

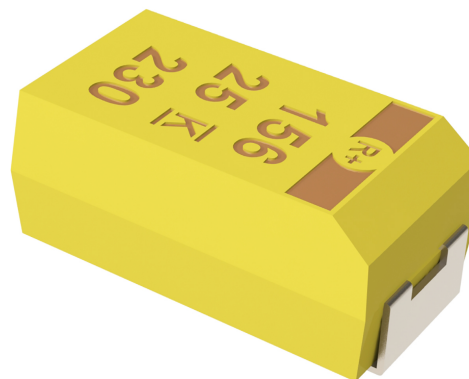
## Overview

The low ESR, surge-robust T495 Series is designed for demanding applications that require high surge current and high ripple current capability. This series builds upon the proven capabilities of our industrial grade tantalum chip capacitors to offer several advantages such as low ESR, high ripple current capability, excellent capacitance stability, and improved

resistance to high in-rush currents. These benefits are achieved through a combination of proprietary design, materials, and process parameters as well as high-stress, low impedance electrical conditioning performed prior to screening. This series is classified as MSL (Moisture Sensitivity Level) 1 under J STD 020: unlimited floor life time at ≤30°C/85% RH.

## Benefits

- Meets or exceeds EIA Standard 535BAAC
- Taped and reeled per EIA 481
- High surge current capability
- Optional gold-plated terminations
- High ripple current capability
- 100% surge current test on C, D, E, U, V, X sizes
- 100% steady-state accelerated aging
- Capacitance values of 0.1 µF to 1,000 µF
- Tolerances of ±10% and ±20%
- Voltage rating of 2.5 – 50 VDC
- Extended range values
- Available tested to DSCC 95158
- RoHS Compliant and lead-free terminations
- Operating temperature range of -55°C to +125°C



## Applications

Typical applications include decoupling and filtering in industrial and automotive end applications, such as DC/DC converters, portable electronics, telecommunications, and control units requiring high ripple current capability.

## Environmental Compliance

RoHS Compliant (6/6) according to Directive 2002/95/EC when ordered with 100% Sn Solder



RoHS Compliant

## SPICE

For a detailed analysis of specific part numbers, please visit [www.kemet.com](http://www.kemet.com) for a free download of KEMET's SPICE software. The KEMET SPICE program is freeware intended to aid design engineers in analyzing the performance of these capacitors over frequency, temperature, ripple, and DC bias conditions.

## Ordering Information

| T               | 495                  | X                      | 107                                                                                    | M                                | 010                                                                                                                         | A                   | T                                                                                                                         | E045                                                                |                                    |
|-----------------|----------------------|------------------------|----------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------|
| Capacitor Class | Series               | Case Size              | Capacitance Code (pF)                                                                  | Capacitance Tolerance            | Voltage                                                                                                                     | Failure Rate/Design | Lead Material                                                                                                             | ESR                                                                 | Packaging (C-Spec)                 |
| T = Tantalum    | Surge Robust Low ESR | A, B, C, D, E, T, V, X | First two digits represent significant figures. Third digit specifies number of zeros. | K = $\pm 10\%$<br>M = $\pm 20\%$ | 2R5 = 2.5 V<br>004 = 4 V<br>006 = 6.3 V<br>010 = 10 V<br>016 = 16 V<br>020 = 20 V<br>025 = 25 V<br>035 = 35 V<br>050 = 50 V | A = N/A             | T = 100% Matte Tin (Sn) Plated<br>H = Standard Solder Coated (SnPb 5% Pb minimum)<br>G = Gold Plated (A, B, C, D, X only) | Last three digits specify ESR in m $\Omega$ . (45 = 45 m $\Omega$ ) | Blank = 7" Reel<br>7280 = 13" Reel |

## Performance Characteristics

| Item                    | Performance Characteristics                                |
|-------------------------|------------------------------------------------------------|
| Operating Temperature   | -55°C to 125°C                                             |
| Rated Capacitance Range | 0.47 – 1,000 $\mu$ F @ 120 Hz/25°C                         |
| Capacitance Tolerance   | K Tolerance (10%), M Tolerance (20%)                       |
| Rated Voltage Range     | 2.5 – 50 V                                                 |
| DF (120 Hz)             | Refer to Part Number Electrical Specification Table        |
| ESR (100 kHz)           | Refer to Part Number Electrical Specification Table        |
| Leakage Current         | $\leq 0.01$ CV ( $\mu$ A) at rated voltage after 5 minutes |

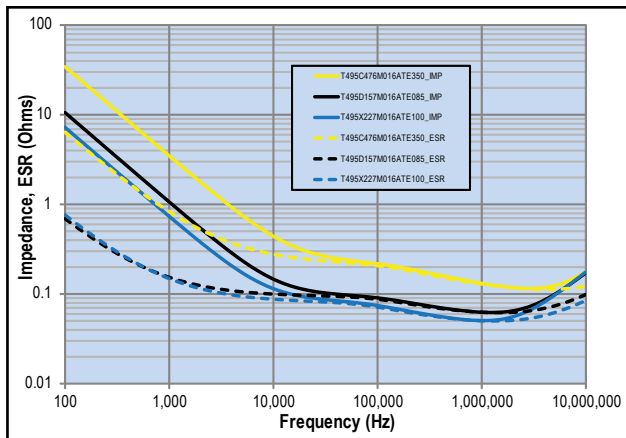
## Qualification

| Test                       | Condition                                                                                                              |       | Characteristics |                              |          |          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------|-------|-----------------|------------------------------|----------|----------|
| Endurance                  | 85°C @ rated voltage, 2,000 hours.<br>125°C @ 2/3 rated voltage, 2,000 hours.                                          |       | Δ C/C           | Within ±10% of initial value |          |          |
|                            |                                                                                                                        |       | DF              | Within initial limits        |          |          |
|                            |                                                                                                                        |       | DCL             | Within 1.25 x initial limit  |          |          |
|                            |                                                                                                                        |       | ESR             | Within initial limits        |          |          |
| Storage Life               | 125°C @ 0 volts, 2,000 hours.                                                                                          |       | Δ C/C           | Within ±10% of initial value |          |          |
|                            |                                                                                                                        |       | DF              | Within initial limits        |          |          |
|                            |                                                                                                                        |       | DCL             | Within 1.25 x initial limit  |          |          |
|                            |                                                                                                                        |       | ESR             | Within initial limits        |          |          |
| Thermal Shock              | MIL–STD–202, Method 107, Condition B, mounted, -55°C to 125° C, 1,000 cycles.                                          |       | Δ C/C           | Within ±5% of initial value  |          |          |
|                            |                                                                                                                        |       | DF              | Within initial limits        |          |          |
|                            |                                                                                                                        |       | DCL             | Within 1.25 x initial limit  |          |          |
|                            |                                                                                                                        |       | ESR             | Within initial limits        |          |          |
| Temperature Stability      | Extreme temperature exposure at a succession of continuous steps at +25°C, -55°C, +25°C, +85°C, +125°C, +25°C.         | Δ C/C | +25°C           | -55°C                        | +85°C    | +125°C   |
|                            |                                                                                                                        | DF    | IL*             | ±10%                         | ±10%     | ±20%     |
|                            |                                                                                                                        | DCL   | IL              | IL                           | 1.5 x IL | 1.5 x IL |
|                            |                                                                                                                        | DCL   | IL              | n/a                          | 10 x IL  | 12 x IL  |
| Surge Voltage              | 25°C and 85°C, 1.32 x rated voltage 1,000 cycles (125°C, 1.2 x rated voltage).                                         |       | Δ C/C           | Within ±5% of initial value  |          |          |
|                            |                                                                                                                        |       | DF              | Within initial limits        |          |          |
|                            |                                                                                                                        |       | DCL             | Within initial limits        |          |          |
|                            |                                                                                                                        |       | ESR             | Within initial limits        |          |          |
| Mechanical Shock/Vibration | MIL–STD–202, Method 213, Condition I, 100 G peak<br>MIL–STD–202, Method 204, Condition D, 10 Hz to 2,000 Hz, 20 G peak |       | Δ C/C           | Within ±10% of initial value |          |          |
|                            |                                                                                                                        |       | DF              | Within initial limits        |          |          |
|                            |                                                                                                                        |       | DCL             | Within initial limits        |          |          |

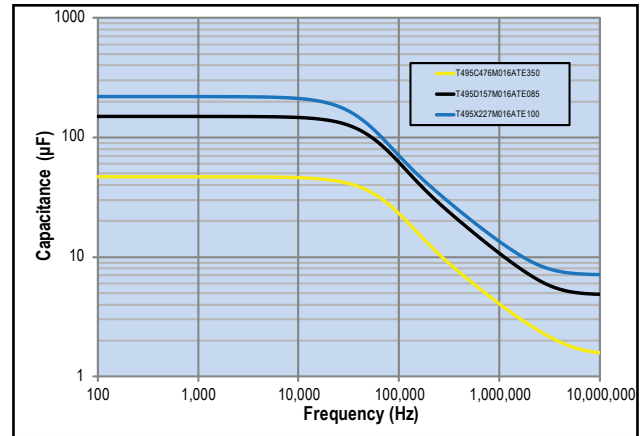
\*IL = Initial limit

## Electrical Characteristics

### ESR vs. Frequency



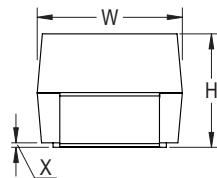
### Capacitance vs. Frequency



## Dimensions – Millimeters (Inches)

Metric will govern

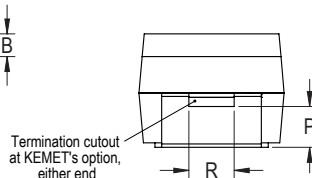
CATHODE (-) END VIEW



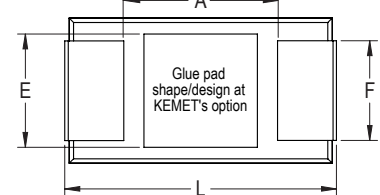
SIDE VIEW



ANODE (+) END VIEW



BOTTOM VIEW



| Case Size |         | Component                  |                            |                            |                    |                    |                         |                              |            |            |             |             |            |            |
|-----------|---------|----------------------------|----------------------------|----------------------------|--------------------|--------------------|-------------------------|------------------------------|------------|------------|-------------|-------------|------------|------------|
| KEMET     | EIA     | L*                         | W*                         | H*                         | F* ±0.1<br>±(.004) | S* ±0.3<br>±(.012) | B* ±0.15<br>(Ref) ±.006 | X (Ref)                      | P (Ref)    | R (Ref)    | T (Ref)     | A (Min)     | G (Ref)    | E (Ref)    |
| A         | 3216-18 | 3.2 ± 0.2<br>(.126 ± .008) | 1.6 ± 0.2<br>(.063 ± .008) | 1.6 ± 0.2<br>(.063 ± .008) | 1.2 (.047)         | 0.8 (.031)         | 0.4 (.016)              | 0.10 ± 0.10<br>(.004 ± .004) | 0.4 (.016) | 0.4 (.016) | 0.13 (.005) | 0.8 (.31)   | 1.1 (.043) | 1.3 (.051) |
| B         | 3528-21 | 3.5 ± 0.2<br>(.138 ± .008) | 2.8 ± 0.2<br>(.110 ± .008) | 1.9 ± 0.2<br>(.075 ± .008) | 2.2 (.087)         | 0.8 (.031)         | 0.4 (.016)              | 0.10 ± 0.10<br>(.004 ± .004) | 0.5 (.020) | 1.0 (.039) | 0.13 (.005) | 1.1 (0.043) | 1.8 (.071) | 2.2 (.087) |
| C         | 6032-28 | 6.0 ± 0.3<br>(.236 ± .03)  | 3.2 ± 0.3<br>(.126 ± .012) | 2.5 ± 0.3<br>(.098 ± .012) | 2.2 (.087)         | 1.3 (.051)         | 0.5 (.020)              | 0.10 ± 0.10<br>(.004 ± .004) | 0.9 (.035) | 1.0 (.039) | 0.13 (.005) | 2.5(.098)   | 2.8 (.110) | 2.4 (.094) |
| D         | 7343-31 | 7.3 ± 0.3<br>(.287 ± .012) | 4.3 ± 0.3<br>(.169 ± .012) | 2.8 ± 0.3<br>(.110 ± .012) | 2.4 (.094)         | 1.3 (.051)         | 0.5 (.020)              | 0.10 ± 0.10<br>(.004 ± .004) | 0.9 (.035) | 1.0 (.039) | 0.13 (.005) | 3.8 (.150)  | 3.5 (.138) | 3.5 (.138) |
| X         | 7343-43 | 7.3 ± 0.3<br>(.287 ± .012) | 4.3 ± 0.3<br>(.169 ± .012) | 4.0 ± 0.3<br>(.157 ± .012) | 2.4 (.094)         | 1.3 (.051)         | 0.5 (.020)              | 0.10 ± 0.10<br>(.004 ± .004) | 1.7 (.067) | 1.0 (.039) | 0.13 (.005) | 3.8 (.150)  | 3.5 (.138) | 3.5 (.138) |
| E         | 7360-38 | 7.3 ± 0.3<br>(.287 ± .012) | 6.0 ± 0.3<br>(.236 ± .012) | 3.6 ± 0.2<br>(.142 ± .008) | 4.1 (.161)         | 1.3 (.051)         | 0.5 (.020)              | 0.10 ± 0.10<br>(.004 ± .004) | 0.9 (.035) | 1.0 (.039) | 0.13 (.005) | 3.8 (.150)  | 3.5 (.138) | 3.5 (.138) |
| T         | 3528-12 | 3.5 ± 0.2<br>(.138 ± .008) | 2.8 ± 0.2<br>(.110 ± .008) | 1.2 (.047)                 | 2.2 (.087)         | 0.8 (.031)         | N/A                     | 0.05 (.002)                  | N/A        | N/A        | 0.13 (.005) | 1.1 (.043)  | 1.8 (.071) | 2.2 (.087) |
| V         | 7343-20 | 7.3 ± 0.3<br>(.287 ± .012) | 4.3 ± 0.3<br>(.169 ± .012) | 2.0 (.079)                 | 2.4 (.094)         | 1.3 (.051)         | N/A                     | 0.05 (.002)                  | N/A        | N/A        | 0.13 (.005) | 3.8 (.150)  | 3.5 (.138) | 3.5 (.138) |

Notes: (Ref) – Dimensions provided for reference only. No dimensions provided for B, P or R because low profile cases do not have a bevel or a notch.

\* MIL-PRF-55365/8 specified dimensions

**Table 1 – Ratings & Part Number Reference**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 2.5           | 100       | T/3528-12               | T495T107(M)2R5A(2)E3K0       | 2.5                      | 24.0                    | 3000                     | 153                              | 138                   | 61                     | 1                      |
| 2.5           | 220       | D/7343-31               | T495D227(1)2R5A(2)E045       | 5.5                      | 8.0                     | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 2.5           | 470       | D/7343-31               | T495D477(1)2R5A(2)E035       | 11.8                     | 8.0                     | 35                       | 2070                             | 1863                  | 828                    | 1                      |
| 2.5           | 1000      | X/7343-43               | T495X108(1)2R5A(2)E030       | 25.0                     | 15.0                    | 30                       | 2345                             | 2111                  | 938                    | 1                      |
| 2.5           | 1000      | X/7343-43               | T495X108(1)2R5A(2)E040       | 25.0                     | 15.0                    | 40                       | 2031                             | 1828                  | 812                    | 1                      |
| 4             | 6.8       | A/3216-18               | T495A685(1)004A(2)E2K0       | 0.5                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 4             | 22        | C/6032-28               | T495C226(1)004A(2)E2K4       | 0.9                      | 6.0                     | 2400                     | 214                              | 193                   | 86                     | 1                      |
| 4             | 22        | C/6032-28               | T495C226(1)004A(2)E380       | 0.9                      | 6.0                     | 380                      | 538                              | 484                   | 215                    | 1                      |
| 4             | 33        | T/3528-12               | T495T336(1)004A(2)E1K2       | 1.3                      | 8.0                     | 1200                     | 242                              | 218                   | 97                     | 1                      |
| 4             | 47        | T/3528-12               | T495T476(1)004A(2)E1K0       | 1.9                      | 10.0                    | 1000                     | 265                              | 239                   | 106                    | 1                      |
| 4             | 68        | T/3528-12               | T495T686(1)004A(2)E1K5       | 2.7                      | 20.0                    | 1500                     | 216                              | 194                   | 86                     | 1                      |
| 4             | 68        | V/7343-20               | T495V686(1)004A(2)E150       | 2.7                      | 6.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 4             | 100       | B/3528-21               | T495B107(1)004A(2)E500       | 4.0                      | 8.0                     | 500                      | 412                              | 371                   | 165                    | 1                      |
| 4             | 100       | D/7343-31               | T495D107(1)004A(2)E800       | 4.0                      | 6.0                     | 800                      | 433                              | 390                   | 173                    | 1                      |
| 4             | 150       | B/3528-21               | T495B157(M)004A(2)E900       | 6.0                      | 12.0                    | 900                      | 307                              | 276                   | 123                    | 1                      |
| 4             | 150       | C/6032-28               | T495C157(1)004A(2)E070       | 6.0                      | 12.0                    | 70                       | 1254                             | 1129                  | 502                    | 1                      |
| 4             | 150       | C/6032-28               | T495C157(1)004A(2)E250       | 6.0                      | 8.0                     | 250                      | 663                              | 597                   | 265                    | 1                      |
| 4             | 150       | U/6032-15               | T495U157(1)004A(2)E200       | 6.0                      | 8.0                     | 200                      | 671                              | 604                   | 268                    | 1                      |
| 4             | 220       | D/7343-31               | T495D227(1)004A(2)E040       | 8.8                      | 8.0                     | 40                       | 1936                             | 1742                  | 774                    | 1                      |
| 4             | 220       | D/7343-31               | T495D227(1)004A(2)E050       | 8.8                      | 8.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 4             | 220       | D/7343-31               | T495D227(1)004A(2)E100       | 8.8                      | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 4             | 330       | C/6032-28               | T495C337(1)004A(2)E300       | 13.2                     | 10.0                    | 300                      | 606                              | 545                   | 242                    | 1                      |
| 4             | 330       | C/6032-28               | T495C337(1)004A(2)E700       | 13.2                     | 12.0                    | 700                      | 396                              | 356                   | 158                    | 1                      |
| 4             | 330       | D/7343-31               | T495D337(1)004A(2)E030       | 13.2                     | 8.0                     | 30                       | 2236                             | 2012                  | 894                    | 1                      |
| 4             | 330       | D/7343-31               | T495D337(1)004A(2)E045       | 13.2                     | 8.0                     | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 4             | 330       | D/7343-31               | T495D337(1)004A(2)E100       | 13.2                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 4             | 470       | D/7343-31               | T495D477(1)004A(2)E045       | 18.8                     | 12.0                    | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 4             | 470       | D/7343-31               | T495D477(1)004A(2)E100       | 18.8                     | 12.0                    | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E030       | 18.8                     | 8.0                     | 30                       | 2345                             | 2111                  | 938                    | 1                      |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E045       | 18.8                     | 8.0                     | 45                       | 1915                             | 1724                  | 766                    | 1                      |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E060       | 18.8                     | 10.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E100       | 18.8                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 4             | 680       | X/7343-43               | T495X687(1)004A(2)E040       | 27.2                     | 10.0                    | 40                       | 2031                             | 1828                  | 812                    | 1                      |
| 4             | 680       | X/7343-43               | T495X687(1)004A(2)E060       | 27.2                     | 10.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 4             | 680       | X/7343-43               | T495X687(1)004A(2)E100       | 27.2                     | 10.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E030       | 40.0                     | 10.0                    | 30                       | 2345                             | 2111                  | 938                    | 1                      |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E040       | 40.0                     | 10.0                    | 40                       | 2031                             | 1828                  | 812                    | 1                      |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E060       | 40.0                     | 10.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E070       | 40.0                     | 10.0                    | 70                       | 1535                             | 1382                  | 614                    | 1                      |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E090       | 40.0                     | 10.0                    | 90                       | 1354                             | 1219                  | 542                    | 1                      |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E100       | 40.0                     | 10.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 4             | 1000      | E/7360-38               | T495E108(1)004A(2)E035       | 40.0                     | 15.0                    | 35                       | 2390                             | 2151                  | 956                    | 1                      |
| 4             | 1000      | E/7360-38               | T495E108(1)004A(2)E050       | 40.0                     | 15.0                    | 50                       | 2000                             | 1800                  | 800                    | 1                      |
| 6.3           | 2.2       | A/3216-18               | T495A225(1)006ATE5K0         | 0.5                      | 6.0                     | 5000                     | 122                              | 110                   | 49                     | 1                      |
| 6.3           | 3.3       | A/3216-18               | T495A335(1)006ATE3K0         | 0.5                      | 6.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 6.3           | 6.8       | A/3216-18               | T495A685(1)006ATE1K8         | 0.5                      | 6.0                     | 1800                     | 204                              | 184                   | 82                     | 1                      |
| 6.3           | 6.8       | A/3216-18               | T495A685(1)006ATE2K0         | 0.5                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 6.3           | 6.8       | A/3216-18               | T495A685(1)006A(2)E4K5       | 0.5                      | 6.0                     | 4500                     | 129                              | 116                   | 52                     | 1                      |
| 6.3           | 6.8       | C/6032-28               | T495C685(1)006A(2)E480       | 0.5                      | 6.0                     | 480                      | 479                              | 431                   | 192                    | 1                      |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E800       | 0.6                      | 6.0                     | 800                      | 306                              | 275                   | 122                    | 1                      |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E1K0       | 0.6                      | 6.0                     | 1000                     | 274                              | 247                   | 110                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings &amp; Part Number Reference cont'd

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E1K5       | 0.6                      | 6.0                     | 1500                     | 224                              | 202                   | 90                     | 1                      |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E2K0       | 0.6                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 6.3           | 10        | B/3528-21               | T495B106(1)006A(2)E1K0       | 0.6                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 6.3           | 10        | T/3528-12               | T495T106(1)006A(2)E1K2       | 0.6                      | 6.0                     | 1200                     | 242                              | 218                   | 97                     | 1                      |
| 6.3           | 15        | A/3216-18               | T495A156(1)006A(2)E2K0       | 0.9                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 6.3           | 15        | T/3528-12               | T495T156(1)006A(2)E1K0       | 0.9                      | 6.0                     | 1000                     | 265                              | 239                   | 106                    | 1                      |
| 6.3           | 22        | A/3216-18               | T495A226(1)006A(2)E500       | 1.4                      | 6.0                     | 500                      | 387                              | 348                   | 155                    | 1                      |
| 6.3           | 22        | A/3216-18               | T495A226(1)006A(2)E900       | 1.4                      | 8.0                     | 900                      | 289                              | 260                   | 116                    | 1                      |
| 6.3           | 22        | A/3216-18               | T495A226(1)006A(2)E1K5       | 1.4                      | 8.0                     | 1500                     | 224                              | 202                   | 90                     | 1                      |
| 6.3           | 22        | B/3528-21               | T495B226(1)006A(2)E500       | 1.4                      | 6.0                     | 500                      | 412                              | 371                   | 165                    | 1                      |
| 6.3           | 22        | C/6032-28               | T495C226(1)006A(2)E380       | 1.4                      | 6.0                     | 380                      | 538                              | 484                   | 215                    | 1                      |
| 6.3           | 33        | A/3216-18               | T495A336(1)006A(2)E600       | 2.1                      | 12.0                    | 600                      | 354                              | 319                   | 142                    | 1                      |
| 6.3           | 33        | B/3528-21               | T495B336(1)006A(2)E600       | 2.1                      | 6.0                     | 600                      | 376                              | 338                   | 150                    | 1                      |
| 6.3           | 33        | T/3528-12               | T495T336(1)006A(2)E800       | 2.1                      | 6.0                     | 800                      | 296                              | 266                   | 118                    | 1                      |
| 6.3           | 33        | C/6032-28               | T495C336(1)006A(2)E350       | 2.1                      | 6.0                     | 350                      | 561                              | 505                   | 224                    | 1                      |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E250       | 3.0                      | 6.0                     | 250                      | 583                              | 525                   | 233                    | 1                      |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E500       | 3.0                      | 6.0                     | 500                      | 583                              | 525                   | 233                    | 1                      |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E450       | 3.0                      | 6.0                     | 450                      | 435                              | 392                   | 174                    | 1                      |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E400       | 3.0                      | 6.0                     | 400                      | 461                              | 415                   | 184                    | 1                      |
| 6.3           | 47        | C/6032-28               | T495C476(1)006A(2)E250       | 3.0                      | 6.0                     | 250                      | 663                              | 597                   | 265                    | 1                      |
| 6.3           | 47        | C/6032-28               | T495C476(1)006A(2)E300       | 3.0                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 6.3           | 47        | C/6032-28               | T495C476(1)006A(2)E330       | 3.0                      | 6.0                     | 330                      | 577                              | 519                   | 231                    | 1                      |
| 6.3           | 47        | V/7343-20               | T495V476(1)006A(2)E150       | 3.0                      | 6.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 68        | B/3528-21               | T495B686(1)006A(2)E500       | 4.3                      | 8.0                     | 500                      | 412                              | 371                   | 165                    | 1                      |
| 6.3           | 68        | C/6032-28               | T495C686(1)006A(2)E400       | 4.3                      | 6.0                     | 400                      | 524                              | 472                   | 210                    | 1                      |
| 6.3           | 68        | U/6032-15               | T495U686(1)006A(2)E400       | 4.3                      | 6.0                     | 400                      | 474                              | 427                   | 190                    | 1                      |
| 6.3           | 68        | D/7343-31               | T495D686(1)006A(2)E175       | 4.3                      | 4.0                     | 175                      | 926                              | 833                   | 370                    | 1                      |
| 6.3           | 68        | D/7343-31               | T495D686(1)006A(2)E180       | 4.3                      | 4.0                     | 180                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 68        | D/7343-31               | T495D686(1)006A(2)4095       | 4.3                      | 4.0                     | 175                      | 926                              | 833                   | 370                    | 1                      |
| 6.3           | 100       | B/3528-21               | T495B107(1)006A(2)E400       | 6.3                      | 15.0                    | 400                      | 461                              | 415                   | 184                    | 1                      |
| 6.3           | 100       | B/3528-21               | T495B107(M)006A(2)E700       | 6.3                      | 15.0                    | 700                      | 348                              | 313                   | 139                    | 1                      |
| 6.3           | 100       | M/3528-15               | T495M107(1)006A(2)E500       | 6.3                      | 20.0                    | 500                      | 490                              | 441                   | 196                    | 1                      |
| 6.3           | 100       | M/3528-15               | T495M107(1)006A(2)E1K0       | 6.3                      | 20.0                    | 1000                     | 346                              | 311                   | 138                    | 1                      |
| 6.3           | 100       | C/6032-28               | T495C107(1)006A(2)E075       | 6.3                      | 8.0                     | 75                       | 1211                             | 1090                  | 484                    | 1                      |
| 6.3           | 100       | C/6032-28               | T495C107(1)006A(2)E150       | 6.3                      | 8.0                     | 150                      | 856                              | 770                   | 342                    | 1                      |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E050       | 6.3                      | 6.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E130       | 6.3                      | 6.0                     | 130                      | 1074                             | 967                   | 430                    | 1                      |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E150       | 6.3                      | 8.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E800       | 6.3                      | 6.0                     | 800                      | 433                              | 390                   | 173                    | 1                      |
| 6.3           | 100       | V/7343-20               | T495V107(1)006A(2)E090       | 6.3                      | 8.0                     | 90                       | 1179                             | 1061                  | 472                    | 1                      |
| 6.3           | 100       | V/7343-20               | T495V107(1)006A(2)E150       | 6.3                      | 8.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 150       | C/6032-28               | T495C157(1)006A(2)E050       | 9.5                      | 8.0                     | 50                       | 1483                             | 1335                  | 593                    | 1                      |
| 6.3           | 150       | C/6032-28               | T495C157(M)006A(2)E200       | 9.5                      | 8.0                     | 200                      | 742                              | 668                   | 297                    | 1                      |
| 6.3           | 150       | V/7343-20               | T495V157(1)006A(2)E040       | 9.5                      | 8.0                     | 40                       | 1768                             | 1591                  | 707                    | 1                      |
| 6.3           | 150       | V/7343-20               | T495V157(1)006A(2)E070       | 9.5                      | 8.0                     | 70                       | 1336                             | 1202                  | 534                    | 1                      |
| 6.3           | 150       | V/7343-20               | T495V157(1)006A(2)E150       | 9.5                      | 8.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 150       | D/7343-31               | T495D157(1)006A(2)E050       | 9.5                      | 6.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 6.3           | 150       | D/7343-31               | T495D157(1)006A(2)E065       | 9.5                      | 6.0                     | 65                       | 1519                             | 1367                  | 608                    | 1                      |
| 6.3           | 150       | D/7343-31               | T495D157(1)006A(2)E080       | 9.5                      | 6.0                     | 80                       | 1369                             | 1232                  | 548                    | 1                      |
| 6.3           | 150       | D/7343-31               | T495D157(1)006A(2)E100       | 9.5                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 6.3           | 150       | D/7343-31               | T495D157(1)006A(2)E125       | 9.5                      | 6.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 6.3           | 150       | X/7343-43               | T495X157(1)006A(2)E100       | 9.5                      | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 150       | X/7343-43               | T495X157(1)006A(2)4095       | 9.5                      | 6.0                     | 125                      | 1149                             | 1034                  | 460                    | 1                      |
| 6.3           | 220       | C/6032-28               | T495C227(1)006A(2)E225       | 13.9                     | 10.0                    | 225                      | 699                              | 629                   | 280                    | 1                      |
| 6.3           | 220       | C/6032-28               | T495C227(1)006A(2)E200       | 13.9                     | 10.0                    | 200                      | 742                              | 668                   | 297                    | 1                      |
| 6.3           | 220       | D/7343-31               | T495D227(1)006A(2)E045       | 13.9                     | 8.0                     | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 6.3           | 220       | D/7343-31               | T495D227(1)006A(2)E050       | 13.9                     | 8.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 6.3           | 220       | D/7343-31               | T495D227(1)006A(2)E100       | 13.9                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 6.3           | 220       | D/7343-31               | T495D227(1)006A(2)4095       | 13.9                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 6.3           | 220       | X/7343-43               | T495X227(1)006A(2)E070       | 13.9                     | 8.0                     | 70                       | 1535                             | 1382                  | 614                    | 1                      |
| 6.3           | 220       | X/7343-43               | T495X227(1)006A(2)E080       | 13.9                     | 8.0                     | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 6.3           | 220       | X/7343-43               | T495X227(1)006A(2)E100       | 13.9                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 220       | V/7343-20               | T495V227(1)006ATE150         | 13.9                     | 8.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 220       | X/7343-43               | T495X227(1)006A(2)4095       | 13.9                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 330       | C/6032-28               | T495C337(1)006A(2)E200       | 20.8                     | 18.0                    | 200                      | 742                              | 668                   | 297                    | 1                      |
| 6.3           | 330       | D/7343-31               | T495D337(1)006A(2)E040       | 20.8                     | 8.0                     | 40                       | 1936                             | 1742                  | 774                    | 1                      |
| 6.3           | 330       | D/7343-31               | T495D337(1)006A(2)E045       | 20.8                     | 8.0                     | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 6.3           | 330       | D/7343-31               | T495D337(1)006A(2)E050       | 20.8                     | 8.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 6.3           | 330       | D/7343-31               | T495D337(1)006A(2)E070       | 20.8                     | 8.0                     | 70                       | 1464                             | 1318                  | 586                    | 1                      |
| 6.3           | 330       | D/7343-31               | T495D337(1)006A(2)E100       | 20.8                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 6.3           | 330       | V/7343-20               | T495V337(1)006A(2)E150       | 20.8                     | 8.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 330       | X/7343-43               | T495X337(1)006A(2)E045       | 20.8                     | 8.0                     | 45                       | 1915                             | 1724                  | 766                    | 1                      |
| 6.3           | 330       | X/7343-43               | T495X337(1)006A(2)E050       | 20.8                     | 8.0                     | 50                       | 1817                             | 1635                  | 727                    | 1                      |
| 6.3           | 330       | X/7343-43               | T495X337(1)006A(2)E065       | 20.8                     | 8.0                     | 65                       | 1593                             | 1434                  | 637                    | 1                      |
| 6.3           | 330       | X/7343-43               | T495X337(1)006A(2)E080       | 20.8                     | 8.0                     | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 6.3           | 330       | X/7343-43               | T495X337(1)006A(2)E100       | 20.8                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 330       | E/7360-38               | T495E337(1)006A(2)E060       | 20.8                     | 8.0                     | 60                       | 1826                             | 1643                  | 730                    | 1                      |
| 6.3           | 330       | E/7360-38               | T495E337(1)006A(2)E100       | 20.8                     | 8.0                     | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 6.3           | 470       | D/7343-31               | T495D477(1)006A(2)E045       | 29.6                     | 12.0                    | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 6.3           | 470       | D/7343-31               | T495D477(1)006A(2)E100       | 29.6                     | 12.0                    | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 6.3           | 470       | D/7343-31               | T495D477(1)006A(2)E125       | 29.6                     | 12.0                    | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 6.3           | 470       | D/7343-31               | T495D477(1)006A(2)E150       | 29.6                     | 12.0                    | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 6.3           | 470       | V/7343-20               | T495V477(1)006A(2)E150       | 29.6                     | 15.0                    | 150                      | 913                              | 822                   | 365                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E030       | 29.6                     | 10.0                    | 30                       | 2345                             | 2111                  | 938                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E045       | 29.6                     | 10.0                    | 45                       | 1915                             | 1724                  | 766                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E050       | 29.6                     | 10.0                    | 50                       | 1817                             | 1635                  | 727                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E060       | 29.6                     | 10.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E065       | 29.6                     | 10.0                    | 65                       | 1593                             | 1434                  | 637                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E100       | 29.6                     | 10.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 470       | X/7343-43               | T495X477(1)006A(2)E125       | 29.6                     | 10.0                    | 125                      | 1149                             | 1034                  | 460                    | 1                      |
| 6.3           | 470       | E/7360-38               | T495E477(1)006A(2)E040       | 29.6                     | 12.0                    | 40                       | 2236                             | 2012                  | 894                    | 1                      |
| 6.3           | 470       | E/7360-38               | T495E477(1)006A(2)E055       | 29.6                     | 10.0                    | 55                       | 1907                             | 1716                  | 763                    | 1                      |
| 6.3           | 470       | E/7360-38               | T495E477(1)006A(2)E100       | 29.6                     | 10.0                    | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 6.3           | 680       | X/7343-43               | T495X687(1)006A(2)E100       | 42.8                     | 12.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 680       | X/7343-43               | T495X687(1)006A(2)E060       | 42.8                     | 12.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 6.3           | 680       | X/7343-43               | T495X687(1)006A(2)E045       | 42.8                     | 12.0                    | 45                       | 1915                             | 1724                  | 766                    | 1                      |
| 6.3           | 1000      | X/7343-43               | T495X108(1)006A(2)E100       | 63.0                     | 20.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 6.3           | 1000      | E/7360-38               | T495E108(1)006A(2)E050       | 63.0                     | 15.0                    | 50                       | 2000                             | 1800                  | 800                    | 1                      |
| 10            | 2.2       | A/3216-18               | T495A225(1)010A(2)E1K8       | 0.5                      | 6.0                     | 1800                     | 204                              | 184                   | 82                     | 1                      |
| 10            | 2.2       | A/3216-18               | T495A225(1)010A(2)E7K0       | 0.5                      | 6.0                     | 7000                     | 104                              | 94                    | 42                     | 1                      |
| 10            | 3.3       | A/3216-18               | T495A335(1)010A(2)E2K0       | 0.5                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 10            | 4.7       | A/3216-18               | T495A475(1)010A(2)E1K2       | 0.5                      | 6.0                     | 1200                     | 250                              | 225                   | 100                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage            | DF                   | ESR                   | Maximum Allowable Ripple Current |                    |                     | Moisture Sensitivity |
|---------------|-----------|----------------------|------------------------------|-----------------------|----------------------|-----------------------|----------------------------------|--------------------|---------------------|----------------------|
| VDC           | μF        | KEMET/EIA            | (See below for part options) | μAmps +20°C Max/5 Min | % @ +20°C 120 Hz Max | mΩ @ 20°C 100 kHz Max | (mA) 100 kHz +25°C               | (mA) 100 kHz +85°C | (mA) 100 kHz +125°C | Reflow Temp ≤ 260°C  |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E1K3       | 0.5                   | 6.0                  | 1300                  | 240                              | 216                | 96                  | 1                    |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E1K4       | 0.5                   | 6.0                  | 1400                  | 231                              | 208                | 92                  | 1                    |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E1K8       | 0.5                   | 6.0                  | 1800                  | 204                              | 184                | 82                  | 1                    |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E2K0       | 0.5                   | 6.0                  | 2000                  | 194                              | 175                | 78                  | 1                    |
| 10            | 4.7       | B/3528-21            | T495B475(1)010A(2)E1K3       | 0.5                   | 15.0                 | 1300                  | 256                              | 230                | 102                 | 1                    |
| 10            | 4.7       | B/3528-21            | T495B475(1)010A(2)E1K5       | 0.5                   | 6.0                  | 1500                  | 238                              | 214                | 95                  | 1                    |
| 10            | 6.8       | A/3216-18            | T495A685(1)010A(2)E1K8       | 0.7                   | 6.0                  | 1800                  | 204                              | 184                | 82                  | 1                    |
| 10            | 6.8       | B/3528-21            | T495B685(1)010A(2)E900       | 0.7                   | 6.0                  | 900                   | 307                              | 276                | 123                 | 1                    |
| 10            | 6.8       | B/3528-21            | T495B685(1)010A(2)E1K1       | 0.7                   | 6.0                  | 1100                  | 278                              | 250                | 111                 | 1                    |
| 10            | 6.8       | B/3528-21            | T495B685(1)010A(2)E1K2       | 0.7                   | 6.0                  | 1200                  | 266                              | 239                | 106                 | 1                    |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E1K8       | 1.0                   | 6.0                  | 1800                  | 204                              | 184                | 82                  | 1                    |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E2K0       | 1.0                   | 6.0                  | 2000                  | 194                              | 175                | 78                  | 1                    |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E2K5       | 1.0                   | 6.0                  | 2500                  | 173                              | 156                | 69                  | 1                    |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E3K8       | 1.0                   | 6.0                  | 3800                  | 140                              | 126                | 56                  | 1                    |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E600       | 1.0                   | 6.0                  | 600                   | 376                              | 338                | 150                 | 1                    |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E750       | 1.0                   | 6.0                  | 750                   | 337                              | 303                | 135                 | 1                    |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E1K2       | 1.0                   | 6.0                  | 1200                  | 266                              | 239                | 106                 | 1                    |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E3K0       | 1.0                   | 6.0                  | 3000                  | 168                              | 151                | 67                  | 1                    |
| 10            | 10        | C/6032-28            | T495C106(1)010AT E400        | 1.0                   | 6.0                  | 400                   | 524                              | 472                | 210                 | 1                    |
| 10            | 10        | T/3528-12            | T495T106(1)010AT E1K5        | 1.0                   | 6.0                  | 1500                  | 216                              | 194                | 86                  | 1                    |
| 10            | 15        | A/3216-18            | T495A156(1)010AT E1K0        | 1.5                   | 6.0                  | 1000                  | 274                              | 247                | 110                 | 1                    |
| 10            | 15        | A/3216-18            | T495A156(1)010AT E1K8        | 1.5                   | 6.0                  | 1800                  | 204                              | 184                | 82                  | 1                    |
| 10            | 15        | B/3528-21            | T495B156(1)010AT E600        | 1.5                   | 6.0                  | 600                   | 376                              | 338                | 150                 | 1                    |
| 10            | 15        | B/3528-21            | T495B156(1)010AT E900        | 1.5                   | 6.0                  | 900                   | 307                              | 276                | 123                 | 1                    |
| 10            | 15        | T/3528-12            | T495T156(1)010AT E1K2        | 1.5                   | 6.0                  | 1200                  | 242                              | 218                | 97                  | 1                    |
| 10            | 15        | B/3528-21            | T495B156(1)010A(2)E500       | 1.5                   | 6.0                  | 500                   | 412                              | 371                | 165                 | 1                    |
| 10            | 15        | C/6032-28            | T495C156(1)010A(2)E375       | 1.5                   | 6.0                  | 375                   | 542                              | 488                | 217                 | 1                    |
| 10            | 15        | C/6032-28            | T495C156(1)010A(2)E400       | 1.5                   | 6.0                  | 400                   | 524                              | 472                | 210                 | 1                    |
| 10            | 15        | C/6032-28            | T495C156(1)010A(2)E475       | 1.5                   | 6.0                  | 475                   | 481                              | 433                | 192                 | 1                    |
| 10            | 22        | A/3216-18            | T495A226(1)010AT E1K2        | 2.2                   | 8.0                  | 1200                  | 250                              | 225                | 100                 | 1                    |
| 10            | 22        | A/3216-18            | T495A226(1)010AT E1K5        | 2.2                   | 8.0                  | 1500                  | 224                              | 202                | 90                  | 1                    |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E400        | 2.2                   | 6.0                  | 400                   | 461                              | 415                | 184                 | 1                    |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E500        | 2.2                   | 6.0                  | 500                   | 412                              | 371                | 165                 | 1                    |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E700        | 2.2                   | 6.0                  | 700                   | 348                              | 313                | 139                 | 1                    |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E800        | 2.2                   | 6.0                  | 800                   | 326                              | 293                | 130                 | 1                    |
| 10            | 22        | B/3528-21            | T495B226(1)010A(2)E2K3       | 2.2                   | 6.0                  | 2300                  | 192                              | 173                | 77                  | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E200       | 2.2                   | 6.0                  | 200                   | 742                              | 668                | 297                 | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E245       | 2.2                   | 6.0                  | 245                   | 670                              | 603                | 268                 | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E290       | 2.2                   | 6.0                  | 290                   | 616                              | 554                | 246                 | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E300       | 2.2                   | 6.0                  | 300                   | 606                              | 545                | 242                 | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E345       | 2.2                   | 6.0                  | 345                   | 565                              | 509                | 226                 | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E350       | 2.2                   | 6.0                  | 350                   | 561                              | 505                | 224                 | 1                    |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E380       | 2.2                   | 6.0                  | 380                   | 538                              | 484                | 215                 | 1                    |
| 10            | 33        | B/3528-21            | T495B336(1)010A(2)E450       | 3.3                   | 6.0                  | 450                   | 435                              | 392                | 174                 | 1                    |
| 10            | 33        | B/3528-21            | T495B336(1)010A(2)E550       | 3.3                   | 6.0                  | 550                   | 393                              | 354                | 157                 | 1                    |
| 10            | 33        | B/3528-21            | T495B336(1)010A(2)E650       | 3.3                   | 6.0                  | 650                   | 362                              | 326                | 145                 | 1                    |
| 10            | 33        | V/7343-20            | T495V336(1)010A(2)E100       | 3.3                   | 6.0                  | 100                   | 1118                             | 1006               | 447                 | 1                    |
| 10            | 33        | V/7343-20            | T495V336(1)010A(2)E150       | 3.3                   | 6.0                  | 150                   | 913                              | 822                | 365                 | 1                    |
| 10            | 47        | B/3528-21            | T495B476(1)010A(2)E500       | 4.7                   | 6.0                  | 500                   | 412                              | 371                | 165                 | 1                    |
| 10            | 47        | B/3528-21            | T495B476(1)010A(2)E650       | 4.7                   | 6.0                  | 650                   | 362                              | 326                | 145                 | 1                    |
| 10            | 47        | C/6032-28            | T495C476(1)010A(2)E300       | 4.7                   | 6.0                  | 300                   | 606                              | 545                | 242                 | 1                    |
| VDC           | μF        | KEMET/EIA            | (See below for part options) | μAmps +20°C Max/5 Min | % @ +20°C 120 Hz Max | mΩ @ 20°C 100 kHz Max | (mA) 100 kHz +25°C               | (mA) 100 kHz +85°C | (mA) 100 kHz +125°C | Reflow Temp ≤ 260°C  |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage            | DF                   | ESR                   | Maximum Allowable Ripple Current |                    |                     | Moisture Sensitivity |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings &amp; Part Number Reference cont'd

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 10            | 47        | U/6032-15               | T495U476(1)010A(2)E400       | 4.7                      | 6.0                     | 400                      | 474                              | 427                   | 190                    | 1                      |
| 10            | 47        | D/7343-31               | T495D476(1)010A(2)E080       | 4.7                      | 4.0                     | 80                       | 1369                             | 1232                  | 548                    | 1                      |
| 10            | 47        | D/7343-31               | T495D476(1)010A(2)E090       | 4.7                      | 6.0                     | 90                       | 1291                             | 1162                  | 516                    | 1                      |
| 10            | 47        | D/7343-31               | T495D476(1)010A(2)E100       | 4.7                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 47        | D/7343-31               | T495D476(1)010A(2)E200       | 4.7                      | 4.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 10            | 47        | D/7343-31               | T495D476(1)010A(2)4095       | 4.7                      | 4.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 10            | 47        | V/7343-20               | T495V476(1)010A(2)E200       | 4.7                      | 6.0                     | 200                      | 791                              | 712                   | 316                    | 1                      |
| 10            | 68        | B/3528-21               | T495B686(1)010A(2)E600       | 6.8                      | 8.0                     | 600                      | 376                              | 338                   | 150                    | 1                      |
| 10            | 68        | B/3528-21               | T495B686(1)010A(2)E750       | 6.8                      | 8.0                     | 750                      | 337                              | 303                   | 135                    | 1                      |
| 10            | 68        | B/3528-21               | T495B686(M)010A(2)E900       | 6.8                      | 8.0                     | 900                      | 307                              | 276                   | 123                    | 1                      |
| 10            | 68        | C/6032-28               | T495C686(1)010A(2)E080       | 6.8                      | 6.0                     | 80                       | 1173                             | 1056                  | 469                    | 1                      |
| 10            | 68        | C/6032-28               | T495C686(1)010A(2)E200       | 6.8                      | 6.0                     | 200                      | 742                              | 668                   | 297                    | 1                      |
| 10            | 68        | C/6032-28               | T495C686(1)010A(2)E225       | 6.8                      | 6.0                     | 225                      | 699                              | 629                   | 280                    | 1                      |
| 10            | 68        | C/6032-28               | T495C686(1)010A(2)E250       | 6.8                      | 6.0                     | 250                      | 663                              | 597                   | 265                    | 1                      |
| 10            | 68        | V/7343-20               | T495V686(1)010A(2)E070       | 6.8                      | 6.0                     | 70                       | 1336                             | 1202                  | 534                    | 1                      |
| 10            | 68        | V/7343-20               | T495V686(1)010A(2)E100       | 6.8                      | 6.0                     | 100                      | 1118                             | 1006                  | 447                    | 1                      |
| 10            | 68        | V/7343-20               | T495V686(1)010A(2)E140       | 6.8                      | 6.0                     | 140                      | 945                              | 851                   | 378                    | 1                      |
| 10            | 68        | V/7343-20               | T495V686(1)010A(2)E200       | 6.8                      | 6.0                     | 200                      | 791                              | 712                   | 316                    | 1                      |
| 10            | 68        | D/7343-31               | T495D686(1)010A(2)E070       | 6.8                      | 6.0                     | 70                       | 1464                             | 1318                  | 586                    | 1                      |
| 10            | 68        | D/7343-31               | T495D686(1)010A(2)E090       | 6.8                      | 6.0                     | 90                       | 1291                             | 1162                  | 516                    | 1                      |
| 10            | 68        | D/7343-31               | T495D686(1)010A(2)E100       | 6.8                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 68        | D/7343-31               | T495D686(1)010A(2)E150       | 6.8                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 10            | 68        | X/7343-43               | T495X686(1)010A(2)E150       | 6.8                      | 4.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 10            | 68        | X/7343-43               | T495X686(1)010A(2)4095       | 6.8                      | 4.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 10            | 100       | B/3528-21               | T495B107(M)010A(2)E350       | 10.0                     | 12.0                    | 350                      | 493                              | 444                   | 197                    | 1                      |
| 10            | 100       | B/3528-21               | T495B107(M)010A(2)E500       | 10.0                     | 30.0                    | 500                      | 412                              | 371                   | 165                    | 1                      |
| 10            | 100       | B/3528-21               | T495B107(M)010A(2)E700       | 10.0                     | 30.0                    | 700                      | 348                              | 313                   | 139                    | 1                      |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E100       | 10.0                     | 8.0                     | 100                      | 1050                             | 945                   | 420                    | 1                      |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E150       | 10.0                     | 8.0                     | 150                      | 856                              | 812                   | 542                    | 1                      |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E180       | 10.0                     | 8.0                     | 180                      | 782                              | 704                   | 313                    | 1                      |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E200       | 10.0                     | 8.0                     | 200                      | 742                              | 668                   | 297                    | 1                      |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E250       | 10.0                     | 8.0                     | 250                      | 663                              | 597                   | 265                    | 1                      |
| 10            | 100       | U/6032-15               | T495U107(1)010A(2)E150       | 10.0                     | 8.0                     | 150                      | 775                              | 698                   | 310                    | 1                      |
| 10            | 100       | V/7343-20               | T495V107(1)010A(2)E100       | 10.0                     | 8.0                     | 100                      | 1118                             | 1006                  | 447                    | 1                      |
| 10            | 100       | V/7343-20               | T495V107(1)010A(2)E150       | 10.0                     | 8.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 10            | 100       | V/7343-20               | T495V107(1)010A(2)E200       | 10.0                     | 8.0                     | 200                      | 791                              | 712                   | 316                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E050       | 10.0                     | 8.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E065       | 10.0                     | 8.0                     | 65                       | 1519                             | 1367                  | 608                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E080       | 10.0                     | 8.0                     | 80                       | 1369                             | 1232                  | 548                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E100       | 10.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E120       | 10.0                     | 8.0                     | 120                      | 1118                             | 1006                  | 447                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E125       | 10.0                     | 8.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)4095       | 10.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 100       | X/7343-43               | T495X107(1)010A(2)E100       | 10.0                     | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 100       | X/7343-43               | T495X107(1)010A(2)4095       | 10.0                     | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 150       | C/6032-28               | T495C157(1)010A(2)E200       | 15.0                     | 10.0                    | 200                      | 742                              | 668                   | 297                    | 1                      |
| 10            | 150       | V/7343-20               | T495V157(1)010A(2)E100       | 15.0                     | 8.0                     | 100                      | 1118                             | 1006                  | 447                    | 1                      |
| 10            | 150       | V/7343-20               | T495V157(1)010A(2)E150       | 15.0                     | 8.0                     | 150                      | 913                              | 822                   | 365                    | 1                      |
| 10            | 150       | V/7343-20               | T495V157(1)010A(2)E200       | 15.0                     | 8.0                     | 200                      | 791                              | 712                   | 316                    | 1                      |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E050       | 15.0                     | 8.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E060       | 15.0                     | 8.0                     | 60                       | 1581                             | 1423                  | 632                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E080       | 15.0                     | 8.0                     | 80                       | 1369                             | 1232                  | 548                    | 1                      |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E100       | 15.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)4095       | 15.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E070       | 15.0                     | 8.0                     | 70                       | 1535                             | 1382                  | 614                    | 1                      |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E080       | 15.0                     | 8.0                     | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E085       | 15.0                     | 8.0                     | 85                       | 1393                             | 1254                  | 557                    | 1                      |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E100       | 15.0                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)4095       | 15.0                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E045       | 22.0                     | 8.0                     | 45                       | 1826                             | 1643                  | 730                    | 1                      |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E050       | 22.0                     | 9.0                     | 50                       | 1732                             | 1559                  | 693                    | 1                      |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E075       | 22.0                     | 8.0                     | 75                       | 1414                             | 1273                  | 566                    | 1                      |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E100       | 22.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E125       | 22.0                     | 8.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 10            | 220       | V/7343-20               | T495V227(1)010A(2)E150       | 22.0                     | 10.0                    | 150                      | 913                              | 822                   | 365                    | 1                      |
| 10            | 220       | V/7343-20               | T495V227(1)010A(2)E200       | 22.0                     | 10.0                    | 200                      | 791                              | 712                   | 316                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E045       | 22.0                     | 8.0                     | 45                       | 1915                             | 1724                  | 766                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E050       | 22.0                     | 8.0                     | 50                       | 1817                             | 1635                  | 727                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E060       | 22.0                     | 8.0                     | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E070       | 22.0                     | 8.0                     | 70                       | 1535                             | 1382                  | 614                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E080       | 22.0                     | 8.0                     | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E100       | 22.0                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)4095       | 22.0                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 330       | D/7343-31               | T495D337(1)010A(2)E100       | 33.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 10            | 330       | D/7343-31               | T495D337(1)010A(2)E125       | 33.0                     | 10.0                    | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 10            | 330       | D/7343-31               | T495D337(1)010A(2)E150       | 33.0                     | 10.0                    | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 10            | 330       | X/7343-43               | T495X337(1)010A(2)E035       | 33.0                     | 10.0                    | 35                       | 2171                             | 1954                  | 868                    | 1                      |
| 10            | 330       | X/7343-43               | T495X337(1)010A(2)E040       | 33.0                     | 10.0                    | 40                       | 2031                             | 1828                  | 812                    | 1                      |
| 10            | 330       | X/7343-43               | T495X337(1)010A(2)E050       | 33.0                     | 10.0                    | 50                       | 1817                             | 1635                  | 727                    | 1                      |
| 10            | 330       | X/7343-43               | T495X337(1)010A(2)E060       | 33.0                     | 10.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 10            | 330       | X/7343-43               | T495X337(1)010A(2)E080       | 33.0                     | 10.0                    | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 10            | 330       | X/7343-43               | T495X337(1)010A(2)E100       | 33.0                     | 10.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 330       | E/7360-38               | T495E337(1)010A(2)E040       | 33.0                     | 8.0                     | 40                       | 2236                             | 2012                  | 894                    | 1                      |
| 10            | 330       | E/7360-38               | T495E337(1)010A(2)E060       | 33.0                     | 10.0                    | 60                       | 1826                             | 1643                  | 730                    | 1                      |
| 10            | 330       | E/7360-38               | T495E337(1)010A(2)E100       | 33.0                     | 10.0                    | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 10            | 470       | X/7343-43               | T495X477(1)010A(2)E045       | 47.0                     | 10.0                    | 45                       | 1915                             | 1724                  | 766                    | 1                      |
| 10            | 470       | X/7343-43               | T495X477(1)010A(2)E050       | 47.0                     | 10.0                    | 50                       | 1817                             | 1635                  | 727                    | 1                      |
| 10            | 470       | X/7343-43               | T495X477(1)010A(2)E060       | 47.0                     | 10.0                    | 60                       | 1658                             | 1492                  | 663                    | 1                      |
| 10            | 470       | X/7343-43               | T495X477(1)010A(2)E080       | 47.0                     | 10.0                    | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 10            | 470       | X/7343-43               | T495X477(1)010A(2)E100       | 47.0                     | 10.0                    | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 10            | 470       | X/7343-43               | T495X477(1)010A(2)E200       | 47.0                     | 10.0                    | 200                      | 908                              | 817                   | 363                    | 1                      |
| 10            | 470       | E/7360-38               | T495E477(1)010A(2)E040       | 47.0                     | 10.0                    | 40                       | 2236                             | 2012                  | 894                    | 1                      |
| 10            | 470       | E/7360-38               | T495E477(1)010A(2)E060       | 47.0                     | 10.0                    | 60                       | 1826                             | 1643                  | 730                    | 1                      |
| 10            | 470       | E/7360-38               | T495E477(1)010A(2)E100       | 47.0                     | 10.0                    | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 16            | 1.0       | A/3216-18               | T495A105(1)016A(2)E5K0       | 0.5                      | 6.0                     | 5000                     | 122                              | 110                   | 49                     | 1                      |
| 16            | 1.5       | A/3216-18               | T495A155(1)016A(2)E5K0       | 0.5                      | 6.0                     | 5000                     | 122                              | 110                   | 49                     | 1                      |
| 16            | 2.2       | A/3216-18               | T495A225(1)016A(2)E2K5       | 0.5                      | 6.0                     | 2500                     | 173                              | 156                   | 69                     | 1                      |
| 16            | 2.2       | A/3216-18               | T495A225(1)016A(2)E1K8       | 0.5                      | 6.0                     | 1800                     | 204                              | 184                   | 82                     | 1                      |
| 16            | 3.3       | A/3216-18               | T495A335(1)016A(2)E3K0       | 0.5                      | 6.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 16            | 3.3       | B/3528-21               | T495B335(1)016A(2)E2K0       | 0.5                      | 6.0                     | 2000                     | 206                              | 185                   | 82                     | 1                      |
| 16            | 4.7       | A/3216-18               | T495A475(1)016A(2)E2K0       | 0.8                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 16            | 4.7       | B/3528-21               | T495B475(1)016A(2)E700       | 0.8                      | 6.0                     | 700                      | 348                              | 313                   | 139                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings &amp; Part Number Reference cont'd

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 16            | 4.7       | B/3528-21               | T495B475(1)016A(2)E800       | 0.8                      | 6.0                     | 800                      | 326                              | 293                   | 130                    | 1                      |
| 16            | 4.7       | B/3528-21               | T495B475(1)016A(2)E1K0       | 0.8                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 16            | 4.7       | B/3528-21               | T495B475(1)016A(2)E1K5       | 0.8                      | 6.0                     | 1500                     | 238                              | 214                   | 95                     | 1                      |
| 16            | 6.8       | B/3528-21               | T495B685(1)016A(2)E1K2       | 1.1                      | 6.0                     | 1200                     | 266                              | 239                   | 106                    | 1                      |
| 16            | 6.8       | C/6032-28               | T495C685(1)016A(2)E750       | 1.1                      | 6.0                     | 750                      | 383                              | 345                   | 153                    | 1                      |
| 16            | 10        | A/3216-18               | T495A106(1)016A(2)E1K7       | 1.6                      | 6.0                     | 1700                     | 210                              | 189                   | 84                     | 1                      |
| 16            | 10        | B/3528-21               | T495B106(1)016A(2)E500       | 1.6                      | 6.0                     | 500                      | 412                              | 371                   | 165                    | 1                      |
| 16            | 10        | B/3528-21               | T495B106(1)016A(2)E650       | 1.6                      | 6.0                     | 650                      | 362                              | 326                   | 145                    | 1                      |
| 16            | 10        | B/3528-21               | T495B106(1)016A(2)E800       | 1.6                      | 6.0                     | 800                      | 326                              | 293                   | 130                    | 1                      |
| 16            | 10        | B/3528-21               | T495B106(1)016A(2)E2K5       | 1.6                      | 6.0                     | 2500                     | 184                              | 166                   | 74                     | 1                      |
| 16            | 10        | T/3528-12               | T495T106(M)016A(2)E4K0       | 1.6                      | 8.0                     | 4000                     | 132                              | 119                   | 53                     | 1                      |
| 16            | 15        | A/3216-18               | T495A156(1)016A(2)E2K5       | 2.4                      | 8.0                     | 2500                     | 173                              | 156                   | 69                     | 1                      |
| 16            | 15        | B/3528-21               | T495B156(1)016A(2)E500       | 2.4                      | 6.0                     | 500                      | 412                              | 371                   | 165                    | 1                      |
| 16            | 15        | B/3528-21               | T495B156(1)016A(2)E800       | 2.4                      | 6.0                     | 800                      | 326                              | 293                   | 130                    | 1                      |
| 16            | 15        | C/6032-28               | T495C156(1)016A(2)E400       | 2.4                      | 6.0                     | 400                      | 524                              | 472                   | 210                    | 1                      |
| 16            | 22        | B/3528-21               | T495B226(1)016A(2)E600       | 3.5                      | 6.0                     | 600                      | 376                              | 338                   | 150                    | 1                      |
| 16            | 22        | B/3528-21               | T495B226(1)016A(2)E700       | 3.5                      | 6.0                     | 700                      | 348                              | 313                   | 139                    | 1                      |
| 16            | 22        | C/6032-28               | T495C226(1)016A(2)E300       | 3.5                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 16            | 22        | C/6032-28               | T495C226(1)016A(2)E350       | 3.5                      | 6.0                     | 350                      | 561                              | 505                   | 224                    | 1                      |
| 16            | 22        | C/6032-28               | T495C226(1)016A(2)E500       | 3.5                      | 6.0                     | 500                      | 469                              | 422                   | 188                    | 1                      |
| 16            | 22        | U/6032-15               | T495U226(1)016A(2)E500       | 3.5                      | 6.0                     | 500                      | 424                              | 382                   | 170                    | 1                      |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E200       | 5.3                      | 6.0                     | 200                      | 742                              | 668                   | 297                    | 1                      |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E225       | 5.3                      | 6.0                     | 225                      | 699                              | 629                   | 280                    | 1                      |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E230       | 5.3                      | 6.0                     | 230                      | 692                              | 623                   | 277                    | 1                      |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E275       | 5.3                      | 6.0                     | 275                      | 632                              | 569                   | 253                    | 1                      |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E300       | 5.3                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 16            | 33        | U/6032-15               | T495U336(1)016A(2)E200       | 5.3                      | 6.0                     | 200                      | 671                              | 604                   | 268                    | 1                      |
| 16            | 33        | U/6032-15               | T495U336(1)016A(2)E400       | 5.3                      | 6.0                     | 400                      | 474                              | 427                   | 190                    | 1                      |
| 16            | 33        | B/3528-21               | T495B336(1)016A(2)E350       | 5.3                      | 6.0                     | 350                      | 493                              | 444                   | 197                    | 1                      |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E150       | 5.3                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E175       | 5.3                      | 6.0                     | 175                      | 926                              | 833                   | 370                    | 1                      |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E200       | 5.3                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E225       | 5.3                      | 4.0                     | 225                      | 816                              | 734                   | 326                    | 1                      |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E250       | 5.3                      | 6.0                     | 250                      | 775                              | 698                   | 310                    | 1                      |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)4095       | 5.3                      | 4.0                     | 250                      | 775                              | 698                   | 310                    | 1                      |
| 16            | 47        | C/6032-28               | T495C476(1)016A(2)E300       | 7.5                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 16            | 47        | C/6032-28               | T495C476(1)016A(2)E350       | 7.5                      | 6.0                     | 350                      | 561                              | 505                   | 224                    | 1                      |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E080       | 7.5                      | 6.0                     | 80                       | 1369                             | 1232                  | 548                    | 1                      |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E100       | 7.5                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E150       | 7.5                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E180       | 7.5                      | 6.0                     | 180                      | 913                              | 822                   | 365                    | 1                      |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E800       | 7.5                      | 6.0                     | 800                      | 433                              | 390                   | 173                    | 1                      |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)4095       | 7.5                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 16            | 68        | C/6032-28               | T495C686(1)016A(2)E250       | 10.9                     | 6.0                     | 250                      | 663                              | 597                   | 265                    | 1                      |
| 16            | 68        | C/6032-28               | T495C686(1)016A(2)E200       | 10.9                     | 6.0                     | 200                      | 742                              | 668                   | 297                    | 1                      |
| 16            | 68        | C/6032-28               | T495C686(1)016A(2)E180       | 10.9                     | 6.0                     | 180                      | 782                              | 704                   | 313                    | 1                      |
| 16            | 68        | V/7343-20               | T495V686(1)016A(2)E180       | 10.9                     | 6.0                     | 180                      | 833                              | 750                   | 333                    | 1                      |
| 16            | 68        | V/7343-20               | T495V686(1)016A(2)E250       | 10.9                     | 6.0                     | 250                      | 707                              | 636                   | 283                    | 1                      |
| 16            | 68        | V/7343-20               | T495V686(1)016A(2)E300       | 10.9                     | 6.0                     | 300                      | 645                              | 581                   | 258                    | 1                      |
| 16            | 68        | D/7343-31               | T495D686(1)016A(2)E070       | 10.9                     | 6.0                     | 70                       | 1464                             | 1318                  | 586                    | 1                      |
| 16            | 68        | D/7343-31               | T495D686(1)016A(2)E100       | 10.9                     | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 16            | 68        | D/7343-31               | T495D686(1)016A(2)E150       | 10.9                     | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 16            | 68        | X/7343-43               | T495X686(1)016A(2)E150       | 10.9                     | 5.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 16            | 100       | C/6032-28               | T495C107(1)016A(2)E200       | 16.0                     | 10.0                    | 200                      | 742                              | 668                   | 297                    | 1                      |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E060       | 16.0                     | 8.0                     | 60                       | 1581                             | 1423                  | 632                    | 1                      |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E100       | 16.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E125       | 16.0                     | 8.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E130       | 16.0                     | 8.0                     | 130                      | 1074                             | 967                   | 430                    | 1                      |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E150       | 16.0                     | 8.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E800       | 16.0                     | 8.0                     | 800                      | 433                              | 390                   | 173                    | 1                      |
| 16            | 100       | V/7343-20               | T495V107(1)016A(2)E250       | 16.0                     | 8.0                     | 250                      | 707                              | 636                   | 283                    | 1                      |
| 16            | 100       | X/7343-43               | T495X107(1)016A(2)E080       | 16.0                     | 8.0                     | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 16            | 100       | X/7343-43               | T495X107(1)016A(2)E100       | 16.0                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 16            | 100       | X/7343-43               | T495X107(1)016A(2)4095       | 16.0                     | 8.0                     | 125                      | 1149                             | 1034                  | 460                    | 1                      |
| 16            | 150       | D/7343-31               | T495D157(M)016A(2)E060       | 24.0                     | 12.0                    | 60                       | 1581                             | 1423                  | 632                    | 1                      |
| 16            | 150       | D/7343-31               | T495D157(M)016A(2)E085       | 24.0                     | 8.0                     | 85                       | 1328                             | 1195                  | 531                    | 1                      |
| 16            | 150       | D/7343-31               | T495D157(1)016A(2)E100       | 24.0                     | 8.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 16            | 150       | D/7343-31               | T495D157(1)016A(2)E125       | 24.0                     | 8.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 16            | 150       | D/7343-31               | T495D157(1)016A(2)E130       | 24.0                     | 8.0                     | 130                      | 1074                             | 967                   | 430                    | 1                      |
| 16            | 150       | D/7343-31               | T495D157(1)016A(2)E150       | 24.0                     | 8.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 16            | 150       | X/7343-43               | T495X157(1)016A(2)E075       | 24.0                     | 8.0                     | 75                       | 1483                             | 1335                  | 593                    | 1                      |
| 16            | 150       | X/7343-43               | T495X157(1)016A(2)E100       | 24.0                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 16            | 220       | D/7343-31               | T495D227(1)016A(2)E150       | 35.2                     | 12.0                    | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 16            | 220       | D/7343-31               | T495D227(1)016A(2)E200       | 35.2                     | 12.0                    | 200                      | 866                              | 779                   | 346                    | 1                      |
| 16            | 220       | D/7343-31               | T495D227(1)016A(2)E220       | 35.2                     | 12.0                    | 220                      | 826                              | 743                   | 330                    | 1                      |
| 16            | 220       | X/7343-43               | T495X227(1)016A(2)E100       | 35.2                     | 8.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 16            | 220       | E/7360-38               | T495E227(1)016A(2)E050       | 35.2                     | 12.0                    | 50                       | 2000                             | 1800                  | 800                    | 1                      |
| 16            | 220       | E/7360-38               | T495E227(1)016A(2)E075       | 35.2                     | 8.0                     | 75                       | 1633                             | 1470                  | 653                    | 1                      |
| 16            | 220       | E/7360-38               | T495E227(1)016A(2)E100       | 35.2                     | 7.2                     | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 16            | 220       | E/7360-38               | T495E227(1)016A(2)E150       | 35.2                     | 7.2                     | 150                      | 1155                             | 1040                  | 462                    | 1                      |
| 20            | 1         | A/3216-18               | T495A105(1)020A(2)E3K0       | 0.5                      | 4.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 20            | 1         | A/3216-18               | T495A105(1)020A(2)E5K0       | 0.5                      | 4.0                     | 5000                     | 122                              | 110                   | 49                     | 1                      |
| 20            | 2.2       | A/3216-18               | T495A225(1)020A(2)E3K0       | 0.5                      | 6.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 20            | 4.7       | A/3216-18               | T495A475(1)020A(2)E1K8       | 0.9                      | 6.0                     | 1800                     | 204                              | 184                   | 82                     | 1                      |
| 20            | 4.7       | A/3216-18               | T495A475(1)020A(2)E2K0       | 0.9                      | 6.0                     | 2000                     | 194                              | 175                   | 78                     | 1                      |
| 20            | 4.7       | B/3528-21               | T495B475(1)020A(2)E750       | 0.9                      | 6.0                     | 750                      | 337                              | 303                   | 135                    | 1                      |
| 20            | 4.7       | B/3528-21               | T495B475(1)020A(2)E1K0       | 0.9                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 20            | 6.8       | C/6032-28               | T495C685(1)020A(2)E480       | 1.4                      | 6.0                     | 480                      | 479                              | 431                   | 192                    | 1                      |
| 20            | 10        | B/3528-21               | T495B106(1)020A(2)E1K0       | 2.0                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 20            | 10        | B/3528-21               | T495B106(1)020A(2)E800       | 2.0                      | 6.0                     | 800                      | 326                              | 293                   | 130                    | 1                      |
| 20            | 10        | C/6032-28               | T495C106(1)020A(2)E300       | 2.0                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 20            | 10        | C/6032-28               | T495C106(1)020A(2)E350       | 2.0                      | 6.0                     | 350                      | 561                              | 505                   | 224                    | 1                      |
| 20            | 10        | C/6032-28               | T495C106(1)020A(2)E400       | 2.0                      | 6.0                     | 400                      | 524                              | 472                   | 210                    | 1                      |
| 20            | 10        | C/6032-28               | T495C106(1)020A(2)E450       | 2.0                      | 6.0                     | 450                      | 494                              | 445                   | 198                    | 1                      |
| 20            | 10        | C/6032-28               | T495C106(1)020A(2)E475       | 2.0                      | 6.0                     | 475                      | 481                              | 433                   | 192                    | 1                      |
| 20            | 15        | C/6032-28               | T495C156(1)020A(2)E375       | 3.0                      | 6.0                     | 375                      | 542                              | 488                   | 217                    | 1                      |
| 20            | 15        | C/6032-28               | T495C156(1)020A(2)E400       | 3.0                      | 6.0                     | 400                      | 524                              | 472                   | 210                    | 1                      |
| 20            | 15        | D/7343-31               | T495D156(1)020A(2)E275       | 3.0                      | 4.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| 20            | 15        | D/7343-31               | T495D156(1)020A(2)E1K2       | 3.0                      | 4.0                     | 1200                     | 354                              | 319                   | 142                    | 1                      |
| 20            | 15        | D/7343-31               | T495D156(1)020A(2)4095       | 3.0                      | 4.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| 20            | 22        | D/7343-31               | T495D226(1)020A(2)E180       | 4.4                      | 4.0                     | 180                      | 913                              | 822                   | 365                    | 1                      |
| 20            | 22        | D/7343-31               | T495D226(1)020A(2)E200       | 4.4                      | 4.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings &amp; Part Number Reference cont'd

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 20            | 22        | D/7343-31               | T495D226(1)020A(2)E225       | 4.4                      | 4.0                     | 225                      | 816                              | 734                   | 326                    | 1                      |
| 20            | 22        | D/7343-31               | T495D226(1)020A(2)4095       | 4.4                      | 4.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| 20            | 22        | V/7343-20               | T495V226(1)020A(2)E400       | 4.4                      | 6.0                     | 400                      | 559                              | 503                   | 224                    | 1                      |
| 20            | 33        | C/6032-28               | T495C336(1)020A(2)E200       | 6.6                      | 6.0                     | 200                      | 742                              | 668                   | 297                    | 1                      |
| 20            | 33        | D/7343-31               | T495D336(1)020A(2)E100       | 6.6                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 20            | 33        | D/7343-31               | T495D336(1)020A(2)E150       | 6.6                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 20            | 33        | D/7343-31               | T495D336(1)020A(2)E200       | 6.6                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 20            | 33        | X/7343-43               | T495X336(1)020A(2)E200       | 6.6                      | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E075       | 9.4                      | 6.0                     | 75                       | 1414                             | 1273                  | 566                    | 1                      |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E100       | 9.4                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E150       | 9.4                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E175       | 9.4                      | 6.0                     | 175                      | 926                              | 833                   | 370                    | 1                      |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E200       | 9.4                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E250       | 9.4                      | 6.0                     | 250                      | 775                              | 698                   | 310                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E065       | 9.4                      | 8.0                     | 65                       | 1593                             | 1434                  | 637                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E070       | 9.4                      | 6.0                     | 70                       | 1535                             | 1382                  | 614                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E100       | 9.4                      | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E125       | 9.4                      | 6.0                     | 125                      | 1149                             | 1034                  | 460                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E130       | 9.4                      | 6.0                     | 130                      | 1127                             | 1014                  | 451                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E150       | 9.4                      | 4.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)4095       | 9.4                      | 4.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E070       | 13.6                     | 6.0                     | 70                       | 1464                             | 1318                  | 586                    | 1                      |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E150       | 13.6                     | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E200       | 13.6                     | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E300       | 13.6                     | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E120       | 13.6                     | 6.0                     | 120                      | 1173                             | 1056                  | 469                    | 1                      |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E130       | 13.6                     | 6.0                     | 130                      | 1127                             | 1014                  | 451                    | 1                      |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E150       | 13.6                     | 6.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E200       | 13.6                     | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)4095       | 13.6                     | 6.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 20            | 100       | X/7343-43               | T495X107(1)020A(2)E100       | 20.0                     | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 20            | 100       | X/7343-43               | T495X107(1)020A(2)E150       | 20.0                     | 8.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E060       | 20.0                     | 8.0                     | 60                       | 1826                             | 1643                  | 730                    | 1                      |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E085       | 20.0                     | 8.0                     | 85                       | 1534                             | 1381                  | 614                    | 1                      |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E100       | 20.0                     | 8.0                     | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E200       | 20.0                     | 8.0                     | 200                      | 1000                             | 900                   | 400                    | 1                      |
| 20            | 150       | E/7360-38               | T495E157(1)020A(2)E080       | 30.0                     | 8.0                     | 80                       | 1581                             | 1423                  | 632                    | 1                      |
| 25            | 0.47      | A/3216-18               | T495A474(1)025A(2)E4K5       | 0.5                      | 4.0                     | 4500                     | 129                              | 116                   | 52                     | 1                      |
| 25            | 0.47      | A/3216-18               | T495A474(1)025A(2)E7K0       | 0.5                      | 4.0                     | 7000                     | 104                              | 94                    | 42                     | 1                      |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E2K5       | 0.5                      | 4.0                     | 2500                     | 173                              | 156                   | 69                     | 1                      |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E3K0       | 0.5                      | 4.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E4K0       | 0.5                      | 4.0                     | 4000                     | 137                              | 123                   | 55                     | 1                      |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E5K0       | 0.5                      | 4.0                     | 5000                     | 122                              | 110                   | 49                     | 1                      |
| 25            | 1.5       | A/3216-18               | T495A155(1)025A(2)E3K0       | 0.5                      | 6.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 25            | 2.2       | B/3528-21               | T495B225(1)025A(2)E1K2       | 0.6                      | 4.0                     | 1200                     | 266                              | 239                   | 106                    | 1                      |
| 25            | 2.2       | C/6032-28               | T495C225(1)025A(2)E1K3       | 0.6                      | 6.0                     | 1300                     | 291                              | 262                   | 116                    | 1                      |
| 25            | 3.3       | B/3528-21               | T495B335(1)025A(2)E1K2       | 0.8                      | 6.0                     | 1200                     | 266                              | 239                   | 106                    | 1                      |
| 25            | 3.3       | C/6032-28               | T495C335(1)025A(2)E750       | 0.8                      | 6.0                     | 750                      | 383                              | 345                   | 153                    | 1                      |
| 25            | 4.7       | C/6032-28               | T495C475(1)025A(2)E530       | 1.2                      | 6.0                     | 530                      | 456                              | 410                   | 182                    | 1                      |
| 25            | 4.7       | C/6032-28               | T495C475(1)025A(2)E575       | 1.2                      | 6.0                     | 575                      | 437                              | 393                   | 175                    | 1                      |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E700       | 1.2                      | 6.0                     | 700                      | 348                              | 313                   | 139                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E750       | 1.2                      | 6.0                     | 750                      | 337                              | 303                   | 135                    | 1                      |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E800       | 1.2                      | 6.0                     | 800                      | 326                              | 293                   | 130                    | 1                      |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E900       | 1.2                      | 6.0                     | 900                      | 307                              | 276                   | 123                    | 1                      |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E1K0       | 1.2                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 25            | 6.8       | B/3528-21               | T495B685(1)025A(2)E1K0       | 1.7                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 25            | 6.8       | B/3528-21               | T495B685(1)025A(2)E1K5       | 1.7                      | 6.0                     | 1500                     | 238                              | 214                   | 95                     | 1                      |
| 25            | 6.8       | C/6032-28               | T495C685(1)025A(2)E400       | 1.7                      | 6.0                     | 400                      | 524                              | 472                   | 210                    | 1                      |
| 25            | 6.8       | C/6032-28               | T495C685(1)025A(2)E490       | 1.7                      | 6.0                     | 490                      | 474                              | 427                   | 190                    | 1                      |
| 25            | 6.8       | C/6032-28               | T495C685(1)025A(2)E500       | 1.7                      | 6.0                     | 500                      | 469                              | 422                   | 188                    | 1                      |
| 25            | 10        | B/3528-21               | T495B106(1)025A(2)E750       | 2.5                      | 6.0                     | 750                      | 337                              | 303                   | 135                    | 1                      |
| 25            | 10        | C/6032-28               | T495C106(1)025A(2)E275       | 2.5                      | 6.0                     | 275                      | 632                              | 569                   | 253                    | 1                      |
| 25            | 10        | C/6032-28               | T495C106(1)025A(2)E300       | 2.5                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 25            | 10        | C/6032-28               | T495C106(1)025A(2)E450       | 2.5                      | 6.0                     | 450                      | 494                              | 445                   | 198                    | 1                      |
| 25            | 10        | D/7343-31               | T495D106(1)025A(2)E1K2       | 2.5                      | 6.0                     | 1200                     | 354                              | 319                   | 142                    | 1                      |
| 25            | 15        | C/6032-28               | T495C156(1)025A(2)E300       | 3.8                      | 6.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)E100       | 3.8                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)E230       | 3.8                      | 4.0                     | 230                      | 808                              | 727                   | 323                    | 1                      |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)E275       | 3.8                      | 6.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)4095       | 3.8                      | 6.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| 25            | 15        | V/7343-20               | T495V156(1)025A(2)E500       | 3.8                      | 6.0                     | 500                      | 500                              | 450                   | 200                    | 1                      |
| 25            | 15        | X/7343-43               | T495X156(1)025A(2)E200       | 3.8                      | 4.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 25            | 15        | X/7343-43               | T495X156(1)025A(2)4095       | 3.8                      | 4.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E275       | 5.5                      | 6.0                     | 275                      | 632                              | 569                   | 253                    | 1                      |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E280       | 5.5                      | 6.0                     | 280                      | 627                              | 564                   | 251                    | 1                      |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E300       | 5.5                      | 8.0                     | 300                      | 606                              | 545                   | 242                    | 1                      |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E900       | 5.5                      | 6.0                     | 900                      | 350                              | 315                   | 140                    | 1                      |
| 25            | 22        | D/7343-31               | T495D226(1)025A(2)E200       | 5.5                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 25            | 22        | D/7343-31               | T495D226(1)025A(2)E230       | 5.5                      | 6.0                     | 230                      | 808                              | 727                   | 323                    | 1                      |
| 25            | 22        | X/7343-43               | T495X226(1)025A(2)E225       | 5.5                      | 4.0                     | 225                      | 856                              | 770                   | 342                    | 1                      |
| 25            | 22        | X/7343-43               | T495X226(1)025A(2)4095       | 5.5                      | 4.0                     | 225                      | 856                              | 770                   | 342                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E090       | 8.3                      | 6.0                     | 90                       | 1291                             | 1162                  | 516                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E100       | 8.3                      | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E150       | 8.3                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E200       | 8.3                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E225       | 8.3                      | 6.0                     | 225                      | 816                              | 734                   | 326                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E230       | 8.3                      | 6.0                     | 230                      | 808                              | 727                   | 323                    | 1                      |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E300       | 8.3                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E100       | 8.3                      | 4.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E175       | 8.3                      | 4.0                     | 175                      | 971                              | 874                   | 388                    | 1                      |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E180       | 8.3                      | 4.0                     | 180                      | 957                              | 861                   | 383                    | 1                      |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E200       | 8.3                      | 4.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)4095       | 8.3                      | 4.0                     | 175                      | 971                              | 874                   | 388                    | 1                      |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E080       | 11.8                     | 6.0                     | 80                       | 1436                             | 1292                  | 574                    | 1                      |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E100       | 11.8                     | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E120       | 11.8                     | 6.0                     | 120                      | 1173                             | 1056                  | 469                    | 1                      |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E150       | 11.8                     | 6.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E185       | 11.8                     | 6.0                     | 185                      | 944                              | 850                   | 378                    | 1                      |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E200       | 11.8                     | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E100       | 11.8                     | 6.0                     | 100                      | 1225                             | 1103                  | 490                    | 1                      |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E120       | 11.8                     | 6.0                     | 120                      | 1118                             | 1006                  | 447                    | 1                      |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E130       | 11.8                     | 6.0                     | 130                      | 1074                             | 967                   | 430                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E150       | 11.8                     | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E250       | 11.8                     | 6.0                     | 250                      | 775                              | 698                   | 310                    | 1                      |
| 25            | 68        | D/7343-31               | T495D686(1)025A(2)E150       | 17.0                     | 10.0                    | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 25            | 68        | D/7343-31               | T495D686(1)025A(2)E200       | 17.0                     | 10.0                    | 200                      | 866                              | 779                   | 346                    | 1                      |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E125       | 17.0                     | 6.0                     | 125                      | 1149                             | 1034                  | 460                    | 1                      |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E130       | 17.0                     | 6.0                     | 130                      | 1127                             | 1014                  | 451                    | 1                      |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E150       | 17.0                     | 6.0                     | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E200       | 17.0                     | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 25            | 100       | X/7343-43               | T495X107(1)025A(2)E150       | 25.0                     | 10.0                    | 150                      | 1049                             | 944                   | 420                    | 1                      |
| 25            | 100       | E/7360-38               | T495E107(1)025A(2)E100       | 25.0                     | 8.0                     | 100                      | 1414                             | 1273                  | 566                    | 1                      |
| 35            | 0.33      | A/3216-18               | T495A334(1)035A(2)E6K0       | 0.5                      | 4.0                     | 6000                     | 112                              | 101                   | 45                     | 1                      |
| 35            | 0.47      | A/3216-18               | T495A474(1)035A(2)E4K0       | 0.5                      | 4.0                     | 4000                     | 137                              | 123                   | 55                     | 1                      |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E1K5       | 0.5                      | 4.0                     | 1500                     | 238                              | 214                   | 95                     | 1                      |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E2K2       | 0.5                      | 4.0                     | 2200                     | 197                              | 177                   | 79                     | 1                      |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E2K5       | 0.5                      | 4.0                     | 2500                     | 184                              | 166                   | 74                     | 1                      |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E1K1       | 0.5                      | 4.0                     | 11000                    | 88                               | 79                    | 35                     | 1                      |
| 35            | 1         | A/3216-18               | T495A105(1)035A(2)E3K0       | 0.5                      | 4.0                     | 3000                     | 158                              | 142                   | 63                     | 1                      |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E1K5       | 0.5                      | 4.0                     | 1500                     | 238                              | 214                   | 95                     | 1                      |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E1K7       | 0.5                      | 4.0                     | 1700                     | 224                              | 202                   | 90                     | 1                      |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E2K0       | 0.5                      | 4.0                     | 2000                     | 206                              | 185                   | 82                     | 1                      |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E7K0       | 0.5                      | 4.0                     | 7000                     | 110                              | 99                    | 44                     | 1                      |
| 35            | 2.2       | B/3528-21               | T495B225(1)035A(2)E1K5       | 0.8                      | 6.0                     | 1500                     | 238                              | 214                   | 95                     | 1                      |
| 35            | 2.2       | B/3528-21               | T495B225(1)035A(2)E2K0       | 0.8                      | 6.0                     | 2000                     | 206                              | 185                   | 82                     | 1                      |
| 35            | 2.2       | B/3528-21               | T495B225(1)035A(2)E4K0       | 0.8                      | 6.0                     | 4000                     | 146                              | 131                   | 58                     | 1                      |
| 35            | 2.2       | C/6032-28               | T495C225(1)035A(2)E750       | 0.8                      | 6.0                     | 750                      | 383                              | 345                   | 153                    | 1                      |
| 35            | 3.3       | B/3528-21               | T495B335(1)035A(2)E1K0       | 1.2                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 35            | 3.3       | B/3528-21               | T495B335(1)035A(2)E900       | 1.2                      | 6.0                     | 900                      | 307                              | 276                   | 123                    | 1                      |
| 35            | 3.3       | C/6032-28               | T495C335(1)035A(2)E525       | 1.2                      | 6.0                     | 525                      | 458                              | 412                   | 183                    | 1                      |
| 35            | 3.3       | C/6032-28               | T495C335(1)035A(2)E550       | 1.2                      | 6.0                     | 550                      | 447                              | 402                   | 179                    | 1                      |
| 35            | 3.3       | C/6032-28               | T495C335(1)035A(2)E600       | 1.2                      | 6.0                     | 600                      | 428                              | 385                   | 171                    | 1                      |
| 35            | 4.7       | B/3528-21               | T495B475(1)035A(2)E1K0       | 1.6                      | 6.0                     | 1000                     | 292                              | 263                   | 117                    | 1                      |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)E450       | 1.6                      | 6.0                     | 450                      | 494                              | 445                   | 198                    | 1                      |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)E500       | 1.6                      | 6.0                     | 500                      | 469                              | 422                   | 188                    | 1                      |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)E600       | 1.6                      | 6.0                     | 600                      | 428                              | 385                   | 171                    | 1                      |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)4095       | 1.6                      | 6.0                     | 600                      | 428                              | 385                   | 171                    | 1                      |
| 35            | 4.7       | D/7343-31               | T495D475(1)035A(2)E300       | 1.6                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 6.8       | C/6032-28               | T495C685(1)035A(2)E1K8       | 2.4                      | 6.0                     | 1800                     | 247                              | 222                   | 99                     | 1                      |
| 35            | 6.8       | D/7343-31               | T495D685(1)035A(2)E150       | 2.4                      | 6.0                     | 150                      | 1000                             | 900                   | 400                    | 1                      |
| 35            | 6.8       | D/7343-31               | T495D685(1)035A(2)E300       | 2.4                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 6.8       | D/7343-31               | T495D685(1)035A(2)E400       | 2.4                      | 6.0                     | 400                      | 612                              | 551                   | 245                    | 1                      |
| 35            | 6.8       | V/7343-20               | T495V685(1)035A(2)E600       | 2.4                      | 6.0                     | 600                      | 456                              | 410                   | 182                    | 1                      |
| 35            | 6.8       | X/7343-43               | T495X685(1)035A(2)E300       | 2.4                      | 4.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 35            | 6.8       | X/7343-43               | T495X685(1)035A(2)4095       | 2.4                      | 4.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 35            | 10        | C/6032-28               | T495C106(1)035A(2)E400       | 3.5                      | 6.0                     | 400                      | 524                              | 472                   | 210                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E120       | 3.5                      | 4.0                     | 120                      | 1118                             | 1006                  | 447                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E125       | 3.5                      | 6.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E130       | 3.5                      | 6.0                     | 130                      | 1074                             | 967                   | 430                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E250       | 3.5                      | 6.0                     | 250                      | 775                              | 698                   | 310                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E260       | 3.5                      | 6.0                     | 260                      | 760                              | 684                   | 304                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E300       | 3.5                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E1K0       | 3.5                      | 6.0                     | 1000                     | 387                              | 348                   | 155                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)4095       | 3.5                      | 4.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 10        | V/7343-20               | T495V106(1)035A(2)E600       | 3.5                      | 6.0                     | 600                      | 456                              | 410                   | 182                    | 1                      |
| 35            | 10        | X/7343-43               | T495X106(1)035A(2)E175       | 3.5                      | 6.0                     | 175                      | 971                              | 874                   | 388                    | 1                      |
| 35            | 10        | X/7343-43               | T495X106(1)035A(2)E200       | 3.5                      | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 35            | 10        | X/7343-43               | T495X106(1)035A(2)E250       | 3.5                      | 4.0                     | 250                      | 812                              | 731                   | 325                    | 1                      |
| 35            | 10        | X/7343-43               | T495X106(1)035A(2)E260       | 3.5                      | 4.0                     | 260                      | 797                              | 717                   | 319                    | 1                      |
| 35            | 10        | X/7343-43               | T495X106(1)035A(2)4095       | 3.5                      | 4.0                     | 250                      | 812                              | 731                   | 325                    | 1                      |
| 35            | 15        | C/6032-28               | T495C156(M)035A(2)E350       | 5.3                      | 6.0                     | 350                      | 561                              | 505                   | 224                    | 1                      |
| 35            | 15        | D/7343-31               | T495D156(1)035A(2)E225       | 5.3                      | 6.0                     | 225                      | 816                              | 734                   | 326                    | 1                      |
| 35            | 15        | D/7343-31               | T495D156(1)035A(2)E260       | 5.3                      | 6.0                     | 260                      | 760                              | 684                   | 304                    | 1                      |
| 35            | 15        | D/7343-31               | T495D156(1)035A(2)E300       | 5.3                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 15        | X/7343-43               | T495X156(1)035A(2)E200       | 5.3                      | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 35            | 15        | X/7343-43               | T495X156(1)035A(2)E225       | 5.3                      | 6.0                     | 225                      | 856                              | 770                   | 342                    | 1                      |
| 35            | 15        | X/7343-43               | T495X156(1)035A(2)E250       | 5.3                      | 6.0                     | 250                      | 812                              | 731                   | 325                    | 1                      |
| 35            | 15        | X/7343-43               | T495X156(1)035A(2)E260       | 5.3                      | 6.0                     | 260                      | 797                              | 717                   | 319                    | 1                      |
| 35            | 15        | X/7343-43               | T495X156(1)035A(2)4095       | 5.3                      | 6.0                     | 225                      | 856                              | 770                   | 342                    | 1                      |
| 35            | 22        | D/7343-31               | T495D226(1)035A(2)E125       | 7.7                      | 6.0                     | 125                      | 1095                             | 986                   | 438                    | 1                      |
| 35            | 22        | D/7343-31               | T495D226(1)035A(2)E200       | 7.7                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 35            | 22        | D/7343-31               | T495D226(1)035A(2)E250       | 7.7                      | 6.0                     | 250                      | 775                              | 698                   | 310                    | 1                      |
| 35            | 22        | D/7343-31               | T495D226(1)035A(2)E260       | 7.7                      | 6.0                     | 260                      | 760                              | 684                   | 304                    | 1                      |
| 35            | 22        | D/7343-31               | T495D226(1)035A(2)E300       | 7.7                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E125       | 7.7                      | 6.0                     | 125                      | 1149                             | 1034                  | 460                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E130       | 7.7                      | 6.0                     | 130                      | 1127                             | 1014                  | 451                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E180       | 7.7                      | 6.0                     | 180                      | 957                              | 861                   | 383                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E200       | 7.7                      | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E260       | 7.7                      | 6.0                     | 260                      | 797                              | 717                   | 319                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E275       | 7.7                      | 6.0                     | 275                      | 775                              | 698                   | 310                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)E300       | 7.7                      | 6.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 35            | 22        | X/7343-43               | T495X226(1)035A(2)4095       | 7.7                      | 6.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 35            | 33        | D/7343-31               | T495D336(1)035A(2)E200       | 11.6                     | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 35            | 33        | D/7343-31               | T495D336(1)035A(2)E300       | 11.6                     | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 35            | 33        | X/7343-43               | T495X336(1)035A(2)E100       | 11.6                     | 6.0                     | 100                      | 1285                             | 1157                  | 514                    | 1                      |
| 35            | 33        | X/7343-43               | T495X336(1)035A(2)E175       | 11.6                     | 6.0                     | 175                      | 971                              | 874                   | 388                    | 1                      |
| 35            | 33        | X/7343-43               | T495X336(1)035A(2)E250       | 11.6                     | 6.0                     | 250                      | 812                              | 731                   | 325                    | 1                      |
| 35            | 33        | X/7343-43               | T495X336(1)035A(2)E260       | 11.6                     | 6.0                     | 260                      | 797                              | 717                   | 319                    | 1                      |
| 35            | 33        | E/7360-38               | T495E336(1)035A(2)E200       | 11.6                     | 6.0                     | 200                      | 1000                             | 900                   | 400                    | 1                      |
| 35            | 47        | X/7343-43               | T495X476(1)035A(2)E185       | 16.5                     | 8.0                     | 185                      | 944                              | 850                   | 378                    | 1                      |
| 35            | 47        | X/7343-43               | T495X476(1)035A(2)E200       | 16.5                     | 8.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 35            | 47        | X/7343-43               | T495X476(1)035A(2)E230       | 16.5                     | 8.0                     | 230                      | 847                              | 762                   | 339                    | 1                      |
| 35            | 47        | X/7343-43               | T495X476(1)035A(2)E300       | 16.5                     | 8.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 50            | 1         | C/6032-28               | T495C105(1)050A(2)E1K3       | 0.5                      | 4.0                     | 1300                     | 291                              | 262                   | 116                    | 1                      |
| 50            | 1         | C/6032-28               | T495C105(1)050A(2)E1K6       | 0.5                      | 4.0                     | 1600                     | 262                              | 236                   | 105                    | 1                      |
| 50            | 2.2       | D/7343-31               | T495D225(1)050A(2)E600       | 1.1                      | 6.0                     | 600                      | 500                              | 450                   | 200                    | 1                      |
| 50            | 3.3       | D/7343-31               | T495D335(1)050A(2)E700       | 1.7                      | 6.0                     | 700                      | 463                              | 417                   | 185                    | 1                      |
| 50            | 4.7       | D/7343-31               | T495D475(1)050A(2)E275       | 2.4                      | 6.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| 50            | 4.7       | D/7343-31               | T495D475(1)050A(2)E300       | 2.4                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 50            | 4.7       | X/7343-43               | T495X475(1)050A(2)E300       | 2.4                      | 4.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 50            | 4.7       | X/7343-43               | T495X475(1)050A(2)4095       | 2.4                      | 4.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E190       | 3.4                      | 6.0                     | 190                      | 889                              | 800                   | 356                    | 1                      |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E200       | 3.4                      | 6.0                     | 200                      | 866                              | 779                   | 346                    | 1                      |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E275       | 3.4                      | 6.0                     | 275                      | 739                              | 665                   | 296                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

**Table 1 – Ratings & Part Number Reference cont'd**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |
|---------------|-----------|-------------------------|------------------------------|--------------------------|-------------------------|--------------------------|----------------------------------|-----------------------|------------------------|------------------------|
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E300       | 3.4                      | 6.0                     | 300                      | 707                              | 636                   | 283                    | 1                      |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E400       | 3.4                      | 6.0                     | 400                      | 612                              | 551                   | 245                    | 1                      |
| 50            | 6.8       | X/7343-43               | T495X685(1)050A(2)E300       | 3.4                      | 6.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 50            | 10        | X/7343-43               | T495X106(1)050A(2)E250       | 5.0                      | 8.0                     | 250                      | 812                              | 731                   | 325                    | 1                      |
| 50            | 10        | X/7343-43               | T495X106(1)050A(2)E260       | 5.0                      | 6.0                     | 260                      | 797                              | 717                   | 319                    | 1                      |
| 50            | 10        | X/7343-43               | T495X106(1)050A(2)E300       | 5.0                      | 6.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| 50            | 15        | X/7343-43               | T495X156(1)050A(2)E200       | 7.5                      | 6.0                     | 200                      | 908                              | 817                   | 363                    | 1                      |
| 50            | 15        | X/7343-43               | T495X156(1)050A(2)E250       | 7.5                      | 6.0                     | 250                      | 812                              | 731                   | 325                    | 1                      |
| 50            | 15        | X/7343-43               | T495X156(1)050A(2)E300       | 7.5                      | 6.0                     | 300                      | 742                              | 668                   | 297                    | 1                      |
| VDC           | μF        | KEMET/EIA               | (See below for part options) | μAmps +20°C<br>Max/5 Min | % @ +20°C<br>120 Hz Max | mΩ @ 20°C<br>100 kHz Max | (mA) 100 kHz<br>+25°C            | (mA) 100 kHz<br>+85°C | (mA) 100 kHz<br>+125°C | Reflow Temp<br>≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage               | DF                      | ESR                      | Maximum Allowable Ripple Current |                       |                        | Moisture Sensitivity   |

(1) To complete KEMET part number, insert M for ±20% or K for ±10%. Designates capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates termination finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

## Recommended Voltage Derating Guidelines

|                                                 | -55°C to 85°C | 85°C to 125°C |
|-------------------------------------------------|---------------|---------------|
| % Change in Working DC Voltage with Temperature | $V_R$         | 67% of $V_R$  |
| Recommended Maximum Application Voltage         | 50% of $V_R$  | 33% of $V_R$  |



## Ripple Current/Ripple Voltage

Permissible AC ripple voltage and current are related to equivalent series resistance (ESR) and the power dissipation capabilities of the device. Permissible AC ripple voltage which may be applied is limited by two criteria:

1. The positive peak AC voltage plus the DC bias voltage, if any, must not exceed the DC voltage rating of the capacitor.
2. The negative peak AC voltage in combination with bias voltage, if any, must not exceed the allowable limits specified for reverse voltage. See the Reverse Voltage section for allowable limits.

The maximum power dissipation by case size can be determined using the table at right. The maximum power dissipation rating stated in the table must be reduced with increasing environmental operating temperatures. Refer to the table below for temperature compensation requirements.

| Temperature Compensation Multipliers<br>for Maximum Ripple Current |                           |                            |
|--------------------------------------------------------------------|---------------------------|----------------------------|
| $T \leq 25^\circ\text{C}$                                          | $T \leq 85^\circ\text{C}$ | $T \leq 125^\circ\text{C}$ |
| 1.00                                                               | 0.90                      | 0.40                       |

$T$  = Environmental Temperature

Using the P max of the device, the maximum allowable rms ripple current or voltage may be determined.

$$I(\text{max}) = \sqrt{P_{\text{max}}/R}$$

$$E(\text{max}) = Z \sqrt{P_{\text{max}}/R}$$

$I$  = rms ripple current (amperes)

$E$  = rms ripple voltage (volts)

$P_{\text{max}}$  = maximum power dissipation (watts)

$R$  = ESR at specified frequency (ohms)

$Z$  = Impedance at specified frequency (ohms)

| KEMET<br>Case Code | EIA<br>Case Code | Maximum Power<br>Dissipation (P max)<br>mWatts @ 25°C<br>w/+20°C Rise |
|--------------------|------------------|-----------------------------------------------------------------------|
| A                  | 3216-18          | 75                                                                    |
| B                  | 3528-21          | 85                                                                    |
| C                  | 6032-28          | 110                                                                   |
| D                  | 7343-31          | 150                                                                   |
| X                  | 7343-43          | 165                                                                   |
| E                  | 7360-38          | 200                                                                   |
| S                  | 3216-12          | 60                                                                    |
| T                  | 3528-12          | 70                                                                    |
| U                  | 6032-15          | 90                                                                    |
| V                  | 7343-20          | 125                                                                   |
| T510X              | 7343-43          | 270                                                                   |
| T510E              | 7360-38          | 285                                                                   |

The maximum power dissipation rating must be reduced with increasing environmental operating temperatures. Refer to the Temperature Compensation Multiplier table for details.

## Reverse Voltage

Solid tantalum capacitors are polar devices and may be permanently damaged or destroyed if connected with the wrong polarity. The positive terminal is identified on the capacitor body by a stripe plus in some cases a beveled edge. A small degree of transient reverse voltage is permissible for short periods per the table. The capacitors should not be operated continuously in reverse mode, even within these limits.

| Temperature | Permissible Transient Reverse Voltage |
|-------------|---------------------------------------|
| 25°C        | 15% of Rated Voltage                  |
| 85°C        | 5% of Rated Voltage                   |
| 125°C       | 1% of Rated Voltage                   |

**Table 2 – Land Dimensions/Courtyard**

| KEMET          | Metric Size Code | Density Level A:<br>Maximum (Most) Land<br>Protrusion (mm) |      |      |       |      | Density Level B:<br>Median (Nominal) Land<br>Protrusion (mm) |      |      |      |      | Density Level C:<br>Minimum (Least) Land<br>Protrusion (mm) |      |      |      |      |
|----------------|------------------|------------------------------------------------------------|------|------|-------|------|--------------------------------------------------------------|------|------|------|------|-------------------------------------------------------------|------|------|------|------|
|                |                  | W                                                          | L    | S    | V1    | V2   | W                                                            | L    | S    | V1   | V2   | W                                                           | L    | S    | V1   | V2   |
| A              | 3216-18          | 1.35                                                       | 2.20 | 0.62 | 6.02  | 2.80 | 1.23                                                         | 1.80 | 0.82 | 4.92 | 2.30 | 1.13                                                        | 1.42 | 0.98 | 4.06 | 2.04 |
| B              | 3528-21          | 2.35                                                       | 2.21 | 0.92 | 6.32  | 4.00 | 2.23                                                         | 1.80 | 1.12 | 5.22 | 3.50 | 2.13                                                        | 1.42 | 1.28 | 4.36 | 3.24 |
| C              | 6032-25          | 2.35                                                       | 2.77 | 2.37 | 8.92  | 4.50 | 2.23                                                         | 2.37 | 2.57 | 7.82 | 4.00 | 2.13                                                        | 1.99 | 2.73 | 6.96 | 3.74 |
| D              | 7343-31          | 2.55                                                       | 2.77 | 3.67 | 10.22 | 5.60 | 2.43                                                         | 2.37 | 3.87 | 9.12 | 5.10 | 2.33                                                        | 1.99 | 4.03 | 8.26 | 4.84 |
| E <sup>1</sup> | 7360-38          | 4.25                                                       | 2.77 | 3.67 | 10.22 | 7.30 | 4.13                                                         | 2.37 | 3.87 | 9.12 | 6.80 | 4.03                                                        | 1.99 | 4.03 | 8.26 | 6.54 |
| T              | 3528-12          | 2.35                                                       | 2.20 | 0.92 | 6.32  | 4.00 | 2.23                                                         | 1.80 | 1.12 | 5.22 | 3.50 | 2.13                                                        | 1.42 | 1.28 | 4.36 | 3.24 |
| V              | 7343-20          | 2.55                                                       | 2.77 | 3.67 | 10.22 | 5.60 | 2.43                                                         | 2.37 | 3.87 | 9.12 | 5.10 | 2.33                                                        | 1.99 | 4.03 | 8.26 | 4.84 |
| X <sup>1</sup> | 7343-43          | 2.55                                                       | 2.77 | 3.67 | 10.22 | 5.60 | 2.43                                                         | 2.37 | 3.87 | 9.12 | 5.10 | 2.33                                                        | 1.99 | 4.03 | 8.26 | 4.84 |

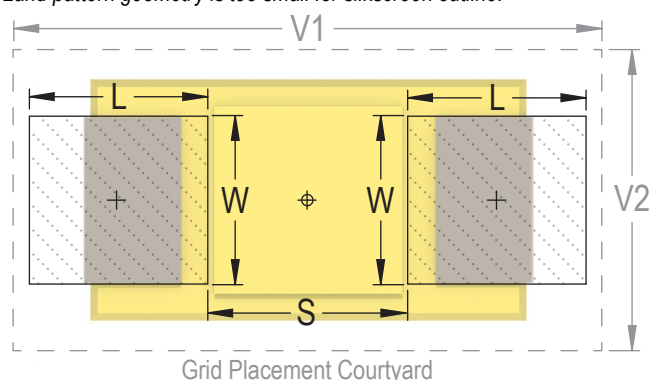
**Density Level A:** For low-density product applications. Recommended for wave solder applications and provides a wider process window for reflow solder processes.

**Density Level B:** For products with a moderate level of component density. Provides a robust solder attachment condition for reflow solder processes.

**Density Level C:** For high component density product applications. Before adapting the minimum land pattern variations the user should perform qualification testing based on the conditions outlined in IPC standard 7351 (IPC-7351).

<sup>1</sup> Height of these chips may create problems in wave soldering.

<sup>2</sup> Land pattern geometry is too small for silkscreen outline.



## Soldering Process

KEMET's families of surface mount capacitors are compatible with wave (single or dual), convection, IR, or vapor phase reflow techniques. Preheating of these components is recommended to avoid extreme thermal stress. KEMET's recommended profile conditions for convection and IR reflow reflect the profile conditions of the IPC/J-STD-020D standard for moisture sensitivity testing. The devices can safely withstand a maximum of three reflow passes at these conditions.

Please note that although the X/7343-43 case size can withstand wave soldering, the tall profile (4.3 mm maximum) dictates care in wave process development.

Hand soldering should be performed with care due to the difficulty in process control. If performed, care should be taken to avoid contact of the soldering iron to the molded case. The iron should be used to heat the solder pad, applying solder between the pad and the termination, until reflow occurs. Once reflow occurs, the iron should be removed immediately. "Wiping" the edges of a chip and heating the top surface is not recommended.

During typical reflow operations, a slight darkening of the gold-colored epoxy may be observed. This slight darkening is normal and not harmful to the product. Marking permanency is not affected by this change.

| Profile Feature                                            | SnPb Assembly       | Pb-Free Assembly    |
|------------------------------------------------------------|---------------------|---------------------|
| <b>Preheat/Soak</b>                                        |                     |                     |
| Temperature Minimum ( $T_{\text{Smin}}$ )                  | 100°C               | 150°C               |
| Temperature Maximum ( $T_{\text{Smax}}$ )                  | 150°C               | 200°C               |
| Time ( $t_s$ ) from $T_{\text{Smin}}$ to $T_{\text{Smax}}$ | 60 – 120 seconds    | 60 – 120 seconds    |
| Ramp-up Rate ( $T_L$ to $T_P$ )                            | 3°C/seconds maximum | 3°C/seconds maximum |
| Liquidous Temperature ( $T_L$ )                            | 183°C               | 217°C               |
| Time Above Liquidous ( $t_L$ )                             | 60 – 150 seconds    | 60 – 150 seconds    |
| Peak Temperature ( $T_P$ )                                 | 220°C*<br>235°C**   | 250°C*<br>260°C**   |
| Time within 5°C of Maximum Peak Temperature ( $t_p$ )      | 20 seconds maximum  | 30 seconds maximum  |
| Ramp-down Rate ( $T_P$ to $T_L$ )                          | 6°C/seconds maximum | 6°C/seconds maximum |
| Time 25°C to Peak Temperature                              | 6 minutes maximum   | 8 minutes maximum   |

*Note: All temperatures refer to the center of the package, measured on the package body surface that is facing up during assembly reflow.*

\*Case Size D, E, P, Y, and X

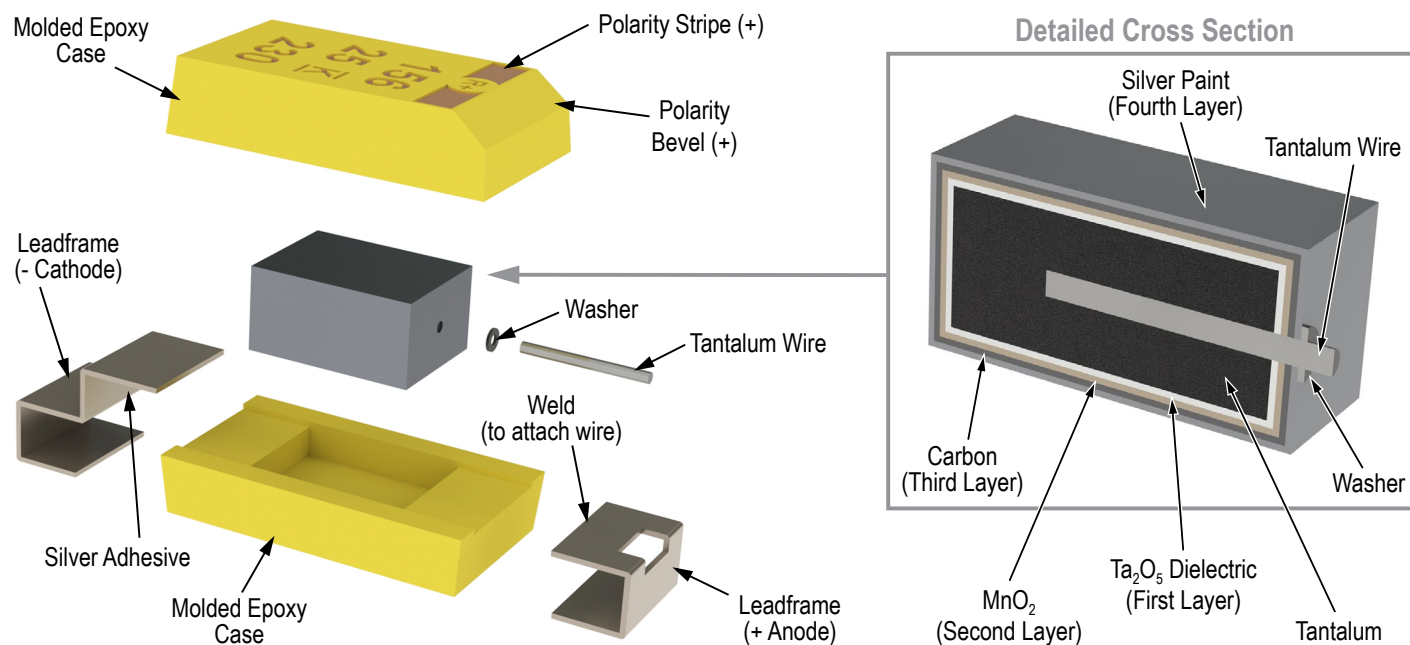
\*\*Case Size A, B, C, H, I, K, M, R, S, T, U, V, W, and Z



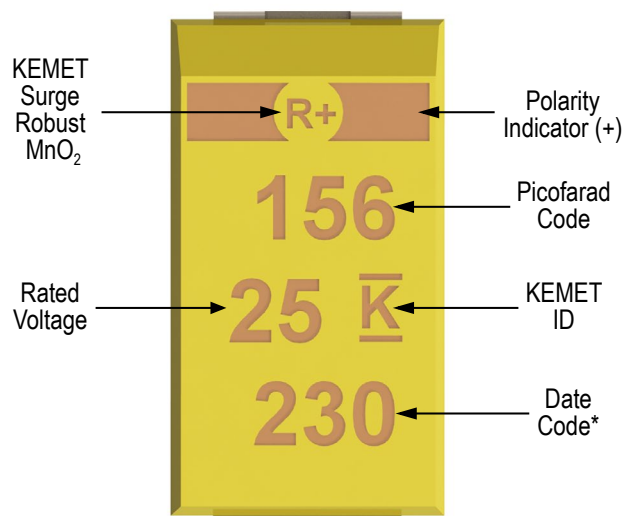
## Storage

Tantalum chip capacitors should be stored in normal working environments. While the chips themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage. In addition, packaging materials will be degraded by high temperature—reels may soften or warp and tape peel force may increase. KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 60% relative humidity. Temperature fluctuations should be minimized to avoid condensation on the parts and atmospheres should be free of chlorine and sulphur bearing compounds. For optimized solderability chip stock should be used promptly, preferably within three years of receipt.

## Construction



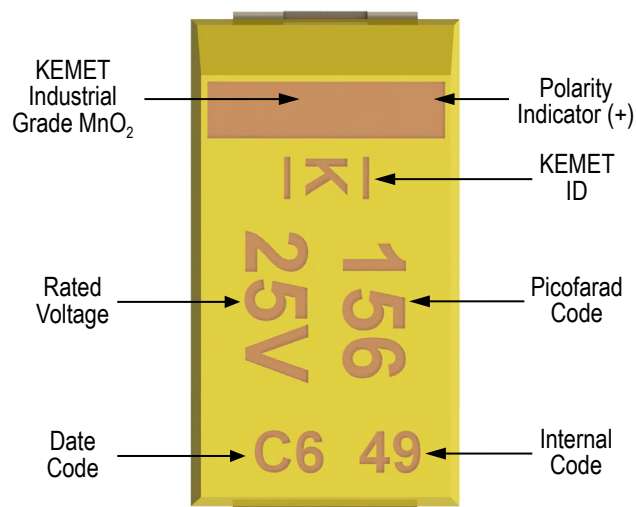
## Capacitor Marking



\* 230 = 30<sup>th</sup> week of 2012

| Date Code *                                                  |                                                                                    |
|--------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1 <sup>st</sup> digit = Last number of Year                  | 9 = 2009<br>0 = 2010<br>1 = 2011<br>2 = 2012<br>3 = 2013<br>4 = 2014               |
| 2 <sup>nd</sup> and 3 <sup>rd</sup> digit = Week of the Year | 01 = 1 <sup>st</sup> week of the Year to<br>52 = 52 <sup>nd</sup> week of the Year |

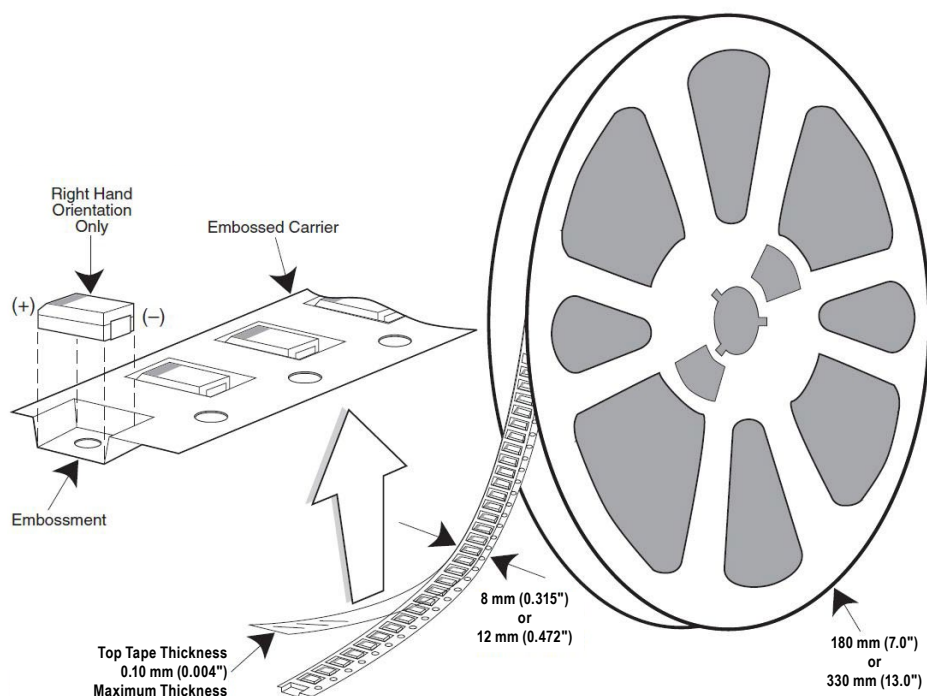
## C, D, X Case Sizes



| Date Code* |         |          |
|------------|---------|----------|
| Year       | Month   |          |
| X = 2009   | 1 = Jan | 7 = Jul  |
| A = 2010   | 2 = Feb | 8 = Aug  |
| B = 2011   | 3 = Mar | 9 = Sept |
| C = 2012   | 4 = Apr | O = Oct  |
| D = 2013   | 5 = May | N = Nov  |
| E = 2014   | 6 = Jun | D = Dec  |

## Tape & Reel Packaging Information

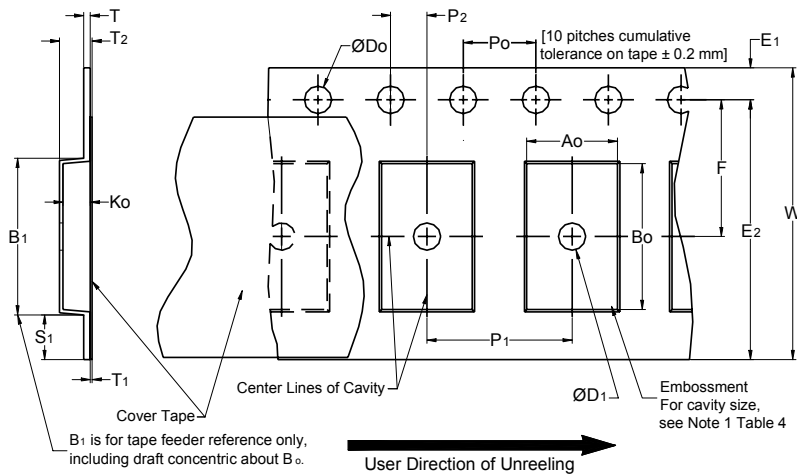
KEMET's molded tantalum and aluminum chip capacitor families are packaged in 8 and 12 mm plastic tape on 7" and 13" reels in accordance with *EIA Standard 481: Embossed Carrier Taping of Surface Mount Components for Automatic Handling*. This packaging system is compatible with all tape-fed automatic pick-and-place systems.



**Table 3 – Packaging Quantity**

| Case Code |         | Tape Width (mm) | 7" Reel* | 13" Reel* |
|-----------|---------|-----------------|----------|-----------|
| KEMET     | EIA     |                 |          |           |
| S         | 3216-12 | 8               | 2,500    | 10,000    |
| T         | 3528-12 | 8               | 2,500    | 10,000    |
| M         | 3528-15 | 8               | 2,000    | 8,000     |
| U         | 6032-15 | 12              | 1,000    | 5,000     |
| L         | 6032-19 | 12              | 1,000    | 5,000     |
| W         | 7343-15 | 12              | 1,000    | 3,000     |
| Z         | 7343-17 | 12              | 1,000    | 3,000     |
| V         | 7343-20 | 12              | 1,000    | 3,000     |
| A         | 3216-18 | 8               | 2,000    | 9,000     |
| B         | 3528-21 | 8               | 2,000    | 8,000     |
| C         | 6032-28 | 12              | 500      | 3,000     |
| D         | 7343-31 | 12              | 500      | 2,500     |
| Q         | 7343-12 | 12              | 1,000    | 3,000     |
| Y         | 7343-40 | 12              | 500      | 2,000     |
| X         | 7343-43 | 12              | 500      | 2,000     |
| E/T428P   | 7360-38 | 12              | 500      | 2,000     |
| H         | 7360-20 | 12              | 1,000    | 2,500     |

\* No C-Spec required for 7" reel packaging. C-7280 required for 13" reel packaging.

**Figure 1 – Embossed (Plastic) Carrier Tape Dimensions****Table 4 – Embossed (Plastic) Carrier Tape Dimensions**

Metric will govern

| Constant Dimensions — Millimeters (Inches) |                                       |                                  |                              |                             |                                                                                        |                        |                                  |                                                  |                        |
|--------------------------------------------|---------------------------------------|----------------------------------|------------------------------|-----------------------------|----------------------------------------------------------------------------------------|------------------------|----------------------------------|--------------------------------------------------|------------------------|
| Tape Size                                  | D <sub>0</sub>                        | D <sub>1</sub> Minimum<br>Note 1 | E <sub>1</sub>               | P <sub>0</sub>              | P <sub>2</sub>                                                                         | R Reference<br>Note 2  | S <sub>1</sub> Minimum<br>Note 3 | T Maximum                                        | T <sub>1</sub> Maximum |
| 8 mm                                       | 1.5 +0.10/-0.0<br>(0.059 +0.004/-0.0) | 1.0<br>(0.039)                   | 1.75 ±0.10<br>(0.069 ±0.004) | 4.0 ±0.10<br>(0.157 ±0.004) | 2.0 ±0.05<br>(0.079 ±0.002)                                                            | 25.0<br>(0.984)        | 0.600<br>(0.024)                 | 0.600<br>(0.024)                                 | 0.100<br>(0.004)       |
| 12 mm                                      |                                       | 1.5<br>(0.059)                   |                              |                             | 2.0 ±0.1<br>(0.079 ±0.059)                                                             | 30<br>(1.181)          |                                  |                                                  |                        |
| 16 mm                                      |                                       |                                  |                              |                             |                                                                                        |                        |                                  |                                                  |                        |
| Variable Dimensions — Millimeters (Inches) |                                       |                                  |                              |                             |                                                                                        |                        |                                  |                                                  |                        |
| Tape Size                                  | Pitch                                 | B <sub>1</sub> Maximum<br>Note 4 | E <sub>2</sub> Minimum       | F                           | P <sub>1</sub>                                                                         | T <sub>2</sub> Maximum | W Maximum                        | A <sub>0</sub> , B <sub>0</sub> & K <sub>0</sub> |                        |
| 8 mm                                       | Single (4 mm)                         | 4.35<br>(0.171)                  | 6.25<br>(0.246)              | 3.5 ±0.05<br>(0.138 ±0.002) | 2.0 ±0.05 or 4.0 ±0.10<br>(0.079 ±0.002 or 0.157 ±0.004)                               | 2.5<br>(0.098)         | 8.3<br>(0.327)                   | Note 5                                           |                        |
| 12 mm                                      | Single (4 mm) &<br>Double (8 mm)      | 8.2<br>(0.323)                   | 10.25<br>(0.404)             | 5.5 ±0.05<br>(0.217 ±0.002) | 2.0 ±0.05 (0.079 ±0.002) or 4.0<br>±0.10 (0.157 ±0.004) or 8.0 ±0.10<br>(0.315 ±0.004) | 4.6<br>(0.181)         | 12.3<br>(0.484)                  |                                                  |                        |
| 16 mm                                      | Triple (12 mm)                        | 12.1<br>(0.476)                  | 14.25<br>(0.561)             | 7.5±0.10<br>(0.295 ±0.004)  | 4.0 ±0.10 (0.157 ±0.004) to 12.0<br>±0.10 (0.472 ±0.004)                               | 8.0 (0.315)            | 16.3<br>(0.642)                  |                                                  |                        |

1. The embossment hole location shall be measured from the sprocket hole controlling the location of the embossment. Dimensions of embossment location and hole location shall be applied independent of each other.
2. The tape, with or without components, shall pass around R without damage (see Figure 4).
3. If S<sub>1</sub> < 1.0 mm, there may not be enough area for cover tape to be properly applied (see EIA Standard 481–D, paragraph 4.3, section b).
4. B<sub>1</sub> dimension is a reference dimension for tape feeder clearance only.
5. The cavity defined by A<sub>0</sub>, B<sub>0</sub> and K<sub>0</sub> shall surround the component with sufficient clearance that:
  - (a) the component does not protrude above the top surface of the carrier tape.
  - (b) the component can be removed from the cavity in a vertical direction without mechanical restriction, after the top cover tape has been removed.
  - (c) rotation of the component is limited to 20° maximum for 8 and 12 mm tapes and 10° maximum for 16 mm tapes (see Figure 2).
  - (d) lateral movement of the component is restricted to 0.5 mm maximum for 8 mm and 12 mm wide tape and to 1.0 mm maximum for 16 mm tape (see Figure 3).
  - (e) see Addendum in EIA Standard 481–D for standards relating to more precise taping requirements.

## Packaging Information Performance Notes

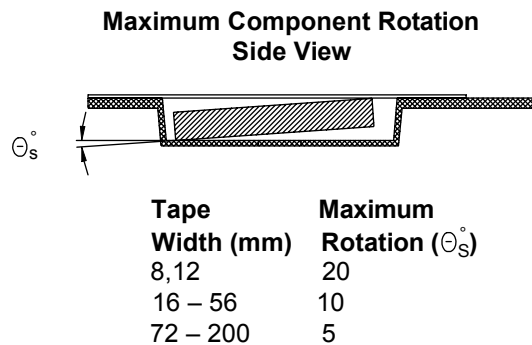
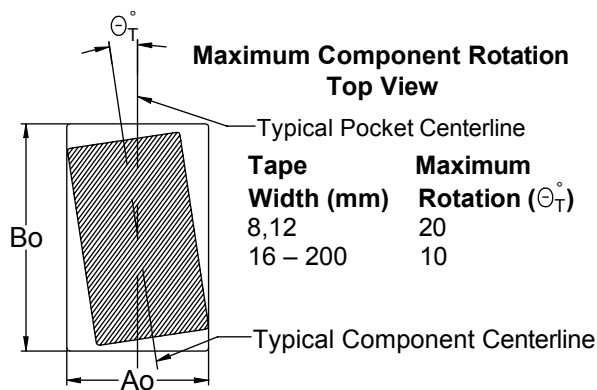
- 1. Cover Tape Break Force:** 1.0 Kg minimum.
- 2. Cover Tape Peel Strength:** The total peel strength of the cover tape from the carrier tape shall be:

| Tape Width   | Peel Strength                    |
|--------------|----------------------------------|
| 8 mm         | 0.1 to 1.0 Newton (10 to 100 gf) |
| 12 and 16 mm | 0.1 to 1.3 Newton (10 to 130 gf) |

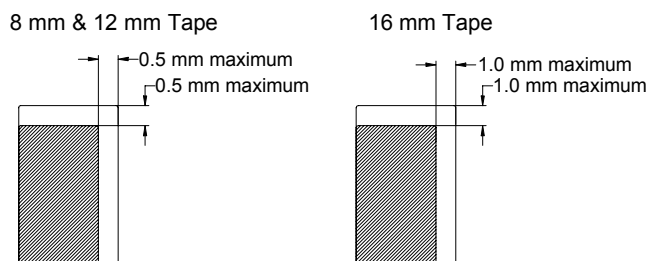
The direction of the pull shall be opposite the direction of the carrier tape travel. The pull angle of the carrier tape shall be 165° to 180° from the plane of the carrier tape. During peeling, the carrier and/or cover tape shall be pulled at a velocity of 300 ±10 mm/minute.

- 3. Labeling:** Bar code labeling (standard or custom) shall be on the side of the reel opposite the sprocket holes. Refer to EIA Standards 556 and 624.

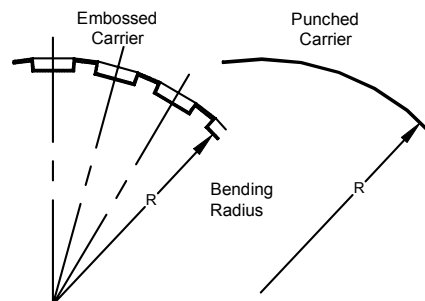
## Figure 2 – Maximum Component Rotation

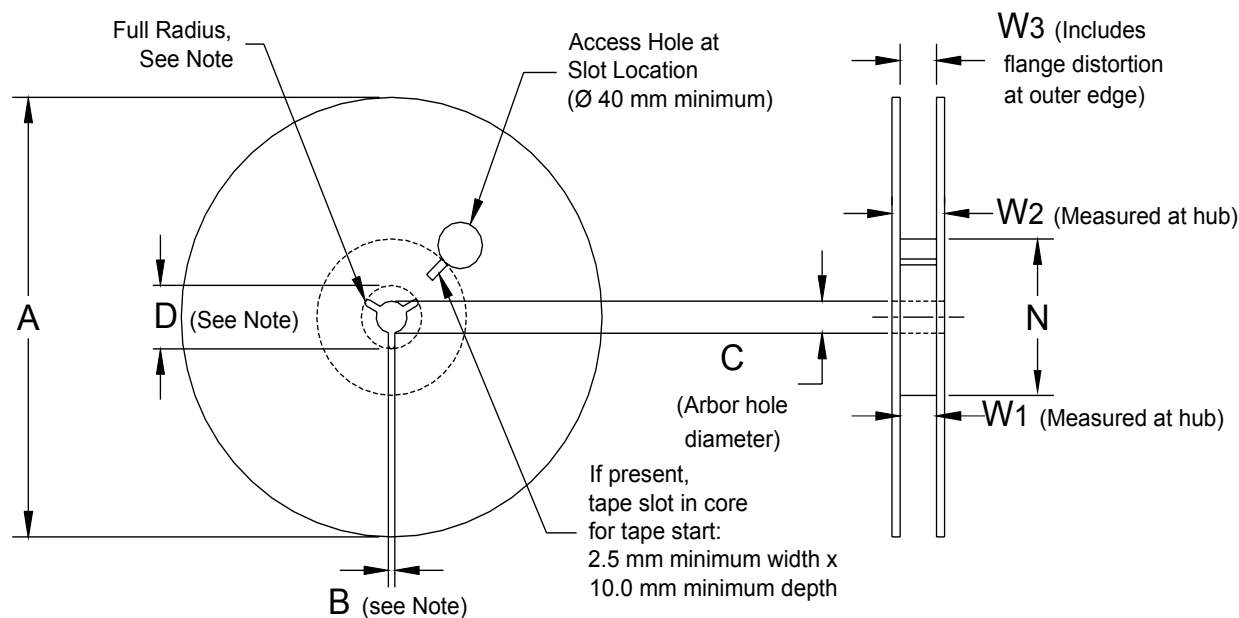


## Figure 3 – Maximum Lateral Movement



## Figure 4 – Bending Radius



**Figure 5 – Reel Dimensions**

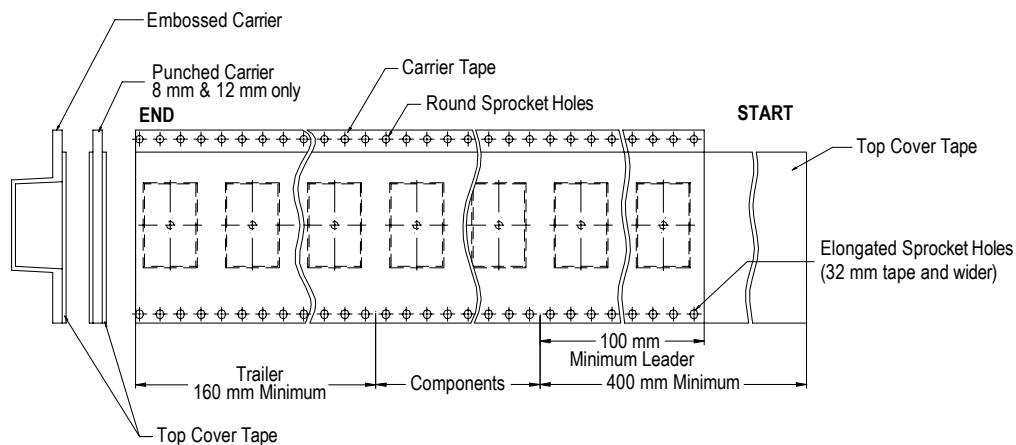
Note: Drive spokes optional; if used, dimensions B and D shall apply.

**Table 5 – Reel Dimensions**

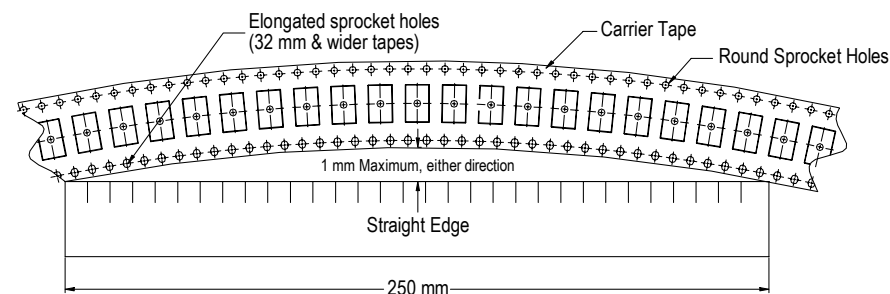
Metric will govern

| Constant Dimensions — Millimeters (Inches) |                                                                   |                                       |                                        |                                                      |
|--------------------------------------------|-------------------------------------------------------------------|---------------------------------------|----------------------------------------|------------------------------------------------------|
| Tape Size                                  | A                                                                 | B Minimum                             | C                                      | D Minimum                                            |
| 8 mm                                       | 178 ±0.20<br>(7.008 ±0.008)<br>or<br>330 ±0.20<br>(13.000 ±0.008) | 1.5<br>(0.059)                        | 13.0 +0.5/-0.2<br>(0.521 +0.02/-0.008) | 20.2<br>(0.795)                                      |
| 12 mm                                      |                                                                   |                                       |                                        |                                                      |
| 16 mm                                      |                                                                   |                                       |                                        |                                                      |
| Variable Dimensions — Millimeters (Inches) |                                                                   |                                       |                                        |                                                      |
| Tape Size                                  | N Minimum                                                         | W <sub>1</sub>                        | W <sub>2</sub> Maximum                 | W <sub>3</sub>                                       |
| 8 mm                                       | 50<br>(1.969)                                                     | 8.4 +1.5/-0.0<br>(0.331 +0.059/-0.0)  | 14.4<br>(0.567)                        | Shall accommodate tape width<br>without interference |
| 12 mm                                      |                                                                   | 12.4 +2.0/-0.0<br>(0.488 +0.078/-0.0) | 18.4<br>(0.724)                        |                                                      |
| 16 mm                                      |                                                                   | 16.4 +2.0/-0.0<br>(0.646 +0.078/-0.0) | 22.4<br>(0.882)                        |                                                      |

**Figure 6 – Tape Leader & Trailer Dimensions**



**Figure 7 – Maximum Camber**



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