

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**  
T35X/T39X: 0.1-680µF, 3-50 Volts.  
T36X: 0.1-330µF, 6-50 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with ±20% and ±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.

- **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

**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. µF	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						

- **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, T36x 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  $\pm 0.015$  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



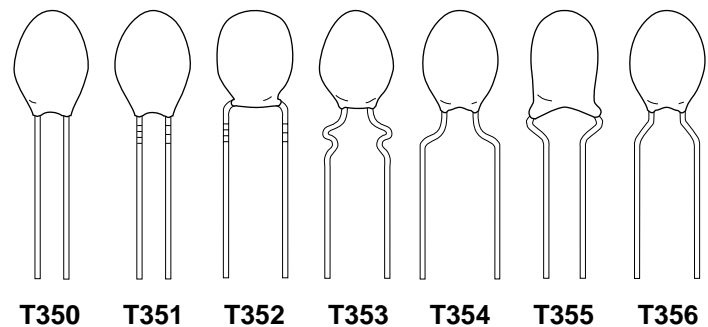
### DIMENSIONS — INCHES (MILLIMETERS)

Case Size	All	T350	T351	T352	T353	T354	T355	T356
D	D	H <sup>(1)</sup>	H <sup>(1)</sup>	H <sup>(1)</sup>	H <sup>(1)</sup>	H <sup>(1)</sup>	H <sup>(1)</sup>	H <sup>(1)</sup>
Max Diameter	Max Diameter	Max Height	Max Height	Max Height	Max Height	Max Height	Max Height	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 <sup>(2)</sup>	.330 (8.4)	.500 (12.7)	Note 3	Note 3	.580 (14.7)	.550 (14.0)	Note 3	.550 (14.0)
K <sup>(2)</sup>	.350 (8.9)	.530 (13.5)			.630 (16.0)	.610 (15.5)		.610 (15.5)
L <sup>(2)</sup>	.350 (8.9)	.630 (16.0)			.730 (18.5)	.710 (18.1)		.710 (18.1)
M <sup>(2)</sup>	.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
SNAP-IN				X				
J-M	.100		"NOT AVAILABLE"					
	.125		"NOT AVAILABLE"					
	.200	X	"NOT AVAILABLE"		X			X
	.250		"NOT AVAILABLE"			X		
	STRAIGHT LEAD	X	"NOT AVAILABLE"					
	STAND OFF					X		X
SNAP-IN				X				



# TANTALUM DIPPED / RADIAL - POLAR

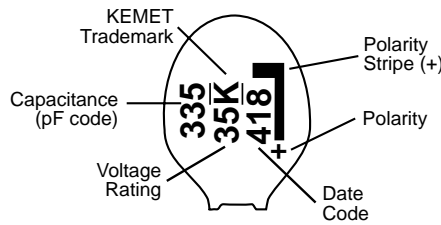
## T350, T351, T352, T353, T354, T355 & T356 SERIES "ULTRADIP II"



### T35X & T36X ORDERING INFORMATION



### T35X & T368 MARKING INFORMATION



### 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
<b>3 VOLT RATING AT 85°C — 2 VOLT RATING AT 125°C</b>				
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 μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
<b>6.3 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C</b>				
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" = ±20%, "K" = ±10%.
  - (4) To complete KEMET Part Number, insert Lead Material designation: S = SnPb (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.

T35X Series  
Tantalum Dipped / Radial

### 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
<b>10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C</b>				
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
<b>4.7</b>	<b>A</b>	<b>T35(1)A475(3)010A(4)</b>	<b>0.5</b>	<b>5</b>
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
<b>33.0</b>	<b>F</b>	<b>T35(1)F336(3)010A(4)</b>	<b>2.6</b>	<b>6</b>
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
<b>100.0</b>	<b>J</b>	<b>T35(2)J107(3)010A(4)</b>	<b>8.0</b>	<b>8</b>
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
<b>16 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C</b>				
1.5	A	T35(1)A155(3)016A(4)	0.5	5
1.8	A	T35(1)A185(3)016A(4)	0.5	5
<b>2.2</b>	<b>A</b>	<b>T35(1)A225(3)016A(4)</b>	<b>0.5</b>	<b>5</b>
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
<b>4.7</b>	<b>B</b>	<b>T35(1)B475(3)016A(4)</b>	<b>0.6</b>	<b>5</b>
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
<b>10.0</b>	<b>E</b>	<b>T35(1)E106(3)016A(4)</b>	<b>1.3</b>	<b>6</b>
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
<b>22.0</b>	<b>F</b>	<b>T35(1)F226(3)016A(4)</b>	<b>2.6</b>	<b>6</b>
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
<b>47.0</b>	<b>J</b>	<b>T35(2)J476(3)016A(4)</b>	<b>5.6</b>	<b>6</b>
56.0	K	T35(2)K566(3)016A(4)	6.8	6
<b>68.0</b>	<b>K</b>	<b>T35(2)K686(3)016A(4)</b>	<b>8.2</b>	<b>6</b>
82.0	L	T35(2)L826(3)016A(4)	9.8	8
<b>100.0</b>	<b>L</b>	<b>T35(2)L107(3)016A(4)</b>	<b>10.0</b>	<b>8</b>
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
<b>20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C</b>				
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
<b>100.0</b>	<b>M</b>	<b>T35(2)M107(3)020A(4)</b>	<b>10.0</b>	<b>8</b>
<b>25 VOLT RATING AT 85°C — 16.5 VOLT RATING AT 125°C</b>				
<b>1.0</b>	<b>A</b>	<b>T35(1)A105(3)025A(4)</b>	<b>0.5</b>	<b>5</b>
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
<b>2.2</b>	<b>B</b>	<b>T35(1)B225(3)025A(4)</b>	<b>0.5</b>	<b>5</b>
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
<b>10.0</b>	<b>E</b>	<b>T35(1)E106(3)025A(4)</b>	<b>2.0</b>	<b>6</b>
12.0	G	T35(1)G126(3)025A(4)	2.4	6
<b>15.0</b>	<b>G</b>	<b>T35(1)G156(3)025A(4)</b>	<b>3.0</b>	<b>6</b>
18.0	H	T35(1)H186(3)025A(4)	3.6	6
<b>22.0</b>	<b>H</b>	<b>T35(1)H226(3)025A(4)</b>	<b>4.4</b>	<b>6</b>
27.0	J	T35(2)J276(3)025A(4)	5.4	6
33.0	J	T35(2)J336(3)025A(4)	6.6	6
39.0	K	T35(2)K396(3)025A(4)	7.8	6
<b>47.0</b>	<b>K</b>	<b>T35(2)K476(3)025A(4)</b>	<b>9.4</b>	<b>6</b>
56.0	L	T35(2)L566(3)025A(4)	10.0	6
68.0	L	T35(2)L686(3)025A(4)	10.0	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% 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
<b>35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C</b>				
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
<b>1.0</b>	<b>A</b>	<b>T35(1)A105(3)035A(4)</b>	<b>0.5</b>	<b>3</b>
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
<b>2.2</b>	<b>C</b>	<b>T35(1)C225(3)035A(4)</b>	<b>0.6</b>	<b>5</b>
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
<b>4.7</b>	<b>E</b>	<b>T35(1)E475(3)035A(4)</b>	<b>1.3</b>	<b>5</b>
5.6	F	T35(1)F565(3)035A(4)	1.6	5
<b>6.8</b>	<b>F</b>	<b>T35(1)F685(3)035A(4)</b>	<b>1.9</b>	<b>5</b>
8.2	G	T35(1)G825(3)035A(4)	2.3	6
<b>10.0</b>	<b>G</b>	<b>T35(1)G106(3)035A(4)</b>	<b>2.8</b>	<b>6</b>
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
<b>22.0</b>	<b>K</b>	<b>T35(2)K226(3)035A(4)</b>	<b>6.2</b>	<b>6</b>
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
<b>47.0</b>	<b>M</b>	<b>T35(2)M476(3)035A(4)</b>	<b>10.0</b>	<b>6</b>

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
<b>50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C</b>				
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
<b>1.0</b>	<b>B</b>	<b>T35(1)B105(3)050A(4)</b>	<b>0.5</b>	<b>3</b>
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
<b>6.8</b>	<b>J</b>	<b>T35(2)J685(3)050A(4)</b>	<b>2.7</b>	<b>5</b>
8.2	J	T35(2)J825(3)050A(4)	3.3	6
<b>10.0</b>	<b>K</b>	<b>T35(2)K106(3)050A(4)</b>	<b>4.0</b>	<b>6</b>
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

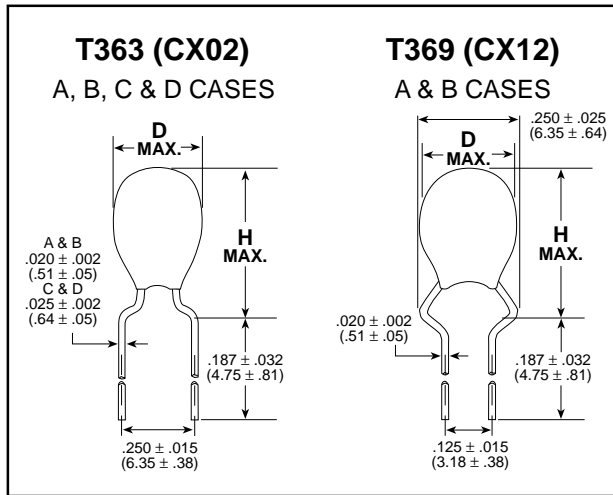
- (1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.  
(2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.  
(3) To complete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

Product manufactured to the requirements of MIL-PRF-49137 satisfy all the performance characteristics of the UltraDip II. The performance characteristics meet or exceed the requirements of MIL-PRF-49137.

In addition to the standard process testing done on the UltraDip II, all product supplied to MIL-PRF-49137 is sampled on a lot by lot

basis for Group A and Group B inspection to insure compliance. Product supplied per MIL-PRF-49137 also receives an additional post process burn-in for at least two (2) hours under accelerated voltage stress in excess of 125% of DC rated voltage. This post process burn-in is equivalent to 200 hours under rated conditions.

### CAPACITOR OUTLINE DRAWINGS

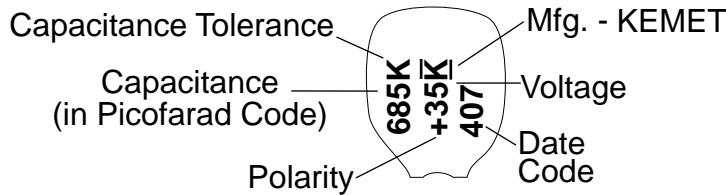


### DIMENSIONS — INCHES & (MILLIMETERS)

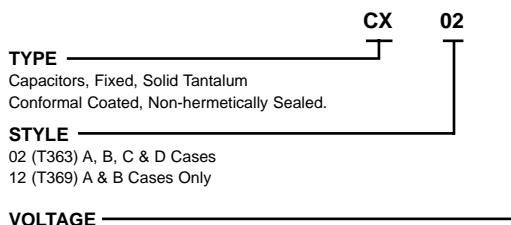
T363 A-D CASE  
T369 A&B CASE ONLY

CASE SIZE	D MAX	H MAX
A	0.175 (4.45)	0.350 (8.89)
B	0.250 (6.35)	0.450 (11.43)
C	0.350 (8.89)	0.610 (15.49)
D	0.400 (10.16)	0.740 (18.80)

### MIL-PRF-49137 MARKING INFORMATION



### MIL-PRF-49137/2 ORDERING INFORMATION



Symbol	Rated (857C) Volts, dc	Surge (857C) Volts, dc
D	6	8
F	10	13
H	15	20
J	20	26
K	25	32
M	35	46
N	50	65

\*For KEMET Ordering Information, see page 63.

#### CAPACITANCE TOLERANCE

Symbol	Capacitance Tolerance
K	Percent (±) 10
M	20

#### CAPACITANCE IN PICORARAD CODE

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.



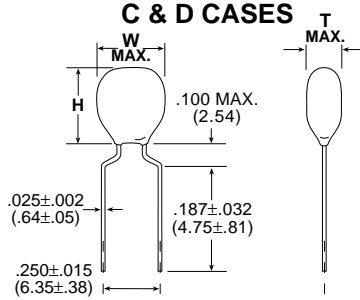
**RATINGS & PART NUMBER REFERENCE**

CAPACITANCE µF	CASE SIZE	CAPACITANCE TOLERANCE ±%	T363, T369 KEMET PART NUMBER	D.C. LEAKAGE µA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz	CX02 (T363) MILITARY PART NUMBER	CX12 (T369) MILITARY PART NUMBER
<b>6 VOLT RATING AT 85°C</b>							
6.8	A	10, 20	T36(1)A685(2)006AS	0.5	6	CX02D685(2)	CX12D685(2)
47.0	B	10, 20	T36(1)B476(2)006AS	2.3	6	CX02D476(2)	CX12D476(2)
68.0	B	10, 20	T36(1)B686(2)006AS	3.3	6	CX02D686(2)	CX12D686(2)
150.0	C	10, 20	T363C157(2)006AS	7.2	8	CX02D157(2)	
330.0	D	10, 20	T363D337(2)006AS	10.0	8	CX02D337(2)	
<b>10 VOLT RATING AT 85°C</b>							
4.7	A	10, 20	T36(1)A475(2)010AS	0.5	5	CX02F475(2)	CX12F475(2)
33.0	B	10, 20	T36(1)B336(2)010AS	2.6	6	CX02F336(2)	CX12F336(2)
100.0	C	10, 20	T363C107(2)010AS	8.0	8	CX02F107(2)	
220.0	D	10, 20	T363D227(2)010AS	10.0	8	CX02F227(2)	
<b>15 VOLT RATING AT 85°C</b>							
3.3	A	10, 20	T36(1)A335(2)015AS	0.5	5	CX02H335(2)	CX12H335(2)
22.0	B	10, 20	T36(1)B226(2)015AS	2.6	6	CX02H226(2)	CX12H226(2)
68.0	C	10, 20	T363C686(2)015AS	8.2	6	CX02H686(2)	
150.0	D	10, 20	T363D157(2)015AS	10.0	8	CX02H157(2)	
<b>20 VOLT RATING AT 85°C</b>							
2.2	A	10, 20	T36(1)A225(2)020AS	0.5	5	CX02J225(2)	CX12J225(2)
15.0	B	10, 20	T36(1)B156(2)020AS	2.4	6	CX02J156(2)	CX12J156(2)
47.0	C	10, 20	T363C476(2)020AS	7.5	6	CX02J476(2)	
100.0	D	10, 20	T363D107(2)020AS	10.0	8	CX02J107(2)	
<b>25 VOLT RATING AT 85°C</b>							
1.5	A	10, 20	T36(1)A155(2)025AS	0.5	5	CX02K155(2)	CX12K155(2)
10.0	B	10, 20	T36(1)B106(2)025AS	2.0	6	CX02K106(2)	CX12K106(2)
33.0	C	10, 20	T363C336(2)025AS	6.6	6	CX02K336(2)	
68.0	D	10, 20	T363D686(2)025AS	10.0	6	CX02K686(2)	
<b>35 VOLT RATING AT 85°C</b>							
6.8	B	10, 20	T36(1)B685(2)035AS	1.9	5	CX02M685(2)	CX12M685(2)
22.0	C	10, 20	T363C226(2)035AS	6.2	6	CX02M226(2)	
33.0	D	10, 20	T363D336(2)035AS	9.2	6	CX02M336(2)	
47.0	D	10, 20	T363D476(2)035AS	10.0	6	CX02M476(2)	
<b>50 VOLT RATING AT 85°C</b>							
0.1	A	10, 20	T36(1)A104(2)050AS	0.5	3	CX02N104(2)	CX12N104(2)
0.15	A	10, 20	T36(1)A154(2)050AS	0.5	3	CX02N154(2)	CX12N154(2)
0.22	A	10, 20	T36(1)A224(2)050AS	0.5	3	CX02N224(2)	CX12N224(2)
0.33	A	10, 20	T36(1)A334(2)050AS	0.5	3	CX02N334(2)	CX12N334(2)
0.47	A	10, 20	T36(1)A474(2)050AS	0.5	3	CX02N474(2)	CX12N474(2)
0.68	A	10, 20	T36(1)A684(2)050AS	0.5	3	CX02N684(2)	CX12N684(2)
1.0	A	10, 20	T36(1)A105(2)050AS	0.5	3	CX02N105(2)	CX12N105(2)
1.5	B	10, 20	T36(1)B155(2)050AS	0.6	5	CX02N155(2)	CX12N155(2)
2.2	B	10, 20	T36(1)B225(2)050AS	0.9	5	CX02N225(2)	CX12N225(2)
3.3	B	10, 20	T36(1)B335(2)050AS	1.3	5	CX02N335(2)	CX12N335(2)
4.7	B	10, 20	T36(1)B475(2)050AS	1.9	5	CX02N475(2)	CX12N475(2)
6.8	C	10, 20	T363C685(2)050AS	2.7	5	CX02N685(2)	
10.0	C	10, 20	T363C106(2)050AS	4.0	6	CX02N106(2)	
15.0	C	10, 20	T363C156(2)050AS	6.0	6	CX02N156(2)	
22.0	D	10, 20	T363D226(2)050AS	8.8	6	CX02N226(2)	

(1) To complete KEMET part number, insert Series Designation as follows: 3 - T363 (CX02); 9 - T369 (CX12)  
 (2) To complete KEMET or military part number, insert Capacitance Tolerance Symbol as follows:  
 M - ±20%, K - ±10%

**T363/T369 & T368 Series  
Tantalum Dipped / Radial**

### T368 CAPACITOR OUTLINE DRAWING



### T368 DIMENSIONS — INCHES + (MILLIMETERS)

CASE SIZE	TMAX	WMAX	HMAX
C	0.250 (6.35)	0.40 (10.16)	0.42 (10.67)
D	0.250 (6.35)	0.460 (11.68)	0.52 (13.20)

### T368 RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
<b>6 VOLT RATING AT 85°C</b>				
82.0	C	T368C826(1)006A(2)	3.9	8
100.0	C	T368C107(1)006A(2)	4.8	8
120.0	C	T368C127(1)006A(2)	5.8	8
150.0	C	T368C157(1)006A(2)	7.2	8
180.0	D	T368D187(1)006A(2)	8.6	8
220.0	D	T368D227(1)006A(2)	10.0	8
270.0	D	T368D277(1)006A(2)	10.0	8
330.0	D	T368D337(1)006A(2)	10.0	8
<b>10 VOLT RATING AT 85°C</b>				
47.0	C	T368C476(1)010A(2)	3.8	6
56.0	C	T368C566(1)010A(2)	4.4	6
68.0	C	T368C686(1)010A(2)	5.4	6
82.0	C	T368C826(1)010A(2)	6.5	8
100.0	C	T368C107(1)010A(2)	8.0	8
120.0	D	T368D127(1)010A(2)	9.6	8
150.0	D	T368D157(1)010A(2)	10.0	8
180.0	D	T368D187(1)010A(2)	10.0	8
220.0	D	T368D227(1)010A(2)	10.0	8
<b>15 VOLT RATING AT 85°C</b>				
27.0	C	T368C276(1)015A(2)	3.2	6
33.0	C	T368C336(1)015A(2)	4.0	6
39.0	C	T368C396(1)015A(2)	4.7	6
47.0	C	T368C476(1)015A(2)	5.6	6
56.0	C	T368C566(1)015A(2)	6.8	6
68.0	C	T368C686(1)015A(2)	8.2	6
82.0	D	T368D826(1)015A(2)	9.8	8
100.0	D	T368D107(1)015A(2)	10.0	8
120.0	D	T368D127(1)015A(2)	10.0	8
150.0	D	T368D157(1)015A(2)	10.0	8
<b>20 VOLT RATING AT 85°C</b>				
18.0	C	T368C186(1)020A(2)	2.8	6
22.0	C	T368C226(1)020A(2)	3.5	6
27.0	C	T368C276(1)020A(2)	4.3	6
33.0	C	T368C336(1)020A(2)	5.3	6
39.0	C	T368C396(1)020A(2)	6.2	6
47.0	C	T368C476(1)020A(2)	7.5	6
56.0	D	T368D566(1)020A(2)	8.9	6
68.0	D	T368D686(1)020A(2)	10.0	6
82.0	D	T368D826(1)020A(2)	10.0	8
100.0	D	T368D107(1)020A(2)	10.0	8

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
<b>25 VOLT RATING AT 85°C</b>				
12.0	C	T368C126(1)025A(2)	2.4	6
15.0	C	T368C156(1)025A(2)	3.0	6
18.0	C	T368C186(1)025A(2)	3.6	6
22.0	C	T368C226(1)025A(2)	4.4	6
27.0	C	T368C276(1)025A(2)	5.4	6
33.0	C	T368C336(1)025A(2)	6.6	6
39.0	D	T368D396(1)025A(2)	7.8	6
47.0	D	T368D476(1)025A(2)	9.4	6
56.0	D	T368D566(1)025A(2)	10.0	6
68.0	D	T368D686(1)025A(2)	10.0	6
<b>35 VOLT RATING AT 85°C</b>				
8.2	C	T368C825(1)035A(2)	2.3	6
10.0	C	T368C106(1)035A(2)	2.8	6
12.0	C	T368C126(1)035A(2)	3.3	6
15.0	C	T368C156(1)035A(2)	4.2	6
18.0	C	T368C186(1)035A(2)	5.0	6
22.0	C	T368C226(1)035A(2)	6.2	6
27.0	D	T368D276(1)035A(2)	7.5	6
33.0	D	T368D336(1)035A(2)	9.2	6
39.0	D	T368D396(1)035A(2)	10.0	6
47.0	D	T368D476(1)035A(2)	10.0	6
<b>50 VOLT RATING AT 85°C</b>				
5.6	C	T368C565(1)050A(2)	2.2	5
6.8	C	T368C685(1)050A(2)	2.7	5
8.2	C	T368C825(1)050A(2)	3.2	6
10.0	C	T368C106(1)050A(2)	4.0	6
12.0	C	T368C126(1)050A(2)	4.8	6
15.0	C	T368C156(1)050A(2)	6.0	6
18.0	D	T368D186(1)050A(2)	7.2	6
22.0	D	T368D226(1)050A(2)	8.8	6

- (1) To complete KEMET part number, insert capacitance tolerance K- ±10%, M- ±20%, or J- ±5% (Available on special order).
- (2) To complete KEMET part number, insert lead material designation: S = SnPb (tin/lead) and T = 100% Sn (tin).

**\* For Ordering and Marking Information refer to page 63.**

**Effective June 30, 2005 T368 Series is RoHS Compliant.**



# TANTALUM DIPPED / 3 LEADED

## T396 & T398 SERIES "ULTRADIP III"



KEMET UltraDip III Capacitors offer the advantages of solid tantalum construction and a "fail-safe" insertion mechanism. The three-leaded design (the anode is in the center) enables operators to insert the capacitors into printed circuit boards correctly without having to visually determine polarity. This timesaving device also eliminates board damage that may result from incorrect insertion.

The UltraDip III Series features a capacitance range of 0.1 to 680  $\mu$ F at 3 to 50 VDC. These miniature dipped solid tantalum capacitors are encased in a tough plastic barrier coating that maintains the pre-

cise lead wire spacing within  $\pm 0.015$  inch. The gold color epoxy permits laser markings with outstanding permanency and legibility. All case sizes are printed with capacitance, voltage and vendor I.D.

The UltraDip III Series from KEMET Capacitors exhibit low DCL, ESR and Impedance and have excellent temperature stability. These capacitors may be ordered with precut leads (see drawing for lengths) or in KEMET Capacitor ARIS packaging (leads taped and on reels) for high speed automatic insertion equipment.

Effective June 30, 2005 the T396 and T398 Series are RoHS Compliant.

### CAPACITOR OUTLINE DRAWING



### DIMENSIONS—INCHES & (MILLIMETERS)

Series	Case Size	Both		T396	T398
		W Width	T Thickness	H* Height	H* Height
T396/T398	A	.280 (7.1)	.190 (4.8)	.310 (7.9)	.355 (9.0)
T396/T398	B	.280 (7.1)	.190 (4.8)	.320 (8.1)	.365 (9.3)
T396/T398	C	.280 (7.1)	.200 (5.1)	.360 (9.1)	.390 (9.9)
T396/T398	D	.280 (7.1)	.200 (5.1)	.370 (9.4)	.390 (9.9)
T396/T398	E	.280 (7.1)	.230 (5.8)	.380 (9.7)	.415 (10.5)
T396/T398	F	.280 (7.1)	.240 (6.1)	.410 (10.4)	.430 (10.9)
T396/T398	G	.280 (7.1)	.250 (6.3)	.420 (10.7)	.440 (11.2)
T396/T398	H	.280 (7.1)	.270 (6.9)	.420 (10.7)	.440 (11.2)
T396/T398	J	.300 (7.6)	.300 (7.6)	.460 (11.7)	.480 (12.2)
T396/T398	K	.340 (8.6)	.340 (8.6)	.500 (12.7)	.500 (12.7)
T396/T398	L	.340 (8.6)	.340 (8.6)	.560 (14.2)	.580 (14.7)
T396/T398	M	.360 (9.1)	.360 (9.1)	.620 (15.7)	.620 (15.7)

\*NOTE: "H" dimensions are from seating plane to top of capacitor.

### CAPACITOR MARKING



### ORDERING INFORMATION



### RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
<b>3 VOLT RATING AT 85°C — 2 VOLT RATING AT 125°C</b>				
4.7	A	T39(1)A475(2)003A(3)	0.5	5
6.8	A	T39(1)A685(2)003A(3)	0.5	5
10.0	A	T39(1)A106(2)003A(3)	0.5	6
15.0	B	T39(1)B156(2)003A(3)	0.5	6
22.0	C	T39(1)C226(2)003A(3)	0.5	6
33.0	D	T39(1)D336(2)003A(3)	0.8	6
47.0	E	T39(1)E476(2)003A(3)	1.1	6
68.0	F	T39(1)F686(2)003A(3)	1.6	6
100.0	G	T39(1)G107(2)003A(3)	2.4	8
150.0	H	T39(1)H157(2)003A(3)	3.6	8
220.0	J	T39(1)J227(2)003A(3)	5.3	8
330.0	K	T39(1)K337(2)003A(3)	7.9	8
470.0	L	T39(1)L477(2)003A(3)	10.0	9
680.0	M	T39(1)M687(2)003A(3)	10.0	9
<b>10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C</b>				
2.2	A	T39(1)A225(2)010A(3)	0.5	5
3.3	A	T39(1)A335(2)010A(3)	0.5	5
4.7	A	T39(1)A475(2)010A(3)	0.5	5
6.8	B	T39(1)B685(2)010A(3)	0.5	5
10.0	C	T39(1)C106(2)010A(3)	0.8	6
15.0	E	T39(1)E156(2)010A(3)	1.2	6
22.0	E	T39(1)E226(2)010A(3)	1.8	6
33.0	F	T39(1)F336(2)010A(3)	2.6	6
47.0	H	T39(1)H476(2)010A(3)	3.8	6
68.0	H	T39(1)H686(2)010A(3)	5.4	6
100.0	J	T39(1)J107(2)010A(3)	8.0	8
150.0	K	T39(1)K157(2)010A(3)	10.0	8
220.0	I	T39(1)L227(2)010A(3)	10.0	8
<b>20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C</b>				
1.0	A	T39(1)A105(2)020A(3)	0.5	3
1.5	A	T39(1)A155(2)020A(3)	0.5	5
2.2	A	T39(1)A225(2)020A(3)	0.5	5
3.3	B	T39(1)B335(2)020A(3)	0.5	5
4.7	C	T39(1)C475(2)020A(3)	0.8	5
6.8	D	T39(1)D685(2)020A(3)	1.1	5
10.0	E	T39(1)E106(2)020A(3)	1.6	6
15.0	F	T39(1)F156(2)020A(3)	2.4	6
22.0	G	T39(1)G226(2)020A(3)	3.5	6
33.0	J	T39(1)J336(2)020A(3)	5.3	6
47.0	K	T39(1)K476(2)020A(3)	7.5	6
68.0	L	T39(1)L686(2)020A(3)	10.0	6
100.0	M	T39(1)M107(2)020A(3)	10.0	8
<b>35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C</b>				
0.10	A	T39(1)A104(2)035A(3)	0.5	3
0.15	A	T39(1)A154(2)035A(3)	0.5	3
0.22	A	T39(1)A224(2)035A(3)	0.5	3
0.33	A	T39(1)A334(2)035A(3)	0.5	3
0.47	A	T39(1)A474(2)035A(3)	0.5	3
0.68	A	T39(1)A684(2)035A(3)	0.5	3
1.0	A	T39(1)A105(2)035A(3)	0.5	3
1.5	B	T39(1)B155(2)035A(3)	0.5	5
2.2	C	T39(1)C225(2)035A(3)	0.6	5
3.3	D	T39(1)D335(2)035A(3)	0.9	5
4.7	E	T39(1)E475(2)035A(3)	1.3	5
6.8	F	T39(1)F685(2)035A(3)	1.9	5
10.0	G	T39(1)G106(2)035A(3)	2.8	6
15.0	J	T39(1)J156(2)035A(3)	4.2	6
22.0	K	T39(1)K226(2)035A(3)	6.2	6
33.0	L	T39(1)L336(2)035A(3)	9.2	6
47.0	M	T39(1)M476(2)035A(3)	10.0	6

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
<b>6.3 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C</b>				
3.3	A	T39(1)A335(2)006A(3)	0.5	5
4.7	A	T39(1)A475(2)006A(3)	0.5	5
6.8	A	T39(1)A685(2)006A(3)	0.5	5
10.0	B	T39(1)B106(2)006A(3)	0.5	6
15.0	C	T39(1)C156(2)006A(3)	0.7	6
22.0	D	T39(1)D226(2)006A(3)	1.1	6
33.0	E	T39(1)E336(2)006A(3)	1.6	6
47.0	F	T39(1)F476(2)006A(3)	2.3	6
68.0	G	T39(1)G686(2)006A(3)	3.3	6
100.0	H	T39(1)H107(2)006A(3)	4.8	8
150.0	J	T39(1)J157(2)006A(3)	7.2	8
220.0	K	T39(1)K227(2)006A(3)	10.0	8
330.0	L	T39(1)L337(2)006A(3)	10.0	8
<b>16 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C</b>				
1.5	A	T39(1)A155(2)016A(3)	0.5	5
2.2	A	T39(1)A225(2)016A(3)	0.5	5
3.3	A	T39(1)A335(2)016A(3)	0.5	5
4.7	B	T39(1)B475(2)016A(3)	0.6	5
6.8	C	T39(1)C685(2)016A(3)	0.9	5
10.0	E	T39(1)E106(2)016A(3)	1.3	6
15.0	E	T39(1)E156(2)016A(3)	1.8	6
22.0	F	T39(1)F226(2)016A(3)	2.6	6
33.0	H	T39(1)H336(2)016A(3)	4.0	6
47.0	J	T39(1)J476(2)016A(3)	5.6	6
68.0	K	T39(1)K686(2)016A(3)	8.2	6
100.0	L	T39(1)L107(2)016A(3)	10.0	8
150.0	M	T39(1)M157(2)016A(3)	10.0	8
<b>25 VOLT RATING AT 85°C — 16.5 VOLT RATING AT 125°C</b>				
1.0	A	T39(1)A105(2)025A(3)	0.5	3
1.5	A	T39(1)A155(2)025A(3)	0.5	5
2.2	B	T39(1)B225(2)025A(3)	0.5	5
3.3	B	T39(1)B335(2)025A(3)	0.7	5
4.7	C	T39(1)C475(2)025A(3)	0.9	5
6.8	E	T39(1)E685(2)025A(3)	1.4	5
10.0	E	T39(1)E106(2)025A(3)	2.0	6
15.0	G	T39(1)G156(2)025A(3)	3.0	6
22.0	H	T39(1)H226(2)025A(3)	4.4	6
33.0	J	T39(1)J336(2)025A(3)	6.6	6
47.0	K	T39(1)K476(2)025A(3)	9.4	6
68.0	L	T39(1)L686(2)025A(3)	10.0	6
<b>50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C</b>				
0.10	A	T39(1)A104(2)050A(3)	0.5	3
0.15	A	T39(1)A154(2)050A(3)	0.5	3
0.22	A	T39(1)A224(2)050A(3)	0.5	3
0.33	A	T39(1)A334(2)050A(3)	0.5	3
0.47	B	T39(1)B474(2)050A(3)	0.5	3
0.68	B	T39(1)B684(2)050A(3)	0.5	3
1.0	B	T39(1)B105(2)050A(3)	0.5	3
1.5	E	T39(1)E155(2)050A(3)	0.6	5
2.2	E	T39(1)E225(2)050A(3)	0.9	5
3.3	F	T39(1)F335(2)050A(3)	1.3	5
4.7	G	T39(1)G475(2)050A(3)	1.9	5
6.8	J	T39(1)J685(2)050A(3)	2.7	5
10.0	K	T39(1)K106(2)050A(3)	4.0	6
15.0	L	T39(1)L156(2)050A(3)	6.0	6
22.0	M	T39(1)M226(2)050A(3)	8.8	6

(1) To complete KEMET Part Number, insert Series Designation as follows: "6" = T396, "8" = T398.

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

(3) To complete KEMET Part Number, insert Lead Material Designation: S = SnPb (tin/lead) and T = 100% Sn (tin).

NOTE: Higher voltage/higher tolerance products may be shipped, at KEMET's option, within the same case size.

KEMET offers Solid Tantalum Capacitors fully compatible for use with automatic insertion machines for radial-lead components. Aris Reeling meets all requirements of EIA Standard RS-468. KEMET capacitors are wound on a precision made ARIS Reel Package. ARIS Ammo Package is also available.

## Tantalum Dipped Radial – ARIS Specification (Automatic Radial Insertion System)

### Tantalum Dipped Tape and Reel Dimensions in Millimeters & (Inches)

Dimension	Symbol	Nominal mm (inch)	Tolerance mm (inch)	Dimension	Symbol	Nominal mm (inch)	Tolerance mm (inch)
Body Height (1)	A	17.0 (0.67)	Maximum	Component Pitch (5)	P	12.7 (.500)	± 1.0 (± .039)
Body Width (1)	A <sub>1</sub>	10.2 (0.40)	Maximum	Sprocket Hole Pitch (2)	P <sub>0</sub>	12.7 (.500)	± 0.3 (± .012)
Sprocket Hole Diameter	D <sub>0</sub>	4.0 (.157)	± 0.3 (± .012)	Sprocket Hole Center to Lead Center (3) (4)	P <sub>1</sub>	See Note Below	± 0.7 (± .028)
Lead Diameter	d	0.51 or 0.64 (.020) (.025)	± 0.05 (.002)	Sprocket Hole Center to Component (5) Center	P <sub>2</sub>	See Note Below	
Lead Center (4)	F	See Note Below		Body Thickness	T <sub>0</sub>	10.2 (.400)	Maximum
Component Base to Tape Center (4)	H	C-7301 16.0 (.630) C-7303 18.0 (.709)	C-7301 ±0.5 (±.020) C-7303 Minimum	Total Tape Thickness	T	0.7 (0.28)	± .02 (.008)
Lead Standoff Height	H <sub>0</sub>	C-7301 16.0 (.630) C-7303 18.0 (.709)	±0.5 (±.020) Minimum	Carrier Tape Width	W	18.0 (.709)	+ 1.0/-0.5 (+.039/- .020)
Component Height Above Tape Center	H <sub>1</sub>	32.25 (1.270)	Maximum	Hold-Down Tape Width	W <sub>0</sub>	15mm or 6mm (.561) (.236)	+ 1.0/-0.8 (+.039/.031)
Component Alignment Front to Rear	Δ H	0	1.0 (.039)	Sprocket Hole Location	W <sub>1</sub>	9.0 (.354)	+ .075/-0.5 (+.030/- .020)
Cut Out Length	L	11.0 (.433)	Maximum	Hold-Down Tape Location	W <sub>2</sub>	12mm (.472)	Maximum
Lead Protrusion	L <sub>1</sub>	1.0 (.039)	Maximum				

- Notes: (1) See page 62 for T35X and page 69 for T39X specific dimensions.  
 (2) Cumulative pitch error ± 1.0mm (.039) maximum in 20 consecutive sprocket hole locations.  
 (3) Measured at bottom of standoff.  
 (4) P<sub>1</sub> and F measured at egress from carrier tape.  
 (5) P and P<sub>2</sub> measured at egress from carrier tape.

On polar devices, the positive (+) lead exits from container first.  
 \* Lead spacings are 2.5mm (.098") center-to-center (T350 A-H)  
 \*\* Lead spacings are 5.0mm (.197") center-to-center  
 # Lead spacings are 6.35mm (.25") center-to-center  
 + Lead spacings are 3.18mm (.125") center-to-center

F Dimensions:	P1 Dimensions:
0.100" ± .015	Lead Spacing
0.125" ± .015	0.100" - 0.200 ± .028"
0.200" ± .015	0.125" - 0.187 ± .028"
0.250" ± .015"	0.200" - 0.150 ± .028"
0.100" ± .015 (3 leaded)	0.250" - 0.125 ± .028"
	0.100" - 0.100 ± .028" (3 leaded)



## Tantalum Molded Radial – ARIS Specification (Automatic Radial Insertion System)

### Tantalum Molded Tape and Reel Dimensions in Millimeters & (Inches)

Dimension	Symbol	Nominal mm (inch)	Tolerance mm (inch)	Dimension	Symbol	Nominal mm (inch)	Tolerance mm (inch)
Body Height (1)	A	10.50 (.413)	± .38 (±.015) Maximum	Component Pitch (5)	P	12.7 (.500)	± 1.0 (± .039)
Body Width (1)	A <sub>1</sub>	15.24 (.600)	Maximum ± .38 ± (.015)	Sprocket Hole Pitch (3)	P <sub>0</sub>	12.7 (.500)	± 0.3 (± .012)
Sprocket Hole Diameter	D <sub>0</sub>	4.0 (.157)	± 0.3 (± .012)	Sprocket Hole Center to Lead Center (4) (5)	P <sub>1</sub>	3.85 4.76 5.1 (.152) (.188) (.201)	± 0.7 (± .028)
Lead Diameter	d	0.51 or 0.64 (.020) (.025)	± 0.05 or ± .03 (± .001)	Sprocket Hole Center to Component Center	P <sub>2</sub>	6.35 (.250)	± 1.3 (± .051)
Lead Center (5)	F	5.0 2.5 (.197) (.098)	+ 0.8/ - 0.2 (+ .032/ - .008)	Body Thickness	T <sub>0</sub>	6.35 (.250)	± 1.3 Maximum
Component Base to Tape Center (2)(4)(6)	H	16.0 - 21.0 (.630 - .827)	Reference Only	Total Tape Thickness	T	0.7 (0.28)	± .02 (±.008)
Lead Standoff Height	H <sub>0</sub>	N/A		Carrier Tape Width	W	18.0 (.709)	+ 1.0/-0.5 (+.039/- .020)
Component Height Above Tape Center	H <sub>1</sub>	32.25 (1.270)	Maximum	Hold-Down Tape Width	W <sub>0</sub>	15 or 6 (.561) (.236)	+ 1.0/-0.8 (+.039/.031)
Component Alignment Front to Rear	Δ H	0	± 2.0 (± .079)	Sprocket Hole Location	W <sub>1</sub>	9.0 (.354)	+ .075/-0.5 (+.030/- .020)
Cut Out Length	L	11.0 (.433)	Maximum	Hold-Down Tape Location	W <sub>2</sub>	3.0 or 12.0 (.118) (.472)	Maximum
Lead Protrusion	L <sub>1</sub>	2.0 (.079)	Maximum				

- Notes: (1) See page 50 for T330, page 53 for T340 and page 59 for T35X specific dimensions.  
 (2) Reference Only  
 (3) Cumulative pitch error ± 1.0mm (.039") maximum in 20 consecutive sprocket hole locations.  
 (4) Measured at bottom of standoff.  
 (5) P, P<sub>1</sub> and F measured at egress from carrier tape.  
 (6) H dimensions for T370 D and E 16.5mm ± 0.5mm (0.650" ± 0.020")

On polar devices, the positive (+) lead exits from container first.  
 \* Lead spacings are 2.5mm (.098") center-to-center  
 \*\* Lead spacings are 5.0mm (.197") center-to-center.



TANTALUM PACKAGING									
KEMET(1) Number	Military Style	Military Specification	Case Size	Standard Bulk(2) Quantity	Standard Reel Quantity	Reel Size	Standard Reeling Spec.	Ammo Pack Quantity	Ammo Pack Spec.
T110/T212, T140/T242, T252, T262	CSR13	MIL-C-39003/1	A	150/Box	3500	12"	C-7200	1500	C-7293
	CSR23	MIL-C-39003/3	B	75/Box	2500	12"	C-7200	1000	Class I
	CSR33	MIL-C-39003/6	C	20/Tray	500	12"	C-7200	250	C-7442
	CSR21	MIL-C-39003/9	D	20/Tray	400	12"	C-7200	250	Class II C-7443 Class III  See Page 71 for class info.
T111/T213	CSR91	MIL-C-39003/4	A	60/Box	3000	12"	C-7200	N/A	N/A
			B	30/Box	2000	12"	C-7200		
			C	10/Card	N/A	N/A	N/A		
			D	10/Card	N/A	N/A	N/A		
T210, T216, T240, T256	CSS13	MIL-C-39003/10	A	40/Tray	3500	12"	C-7200	N/A	N/A
			B	30/Tray	2500	12"	C-7200	N/A	N/A
	CSS33	MIL-C-39003/10	C	20/Tray	500	12"	C-7200	N/A	N/A
			D	20/Tray	400	12"	C-7200	N/A	N/A
T222	CSR09	MIL-C-39003/2	A/B	50/Tray	N/A	N/A	N/A	N/A	N/A
			A	300/Box	N/A	N/A	N/A	N/A	N/A
			B	150/Box	N/A	N/A	N/A	N/A	N/A
T322/T323	CX01, CX05	MIL-C-49137/1 & 5	A	300	4500	12"	C-7200	2000	C-7293
			B	250	4000	12"	C-7200	2000	Class I
			C	100	2500	12"	C-7200	1000	C-7442
			D	100	2500	12"	C-7200	1000	Class II
			E	100	500	12"	C-7200	250	C-7443
			F	100	500	12"	C-7200	250	Class III  See Page 71
T330			A	400	1000	12"	C-7301	1600	
			B	300	1000	12"	C-7301	1200	
			C	200	1000	12"	C-7301	1200	
			D	100	N/A	N/A	N/A	N/A	
T340			A	300	1000	12"	C-7301	1600	
			B	300	1000	12"	C-7301	1500	
			C	200	1000	12"	C-7301	1500	
			D	100	250	12"	C-7301	450	
			E	50	150	12"	C-7301	N/A	
			F	100	N/A	N/A	N/A	N/A	
T350, T351, T352, T353, T354, T355, T356			A	1000	1500	12"	C-7301/7303	2500	
			B	1000	1500	12"	C-7301/7303	2500	
			C	1000	1500	12"	C-7301/7303	2500	
			D	1000	1000	12"	C-7301/7303	2000	
			E	1000	1000	12"	C-7301/7303	2000	
			F	500	1000	12"	C-7301/7303	1500	
			G	500	1000	12"	C-7301/7303	1500	
			H	500	800	12"	C-7301/7303	1500	
			J	100	800	12"	C-7301/7303	800	
			K	100	500	12"	C-7301/7303	800	
			L, M	100	500	12"	See Page 72	500	

Lead Tape & Reel Packaging

NOTE: (1) Each KEMET number in its section applies to all case sizes.

(2) Standard packaging refers to number of pieces per bag, box, tray or vial.

TANTALUM PACKAGING (Continued)								
KEMET(1) Number	Military Style	Military Specification	Case Size	Standard Bulk(2) Quantity	Standard Reel Quantity	Reel Size	Standard Reeling Spec.	Ammo Packs
T363	CX02	MIL-C-49137/2	A	1000	1500	12"	C-7301/7303	2500
			B	1000	1500	12"	C-7301/7303	2000
			C	500	500	12"	C-7301/7303	800
			D	500	500	12"	See Page 72	800
T368			C	500	500	12"	C-7301/7303	800
			D	500	500	12"	C-7301/7303	800
T369	CX12	MIL-C-49137/2	A	1000	1500	12"	C-7301/7303	2500
			B	1000	1500	12"	C-7301/7303	2000
T370			C	500	N/A	N/A	N/A	N/A
			D	500	1000	12"	C-7301	N/A
			E	500	1000	12"	C-7301	N/A
			F	250	N/A	N/A	N/A	N/A
T378	CX06	MIL-C-49137/6	D	200	1000	12"	C-7301	N/A
			E	180	1000	12"	C-7301	N/A
			F	50	N/A	N/A	N/A	N/A
T396, T398			A-B	1000	1500	12"	C-7301/7303	2000
			C	500	1500	12"	C-7301/7303	2000
			D-F	500	1000	12"	C-7301/7303	1500
			G	500	1000	12"	C-7301/7303	2000
			H	500	800	12"	C-7301/7303	2000
			J	250	800	12"	C-7301/7303	1600
			K	250	500	12"	C-7301/7303	800
			L-M	250	500	12"	C-7301/7303	500

NOTE: (1) Standard packaging refers to number of pieces per bag, box, tray or vial.

(2) Quantity varies. For further details, please consult the factory.