>3</b>									
1.2	B	5,10,20	T110B125(1)035AS	0.5	4									
1.5	B	5,10,20	T110B155(1)035AS	0.5	4									
1.8	B	5,10,20	T110B185(1)035AS	0.5	4									
2.2	B	5,10,20	T110B225(1)035AS	1.0	4									
2.7	B	5,10,20	T110B275(1)035AS	1.0	4									
<b>3.3</b>	<b>B</b>	<b>5,10,20</b>	<b>T110B335(1)035AS</b>	<b>1.0</b>	<b>4</b>									
3.9	B	5,10,20	T110B395(1)035AS	1.0	4									
<b>4.7</b>	<b>B</b>	<b>5,10,20</b>	<b>T110B475(1)035AS</b>	<b>1.0</b>	<b>4</b>									
5.6	B	5	T110B565J035AS	1.0	4	5043	5243	5443	5643	6105	7105	8105	T212B565J035(2)S	
5.6	B	10	T110B565K035AS	1.0	4	2303	2543	2783	3023	6106	7106	8106	T212B565K035(2)S	
5.6	B	20	T110B565M035AS	1.0	4									
<b>6.8</b>	<b>B</b>	<b>5</b>	<b>T110B685J035AS</b>	<b>1.5</b>	<b>4</b>	<b>5044</b>	<b>5244</b>	<b>5444</b>	<b>5644</b>	<b>6107</b>	<b>7107</b>	<b>8107</b>	<b>T212B685J035(2)S</b>	
<b>6.8</b>	<b>B</b>	<b>10</b>	<b>T110B685K035AS</b>	<b>1.5</b>	<b>4</b>	<b>2304</b>	<b>2544</b>	<b>2784</b>	<b>3024</b>	<b>6108</b>	<b>7108</b>	<b>8108</b>	<b>T212B685K035(2)S</b>	
<b>6.8</b>	<b>B</b>	<b>20</b>	<b>T110B685M035AS</b>	<b>1.5</b>	<b>4</b>	<b>2305</b>	<b>2545</b>	<b>2785</b>	<b>3025</b>	<b>6109</b>	<b>7109</b>	<b>8109</b>	<b>T212B685M035(2)S</b>	
8.2	C	5,10,20	T110C825(1)035AS	3.0	4									
10.0	C	5,10,20	T110C106(1)035AS	3.0	4									
12.0	C	5,10,20	T110C126(1)035AS	3.0	4									
15.0	C	5,10,20	T110C156(1)035AS	3.0	4									
18.0	C	5,10,20	T110C186(1)035AS	3.0	4									
<b>22.0</b>	<b>C</b>	<b>5</b>	<b>T110C226J035AS</b>	<b>4.0</b>	<b>4</b>	<b>5045</b>	<b>5245</b>	<b>5445</b>	<b>5645</b>	<b>6110</b>	<b>7110</b>	<b>8110</b>	<b>T212C226J035(2)S</b>	
<b>22.0</b>	<b>C</b>	<b>10</b>	<b>T110C226K035AS</b>	<b>4.0</b>	<b>4</b>	<b>2306</b>	<b>2546</b>	<b>2786</b>	<b>3026</b>	<b>6111</b>	<b>7111</b>	<b>8111</b>	<b>T212C226K035(2)S</b>	
<b>22.0</b>	<b>C</b>	<b>20</b>	<b>T110C226M035AS</b>	<b>4.0</b>	<b>4</b>	<b>2307</b>	<b>2547</b>	<b>2787</b>	<b>3027</b>	<b>6112</b>	<b>7112</b>	<b>8112</b>	<b>T212C226M035(2)S</b>	
27.0	D	5	T110D276J035AS	4.5	4	5046	5246	5446	5646	6113	7113	8113	T212D276J035(2)S	
27.0	D	10	T110D276K035AS	4.5	4	2308	2548	2788	3028	6114	7114	8114	T212D276K035(2)S	
27.0	D	20	T110D276M035AS	4.5	4									
<b>33.0</b>	<b>D</b>	<b>5</b>	<b>T110D336J035AS</b>	<b>5.5</b>	<b>4</b>	<b>5047</b>	<b>5247</b>	<b>5447</b>	<b>5647</b>	<b>6115</b>	<b>7115</b>	<b>8115</b>	<b>T212D336J035(2)S</b>	
<b>33.0</b>	<b>D</b>	<b>10</b>	<b>T110D336K035AS</b>	<b>5.5</b>	<b>4</b>	<b>2309</b>	<b>2549</b>	<b>2789</b>	<b>3029</b>	<b>6116</b>	<b>7116</b>	<b>8116</b>	<b>T212D336K035(2)S</b>	
<b>33.0</b>	<b>D</b>	<b>20</b>	<b>T110D336M035AS</b>	<b>5.5</b>	<b>4</b>	<b>2310</b>	<b>2550</b>	<b>2790</b>	<b>3030</b>	<b>6117</b>	<b>7117</b>	<b>8117</b>	<b>T212D336M035(2)S</b>	
39.0	D	5	T110D396J035AS	6.0	4	5048	5248	5448	5648	6118	7118	8118	T212D396J035(2)S	
39.0	D	10	T110D396K035AS	6.0	4	2311	2551	2791	3031	6119	7119	8119	T212D396K035(2)S	
39.0	D	20	T110D396M035AS	6.0	4									
<b>47.0</b>	<b>D</b>	<b>5</b>	<b>T110D476J035AS</b>	<b>8.0</b>	<b>4</b>	<b>5049</b>	<b>5249</b>	<b>5449</b>	<b>5649</b>	<b>6120</b>	<b>7120</b>	<b>8120</b>	<b>T212D476J035(2)S</b>	
<b>47.0</b>	<b>D</b>	<b>10</b>	<b>T110D476K035AS</b>	<b>8.0</b>	<b>4</b>	<b>2312</b>	<b>2552</b>	<b>2792</b>	<b>3032</b>	<b>6121</b>	<b>7121</b>	<b>8121</b>	<b>T212D476K035(2)S</b>	
<b>47.0</b>	<b>D</b>	<b>20</b>	<b>T110D476M035AS</b>	<b>8.0</b>	<b>4</b>	<b>2313</b>	<b>2553</b>	<b>2793</b>	<b>3033</b>	<b>6122</b>	<b>7122</b>	<b>8122</b>	<b>T212D476M035(2)S</b>	
<b>50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°</b>														
0.0047	A	5	T110A472J050AS	0.1	2	5050	5250	5450	5650	6123	7123	8123	T212A472J050(2)S	
0.0047	A	10	T110A472K050AS	0.1	2	2314	2554	2794	3034	6124	7124	8124	T212A472K050(2)S	
0.0047	A	20	T110A472M050AS	0.1	2	2315	2555	2795	3035	6125	7125	8125	T212A472M050(2)S	
0.0056	A	5	T110A562J050AS	0.1	2	5051	5251	5451	5651	6126	7126	8126	T212A562J050(2)S	
0.0056	A	10	T110A562K050AS	0.1	2	2316	2556	2796	3036	6127	7127	8127	T212A562K050(2)S	
0.0056	A	20	T110A562M050AS	0.1	2									
0.0068	A	5	T110A682J050AS	0.1	2	5052	5252	5452	5652	6128	7128	8128	T212A682J050(2)S	
0.0068	A	10	T110A682K050AS	0.1	2	2317	2557	2797	3037	6129	7129	8129	T212A682K050(2)S	
0.0068	A	20	T110A682M050AS	0.1	2	2318	2558	2798	3038	6130	7130	8130	T212A682M050(2)S	

(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.



**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/TH EXPONENTIAL				MIL-PRF-39003/TH GRADED				
						M (1.0)	P (0.1)	R (0.01)	S (0.001)	B (0.1)	C (0.01)	D (0.001)		
<b>50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)</b>														
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	T110A683K050AS	0.1	2	2335	2575	2815	3055	6159	7159	8159	T212A683K050(2)S	
0.068	A	20	T110A683M050AS	0.1	2	2336	2576	2816	3056	6160	7160	8160	T212A683M050(2)S	
0.082	A	5	T110A823J050AS	0.1	2	5065	5265	5465	5665	6161	7161	8161	T212A823J050(2)S	
0.082	A	10	T110A823K050AS	0.1	2	2337	2577	2817	3057	6162	7162	8162	T212A823K050(2)S	
0.082	A	20	T110A823M050AS	0.1	2									
0.1	A	5	T110A104J050AS	0.3	2	5066	5266	5466	5666	6163	7163	8163	T212A104J050(2)S	
0.1	A	10	T110A104K050AS	0.3	2	2338	2578	2818	3058	6164	7164	8164	T212A104K050(2)S	
0.1	A	20	T110A104M050AS	0.3	2	2339	2579	2819	3059	6165	7165	8165	T212A104M050(2)S	
0.12	A	5	T110A124J050AS	0.3	2	5067	5267	5467	5667	6166	7166	8166	T212A124J050(2)S	
0.12	A	10	T110A124K050AS	0.3	2	2340	2580	2820	3060	6167	7167	8167	T212A124K050(2)S	
0.12	A	20	T110A124M050AS	0.3	2									
0.15	A	5	T110A154J050AS	0.3	2	5068	5268	5468	5668	6168	7168	8168	T212A154J050(2)S	
0.15	A	10	T110A154K050AS	0.3	2	2341	2581	2821	3061	6169	7169	8169	T212A154K050(2)S	
0.15	A	20	T110A154M050AS	0.3	2	2342	2582	2822	3062	6170	7170	8170	T212A154M050(2)S	
0.18	A	5	T110A184J050AS	0.3	2	5069	5269	5469	5669	6171	7171	8171	T212A184J050(2)S	
0.18	A	10	T110A184K050AS	0.3	2	2343	2583	2823	3063	6172	7172	8172	T212A184K050(2)S	
0.18	A	20	T110A184M050AS	0.3	2									
0.22	A	5	T110A224J050AS	0.3	2	5070	5270	5470	5670	6173	7173	8173	T212A224J050(2)S	
0.22	A	10	T110A224K050AS	0.3	2	2344	2584	2824	3064	6174	7174	8174	T212A224K050(2)S	
0.22	A	20	T110A224M050AS	0.3	2	2345	2585	2825	3065	6175	7175	8175	T212A224M050(2)S	
0.27	A	5	T110A274J050AS	0.3	2	5071	5271	5471	5671	6176	7176	8176	T212A274J050(2)S	
0.27	A	10	T110A274K050AS	0.3	2	2346	2586	2826	3066	6177	7177	8177	T212A274K050(2)S	
0.27	A	20	T110A274M050AS	0.3	2									
0.33	A	5	T110A334J050AS	0.3	2	5072	5272	5472	5672	6178	7178	8178	T212A334J050(2)S	
0.33	A	10	T110A334K050AS	0.3	2	2347	2587	2827	3067	6179	7179	8179	T212A334K050(2)S	
0.33	A	20	T110A334M050AS	0.3	2	2348	2588	2828	3068	6180	7180	8180	T212A334M050(2)S	
0.39	A	5	T110A394J050AS	0.3	2	5073	5273	5473	5673	6181	7181	8181	T212A394J050(2)S	

(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.

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)		
<b>50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)</b>														
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									
<b>0.47</b>	<b>A</b>	<b>5</b>	<b>T110A474J050AS</b>	<b>0.3</b>	<b>2</b>	<b>5074</b>	<b>5274</b>	<b>5474</b>	<b>5674</b>	<b>6183</b>	<b>7183</b>	<b>8183</b>	<b>T212A474J050(2)S</b>	
<b>0.47</b>	<b>A</b>	<b>10</b>	<b>T110A474K050AS</b>	<b>0.3</b>	<b>2</b>	<b>2350</b>	<b>2590</b>	<b>2830</b>	<b>3070</b>	<b>6184</b>	<b>7184</b>	<b>8184</b>	<b>T212A474K050(2)S</b>	
<b>0.47</b>	<b>A</b>	<b>20</b>	<b>T110A474M050AS</b>	<b>0.3</b>	<b>2</b>	<b>2351</b>	<b>2591</b>	<b>2831</b>	<b>3071</b>	<b>6185</b>	<b>7185</b>	<b>8185</b>	<b>T212A474M050(2)S</b>	
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									
<b>0.68</b>	<b>A</b>	<b>5</b>	<b>T110A684J050AS</b>	<b>0.3</b>	<b>2</b>	<b>5076</b>	<b>5276</b>	<b>5476</b>	<b>5676</b>	<b>6188</b>	<b>7188</b>	<b>8188</b>	<b>T212A684J050(2)S</b>	
<b>0.68</b>	<b>A</b>	<b>10</b>	<b>T110A684K050AS</b>	<b>0.3</b>	<b>2</b>	<b>2353</b>	<b>2593</b>	<b>2833</b>	<b>3073</b>	<b>6189</b>	<b>7189</b>	<b>8189</b>	<b>T212A684K050(2)S</b>	
<b>0.68</b>	<b>A</b>	<b>20</b>	<b>T110A684M050AS</b>	<b>0.3</b>	<b>2</b>	<b>2354</b>	<b>2594</b>	<b>2834</b>	<b>3074</b>	<b>6190</b>	<b>7190</b>	<b>8190</b>	<b>T212A684M050(2)S</b>	
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									
<b>1.0</b>	<b>A</b>	<b>5</b>	<b>T110A105J050AS</b>	<b>0.4</b>	<b>2</b>	<b>5078</b>	<b>5278</b>	<b>5478</b>	<b>5678</b>	<b>6193</b>	<b>7193</b>	<b>8193</b>	<b>T212A105J050(2)S</b>	
<b>1.0</b>	<b>A</b>	<b>10</b>	<b>T110A105K050AS</b>	<b>0.4</b>	<b>2</b>	<b>2356</b>	<b>2596</b>	<b>2836</b>	<b>3076</b>	<b>6194</b>	<b>7194</b>	<b>8194</b>	<b>T212A105K050(2)S</b>	
<b>1.0</b>	<b>A</b>	<b>20</b>	<b>T110A105M050AS</b>	<b>0.4</b>	<b>2</b>	<b>2357</b>	<b>2597</b>	<b>2837</b>	<b>3077</b>	<b>6195</b>	<b>7195</b>	<b>8195</b>	<b>T212A105M050(2)S</b>	
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									
<b>2.2</b>	<b>B</b>	<b>5</b>	<b>T110B225J050AS</b>	<b>0.8</b>	<b>4</b>	<b>5082</b>	<b>5282</b>	<b>5482</b>	<b>5682</b>	<b>6203</b>	<b>7203</b>	<b>8203</b>	<b>T212B225J050(2)S</b>	
<b>2.2</b>	<b>B</b>	<b>10</b>	<b>T110B225K050AS</b>	<b>0.8</b>	<b>4</b>	<b>2362</b>	<b>2602</b>	<b>2842</b>	<b>3082</b>	<b>6204</b>	<b>7204</b>	<b>8204</b>	<b>T212B225K050(2)S</b>	
<b>2.2</b>	<b>B</b>	<b>20</b>	<b>T110B225M050AS</b>	<b>0.8</b>	<b>4</b>	<b>2363</b>	<b>2603</b>	<b>2843</b>	<b>3083</b>	<b>6205</b>	<b>7205</b>	<b>8205</b>	<b>T212B225M050(2)S</b>	
2.7	B	5	T110B275J050AS	0.8	4	5083	5283	5483	5683	6206	7206	8206	T212B275J050(2)S	
2.7	B	10	T110B275K050AS	0.8	4	2364	2604	2844	3084	6207	7207	8207	T212B275K050(2)S	
2.7	B	20	T110B275M050AS	0.8	4									
3.3	B	5	T110B335J050AS	1.2	4	5084	5284	5484	5684	6208	7208	8208	T212B335J050(2)S	
3.3	B	10	T110B335K050AS	1.2	4	2365	2605	2845	3085	6209	7209	8209	T212B335K050(2)S	
3.3	B	20	T110B335M050AS	1.2	4	2366	2606	2846	3086	6210	7210	8210	T212B335M050(2)S	
3.9	B	5	T110B395J050AS	1.5	4	5085	5285	5485	5685	6211	7211	8211	T212B395J050(2)S	
3.9	B	10	T110B395K050AS	1.5	4	2367	2607	2847	3087	6212	7212	8212	T212B395K050(2)S	
3.9	B	20	T110B395M050AS	1.5	4									
<b>4.7</b>	<b>B</b>	<b>5</b>	<b>T110B475J050AS</b>	<b>1.7</b>	<b>4</b>	<b>5086</b>	<b>5286</b>	<b>5486</b>	<b>5686</b>	<b>6213</b>	<b>7213</b>	<b>8213</b>	<b>T212B475J050(2)S</b>	
<b>4.7</b>	<b>B</b>	<b>10</b>	<b>T110B475K050AS</b>	<b>1.7</b>	<b>4</b>	<b>2368</b>	<b>2608</b>	<b>2848</b>	<b>3088</b>	<b>6214</b>	<b>7214</b>	<b>8214</b>	<b>T212B475K050(2)S</b>	
<b>4.7</b>	<b>B</b>	<b>20</b>	<b>T110B475M050AS</b>	<b>1.7</b>	<b>4</b>	<b>2369</b>	<b>2609</b>	<b>2849</b>	<b>3089</b>	<b>6215</b>	<b>7215</b>	<b>8215</b>	<b>T212B475M050(2)S</b>	
5.6	C	5	T110C565J050AS	2.2	4	5087	5287	5487	5687	6216	7216	8216	T212C565J050(2)S	
5.6	C	10	T110C565K050AS	2.2	4	2370	2610	2850	3090	6217	7217	8217	T212C565K050(2)S	
5.6	C	20	T110C565M050AS	2.2	4									
6.8	C	5	T110C685J050AS	2.2	4	5088	5288	5488	5688	6218	7218	8218	T212C685J050(2)S	
6.8	C	10	T110C685K050AS	2.2	4	2371	2611	2851	3091	6219	7219	8219	T212C685K050(2)S	
6.8	C	20	T110C685M050AS	2.2	4	2372	2612	2852	3092	6220	7220	8220	T212C685M050(2)S	
8.2	C	5	T110C825J050AS	2.5	4	5089	5289	5489	5689	6221	7221	8221	T212C825J050(2)S	
8.2	C	10	T110C825K050AS	2.5	4	2373	2613	2853	3093	6222	7222	8222	T212C825K050(2)S	
8.2	C	20	T110C825M050AS	2.5	4									
10.0	C	5	T110C106J050AS	2.5	4	5090	5290	5490	5690	6223	7223	8223	T212C106J050(2)S	
10.0	C	10	T110C106K050AS	2.5	4	2374	2614	2854	3094	6224	7224	8224	T212C106K050(2)S	
10.0	C	20	T110C106M050AS	2.5	4	2375	2615	2855	3095	6225	7225	8225	T212C106M050(2)S	
12.0	C	5	T110C126J050AS	3.0	4	5091	5291	5491	5691	6226	7226	8226	T212C126J050(2)S	
12.0	C	10	T110C126K050AS	3.0	4	2376	2616	2856	3096	6227	7227	8227	T212C126K050(2)S	
12.0	C	20	T110C126M050AS	3.0	4									
15.0	C	5	T110C156J050AS	4.0	4	5092	5292	5492	5692	6228	7228	8228	T212C156J050(2)S	
15.0	C	10	T110C156K050AS	4.0	4	2377	2617	2857	3097	6229	7229	8229	T212C156K050(2)S	
15.0	C	20	T110C156M050AS	4.0	4	2378	2618	2858	3098	6230	7230	8230	T212C156M050(2)S	
18.0	C	5	T110C186J050AS	4.5	4	5093	5293	5493	5693	6231	7231	8231	T212C186J050(2)S	

(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 type and values.

T110/T212 Series Tantalum  
Hermetically Sealed





**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)	
<b>50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C (Cont'd)</b>													
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								
<b>22.0</b>	<b>D</b>	<b>5</b>	<b>T110D226J050AS</b>	<b>5.5</b>	<b>4</b>	<b>5094</b>	<b>5294</b>	<b>5494</b>	<b>5694</b>	<b>6233</b>	<b>7233</b>	<b>8233</b>	<b>T212D226J050(2)S</b>
<b>22.0</b>	<b>D</b>	<b>10</b>	<b>T110D226K050AS</b>	<b>5.5</b>	<b>4</b>	<b>2380</b>	<b>2620</b>	<b>2860</b>	<b>3100</b>	<b>6234</b>	<b>7234</b>	<b>8234</b>	<b>T212D226K050(2)S</b>
<b>22.0</b>	<b>D</b>	<b>20</b>	<b>T110D226M050AS</b>	<b>5.5</b>	<b>4</b>	<b>2381</b>	<b>2621</b>	<b>2861</b>	<b>3101</b>	<b>6235</b>	<b>7235</b>	<b>8235</b>	<b>T212D226M050(2)S</b>
<b>60 VOLT RATING AT 85°C — 40 VOLT RATING AT 125°C</b>													
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								
8.2	C	5,10,20	T110C825(1)060AS	4.0	4								
10.0	C	5,10,20	T110C106(1)060AS	5.0	4								
12.0	C	5,10,20	T110C126(1)060AS	5.0	4								
15.0	D	5,10,20	T110D156(1)060AS	4.0	4								
18.0	D	5,10,20	T110D186(1)060AS	5.0	4								
22.0	D	5,10,20	T110D226(1)060AS	6.0	4								
<b>75 VOLT RATING AT 85°C — 50 VOLT RATING AT 125°C</b>													
0.0047	A	5,10,20	T110A472(1)075AS	0.3	2								
0.0056	A	5,10,20	T110A562(1)075AS	0.3	2								
0.0068	A	5,10,20	T110A682(1)075AS	0.3	2								
0.0082	A	5,10,20	T110A822(1)075AS	0.3	2								
0.01	A	5,10,20	T110A103(1)075AS	0.3	2								

(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.





**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)		
<b>75 VOLT RATING AT 85°C — 50 VOLT RATING AT 125°C (Cont'd)</b>														
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	
<b>100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°C</b>														
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	T110A472M100AS	0.3	2	2424	2664	2904	3144	6306	7306	*	T212A472M100(2)S	
0.0056	A	5	T110A562J100AS	0.3	2	5123	5323	5523	5723	6307	7307	*	T212A562J100(2)S	
0.0056	A	10	T110A562K100AS	0.3	2	2425	2665	2905	3145	6308	7308	*	T212A562K100(2)S	
0.0056	A	20	T110A562M100AS	0.3	2									
0.0068	A	5	T110A682J100AS	0.3	2	5124	5324	5524	5724	6309	7309	*	T212A682J100(2)S	
0.0068	A	10	T110A682K100AS	0.3	2	2426	2666	2906	3146	6310	7310	*	T212A682K100(2)S	
0.0068	A	20	T110A682M100AS	0.3	2	2427	2667	2907	3147	6311	7311	*	T212A682M100(2)S	
0.0082	A	5	T110A822J100AS	0.3	2	5125	5325	5525	5725	6312	7312	*	T212A822J100(2)S	
0.0082	A	10	T110A822K100AS	0.3	2	2428	2668	2908	3148	6313	7313	*	T212A822K100(2)S	
0.0082	A	20	T110A822M100AS	0.3	2									
0.01	A	5	T110A103J100AS	0.3	2	5126	5326	5526	5726	6314	7314	*	T212A103J100(2)S	
0.01	A	10	T110A103K100AS	0.3	2	2429	2669	2909	3149	6315	7315	*	T212A103K100(2)S	
0.01	A	20	T110A103M100AS	0.3	2	2430	2670	2910	3150	6316	7316	*	T212A103M100(2)S	
0.012	A	5	T110A123J100AS	0.3	2	5127	5327	5527	5727	6317	7317	*	T212A123J100(2)S	
0.012	A	10	T110A123K100AS	0.3	2	2431	2671	2911	3151	6318	7318	*	T212A123K100(2)S	
0.012	A	20	T110A123M100AS	0.3	2									
0.015	A	5	T110A153J100AS	0.3	2	5128	5328	5528	5728	6319	7319	*	T212A153J100(2)S	
0.015	A	10	T110A153K100AS	0.3	2	2432	2672	2912	3152	6320	7320	*	T212A153K100(2)S	
0.015	A	20	T110A153M100AS	0.3	2	2433	2673	2913	3153	6321	7321	*	T212A153M100(2)S	
0.018	A	5	T110A183J100AS	0.3	2	5129	5329	5529	5729	6322	7322	*	T212A183J100(2)S	
0.018	A	10	T110A183K100AS	0.3	2	2434	2674	2914	3154	6323	7323	*	T212A183K100(2)S	
0.018	A	20	T110A183M100AS	0.3	2									
0.022	A	5	T110A223J100AS	0.3	2	5130	5330	5530	5730	6324	7324	*	T212A223J100(2)S	
0.022	A	10	T110A223K100AS	0.3	2	2435	2675	2915	3155	6325	7325	*	T212A223K100(2)S	

(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.

\*Note: D Failure Rate — Not QPL for -8304 thru -8401.

RATINGS & PART NUMBER REFERENCE

T110/T212 Series Tantalum  
Hermetically Sealed

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)		
<b>100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°C (Cont'd)</b>														
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	T110A224K100AS	0.3	2	2453	2693	2933	3173	6355	7355	*	T212A224K100(2)S	
0.22	A	20	T110A224M100AS	0.3	2	2454	2694	2934	3174	6356	7356	*	T212A224M100(2)S	
0.27	A	5	T110A274J100AS	0.3	2	5143	5343	5543	5743	6357	7357	*	T212A274J100(2)S	
0.27	A	10	T110A274K100AS	0.3	2	2455	2695	2935	3175	6358	7358	*	T212A274K100(2)S	
0.27	A	20	T110A274M100AS	0.3	2									
0.33	A	5	T110A334J100AS	0.3	2	5144	5344	5544	5744	6359	7359	*	T212A334J100(2)S	
0.33	A	10	T110A334K100AS	0.3	2	2456	2696	2936	3176	6360	7360	*	T212A334K100(2)S	
0.33	A	20	T110A334M100AS	0.3	2	2457	2697	2937	3177	6361	7361	*	T212A334M100(2)S	
0.39	A	5	T110A394J100AS	0.3	2	5145	5345	5545	5745	6362	7362	*	T212A394J100(2)S	
0.39	A	10	T110A394K100AS	0.3	2	2458	2698	2938	3178	6363	7363	*	T212A394K100(2)S	
0.39	A	20	T110A394M100AS	0.3	2									
0.47	A	5	T110A474J100AS	0.3	2	5146	5346	5546	5746	6364	7364	*	T212A474J100(2)S	
0.47	A	10	T110A474K100AS	0.3	2	2459	2699	2939	3179	6365	7365	*	T212A474K100(2)S	
0.47	A	20	T110A474M100AS	0.3	2	2460	2700	2940	3180	6366	7366	*	T212A474M100(2)S	
0.56	A	5	T110A564J100AS	0.3	2	5147	5347	5547	5747	6367	7367	*	T212A564J100(2)S	
0.56	A	10	T110A564K100AS	0.3	2	2461	2701	2941	3181	6368	7368	*	T212A564K100(2)S	
0.56	A	20	T110A564M100AS	0.3	2									
0.68	B	5	T110B684J100AS	0.3	2	5148	5348	5548	5748	6369	7369	*	T212B684J100(2)S	
0.68	B	10	T110B684K100AS	0.3	2	2462	2702	2942	3182	6370	7370	*	T212B684K100(2)S	
0.68	B	20	T110B684M100AS	0.3	2	2463	2703	2943	3183	6371	7371	*	T212B684M100(2)S	
0.82	B	5	T110B824J100AS	0.4	2	5149	5349	5549	5749	6372	7372	*	T212B824J100(2)S	
0.82	B	10	T110B824K100AS	0.4	2	2464	2704	2944	3184	6373	7373	*	T212B824K100(2)S	
0.82	B	20	T110B824M100AS	0.4	2									
1.0	B	5	T110B105J100AS	0.5	2	5150	5350	5550	5750	6374	7374	*	T212B105J100(2)S	
1.0	B	10	T110B105K100AS	0.5	2	2465	2705	2945	3185	6375	7375	*	T212B105K100(2)S	
1.0	B	20	T110B105M100AS	0.5	2	2466	2706	2946	3186	6376	7376	*	T212B105M100(2)S	

(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.

\*Note: D Failure Rate — Not QPL for -8304 thru -8401.





**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)		
<b>100 VOLT RATING AT 85°C — 67 VOLT RATING AT 125°C (Cont'd)</b>														
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									
<b>125 VOLT RATING AT 85°C — 82 VOLT RATING AT 125°</b>														
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	0.5	3									
0.0082	A	5,10,20	T110A822(1)125AS	0.5	3									
0.01	A	5,10,20	T110A103(1)125AS	0.5	3									
0.012	A	5,10,20	T110A123(1)125AS	0.5	3									
0.015	A	5,10,20	T110A153(1)125AS	0.5	3									
0.018	A	5,10,20	T110A183(1)125AS	0.5	3									
0.022	A	5,10,20	T110A223(1)125AS	0.5	3									
0.027	A	5,10,20	T110A273(1)125AS	0.5	3									
0.033	A	5,10,20	T110A333(1)125AS	0.5	3									
0.039	A	5,10,20	T110A393(1)125AS	1.5	3									
0.047	A	5,10,20	T110A473(1)125AS	1.5	3									
0.056	A	5,10,20	T110A563(1)125AS	1.5	3									
0.068	A	5,10,20	T110A683(1)125AS	1.5	3									
0.082	A	5,10,20	T110A823(1)125AS	1.5	3									
0.1	A	5,10,20	T110A104(1)125AS	1.5	3									
0.12	A	5,10,20	T110A124(1)125AS	1.5	3									
0.15	A	5,10,20	T110A154(1)125AS	1.5	3									
0.18	A	5,10,20	T110A184(1)125AS	1.5	3									
0.22	A	5,10,20	T110A224(1)125AS	1.5	3									
0.27	A	5,10,20	T110A274(1)125AS	1.5	3									
0.33	A	5,10,20	T110A334(1)125AS	1.5	3									
0.39	B	5,10,20	T110B394(1)125AS	1.5	3									
0.47	B	5,10,20	T110B474(1)125AS	1.5	3									
0.56	B	5,10,20	T110B564(1)125AS	1.5	3									
0.68	B	5,10,20	T110B684(1)125AS	1.5	3									
0.82	B	5,10,20	T110B824(1)125AS	1.5	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.

\*Note: C failure rate — Not QPL for 7389 thru 7401.

D failure rate — Not QPL for -8304 thru -8401.





**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)	
<b>125 VOLT RATING AT 85°C — 82 VOLT RATING AT 125°C</b>													
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/T212 Series Tantalum  
Hermetically Sealed**

**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	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			
33.0	3.0	2.1	1.6	1.4	1.2	1.0	0.8	0.8			
39.0	3.0	2.1	1.6	1.4	1.2	1.0	0.8				
47.0	2.0	1.7	1.3	1.2	1.0	0.8	0.6				
56.0	2.0	1.7	1.3	1.2	1.0	0.8					
68.0	1.8	1.3	1.0	0.9	0.8	0.6					
82.0	1.8	1.3	1.0	0.9	0.8	0.6					
100.0	1.6	1.0	0.8	0.6	0.5	0.5					
120.0	1.6	1.0	0.8	0.6							
150.0	0.9	0.8	0.6	0.5							
180.0	0.9	0.8	0.6	0.5							
220.0	0.9	0.6	0.5								
270.0	0.9	0.6	0.5								
330.0	0.7	0.5	0.4								
390.0	0.7	0.5									
470.0	0.5	0.5									
560.0	0.5	0.5									
680.0	0.3										
820.0	0.3										
1000.0	0.12										
1200.0	0.12										

**T110 Herm Seal LOW ESR (OHMS) at 100 kHz @ +25°C**  
 The ESR values provided below may be ordered using KEMET Customer Specification 2864.

Cap µF	6 Volt	10 Volt	15 Volt	20 Volt	35 Volt	50 Volt
5.6						0.300
6.8						0.275
8.2					0.250	0.250
10.0					0.230	0.230
12.0					0.210	0.210
15.0					0.190	0.190
18.0					0.175	0.175
22.0					0.160	0.160
27.0				0.145	0.145	
33.0				0.130	0.130	
39.0				0.120	0.120	
47.0				0.110	0.110	
56.0			0.100	0.100		
68.0			0.095	0.095		
82.0		0.085	0.085	0.085		
100.0		0.075	0.075	0.075		
120.0		0.070	0.070			
150.0	0.065	0.065				
180.0	0.060	0.060				
220.0	0.055	0.055				
270.0	0.050					
330.0	0.045					