

**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, 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.

Tantalum Dipped / Radial — Polar

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<br>Max Diameter | H <sup>(1)</sup><br>Max Height | H <sup>(1)</sup><br>Max Height | H <sup>(1)</sup><br>Max Height | H <sup>(1)</sup><br>Max Height | H <sup>(1)</sup><br>Max Height | H <sup>(1)</sup><br>Max Height | H <sup>(1)</sup><br>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" | "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



### T35X & T36X MARKING INFORMATION



### T35X RATINGS AND PART NUMBER REFERENCE

| CAPACITANCE<br>μF   | CASE SIZE | KEMET PART NUMBER    | D.C. LEAKAGE<br>μA@25°C | MAX. DISSIPATION FACTOR<br>%@25°C,<br>120Hz |
|---|-----------|----------------------|-------------------------|---|
| <b>3 VOLT RATING AT 85°C —<br/>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<br>μF   | CASE SIZE | KEMET PART NUMBER    | D.C. LEAKAGE<br>μA@25°C | MAX. DISSIPATION FACTOR<br>%@25°C,<br>120Hz |
|---|-----------|----------------------|-------------------------|---|
| <b>6.3 VOLT RATING AT 85°C —<br/>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 = 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.

T35X Series  
Tantalum Dipped / Radial

### T35X

#### RATINGS AND PART NUMBER REFERENCE

| CAPACITANCE<br>μF   | CASE<br>SIZE | KEMET PART NUMBER           | D.C.<br>LEAKAGE<br>μA@25°C | MAX.<br>DISSIPATION<br>FACTOR<br>%@25°C,<br>120Hz |
|---|--------------|-----------------------------|----------------------------|---|
| <b>10 VOLT RATING AT 85°C —<br/>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 —<br/>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<br>μF   | CASE<br>SIZE | KEMET PART NUMBER           | D.C.<br>LEAKAGE<br>μA@25°C | MAX.<br>DISSIPATION<br>FACTOR<br>%@25°C,<br>120Hz |
|---|--------------|-----------------------------|----------------------------|---|
| <b>20 VOLT RATING AT 85°C —<br/>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 —<br/>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.

T35X

RATINGS AND PART NUMBER REFERENCE

| CAPACITANCE<br>μF   | CASE<br>SIZE | KEMET PART NUMBER           | D.C.<br>LEAKAGE<br>μA@25°C | MAX.<br>DISSI-<br>PATION<br>FACTOR<br>%@25°C,<br>120Hz |
|---|--------------|-----------------------------|----------------------------|--|
| <b>35 VOLT RATING AT 85°C —<br/>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<br>μF   | CASE<br>SIZE | KEMET PART NUMBER           | D.C.<br>LEAKAGE<br>μA@25°C | MAX.<br>DISSI-<br>PATION<br>FACTOR<br>%@25°C,<br>120Hz |
|---|--------------|-----------------------------|----------------------------|--|
| <b>50 VOLT RATING AT 85°C —<br/>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  |

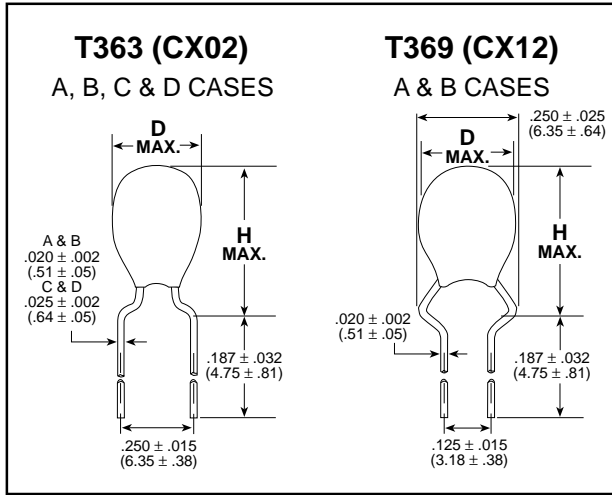
(1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.  
 (2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.  
 (3) To complete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

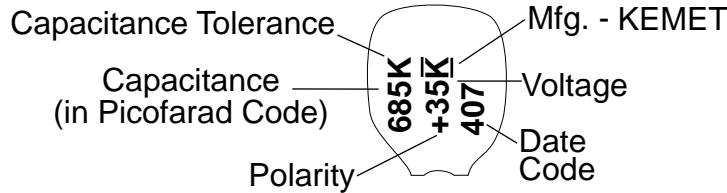


### DIMENSIONS — INCHES & (MILLIMETERS)

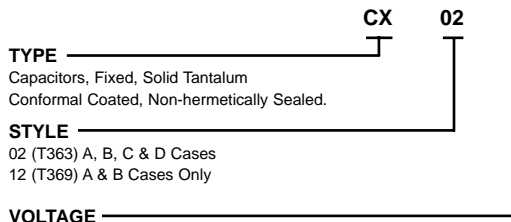
T363 A-D CASE  
T369 A&B CASE ONLY

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

### MIL-PRF-49137 MARKING INFORMATION



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



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

#### CAPACITANCE TOLERANCE

| Symbol | Capacitance Tolerance |
|--------|-----------------------|
|        | Percent (±)           |
| K      | 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.

\*For KEMET Ordering Information, see page 63.

**RATINGS & PART NUMBER REFERENCE**

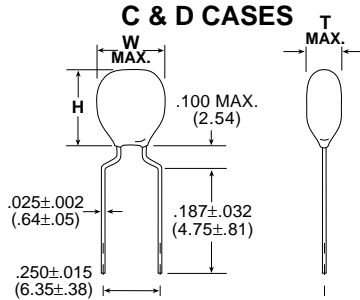
T363/T369 & T368 Series  
Tantalum Dipped / Radial

| CAPACITANCE<br>µF             | CASE<br>SIZE | CAPACITANCE<br>TOLERANCE<br>±% | T363, T369<br>KEMET<br>PART NUMBER | D. C.<br>LEAKAGE<br>µA@25°C | MAX.<br>DISSIPATION<br>FACTOR<br>%@25°C,<br>120Hz | CX02<br>(T363)<br>MILITARY<br>PART NUMBER | CX12<br>(T369)<br>MILITARY<br>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%

### T368 CAPACITOR OUTLINE DRAWING



### T368 DIMENSIONS — INCHES + (MILLIMETERS)

| CASE SIZE | TMAX            | WMAX             | HMAX            |
|-----------|-----------------|------------------|-----------------|
| C         | 0.250<br>(6.35) | 0.40<br>(10.16)  | 0.42<br>(10.67) |
| D         | 0.250<br>(6.35) | 0.460<br>(11.68) | 0.52<br>(13.20) |

### T368 RATINGS AND PART NUMBER REFERENCE

| CAPACITANCE<br>μF             | CASE SIZE | KEMET PART NUMBER  | D.C. LEAKAGE<br>μA@25°C | MAX. DISSIPATION FACTOR<br>%@25°C,<br>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<br>μF             | CASE SIZE | KEMET PART NUMBER  | D.C. LEAKAGE<br>μA@25°C | MAX. DISSIPATION FACTOR<br>%@25°C,<br>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.

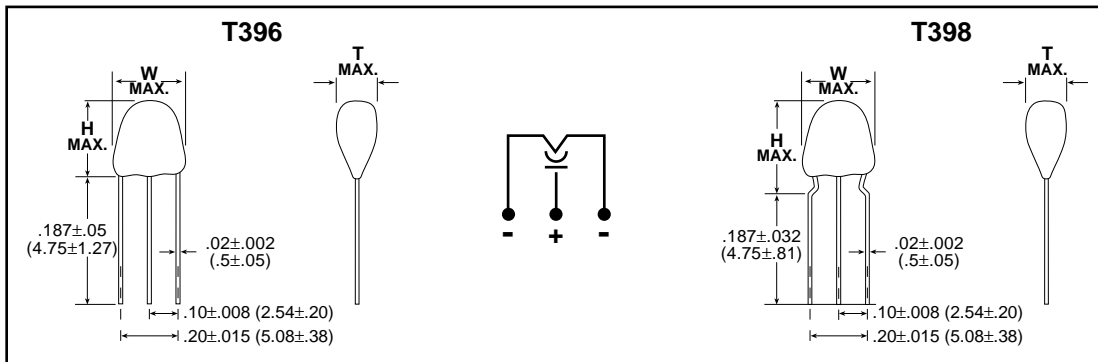
The UltraDip III Series features a capacitance range of 0.1 to 680 µF at 3 to 50 VDC. These miniature dipped solid tantalum capacitors are encased in a tough plastic barrier coating that maintains the pre-

cise lead wire spacing within ±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

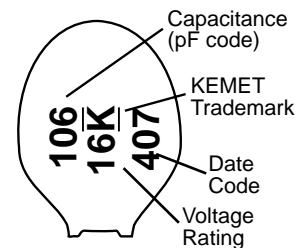


### DIMENSIONS—INCHES & (MILLIMETERS)

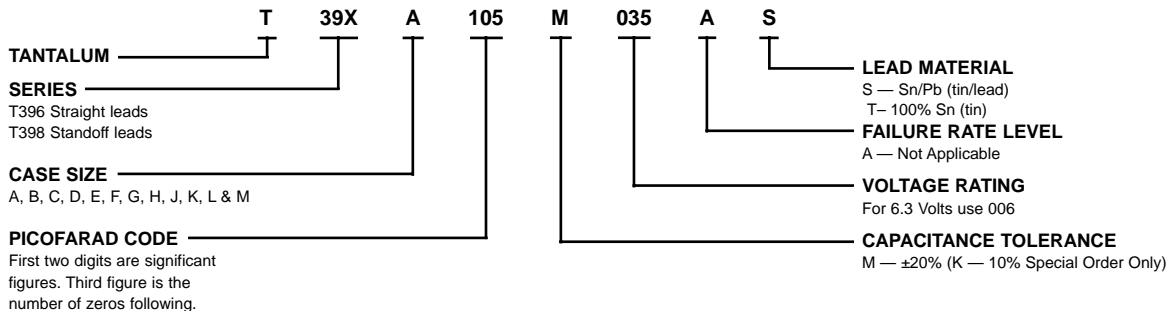
| Series    | Case Size | Both       |                | T396         | T398         |
|-----------|-----------|------------|----------------|--------------|--------------|
|           |           | W<br>Width | T<br>Thickness | H*<br>Height | H*<br>Height |
| T396/T398 | A         | .280 (7.1) | .190 (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





# TANTALUM DIPPED / 3 LEADED —POLAR

## T396 & T398 SERIES “ULTRADIP III”

### RATINGS & PART NUMBER REFERENCE

| CAPACITANCE<br>μF   | CASE<br>SIZE | KEMET PART NUMBER    | D.C.<br>LEAKAGE<br>μA@25°C | MAX.<br>DISSIPATION<br>FACTOR<br>%@25°C,<br>120Hz |
|---|--------------|----------------------|----------------------------|---|
| <b>3 VOLT RATING AT 85°C —<br/>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 —<br/>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 —<br/>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 —<br/>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<br>μF   | CASE<br>SIZE | KEMET PART NUMBER    | D.C.<br>LEAKAGE<br>μA@25°C | MAX.<br>DISSIPATION<br>FACTOR<br>%@25°C,<br>120Hz |
|---|--------------|----------------------|----------------------------|---|
| <b>6.3 VOLT RATING AT 85°C —<br/>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 —<br/>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 —<br/>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 —<br/>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) | C-7301 ±0.5 (±.020) C-7303 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

|                          |                                   |
|--------------------------|-----------------------------------|
| <b>F Dimensions:</b>     | <b>P1 Dimensions:</b>             |
| 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,<br>T140/T242,<br>T252,<br>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<br>C-7443<br>Class III<br><br>See Page 71<br>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,<br>T216,<br>T240,<br>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                   |                        |           |                        |                    |   |
| T322/T323  | CX01,<br>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<br><br>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,<br>T351,<br>T352,<br>T353,<br>T354,<br>T355,<br>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,<br>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.