

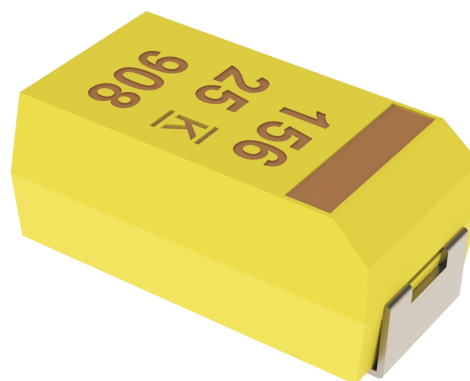
## Overview

The low ESR, surge-robust T495 is designed for demanding applications that require high surge current and high ripple current capability. The T495 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. The T495 is classified as moisture sensitivity level (MSL) 1 under J STD 020, with unlimited floorlife time at ≤ 30°C/85% RH.

## Benefits

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



## Applications

Typical applications include decoupling and filtering in many 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, Gold-plated or Non-magnetic 100% Sn solder.

## K-SIM

For a detailed analysis of specific part numbers, please visit [ksim.kemet.com](http://ksim.kemet.com) to access KEMET's K-SIM software. KEMET K-SIM is designed to simulate behavior of components with respect to frequency, ambient temperature, and DC bias levels.

## Ordering Information

| T               | 495                  | X                               | 107                                                                                    | M                     | 010                                                                                                       | A                   | T                                                                                                                                                                                      | E045                                                     |                                    |
|-----------------|----------------------|---------------------------------|----------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------|
| Capacitor Class | Series               | Case Size                       | Capacitance Code (pF)                                                                  | Capacitance Tolerance | Rated Voltage (VDC)                                                                                       | Failure Rate/Design | Termination Finish                                                                                                                                                                     | ESR                                                      | Packaging (C-Spec)                 |
| T = Tantalum    | Surge Robust Low ESR | A, B, C, D, E, M, T, U, V, W, X | First two digits represent significant figures. Third digit specifies number of zeros. | K = ±10%<br>M = ±20%  | 2R5 = 2.5<br>004 = 4<br>006 = 6.3<br>010 = 10<br>016 = 16<br>020 = 20<br>025 = 25<br>035 = 35<br>050 = 50 | 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)<br>N = Non-magnetic 100% tin (Sn)<br>M = Non-magnetic (SnPb) | E = ESR last three digits specify ESR in mΩ (45 = 45 mΩ) | 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 µF at 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         | ≤ 0.01 CV (µA) at rated voltage after 5 minutes     |

## Qualification

| Test                           | Condition                                                                                                              |       | Characteristics |                              |          |          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|-------|-----------------|------------------------------|----------|----------|
| Endurance                      | 85°C at rated voltage, 2,000 hours<br>125°C at 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 at 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,<br>-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 |
|                                |                                                                                                                        |       | IL              | N/A                          | 10 x IL  | 12 x IL  |
| Surge Voltage                  | 85°C, 1.32 x rated voltage 1,000 cycles<br>(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/<br>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        |          |          |

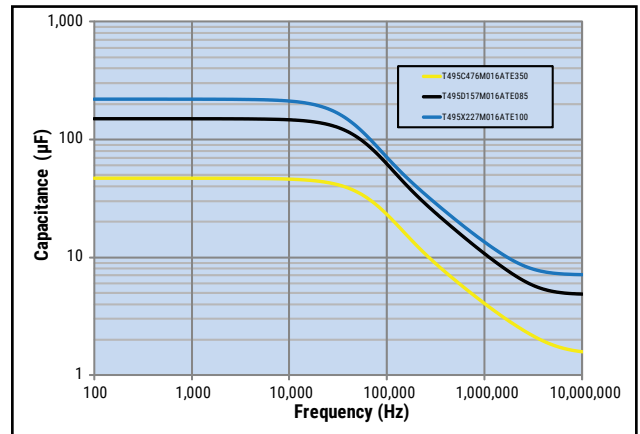
\*IL = Initial limit

## Electrical Characteristics

ESR vs. Frequency



Capacitance vs. Frequency



## Dimensions – Millimeters (Inches)

Metric will govern

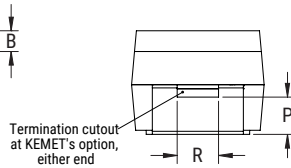
CATHODE (-) END VIEW



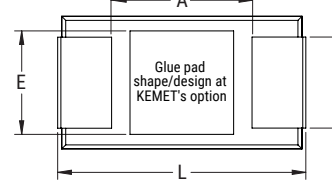
SIDE VIEW



ANODE (+) END VIEW



BOTTOM VIEW



| Case Size |         | Component                  |                            |                            |                    |                                               |                            |                              |                |                |                 |                |                |                | Typical Weight |
|-----------|---------|----------------------------|----------------------------|----------------------------|--------------------|-----------------------------------------------|----------------------------|------------------------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|
| KEMET     | EIA     | L                          | W                          | H                          | F ±0.1<br>±(0.004) | S                                             | B ±0.15<br>(Ref)<br>±0.006 | X (Ref)                      | P<br>(Ref)     | R<br>(Ref)     | T<br>(Ref)      | A<br>(Min)     | G<br>(Ref)     | E<br>(Ref)     | (mg)           |
| A         | 3216-18 | 3.2 ±0.2<br>(0.126 ±0.008) | 1.6 ±0.2<br>(0.063 ±0.008) | 1.6 ±0.2<br>(0.063 ±0.008) | 1.2<br>(0.047)     | 0.80 (0.032)<br>+0.2 (0.008)<br>/-0.3 (0.011) | 0.4<br>(0.016)             | 0.10 ±0.10<br>(0.004 ±0.004) | 0.4<br>(0.016) | 0.4<br>(0.016) | 0.13<br>(0.005) | 1.2<br>(0.047) | 1.1<br>(0.043) | 1.3<br>(0.051) | 58.60          |
| B         | 3528-21 | 3.5 ±0.2<br>(0.138 ±0.008) | 2.8 ±0.2<br>(0.110 ±0.008) | 1.9 ±0.2<br>(0.075 ±0.008) | 2.2<br>(0.087)     | 0.80 (0.032)<br>+0.1 (0.004)<br>/-0.3 (0.011) | 0.4<br>(0.016)             | 0.10 ±0.10<br>(0.004 ±0.004) | 0.5<br>(0.020) | 1.0<br>(0.039) | 0.13<br>(0.005) | 1.9<br>(0.075) | 1.8<br>(0.071) | 2.2<br>(0.087) | 107.45         |
| M         | 3528-15 | 3.5 ±0.2<br>(0.138 ±0.008) | 2.8 ±0.2<br>(0.110 ±0.008) | 1.4 ±0.1<br>(0.055 ±0.004) | 2.2<br>(0.087)     | 0.8 (0.031)<br>±0.3 (0.012)                   | N/A                        | 0.05<br>(0.002)              | N/A            | N/A            | 0.13<br>(0.005) | 1.9<br>(0.075) | 1.8<br>(0.071) | 2.2<br>(0.087) | 97.99          |
| C         | 6032-28 | 6.0 ±0.3<br>(0.236 ±0.012) | 3.2 ±0.3<br>(0.126 ±0.012) | 2.5 ±0.3<br>(0.098 ±0.012) | 2.2<br>(0.087)     | 1.3 (0.051)<br>±0.3 (0.012)                   | 0.5<br>(0.020)             | 0.10 ±0.10<br>(0.004 ±0.004) | 0.9<br>(0.035) | 1.0<br>(0.039) | 0.13<br>(0.005) | 2.9<br>(0.114) | 2.8<br>(0.110) | 2.4<br>(0.094) | 224.48         |
| U         | 6032-15 | 6.0 ±0.3<br>(0.236 ±0.012) | 3.2 ±0.2<br>(0.110 ±0.008) | 1.4 ±0.1<br>(0.055 ±0.004) | 2.2<br>(0.087)     | 1.3 (0.051)<br>±0.3 (0.012)                   | N/A                        | 0.05<br>(0.002)              | N/A            | N/A            | 0.13<br>(0.005) | 2.9<br>(0.114) | 2.8<br>(0.110) | 2.4<br>(0.094) | 70.00          |
| D         | 7343-31 | 7.3 ±0.3<br>(0.287 ±0.012) | 4.3 ±0.3<br>(0.169 ±0.012) | 2.8 ±0.3<br>(0.110 ±0.012) | 2.4<br>(0.094)     | 1.3 (0.051)<br>±0.3 (0.012)                   | 0.5<br>(0.020)             | 0.10 ±0.10<br>(0.004 ±0.004) | 0.9<br>(0.035) | 1.0<br>(0.039) | 0.13<br>(0.005) | 3.6<br>(0.142) | 3.5<br>(0.138) | 3.5<br>(0.138) | 446.84         |
| W         | 7343-15 | 7.3 ±0.3<br>(0.287 ±0.012) | 4.3 ±0.3<br>(0.169 ±0.012) | 1.4 ±0.1<br>(0.055 ±0.004) | 2.4<br>(0.094)     | 1.3 (0.051)<br>±0.3 (0.012)                   | N/A                        | 0.05<br>(0.002)              | N/A            | N/A            | 0.13<br>(0.005) | 3.6<br>(0.142) | 3.5<br>(0.138) | 3.5<br>(0.138) | 248.27         |
| X         | 7343-43 | 7.3 ±0.3<br>(0.287 ±0.012) | 4.3 ±0.3<br>(0.169 ±0.012) | 4.0 ±0.3<br>(0.157 ±0.012) | 2.4<br>(0.094)     | 1.3 (0.051)<br>±0.3 (0.012)                   | 0.5<br>(0.020)             | 0.10 ±0.10<br>(0.004 ±0.004) | 1.7<br>(0.067) | 1.0<br>(0.039) | 0.13<br>(0.005) | 3.6<br>(0.142) | 3.5<br>(0.138) | 3.5<br>(0.138) | 652.04         |
| E         | 7360-38 | 7.3 ±0.3<br>(0.287 ±0.012) | 6.0 ±0.3<br>(0.236 ±0.012) | 3.6 ±0.2<br>(0.142 ±0.008) | 4.1<br>(0.161)     | 1.3 (0.051)<br>±0.3 (0.012)                   | 0.5<br>(0.020)             | 0.10 ±0.10<br>(0.004 ±0.004) | N/A            | N/A            | 0.13<br>(0.005) | 3.6<br>(0.142) | 3.5<br>(0.138) | 3.5<br>(0.138) | 803.76         |
| T         | 3528-12 | 3.5 ±0.2<br>(0.138 ±0.008) | 2.8 ±0.2<br>(0.110 ±0.008) | 1.1 ±0.1<br>(0.043 ±0.004) | 2.2<br>(0.087)     | 0.80 (0.032)<br>+0.1 (0.004)<br>/-0.3 (0.011) | N/A                        | 0.05<br>(0.002)              | N/A            | N/A            | 0.13<br>(0.005) | 1.9<br>(0.075) | 1.8<br>(0.071) | 2.2<br>(0.087) | 63.89          |
| V         | 7343-20 | 7.3 ±0.3<br>(0.287 ±0.012) | 4.3 ±0.3<br>(0.169 ±0.012) | 1.8 ±0.2<br>(0.071 ±0.008) | 2.4<br>(0.094)     | 1.3 (0.051)<br>±0.3 (0.012)                   | N/A                        | 0.05<br>(0.002)              | N/A            | N/A            | 0.13<br>(0.005) | 3.6<br>(0.142) | 3.5<br>(0.138) | 3.5<br>(0.138) | 286.40         |

Notes: (Ref) – Dimensions provided for reference only. For low profile cases, no dimensions are provided for B, P, or R because these cases do not have a bevel or a notch. These weights are provided as reference. If exact weights are needed, please contact your KEMET Sales Representative

**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 (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 2.5           | 220       | D/7343-31               | T495D227(1)2R5A(2)E045       | 5.5                | 8.0                   | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 2.5           | 470       | D/7343-31               | T495D477(1)2R5A(2)E035       | 11.8               | 8.0                   | 35                     | 2070                                   | 1863                | 828                  | 125                    | 1                   |
| 2.5           | 1000      | X/7343-43               | T495X108(1)2R5A(2)E030       | 25.0               | 15.0                  | 30                     | 2345                                   | 2111                | 938                  | 125                    | 1                   |
| 2.5           | 1000      | X/7343-43               | T495X108(1)2R5A(2)E040       | 25.0               | 15.0                  | 40                     | 2031                                   | 1828                | 812                  | 125                    | 1                   |
| 4             | 6.8       | A/3216-18               | T495A685(1)004A(2)E2K0       | 0.5                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 4             | 22        | C/6032-28               | T495C226(1)004A(2)E2K4       | 0.9                | 6.0                   | 2,400                  | 214                                    | 193                 | 86                   | 125                    | 1                   |
| 4             | 22        | C/6032-28               | T495C226(1)004A(2)E380       | 0.9                | 6.0                   | 380                    | 538                                    | 484                 | 215                  | 125                    | 1                   |
| 4             | 33        | T/3528-12               | T495T336(1)004A(2)E1K2       | 1.3                | 8.0                   | 1,200                  | 242                                    | 218                 | 97                   | 125                    | 1                   |
| 4             | 68        | T/3528-12               | T495T686(1)004A(2)E1K5       | 2.7                | 20.0                  | 1,500                  | 216                                    | 194                 | 86                   | 125                    | 1                   |
| 4             | 68        | V/7343-20               | T495V686(1)004A(2)E150       | 2.7                | 6.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 4             | 100       | B/3528-21               | T495B107(1)004A(2)E500       | 4.0                | 8.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 4             | 100       | D/7343-31               | T495D107(1)004A(2)E800       | 4.0                | 6.0                   | 800                    | 433                                    | 390                 | 173                  | 125                    | 1                   |
| 4             | 150       | B/3528-21               | T495B157(M)004A(2)E900       | 6.0                | 12.0                  | 900                    | 307                                    | 276                 | 123                  | 125                    | 1                   |
| 4             | 150       | C/6032-28               | T495C157(1)004A(2)E070       | 6.0                | 12.0                  | 70                     | 1254                                   | 1129                | 502                  | 125                    | 1                   |
| 4             | 150       | C/6032-28               | T495C157(1)004A(2)E250       | 6.0                | 8.0                   | 250                    | 663                                    | 597                 | 265                  | 125                    | 1                   |
| 4             | 150       | U/6032-15               | T495U157(1)004A(2)E200       | 6.0                | 8.0                   | 200                    | 671                                    | 604                 | 268                  | 125                    | 1                   |
| 4             | 220       | D/7343-31               | T495D227(1)004A(2)E040       | 8.8                | 8.0                   | 40                     | 1936                                   | 1742                | 774                  | 125                    | 1                   |
| 4             | 220       | D/7343-31               | T495D227(1)004A(2)E050       | 8.8                | 8.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 4             | 220       | D/7343-31               | T495D227(1)004A(2)E100       | 8.8                | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 4             | 330       | C/6032-28               | T495C337(1)004A(2)E300       | 13.2               | 10.0                  | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 4             | 330       | C/6032-28               | T495C337(1)004A(2)E700       | 13.2               | 12.0                  | 700                    | 396                                    | 356                 | 158                  | 125                    | 1                   |
| 4             | 330       | D/7343-31               | T495D337(1)004A(2)E030       | 13.2               | 8.0                   | 30                     | 2236                                   | 2012                | 894                  | 125                    | 1                   |
| 4             | 330       | D/7343-31               | T495D337(1)004A(2)E045       | 13.2               | 8.0                   | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 4             | 330       | D/7343-31               | T495D337(1)004A(2)E100       | 13.2               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 4             | 470       | D/7343-31               | T495D477(1)004A(2)E045       | 18.8               | 12.0                  | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 4             | 470       | D/7343-31               | T495D477(1)004A(2)E100       | 18.8               | 12.0                  | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E030       | 18.8               | 8.0                   | 30                     | 2345                                   | 2111                | 938                  | 125                    | 1                   |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E045       | 18.8               | 8.0                   | 45                     | 1915                                   | 1724                | 766                  | 125                    | 1                   |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E060       | 18.8               | 10.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 4             | 470       | X/7343-43               | T495X477(1)004A(2)E100       | 18.8               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 4             | 680       | X/7343-43               | T495X687(1)004A(2)E040       | 27.2               | 10.0                  | 40                     | 2031                                   | 1828                | 812                  | 125                    | 1                   |
| 4             | 680       | X/7343-43               | T495X687(1)004A(2)E060       | 27.2               | 10.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 4             | 680       | X/7343-43               | T495X687(1)004A(2)E100       | 27.2               | 10.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E030       | 40.0               | 10.0                  | 30                     | 2345                                   | 2111                | 938                  | 125                    | 1                   |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E040       | 40.0               | 10.0                  | 40                     | 2031                                   | 1828                | 812                  | 125                    | 1                   |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E060       | 40.0               | 10.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E070       | 40.0               | 10.0                  | 70                     | 1535                                   | 1382                | 614                  | 125                    | 1                   |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E090       | 40.0               | 10.0                  | 90                     | 1354                                   | 1219                | 542                  | 125                    | 1                   |
| 4             | 1000      | X/7343-43               | T495X108(1)004A(2)E100       | 40.0               | 10.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 4             | 1000      | E/7360-38               | T495E108(1)004A(2)E035       | 40.0               | 15.0                  | 35                     | 2390                                   | 2151                | 956                  | 125                    | 1                   |
| 4             | 1000      | E/7360-38               | T495E108(1)004A(2)E050       | 40.0               | 15.0                  | 50                     | 2000                                   | 1800                | 800                  | 125                    | 1                   |
| 6.3           | 2         | A/3216-18               | T495A225(1)006ATE5K0         | 0.5                | 6.0                   | 5,000                  | 122                                    | 110                 | 49                   | 125                    | 1                   |
| 6.3           | 3         | A/3216-18               | T495A335(1)006ATE3K0         | 0.5                | 6.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 6.3           | 7         | A/3216-18               | T495A685(1)006ATE1K8         | 0.5                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 6.3           | 6.8       | A/3216-18               | T495A685(1)006ATE2K0         | 0.5                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | μF        | KEMET/EIA               | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 6.3           | 6.8       | A/3216-18               | T495A685(1)006A(2)E4K5       | 0.5                | 6.0                   | 4,500                  | 129                                    | 116                 | 52                   | 125                    | 1                   |
| 6.3           | 6.8       | C/6032-28               | T495C685(1)006A(2)E480       | 0.5                | 6.0                   | 480                    | 479                                    | 431                 | 192                  | 125                    | 1                   |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E800       | 0.6                | 6.0                   | 800                    | 306                                    | 275                 | 122                  | 125                    | 1                   |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E1K0       | 0.6                | 6.0                   | 1,000                  | 274                                    | 247                 | 110                  | 125                    | 1                   |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E1K5       | 0.6                | 6.0                   | 1,500                  | 224                                    | 202                 | 90                   | 125                    | 1                   |
| 6.3           | 10        | A/3216-18               | T495A106(1)006A(2)E2K0       | 0.6                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 6.3           | 10        | B/3528-21               | T495B106(1)006A(2)E1K0       | 0.6                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 6.3           | 10        | T/3528-12               | T495T106(1)006A(2)E1K2       | 0.6                | 6.0                   | 1,200                  | 242                                    | 218                 | 97                   | 125                    | 1                   |
| 6.3           | 15        | A/3216-18               | T495A156(1)006A(2)E2K0       | 0.9                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 6.3           | 15        | T/3528-12               | T495T156(1)006A(2)E1K0       | 0.9                | 6.0                   | 1,000                  | 265                                    | 239                 | 106                  | 125                    | 1                   |
| 6.3           | 22        | A/3216-18               | T495A226(1)006A(2)E500       | 1.4                | 6.0                   | 500                    | 387                                    | 348                 | 155                  | 125                    | 1                   |
| 6.3           | 22        | A/3216-18               | T495A226(1)006A(2)E900       | 1.4                | 8.0                   | 900                    | 289                                    | 260                 | 116                  | 125                    | 1                   |
| 6.3           | 22        | A/3216-18               | T495A226(1)006A(2)E1K5       | 1.4                | 8.0                   | 1,500                  | 224                                    | 202                 | 90                   | 125                    | 1                   |
| 6.3           | 22        | B/3528-21               | T495B226(1)006A(2)E500       | 1.4                | 6.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 6.3           | 22        | C/6032-28               | T495C226(1)006A(2)E380       | 1.4                | 6.0                   | 380                    | 538                                    | 484                 | 215                  | 125                    | 1                   |
| 6.3           | 33        | A/3216-18               | T495A336(1)006A(2)E600       | 2.1                | 12.0                  | 600                    | 354                                    | 319                 | 142                  | 125                    | 1                   |
| 6.3           | 33        | B/3528-21               | T495B336(1)006A(2)E600       | 2.1                | 6.0                   | 600                    | 376                                    | 338                 | 150                  | 125                    | 1                   |
| 6.3           | 33        | T/3528-12               | T495T336(1)006A(2)E800       | 2.1                | 6.0                   | 800                    | 296                                    | 266                 | 118                  | 125                    | 1                   |
| 6.3           | 33        | C/6032-28               | T495C336(1)006A(2)E350       | 2.1                | 6.0                   | 350                    | 561                                    | 505                 | 224                  | 125                    | 1                   |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E250       | 3.0                | 6.0                   | 250                    | 583                                    | 525                 | 233                  | 125                    | 1                   |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E400       | 3.0                | 6.0                   | 400                    | 461                                    | 415                 | 184                  | 125                    | 1                   |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E450       | 3.0                | 6.0                   | 450                    | 435                                    | 392                 | 174                  | 125                    | 1                   |
| 6.3           | 47        | B/3528-21               | T495B476(1)006A(2)E500       | 3.0                | 6.0                   | 500                    | 583                                    | 525                 | 233                  | 125                    | 1                   |
| 6.3           | 47        | C/6032-28               | T495C476(1)006A(2)E250       | 3.0                | 6.0                   | 250                    | 663                                    | 597                 | 265                  | 125                    | 1                   |
| 6.3           | 47        | C/6032-28               | T495C476(1)006A(2)E300       | 3.0                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 6.3           | 47        | C/6032-28               | T495C476(1)006A(2)E330       | 3.0                | 6.0                   | 330                    | 577                                    | 519                 | 231                  | 125                    | 1                   |
| 6.3           | 47        | V/7343-20               | T495V476(1)006A(2)E150       | 3.0                | 6.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 68        | B/3528-21               | T495B686(1)006A(2)E500       | 4.3                | 8.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 6.3           | 68        | C/6032-28               | T495C686(1)006A(2)E400       | 4.3                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| 6.3           | 68        | U/6032-15               | T495U686(1)006A(2)E400       | 4.3                | 6.0                   | 400                    | 474                                    | 427                 | 190                  | 125                    | 1                   |
| 6.3           | 68        | D/7343-31               | T495D686(1)006A(2)E175       | 4.3                | 4.0                   | 175                    | 926                                    | 833                 | 370                  | 125                    | 1                   |
| 6.3           | 68        | D/7343-31               | T495D686(1)006A(2)E180       | 4.3                | 4.0                   | 180                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 100       | B/3528-21               | T495B107(1)006A(2)E400       | 6.3                | 15.0                  | 400                    | 461                                    | 415                 | 184                  | 125                    | 1                   |
| 6.3           | 100       | B/3528-21               | T495B107(M)006A(2)E700       | 6.3                | 15.0                  | 700                    | 348                                    | 313                 | 139                  | 125                    | 1                   |
| 6.3           | 100       | M/3528-15               | T495M107(1)006A(2)E500       | 6.3                | 20.0                  | 500                    | 490                                    | 441                 | 196                  | 125                    | 1                   |
| 6.3           | 100       | M/3528-15               | T495M107(1)006A(2)E1K0       | 6.3                | 20.0                  | 1,000                  | 346                                    | 311                 | 138                  | 125                    | 1                   |
| 6.3           | 100       | C/6032-28               | T495C107(1)006A(2)E075       | 6.3                | 8.0                   | 75                     | 1211                                   | 1090                | 484                  | 125                    | 1                   |
| 6.3           | 100       | C/6032-28               | T495C107(1)006A(2)E150       | 6.3                | 8.0                   | 150                    | 856                                    | 770                 | 342                  | 125                    | 1                   |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E050       | 6.3                | 6.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E130       | 6.3                | 6.0                   | 130                    | 1074                                   | 967                 | 430                  | 125                    | 1                   |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E150       | 6.3                | 8.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 6.3           | 100       | D/7343-31               | T495D107(1)006A(2)E800       | 6.3                | 6.0                   | 800                    | 433                                    | 390                 | 173                  | 125                    | 1                   |
| 6.3           | 100       | V/7343-20               | T495V107(1)006A(2)E090       | 6.3                | 8.0                   | 90                     | 1179                                   | 1061                | 472                  | 125                    | 1                   |
| 6.3           | 100       | V/7343-20               | T495V107(1)006A(2)E150       | 6.3                | 8.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 150       | B/3528-21               | T495B157(1)006A(2)E800       | 9.5                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| VDC at 85°C   | μF        | KEMET/EIA               | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

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

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|----------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | μF        | KEMET/EIA            | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 6.3           | 150       | C/6032-28            | T495C157(1)006A(2)E050       | 9.5                | 8.0                   | 50                     | 1483                                   | 1335                | 593                  | 125                    | 1                   |
| 6.3           | 150       | C/6032-28            | T495C157(M)006A(2)E200       | 9.5                | 8.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 6.3           | 150       | U/6032-15            | T495U157(1)006A(2)E200       | 9.5                | 8.0                   | 200                    | 671                                    | 604                 | 268                  | 125                    | 1                   |
| 6.3           | 150       | V/7343-20            | T495V157(1)006A(2)E040       | 9.5                | 8.0                   | 40                     | 1768                                   | 1591                | 707                  | 125                    | 1                   |
| 6.3           | 150       | V/7343-20            | T495V157(1)006A(2)E070       | 9.5                | 8.0                   | 70                     | 1336                                   | 1202                | 534                  | 125                    | 1                   |
| 6.3           | 150       | V/7343-20            | T495V157(1)006A(2)E150       | 9.5                | 8.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 150       | D/7343-31            | T495D157(1)006A(2)E050       | 9.5                | 6.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 6.3           | 150       | D/7343-31            | T495D157(1)006A(2)E065       | 9.5                | 6.0                   | 65                     | 1519                                   | 1367                | 608                  | 125                    | 1                   |
| 6.3           | 150       | D/7343-31            | T495D157(1)006A(2)E080       | 9.5                | 6.0                   | 80                     | 1369                                   | 1232                | 548                  | 125                    | 1                   |
| 6.3           | 150       | D/7343-31            | T495D157(1)006A(2)E100       | 9.5                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 6.3           | 150       | D/7343-31            | T495D157(1)006A(2)E125       | 9.5                | 6.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 6.3           | 150       | X/7343-43            | T495X157(1)006A(2)E100       | 9.5                | 6.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 6.3           | 220       | C/6032-28            | T495C227(1)006A(2)E225       | 13.9               | 10.0                  | 225                    | 699                                    | 629                 | 280                  | 125                    | 1                   |
| 6.3           | 220       | C/6032-28            | T495C227(1)006A(2)E200       | 13.9               | 10.0                  | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 6.3           | 220       | C/6032-28            | T495C227(1)006A(2)E100       | 13.9               | 10.0                  | 100                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 6.3           | 220       | D/7343-31            | T495D227(1)006A(2)E045       | 13.9               | 8.0                   | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 6.3           | 220       | D/7343-31            | T495D227(1)006A(2)E050       | 13.9               | 8.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 6.3           | 220       | D/7343-31            | T495D227(1)006A(2)E100       | 13.9               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 6.3           | 220       | W/7343-15            | T495W227(1)006A(2)E250       | 13.9               | 8.0                   | 250                    | 849                                    | 764                 | 340                  | 125                    | 1                   |
| 6.3           | 220       | X/7343-43            | T495X227(1)006A(2)E070       | 13.9               | 8.0                   | 70                     | 1535                                   | 1382                | 614                  | 125                    | 1                   |
| 6.3           | 220       | X/7343-43            | T495X227(1)006A(2)E080       | 13.9               | 8.0                   | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 6.3           | 220       | X/7343-43            | T495X227(1)006A(2)E100       | 13.9               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 6.3           | 220       | V/7343-20            | T495V227(1)006A(2)E150       | 13.9               | 8.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 330       | C/6032-28            | T495C337(1)006A(2)E200       | 20.8               | 18.0                  | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 6.3           | 330       | D/7343-31            | T495D337(1)006A(2)E040       | 20.8               | 8.0                   | 40                     | 1936                                   | 1742                | 774                  | 125                    | 1                   |
| 6.3           | 330       | D/7343-31            | T495D337(1)006A(2)E045       | 20.8               | 8.0                   | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 6.3           | 330       | D/7343-31            | T495D337(1)006A(2)E050       | 20.8               | 8.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 6.3           | 330       | D/7343-31            | T495D337(1)006A(2)E070       | 20.8               | 8.0                   | 70                     | 1464                                   | 1318                | 586                  | 125                    | 1                   |
| 6.3           | 330       | D/7343-31            | T495D337(1)006A(2)E100       | 20.8               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 6.3           | 330       | V/7343-20            | T495V337(1)006A(2)E150       | 20.8               | 8.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 330       | X/7343-43            | T495X337(1)006A(2)E045       | 20.8               | 8.0                   | 45                     | 1915                                   | 1724                | 766                  | 125                    | 1                   |
| 6.3           | 330       | X/7343-43            | T495X337(1)006A(2)E050       | 20.8               | 8.0                   | 50                     | 1817                                   | 1635                | 727                  | 125                    | 1                   |
| 6.3           | 330       | X/7343-43            | T495X337(1)006A(2)E065       | 20.8               | 8.0                   | 65                     | 1593                                   | 1434                | 637                  | 125                    | 1                   |
| 6.3           | 330       | X/7343-43            | T495X337(1)006A(2)E080       | 20.8               | 8.0                   | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 6.3           | 330       | X/7343-43            | T495X337(1)006A(2)E100       | 20.8               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 6.3           | 330       | E/7360-38            | T495E337(1)006A(2)E060       | 20.8               | 8.0                   | 60                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 6.3           | 330       | E/7360-38            | T495E337(1)006A(2)E100       | 20.8               | 8.0                   | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 6.3           | 470       | D/7343-31            | T495D477(1)006A(2)E045       | 29.6               | 12.0                  | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 6.3           | 470       | D/7343-31            | T495D477(1)006A(2)E100       | 29.6               | 12.0                  | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 6.3           | 470       | D/7343-31            | T495D477(1)006A(2)E125       | 29.6               | 12.0                  | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 6.3           | 470       | D/7343-31            | T495D477(1)006A(2)E150       | 29.6               | 12.0                  | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 6.3           | 470       | V/7343-20            | T495V477(1)006A(2)E150       | 29.6               | 15.0                  | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E030       | 29.6               | 10.0                  | 30                     | 2345                                   | 2111                | 938                  | 125                    | 1                   |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E045       | 29.6               | 10.0                  | 45                     | 1915                                   | 1724                | 766                  | 125                    | 1                   |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E050       | 29.6               | 10.0                  | 50                     | 1817                                   | 1635                | 727                  | 125                    | 1                   |
| VDC at 85°C   | μF        | KEMET/EIA            | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). Designates termination finish.

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

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|----------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E060       | 29.6               | 10.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E065       | 29.6               | 10.0                  | 65                     | 1593                                   | 1434                | 637                  | 125                    | 1                   |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E100       | 29.6               | 10.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 6.3           | 470       | X/7343-43            | T495X477(1)006A(2)E125       | 29.6               | 10.0                  | 125                    | 1149                                   | 1034                | 460                  | 125                    | 1                   |
| 6.3           | 470       | E/7360-38            | T495E477(1)006A(2)E040       | 29.6               | 12.0                  | 40                     | 2236                                   | 2012                | 894                  | 125                    | 1                   |
| 6.3           | 470       | E/7360-38            | T495E477(1)006A(2)E055       | 29.6               | 10.0                  | 55                     | 1907                                   | 1716                | 763                  | 125                    | 1                   |
| 6.3           | 470       | E/7360-38            | T495E477(1)006A(2)E100       | 29.6               | 10.0                  | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 6.3           | 680       | X/7343-43            | T495X687(1)006A(2)E100       | 42.8               | 12.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 6.3           | 680       | X/7343-43            | T495X687(1)006A(2)E060       | 42.8               | 12.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 6.3           | 680       | X/7343-43            | T495X687(1)006A(2)E045       | 42.8               | 12.0                  | 45                     | 1915                                   | 1724                | 766                  | 125                    | 1                   |
| 6.3           | 1,000     | X/7343-43            | T495X108(1)006A(2)E100       | 63.0               | 20.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 6.3           | 1000      | E/7360-38            | T495E108(1)006A(2)E050       | 63.0               | 15.0                  | 50                     | 2000                                   | 1800                | 800                  | 125                    | 1                   |
| 6.3           | 1,000     | E/7360-38            | T495E108(1)006A(2)E040       | 63.0               | 15.0                  | 40                     | 2236                                   | 2012                | 894                  | 125                    | 1                   |
| 10            | 2         | A/3216-18            | T495A225(1)010A(2)E1K8       | 0.5                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 10            | 2         | A/3216-18            | T495A225(1)010A(2)E7K0       | 0.5                | 6.0                   | 7,000                  | 104                                    | 94                  | 42                   | 125                    | 1                   |
| 10            | 3         | A/3216-18            | T495A335(1)010A(2)E2K0       | 0.5                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 10            | 5         | A/3216-18            | T495A475(1)010A(2)E1K2       | 0.5                | 6.0                   | 1,200                  | 250                                    | 225                 | 100                  | 125                    | 1                   |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E1K3       | 0.5                | 6.0                   | 1,300                  | 240                                    | 216                 | 96                   | 125                    | 1                   |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E1K4       | 0.5                | 6.0                   | 1,400                  | 231                                    | 208                 | 92                   | 125                    | 1                   |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E1K8       | 0.5                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 10            | 4.7       | A/3216-18            | T495A475(1)010A(2)E2K0       | 0.5                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 10            | 4.7       | B/3528-21            | T495B475(1)010A(2)E1K3       | 0.5                | 15.0                  | 1,300                  | 256                                    | 230                 | 102                  | 125                    | 1                   |
| 10            | 4.7       | B/3528-21            | T495B475(1)010A(2)E1K5       | 0.5                | 6.0                   | 1,500                  | 238                                    | 214                 | 95                   | 125                    | 1                   |
| 10            | 6.8       | A/3216-18            | T495A685(1)010A(2)E1K8       | 0.7                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 10            | 6.8       | B/3528-21            | T495B685(1)010A(2)E900       | 0.7                | 6.0                   | 900                    | 307                                    | 276                 | 123                  | 125                    | 1                   |
| 10            | 6.8       | B/3528-21            | T495B685(1)010A(2)E1K1       | 0.7                | 6.0                   | 1,100                  | 278                                    | 250                 | 111                  | 125                    | 1                   |
| 10            | 6.8       | B/3528-21            | T495B685(1)010A(2)E1K2       | 0.7                | 6.0                   | 1,200                  | 266                                    | 239                 | 106                  | 125                    | 1                   |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E1K8       | 1.0                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E2K0       | 1.0                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E2K5       | 1.0                | 6.0                   | 2,500                  | 173                                    | 156                 | 69                   | 125                    | 1                   |
| 10            | 10        | A/3216-18            | T495A106(1)010A(2)E3K8       | 1.0                | 6.0                   | 3,800                  | 140                                    | 126                 | 56                   | 125                    | 1                   |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E600       | 1.0                | 6.0                   | 600                    | 376                                    | 338                 | 150                  | 125                    | 1                   |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E750       | 1.0                | 6.0                   | 750                    | 337                                    | 303                 | 135                  | 125                    | 1                   |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E1K2       | 1.0                | 6.0                   | 1,200                  | 266                                    | 239                 | 106                  | 125                    | 1                   |
| 10            | 10        | B/3528-21            | T495B106(1)010A(2)E3K0       | 1.0                | 6.0                   | 3,000                  | 168                                    | 151                 | 67                   | 125                    | 1                   |
| 10            | 10        | C/6032-28            | T495C106(1)010AT E400        | 1.0                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| 10            | 10        | T/3528-12            | T495T106(1)010AT E1K5        | 1.0                | 6.0                   | 1,500                  | 216                                    | 194                 | 86                   | 125                    | 1                   |
| 10            | 15        | A/3216-18            | T495A156(1)010AT E1K0        | 1.5                | 6.0                   | 1,000                  | 274                                    | 247                 | 110                  | 125                    | 1                   |
| 10            | 15        | A/3216-18            | T495A156(1)010AT E1K8        | 1.5                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 10            | 15        | B/3528-21            | T495B156(1)010AT E600        | 1.5                | 6.0                   | 600                    | 376                                    | 338                 | 150                  | 125                    | 1                   |
| 10            | 15        | B/3528-21            | T495B156(1)010AT E900        | 1.5                | 6.0                   | 900                    | 307                                    | 276                 | 123                  | 125                    | 1                   |
| 10            | 15        | T/3528-12            | T495T156(1)010AT E1K2        | 1.5                | 6.0                   | 1,200                  | 242                                    | 218                 | 97                   | 125                    | 1                   |
| 10            | 15        | B/3528-21            | T495B156(1)010A(2)E500       | 1.5                | 6.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 10            | 15        | C/6032-28            | T495C156(1)010A(2)E375       | 1.5                | 6.0                   | 375                    | 542                                    | 488                 | 217                  | 125                    | 1                   |
| 10            | 15        | C/6032-28            | T495C156(1)010A(2)E400       | 1.5                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|----------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 10            | 15        | C/6032-28            | T495C156(1)010A(2)E475       | 1.5                | 6.0                   | 475                    | 481                                    | 433                 | 192                  | 125                    | 1                   |
| 10            | 22        | A/3216-18            | T495A226(1)010AT E1K2        | 2.2                | 8.0                   | 1,200                  | 250                                    | 225                 | 100                  | 125                    | 1                   |
| 10            | 22        | A/3216-18            | T495A226(1)010AT E1K5        | 2.2                | 8.0                   | 1,500                  | 224                                    | 202                 | 90                   | 125                    | 1                   |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E400        | 2.2                | 6.0                   | 400                    | 461                                    | 415                 | 184                  | 125                    | 1                   |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E500        | 2.2                | 6.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E700        | 2.2                | 6.0                   | 700                    | 348                                    | 313                 | 139                  | 125                    | 1                   |
| 10            | 22        | B/3528-21            | T495B226(1)010AT E800        | 2.2                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| 10            | 22        | B/3528-21            | T495B226(1)010A(2)E2K3       | 2.2                | 6.0                   | 2,300                  | 192                                    | 173                 | 77                   | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E200       | 2.2                | 6.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E245       | 2.2                | 6.0                   | 245                    | 670                                    | 603                 | 268                  | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E290       | 2.2                | 6.0                   | 290                    | 616                                    | 554                 | 246                  | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E300       | 2.2                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E345       | 2.2                | 6.0                   | 345                    | 565                                    | 509                 | 226                  | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E350       | 2.2                | 6.0                   | 350                    | 561                                    | 505                 | 224                  | 125                    | 1                   |
| 10            | 22        | C/6032-28            | T495C226(1)010A(2)E380       | 2.2                | 6.0                   | 380                    | 538                                    | 484                 | 215                  | 125                    | 1                   |
| 10            | 33        | B/3528-21            | T495B336(1)010A(2)E450       | 3.3                | 6.0                   | 450                    | 435                                    | 392                 | 174                  | 125                    | 1                   |
| 10            | 33        | B/3528-21            | T495B336(1)010A(2)E550       | 3.3                | 6.0                   | 550                    | 393                                    | 354                 | 157                  | 125                    | 1                   |
| 10            | 33        | B/3528-21            | T495B336(1)010A(2)E650       | 3.3                | 6.0                   | 650                    | 362                                    | 326                 | 145                  | 125                    | 1                   |
| 10            | 33        | V/7343-20            | T495V336(1)010A(2)E100       | 3.3                | 6.0                   | 100                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 10            | 33        | V/7343-20            | T495V336(1)010A(2)E150       | 3.3                | 6.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 10            | 47        | B/3528-21            | T495B476(1)010A(2)E500       | 4.7                | 6.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 10            | 47        | B/3528-21            | T495B476(1)010A(2)E650       | 4.7                | 6.0                   | 650                    | 362                                    | 326                 | 145                  | 125                    | 1                   |
| 10            | 47        | C/6032-28            | T495C476(1)010A(2)E300       | 4.7                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 10            | 47        | U/6032-15            | T495U476(1)010A(2)E400       | 4.7                | 6.0                   | 400                    | 474                                    | 427                 | 190                  | 125                    | 1                   |
| 10            | 47        | D/7343-31            | T495D476(1)010A(2)E080       | 4.7                | 4.0                   | 80                     | 1369                                   | 1232                | 548                  | 125                    | 1                   |
| 10            | 47        | D/7343-31            | T495D476(1)010A(2)E090       | 4.7                | 6.0                   | 90                     | 1291                                   | 1162                | 516                  | 125                    | 1                   |
| 10            | 47        | D/7343-31            | T495D476(1)010A(2)E100       | 4.7                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 10            | 47        | D/7343-31            | T495D476(1)010A(2)E200       | 4.7                | 4.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 10            | 47        | V/7343-20            | T495V476(1)010A(2)E200       | 4.7                | 6.0                   | 200                    | 791                                    | 712                 | 316                  | 125                    | 1                   |
| 10            | 68        | B/3528-21            | T495B686(1)010A(2)E600       | 6.8                | 8.0                   | 600                    | 376                                    | 338                 | 150                  | 125                    | 1                   |
| 10            | 68        | B/3528-21            | T495B686(1)010A(2)E750       | 6.8                | 8.0                   | 750                    | 337                                    | 303                 | 135                  | 125                    | 1                   |
| 10            | 68        | B/3528-21            | T495B686(M)010A(2)E900       | 6.8                | 8.0                   | 900                    | 307                                    | 276                 | 123                  | 125                    | 1                   |
| 10            | 68        | C/6032-28            | T495C686(1)010A(2)E080       | 6.8                | 6.0                   | 80                     | 1173                                   | 1056                | 469                  | 125                    | 1                   |
| 10            | 68        | C/6032-28            | T495C686(1)010A(2)E200       | 6.8                | 6.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 10            | 68        | C/6032-28            | T495C686(1)010A(2)E225       | 6.8                | 6.0                   | 225                    | 699                                    | 629                 | 280                  | 125                    | 1                   |
| 10            | 68        | C/6032-28            | T495C686(1)010A(2)E250       | 6.8                | 6.0                   | 250                    | 663                                    | 597                 | 265                  | 125                    | 1                   |
| 10            | 68        | V/7343-20            | T495V686(1)010A(2)E070       | 6.8                | 6.0                   | 70                     | 1336                                   | 1202                | 534                  | 125                    | 1                   |
| 10            | 68        | V/7343-20            | T495V686(1)010A(2)E100       | 6.8                | 6.0                   | 100                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 10            | 68        | V/7343-20            | T495V686(1)010A(2)E140       | 6.8                | 6.0                   | 140                    | 945                                    | 851                 | 378                  | 125                    | 1                   |
| 10            | 68        | V/7343-20            | T495V686(1)010A(2)E200       | 6.8                | 6.0                   | 200                    | 791                                    | 712                 | 316                  | 125                    | 1                   |
| 10            | 68        | D/7343-31            | T495D686(1)010A(2)E070       | 6.8                | 6.0                   | 70                     | 1464                                   | 1318                | 586                  | 125                    | 1                   |
| 10            | 68        | D/7343-31            | T495D686(1)010A(2)E090       | 6.8                | 6.0                   | 90                     | 1291                                   | 1162                | 516                  | 125                    | 1                   |
| 10            | 68        | D/7343-31            | T495D686(1)010A(2)E100       | 6.8                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 10            | 68        | D/7343-31            | T495D686(1)010A(2)E150       | 6.8                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 10            | 68        | X/7343-43            | T495X686(1)010A(2)E150       | 6.8                | 4.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 10            | 100       | B/3528-21               | T495B107(M)010A(2)E350       | 10.0               | 12.0                  | 350                    | 493                                    | 444                 | 197                  | 125                    | 1                   |
| 10            | 100       | B/3528-21               | T495B107(M)010A(2)E500       | 10.0               | 30.0                  | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 10            | 100       | B/3528-21               | T495B107(M)010A(2)E700       | 10.0               | 30.0                  | 700                    | 348                                    | 313                 | 139                  | 125                    | 1                   |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E100       | 10.0               | 8.0                   | 100                    | 1050                                   | 945                 | 420                  | 125                    | 1                   |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E150       | 10.0               | 8.0                   | 150                    | 856                                    | 812                 | 542                  | 125                    | 1                   |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E180       | 10.0               | 8.0                   | 180                    | 782                                    | 704                 | 313                  | 125                    | 1                   |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E200       | 10.0               | 8.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 10            | 100       | C/6032-28               | T495C107(1)010A(2)E250       | 10.0               | 8.0                   | 250                    | 663                                    | 597                 | 265                  | 125                    | 1                   |
| 10            | 100       | U/6032-15               | T495U107(1)010A(2)E150       | 10.0               | 8.0                   | 150                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 10            | 100       | W/7343-15               | T495W107(1)010A(2)E200       | 10.0               | 8.0                   | 200                    | 949                                    | 854                 | 380                  | 125                    | 1                   |
| 10            | 100       | V/7343-20               | T495V107(1)010A(2)E100       | 10.0               | 8.0                   | 100                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 10            | 100       | V/7343-20               | T495V107(1)010A(2)E150       | 10.0               | 8.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 10            | 100       | V/7343-20               | T495V107(1)010A(2)E200       | 10.0               | 8.0                   | 200                    | 791                                    | 712                 | 316                  | 125                    | 1                   |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E050       | 10.0               | 8.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E065       | 10.0               | 8.0                   | 65                     | 1519                                   | 1367                | 608                  | 125                    | 1                   |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E080       | 10.0               | 8.0                   | 80                     | 1369                                   | 1232                | 548                  | 125                    | 1                   |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E100       | 10.0               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E120       | 10.0               | 8.0                   | 120                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 10            | 100       | D/7343-31               | T495D107(1)010A(2)E125       | 10.0               | 8.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 10            | 100       | X/7343-43               | T495X107(1)010A(2)E100       | 10.0               | 6.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 10            | 150       | C/6032-28               | T495C157(1)010A(2)E200       | 15.0               | 10.0                  | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 10            | 150       | V/7343-20               | T495V157(1)010A(2)E100       | 15.0               | 8.0                   | 100                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 10            | 150       | V/7343-20               | T495V157(1)010A(2)E150       | 15.0               | 8.0                   | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 10            | 150       | V/7343-20               | T495V157(1)010A(2)E200       | 15.0               | 8.0                   | 200                    | 791                                    | 712                 | 316                  | 125                    | 1                   |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E050       | 15.0               | 8.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E060       | 15.0               | 8.0                   | 60                     | 1581                                   | 1423                | 632                  | 125                    | 1                   |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E080       | 15.0               | 8.0                   | 80                     | 1369                                   | 1232                | 548                  | 125                    | 1                   |
| 10            | 150       | D/7343-31               | T495D157(1)010A(2)E100       | 15.0               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E070       | 15.0               | 8.0                   | 70                     | 1535                                   | 1382                | 614                  | 125                    | 1                   |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E080       | 15.0               | 8.0                   | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E085       | 15.0               | 8.0                   | 85                     | 1393                                   | 1254                | 557                  | 125                    | 1                   |
| 10            | 150       | X/7343-43               | T495X157(1)010A(2)E100       | 15.0               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E045       | 22.0               | 8.0                   | 45                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E050       | 22.0               | 9.0                   | 50                     | 1732                                   | 1559                | 693                  | 125                    | 1                   |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E075       | 22.0               | 8.0                   | 75                     | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E100       | 22.0               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 10            | 220       | D/7343-31               | T495D227(1)010A(2)E125       | 22.0               | 8.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 10            | 220       | V/7343-20               | T495V227(1)010A(2)E150       | 22.0               | 10.0                  | 150                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 10            | 220       | V/7343-20               | T495V227(1)010A(2)E200       | 22.0               | 10.0                  | 200                    | 791                                    | 712                 | 316                  | 125                    | 1                   |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E045       | 22.0               | 8.0                   | 45                     | 1915                                   | 1724                | 766                  | 125                    | 1                   |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E050       | 22.0               | 8.0                   | 50                     | 1817                                   | 1635                | 727                  | 125                    | 1                   |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E060       | 22.0               | 8.0                   | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E070       | 22.0               | 8.0                   | 70                     | 1535                                   | 1382                | 614                  | 125                    | 1                   |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E080       | 22.0               | 8.0                   | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 10            | 220       | X/7343-43               | T495X227(1)010A(2)E100       | 22.0               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|----------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 10            | 330       | D/7343-31            | T495D337(1)010A(2)E100       | 33.0               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 10            | 330       | D/7343-31            | T495D337(1)010A(2)E125       | 33.0               | 10.0                  | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 10            | 330       | D/7343-31            | T495D337(1)010A(2)E150       | 33.0               | 10.0                  | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 10            | 330       | X/7343-43            | T495X337(1)010A(2)E035       | 33.0               | 10.0                  | 35                     | 2171                                   | 1954                | 868                  | 125                    | 1                   |
| 10            | 330       | X/7343-43            | T495X337(1)010A(2)E040       | 33.0               | 10.0                  | 40                     | 2031                                   | 1828                | 812                  | 125                    | 1                   |
| 10            | 330       | X/7343-43            | T495X337(1)010A(2)E050       | 33.0               | 10.0                  | 50                     | 1817                                   | 1635                | 727                  | 125                    | 1                   |
| 10            | 330       | X/7343-43            | T495X337(1)010A(2)E060       | 33.0               | 10.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 10            | 330       | X/7343-43            | T495X337(1)010A(2)E080       | 33.0               | 10.0                  | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 10            | 330       | X/7343-43            | T495X337(1)010A(2)E100       | 33.0               | 10.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 10            | 330       | E/7360-38            | T495E337(1)010A(2)E040       | 33.0               | 8.0                   | 40                     | 2236                                   | 2012                | 894                  | 125                    | 1                   |
| 10            | 330       | E/7360-38            | T495E337(1)010A(2)E060       | 33.0               | 10.0                  | 60                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 10            | 330       | E/7360-38            | T495E337(1)010A(2)E100       | 33.0               | 10.0                  | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 10            | 470       | X/7343-43            | T495X477(1)010A(2)E045       | 47.0               | 10.0                  | 45                     | 1915                                   | 1724                | 766                  | 125                    | 1                   |
| 10            | 470       | X/7343-43            | T495X477(1)010A(2)E050       | 47.0               | 10.0                  | 50                     | 1817                                   | 1635                | 727                  | 125                    | 1                   |
| 10            | 470       | X/7343-43            | T495X477(1)010A(2)E060       | 47.0               | 10.0                  | 60                     | 1658                                   | 1492                | 663                  | 125                    | 1                   |
| 10            | 470       | X/7343-43            | T495X477(1)010A(2)E080       | 47.0               | 10.0                  | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 10            | 470       | X/7343-43            | T495X477(1)010A(2)E100       | 47.0               | 10.0                  | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 10            | 470       | X/7343-43            | T495X477(1)010A(2)E200       | 47.0               | 10.0                  | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 10            | 470       | E/7360-38            | T495E477(1)010A(2)E040       | 47.0               | 10.0                  | 40                     | 2236                                   | 2012                | 894                  | 125                    | 1                   |
| 10            | 470       | E/7360-38            | T495E477(1)010A(2)E060       | 47.0               | 10.0                  | 60                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 10            | 470       | E/7360-38            | T495E477(1)010A(2)E100       | 47.0               | 10.0                  | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 16            | 1         | A/3216-18            | T495A105(1)016A(2)E5K0       | 0.5                | 6.0                   | 5,000                  | 122                                    | 110                 | 49                   | 125                    | 1                   |
| 16            | 2         | A/3216-18            | T495A155(1)016A(2)E5K0       | 0.5                | 6.0                   | 5,000                  | 122                                    | 110                 | 49                   | 125                    | 1                   |
| 16            | 2.2       | A/3216-18            | T495A225(1)016A(2)E2K5       | 0.5                | 6.0                   | 2,500                  | 173                                    | 156                 | 69                   | 125                    | 1                   |
| 16            | 2.2       | A/3216-18            | T495A225(1)016A(2)E1K8       | 0.5                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 16            | 3.3       | A/3216-18            | T495A335(1)016A(2)E3K0       | 0.5                | 6.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 16            | 3.3       | B/3528-21            | T495B335(1)016A(2)E2K0       | 0.5                | 6.0                   | 2,000                  | 206                                    | 185                 | 82                   | 125                    | 1                   |
| 16            | 4.7       | A/3216-18            | T495A475(1)016A(2)E2K0       | 0.8                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 16            | 4.7       | B/3528-21            | T495B475(1)016A(2)E700       | 0.8                | 6.0                   | 700                    | 348                                    | 313                 | 139                  | 125                    | 1                   |
| 16            | 4.7       | B/3528-21            | T495B475(1)016A(2)E800       | 0.8                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| 16            | 5         | B/3528-21            | T495B475(1)016A(2)E1K0       | 0.8                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 16            | 5         | B/3528-21            | T495B475(1)016A(2)E1K5       | 0.8                | 6.0                   | 1,500                  | 238                                    | 214                 | 95                   | 125                    | 1                   |
| 16            | 7         | B/3528-21            | T495B685(1)016A(2)E1K2       | 1.1                | 6.0                   | 1,200                  | 266                                    | 239                 | 106                  | 125                    | 1                   |
| 16            | 6.8       | C/6032-28            | T495C685(1)016A(2)E750       | 1.1                | 6.0                   | 750                    | 383                                    | 345                 | 153                  | 125                    | 1                   |
| 16            | 10        | A/3216-18            | T495A106(1)016A(2)E1K7       | 1.6                | 6.0                   | 1,700                  | 210                                    | 189                 | 84                   | 125                    | 1                   |
| 16            | 10        | B/3528-21            | T495B106(1)016A(2)E500       | 1.6                | 6.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 16            | 10        | B/3528-21            | T495B106(1)016A(2)E650       | 1.6                | 6.0                   | 650                    | 362                                    | 326                 | 145                  | 125                    | 1                   |
| 16            | 10        | B/3528-21            | T495B106(1)016A(2)E800       | 1.6                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| 16            | 10        | B/3528-21            | T495B106(1)016A(2)E2K5       | 1.6                | 6.0                   | 2,500                  | 184                                    | 166                 | 74                   | 125                    | 1                   |
| 16            | 10        | T/3528-12            | T495T106(M)016A(2)E4K0       | 1.6                | 8.0                   | 4,000                  | 132                                    | 119                 | 53                   | 125                    | 1                   |
| 16            | 15        | A/3216-18            | T495A156(1)016A(2)E2K5       | 2.4                | 8.0                   | 2,500                  | 173                                    | 156                 | 69                   | 125                    | 1                   |
| 16            | 15        | B/3528-21            | T495B156(1)016A(2)E500       | 2.4                | 6.0                   | 500                    | 412                                    | 371                 | 165                  | 125                    | 1                   |
| 16            | 15        | B/3528-21            | T495B156(1)016A(2)E650       | 2.4                | 6.0                   | 650                    | 362                                    | 326                 | 145                  | 125                    | 1                   |
| 16            | 15        | B/3528-21            | T495B156(1)016A(2)E800       | 2.4                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| 16            | 15        | C/6032-28            | T495C156(1)016A(2)E400       | 2.4                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 16            | 22        | B/3528-21               | T495B226(1)016A(2)E600       | 3.5                | 6.0                   | 600                    | 376                                    | 338                 | 150                  | 125                    | 1                   |
| 16            | 22        | B/3528-21               | T495B226(1)016A(2)E700       | 3.5                | 6.0                   | 700                    | 348                                    | 313                 | 139                  | 125                    | 1                   |
| 16            | 22        | C/6032-28               | T495C226(1)016A(2)E300       | 3.5                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 16            | 22        | C/6032-28               | T495C226(1)016A(2)E350       | 3.5                | 6.0                   | 350                    | 561                                    | 505                 | 224                  | 125                    | 1                   |
| 16            | 22        | C/6032-28               | T495C226(1)016A(2)E500       | 3.5                | 6.0                   | 500                    | 469                                    | 422                 | 188                  | 125                    | 1                   |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E200       | 5.3                | 6.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E225       | 5.3                | 6.0                   | 225                    | 699                                    | 629                 | 280                  | 125                    | 1                   |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E230       | 5.3                | 6.0                   | 230                    | 692                                    | 623                 | 277                  | 125                    | 1                   |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E275       | 5.3                | 6.0                   | 275                    | 632                                    | 569                 | 253                  | 125                    | 1                   |
| 16            | 33        | C/6032-28               | T495C336(1)016A(2)E300       | 5.3                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 16            | 33        | U/6032-15               | T495U336(1)016A(2)E200       | 5.3                | 6.0                   | 200                    | 671                                    | 604                 | 268                  | 125                    | 1                   |
| 16            | 33        | U/6032-15               | T495U336(1)016A(2)E400       | 5.3                | 6.0                   | 400                    | 474                                    | 427                 | 190                  | 125                    | 1                   |
| 16            | 33        | B/3528-21               | T495B336(1)016A(2)E350       | 5.3                | 6.0                   | 350                    | 493                                    | 444                 | 197                  | 125                    | 1                   |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E150       | 5.3                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E175       | 5.3                | 6.0                   | 175                    | 926                                    | 833                 | 370                  | 125                    | 1                   |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E200       | 5.3                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E225       | 5.3                | 4.0                   | 225                    | 816                                    | 734                 | 326                  | 125                    | 1                   |
| 16            | 33        | D/7343-31               | T495D336(1)016A(2)E250       | 5.3                | 6.0                   | 250                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 16            | 47        | C/6032-28               | T495C476(1)016A(2)E300       | 7.5                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 16            | 47        | C/6032-28               | T495C476(1)016A(2)E350       | 7.5                | 6.0                   | 350                    | 561                                    | 505                 | 224                  | 125                    | 1                   |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E080       | 7.5                | 6.0                   | 80                     | 1369                                   | 1232                | 548                  | 125                    | 1                   |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E100       | 7.5                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E150       | 7.5                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E180       | 7.5                | 6.0                   | 180                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 16            | 47        | D/7343-31               | T495D476(1)016A(2)E800       | 7.5                | 6.0                   | 800                    | 433                                    | 390                 | 173                  | 125                    | 1                   |
| 16            | 68        | C/6032-28               | T495C686(1)016A(2)E250       | 10.9               | 6.0                   | 250                    | 663                                    | 597                 | 265                  | 125                    | 1                   |
| 16            | 68        | C/6032-28               | T495C686(1)016A(2)E200       | 10.9               | 6.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 16            | 68        | C/6032-28               | T495C686(1)016A(2)E180       | 10.9               | 6.0                   | 180                    | 782                                    | 704                 | 313                  | 125                    | 1                   |
| 16            | 68        | V/7343-20               | T495V686(1)016A(2)E180       | 10.9               | 6.0                   | 180                    | 833                                    | 750                 | 333                  | 125                    | 1                   |
| 16            | 68        | V/7343-20               | T495V686(1)016A(2)E250       | 10.9               | 6.0                   | 250                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 16            | 68        | V/7343-20               | T495V686(1)016A(2)E300       | 10.9               | 6.0                   | 300                    | 645                                    | 581                 | 258                  | 125                    | 1                   |
| 16            | 68        | D/7343-31               | T495D686(1)016A(2)E070       | 10.9               | 6.0                   | 70                     | 1464                                   | 1318                | 586                  | 125                    | 1                   |
| 16            | 68        | D/7343-31               | T495D686(1)016A(2)E100       | 10.9               | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 16            | 68        | D/7343-31               | T495D686(1)016A(2)E150       | 10.9               | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 16            | 68        | X/7343-43               | T495X686(1)016A(2)E150       | 10.9               | 5.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 16            | 100       | C/6032-28               | T495C107(1)016A(2)E200       | 16.0               | 10.0                  | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E060       | 16.0               | 8.0                   | 60                     | 1581                                   | 1423                | 632                  | 125                    | 1                   |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E100       | 16.0               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E125       | 16.0               | 8.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E130       | 16.0               | 8.0                   | 130                    | 1074                                   | 967                 | 430                  | 125                    | 1                   |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E150       | 16.0               | 8.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 16            | 100       | D/7343-31               | T495D107(1)016A(2)E800       | 16.0               | 8.0                   | 800                    | 433                                    | 390                 | 173                  | 125                    | 1                   |
| 16            | 100       | X/7343-43               | T495X107(1)016A(2)E080       | 16.0               | 8.0                   | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 16            | 100       | X/7343-43               | T495X107(1)016A(2)E100       | 16.0               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 16            | 150       | D/7343-31               | T495D157(M)016A(2)E060       | 24.0               | 12.0                  | 60                     | 1581                                   | 1423                | 632                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|----------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | μF        | KEMET/EIA            | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 16            | 150       | D/7343-31            | T495D157(1)016A(2)E085       | 24.0               | 8.0                   | 85                     | 1328                                   | 1195                | 531                  | 125                    | 1                   |
| 16            | 150       | D/7343-31            | T495D157(1)016A(2)E100       | 24.0               | 8.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 16            | 150       | D/7343-31            | T495D157(1)016A(2)E125       | 24.0               | 8.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 16            | 150       | D/7343-31            | T495D157(1)016A(2)E130       | 24.0               | 8.0                   | 130                    | 1074                                   | 967                 | 430                  | 125                    | 1                   |
| 16            | 150       | D/7343-31            | T495D157(1)016A(2)E150       | 24.0               | 8.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 16            | 150       | X/7343-43            | T495X157(1)016A(2)E075       | 24.0               | 8.0                   | 75                     | 1483                                   | 1335                | 593                  | 125                    | 1                   |
| 16            | 150       | X/7343-43            | T495X157(1)016A(2)E100       | 24.0               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 16            | 220       | D/7343-31            | T495D227(1)016A(2)E150       | 35.2               | 12.0                  | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 16            | 220       | D/7343-31            | T495D227(1)016A(2)E200       | 35.2               | 12.0                  | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 16            | 220       | D/7343-31            | T495D227(1)016A(2)E220       | 35.2               | 12.0                  | 220                    | 826                                    | 743                 | 330                  | 125                    | 1                   |
| 16            | 220       | X/7343-43            | T495X227(1)016A(2)E100       | 35.2               | 8.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 16            | 220       | E/7360-38            | T495E227(1)016A(2)E050       | 35.2               | 12.0                  | 50                     | 2000                                   | 1800                | 800                  | 125                    | 1                   |
| 16            | 220       | E/7360-38            | T495E227(1)016A(2)E075       | 35.2               | 8.0                   | 75                     | 1633                                   | 1470                | 653                  | 125                    | 1                   |
| 16            | 220       | E/7360-38            | T495E227(1)016A(2)E100       | 35.2               | 7.2                   | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 16            | 220       | E/7360-38            | T495E227(1)016A(2)E150       | 35.2               | 7.2                   | 150                    | 1155                                   | 1040                | 462                  | 125                    | 1                   |
| 20            | 1         | A/3216-18            | T495A105(1)020A(2)E3K0       | 0.5                | 4.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 20            | 1         | A/3216-18            | T495A105(1)020A(2)E5K0       | 0.5                | 4.0                   | 5,000                  | 122                                    | 110                 | 49                   | 125                    | 1                   |
| 20            | 2         | A/3216-18            | T495A225(1)020A(2)E3K0       | 0.5                | 6.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 20            | 4.7       | A/3216-18            | T495A475(1)020A(2)E1K8       | 0.9                | 6.0                   | 1,800                  | 204                                    | 184                 | 82                   | 125                    | 1                   |
| 20            | 4.7       | A/3216-18            | T495A475(1)020A(2)E2K0       | 0.9                | 6.0                   | 2,000                  | 194                                    | 175                 | 78                   | 125                    | 1                   |
| 20            | 4.7       | B/3528-21            | T495B475(1)020A(2)E750       | 0.9                | 6.0                   | 750                    | 337                                    | 303                 | 135                  | 125                    | 1                   |
| 20            | 4.7       | B/3528-21            | T495B475(1)020A(2)E1K0       | 0.9                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 20            | 7         | C/6032-28            | T495C685(1)020A(2)E480       | 1.4                | 6.0                   | 480                    | 479                                    | 431                 | 192                  | 125                    | 1                   |
| 20            | 10        | B/3528-21            | T495B106(1)020A(2)E1K0       | 2.0                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 20            | 10        | B/3528-21            | T495B106(1)020A(2)E800       | 2.0                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| 20            | 10        | C/6032-28            | T495C106(1)020A(2)E300       | 2.0                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 20            | 10        | C/6032-28            | T495C106(1)020A(2)E350       | 2.0                | 6.0                   | 350                    | 561                                    | 505                 | 224                  | 125                    | 1                   |
| 20            | 10        | C/6032-28            | T495C106(1)020A(2)E400       | 2.0                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| 20            | 10        | C/6032-28            | T495C106(1)020A(2)E450       | 2.0                | 6.0                   | 450                    | 494                                    | 445                 | 198                  | 125                    | 1                   |
| 20            | 10        | C/6032-28            | T495C106(1)020A(2)E475       | 2.0                | 6.0                   | 475                    | 481                                    | 433                 | 192                  | 125                    | 1                   |
| 20            | 15        | C/6032-28            | T495C156(1)020A(2)E375       | 3.0                | 6.0                   | 375                    | 542                                    | 488                 | 217                  | 125                    | 1                   |
| 20            | 15        | C/6032-28            | T495C156(1)020A(2)E400       | 3.0                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| 20            | 15        | D/7343-31            | T495D156(1)020A(2)E275       | 3.0                | 4.0                   | 275                    | 739                                    | 665                 | 296                  | 125                    | 1                   |
| 20            | 15        | D/7343-31            | T495D156(1)020A(2)E1K2       | 3.0                | 4.0                   | 1,200                  | 354                                    | 319                 | 142                  | 125                    | 1                   |
| 20            | 22        | D/7343-31            | T495D226(1)020A(2)E180       | 4.4                | 4.0                   | 180                    | 913                                    | 822                 | 365                  | 125                    | 1                   |
| 20            | 22        | D/7343-31            | T495D226(1)020A(2)E200       | 4.4                | 4.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 20            | 22        | D/7343-31            | T495D226(1)020A(2)E225       | 4.4                | 4.0                   | 225                    | 816                                    | 734                 | 326                  | 125                    | 1                   |
| 20            | 22        | V/7343-20            | T495V226(1)020A(2)E400       | 4.4                | 6.0                   | 400                    | 559                                    | 503                 | 224                  | 125                    | 1                   |
| 20            | 33        | C/6032-28            | T495C336(1)020A(2)E200       | 6.6                | 6.0                   | 200                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 20            | 33        | D/7343-31            | T495D336(1)020A(2)E100       | 6.6                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 20            | 33        | D/7343-31            | T495D336(1)020A(2)E150       | 6.6                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 20            | 33        | D/7343-31            | T495D336(1)020A(2)E200       | 6.6                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 20            | 33        | X/7343-43            | T495X336(1)020A(2)E200       | 6.6                | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 20            | 47        | D/7343-31            | T495D476(1)020A(2)E075       | 9.4                | 6.0                   | 75                     | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 20            | 47        | D/7343-31            | T495D476(1)020A(2)E100       | 9.4                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| VDC at 85°C   | μF        | KEMET/EIA            | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | μF        | KEMET/EIA               | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E150       | 9.4                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E175       | 9.4                | 6.0                   | 175                    | 926                                    | 833                 | 370                  | 125                    | 1                   |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E200       | 9.4                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 20            | 47        | D/7343-31               | T495D476(1)020A(2)E250       | 9.4                | 6.0                   | 250                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E065       | 9.4                | 8.0                   | 65                     | 1593                                   | 1434                | 637                  | 125                    | 1                   |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E070       | 9.4                | 6.0                   | 70                     | 1535                                   | 1382                | 614                  | 125                    | 1                   |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E100       | 9.4                | 6.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E125       | 9.4                | 6.0                   | 125                    | 1149                                   | 1034                | 460                  | 125                    | 1                   |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E130       | 9.4                | 6.0                   | 130                    | 1127                                   | 1014                | 451                  | 125                    | 1                   |
| 20            | 47        | X/7343-43               | T495X476(1)020A(2)E150       | 9.4                | 4.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 20            | 68        | C/6032-28               | T495C686(1)020A(2)E250       | 13.6               | 8.0                   | 250                    | 663                                    | 597                 | 265                  | 125                    | 1                   |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E070       | 13.6               | 6.0                   | 70                     | 1464                                   | 1318                | 586                  | 125                    | 1                   |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E100       | 13.6               | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E150       | 13.6               | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E200       | 13.6               | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 20            | 68        | D/7343-31               | T495D686(1)020A(2)E300       | 13.6               | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E120       | 13.6               | 6.0                   | 120                    | 1173                                   | 1056                | 469                  | 125                    | 1                   |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E130       | 13.6               | 6.0                   | 130                    | 1127                                   | 1014                | 451                  | 125                    | 1                   |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E150       | 13.6               | 6.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 20            | 68        | X/7343-43               | T495X686(1)020A(2)E200       | 13.6               | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 20            | 100       | D/7343-31               | T495D107(1)020A(2)E200       | 20.0               | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 20            | 100       | X/7343-43               | T495X107(1)020A(2)E100       | 20.0               | 6.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 20            | 100       | X/7343-43               | T495X107(1)020A(2)E150       | 20.0               | 8.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E060       | 20.0               | 8.0                   | 60                     | 1826                                   | 1643                | 730                  | 125                    | 1                   |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E085       | 20.0               | 8.0                   | 85                     | 1534                                   | 1381                | 614                  | 125                    | 1                   |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E100       | 20.0               | 8.0                   | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 20            | 100       | E/7360-38               | T495E107(1)020A(2)E200       | 20.0               | 8.0                   | 200                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 20            | 150       | E/7360-38               | T495E157(1)020A(2)E080       | 30.0               | 8.0                   | 80                     | 1581                                   | 1423                | 632                  | 125                    | 1                   |
| 25            | 0.47      | A/3216-18               | T495A474(1)025A(2)E4K5       | 0.5                | 4.0                   | 4,500                  | 129                                    | 116                 | 52                   | 125                    | 1                   |
| 25            | 0.47      | A/3216-18               | T495A474(1)025A(2)E7K0       | 0.5                | 4.0                   | 7,000                  | 104                                    | 94                  | 42                   | 125                    | 1                   |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E2K5       | 0.5                | 4.0                   | 2,500                  | 173                                    | 156                 | 69                   | 125                    | 1                   |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E3K0       | 0.5                | 4.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E4K0       | 0.5                | 4.0                   | 4,000                  | 137                                    | 123                 | 55                   | 125                    | 1                   |
| 25            | 1         | A/3216-18               | T495A105(1)025A(2)E5K0       | 0.5                | 4.0                   | 5,000                  | 122                                    | 110                 | 49                   | 125                    | 1                   |
| 25            | 2         | A/3216-18               | T495A155(1)025A(2)E3K0       | 0.5                | 6.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 25            | 2         | B/3528-21               | T495B225(1)025A(2)E1K2       | 0.6                | 4.0                   | 1,200                  | 266                                    | 239                 | 106                  | 125                    | 1                   |
| 25            | 2.2       | C/6032-28               | T495C225(1)025A(2)E1K3       | 0.6                | 6.0                   | 1,300                  | 291                                    | 262                 | 116                  | 125                    | 1                   |
| 25            | 3.3       | B/3528-21               | T495B335(1)025A(2)E1K2       | 0.8                | 6.0                   | 1,200                  | 266                                    | 239                 | 106                  | 125                    | 1                   |
| 25            | 3.3       | C/6032-28               | T495C335(1)025A(2)E750       | 0.8                | 6.0                   | 750                    | 383                                    | 345                 | 153                  | 125                    | 1                   |
| 25            | 4.7       | C/6032-28               | T495C475(1)025A(2)E530       | 1.2                | 6.0                   | 530                    | 456                                    | 410                 | 182                  | 125                    | 1                   |
| 25            | 4.7       | C/6032-28               | T495C475(1)025A(2)E575       | 1.2                | 6.0                   | 575                    | 437                                    | 393                 | 175                  | 125                    | 1                   |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E700       | 1.2                | 6.0                   | 700                    | 348                                    | 313                 | 139                  | 125                    | 1                   |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E750       | 1.2                | 6.0                   | 750                    | 337                                    | 303                 | 135                  | 125                    | 1                   |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E800       | 1.2                | 6.0                   | 800                    | 326                                    | 293                 | 130                  | 125                    | 1                   |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E900       | 1.2                | 6.0                   | 900                    | 307                                    | 276                 | 123                  | 125                    | 1                   |
| VDC at 85°C   | μF        | KEMET/EIA               | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). Designates termination finish.

Refer to Ordering Information for additional detail.

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

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | μF        | KEMET/EIA               | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 25            | 4.7       | B/3528-21               | T495B475(1)025A(2)E1K0       | 1.2                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 25            | 7         | B/3528-21               | T495B685(1)025A(2)E1K0       | 1.7                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 25            | 6.8       | B/3528-21               | T495B685(1)025A(2)E1K5       | 1.7                | 6.0                   | 1,500                  | 238                                    | 214                 | 95                   | 125                    | 1                   |
| 25            | 6.8       | C/6032-28               | T495C685(1)025A(2)E400       | 1.7                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| 25            | 6.8       | C/6032-28               | T495C685(1)025A(2)E490       | 1.7                | 6.0                   | 490                    | 474                                    | 427                 | 190                  | 125                    | 1                   |
| 25            | 6.8       | C/6032-28               | T495C685(1)025A(2)E500       | 1.7                | 6.0                   | 500                    | 469                                    | 422                 | 188                  | 125                    | 1                   |
| 25            | 10        | B/3528-21               | T495B106(1)025A(2)E750       | 2.5                | 6.0                   | 750                    | 337                                    | 303                 | 135                  | 125                    | 1                   |
| 25            | 10        | C/6032-28               | T495C106(1)025A(2)E275       | 2.5                | 6.0                   | 275                    | 632                                    | 569                 | 253                  | 125                    | 1                   |
| 25            | 10        | C/6032-28               | T495C106(1)025A(2)E300       | 2.5                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 25            | 10        | C/6032-28               | T495C106(1)025A(2)E450       | 2.5                | 6.0                   | 450                    | 494                                    | 445                 | 198                  | 125                    | 1                   |
| 25            | 10        | D/7343-31               | T495D106(1)025A(2)E1K2       | 2.5                | 6.0                   | 1,200                  | 354                                    | 319                 | 142                  | 125                    | 1                   |
| 25            | 15        | C/6032-28               | T495C156(1)025A(2)E300       | 3.8                | 6.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)E100       | 3.8                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)E230       | 3.8                | 4.0                   | 230                    | 808                                    | 727                 | 323                  | 125                    | 1                   |
| 25            | 15        | D/7343-31               | T495D156(1)025A(2)E275       | 3.8                | 6.0                   | 275                    | 739                                    | 665                 | 296                  | 125                    | 1                   |
| 25            | 15        | V/7343-20               | T495V156(1)025A(2)E500       | 3.8                | 6.0                   | 500                    | 500                                    | 450                 | 200                  | 125                    | 1                   |
| 25            | 15        | X/7343-43               | T495X156(1)025A(2)E200       | 3.8                | 4.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E275       | 5.5                | 6.0                   | 275                    | 632                                    | 569                 | 253                  | 125                    | 1                   |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E280       | 5.5                | 6.0                   | 280                    | 627                                    | 564                 | 251                  | 125                    | 1                   |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E300       | 5.5                | 8.0                   | 300                    | 606                                    | 545                 | 242                  | 125                    | 1                   |
| 25            | 22        | C/6032-28               | T495C226(1)025A(2)E900       | 5.5                | 6.0                   | 900                    | 350                                    | 315                 | 140                  | 125                    | 1                   |
| 25            | 22        | D/7343-31               | T495D226(1)025A(2)E200       | 5.5                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 25            | 22        | D/7343-31               | T495D226(1)025A(2)E230       | 5.5                | 6.0                   | 230                    | 808                                    | 727                 | 323                  | 125                    | 1                   |
| 25            | 22        | X/7343-43               | T495X226(1)025A(2)E225       | 5.5                | 4.0                   | 225                    | 856                                    | 770                 | 342                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E090       | 8.3                | 6.0                   | 90                     | 1291                                   | 1162                | 516                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E100       | 8.3                | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E150       | 8.3                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E200       | 8.3                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E225       | 8.3                | 6.0                   | 225                    | 816                                    | 734                 | 326                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E230       | 8.3                | 6.0                   | 230                    | 808                                    | 727                 | 323                  | 125                    | 1                   |
| 25            | 33        | D/7343-31               | T495D336(1)025A(2)E300       | 8.3                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E100       | 8.3                | 4.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E175       | 8.3                | 4.0                   | 175                    | 971                                    | 874                 | 388                  | 125                    | 1                   |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E180       | 8.3                | 4.0                   | 180                    | 957                                    | 861                 | 383                  | 125                    | 1                   |
| 25            | 33        | X/7343-43               | T495X336(1)025A(2)E200       | 8.3                | 4.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E080       | 11.8               | 6.0                   | 80                     | 1436                                   | 1292                | 574                  | 125                    | 1                   |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E100       | 11.8               | 6.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E120       | 11.8               | 6.0                   | 120                    | 1173                                   | 1056                | 469                  | 125                    | 1                   |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E150       | 11.8               | 6.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E185       | 11.8               | 6.0                   | 185                    | 944                                    | 850                 | 378                  | 125                    | 1                   |
| 25            | 47        | X/7343-43               | T495X476(1)025A(2)E200       | 11.8               | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E100       | 11.8               | 6.0                   | 100                    | 1225                                   | 1103                | 490                  | 125                    | 1                   |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E120       | 11.8               | 6.0                   | 120                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E130       | 11.8               | 6.0                   | 130                    | 1074                                   | 967                 | 430                  | 125                    | 1                   |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E150       | 11.8               | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| VDC at 85°C   | μF        | KEMET/EIA               | (See below for part options) | μA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 25            | 47        | D/7343-31               | T495D476(1)025A(2)E250       | 11.8               | 6.0                   | 250                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 25            | 68        | D/7343-31               | T495D686(1)025A(2)E150       | 17.0               | 10.0                  | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 25            | 68        | D/7343-31               | T495D686(1)025A(2)E200       | 17.0               | 10.0                  | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E125       | 17.0               | 6.0                   | 125                    | 1149                                   | 1034                | 460                  | 125                    | 1                   |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E130       | 17.0               | 6.0                   | 130                    | 1127                                   | 1014                | 451                  | 125                    | 1                   |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E150       | 17.0               | 6.0                   | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 25            | 68        | X/7343-43               | T495X686(1)025A(2)E200       | 17.0               | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 25            | 100       | X/7343-43               | T495X107(1)025A(2)E150       | 25.0               | 10.0                  | 150                    | 1049                                   | 944                 | 420                  | 125                    | 1                   |
| 25            | 100       | E/7360-38               | T495E107(1)025A(2)E100       | 25.0               | 8.0                   | 100                    | 1414                                   | 1273                | 566                  | 125                    | 1                   |
| 35            | 0.33      | A/3216-18               | T495A334(1)035A(2)E6K0       | 0.5                | 4.0                   | 6,000                  | 112                                    | 101                 | 45                   | 125                    | 1                   |
| 35            | 0         | A/3216-18               | T495A474(1)035A(2)E4K0       | 0.5                | 4.0                   | 4,000                  | 137                                    | 123                 | 55                   | 125                    | 1                   |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E1K5       | 0.5                | 4.0                   | 1,500                  | 238                                    | 214                 | 95                   | 125                    | 1                   |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E2K2       | 0.5                | 4.0                   | 2,200                  | 197                                    | 177                 | 79                   | 125                    | 1                   |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E2K5       | 0.5                | 4.0                   | 2,500                  | 184                                    | 166                 | 74                   | 125                    | 1                   |
| 35            | 0.47      | B/3528-21               | T495B474(1)035A(2)E11K       | 0.5                | 4.0                   | 11,000                 | 88                                     | 79                  | 35                   | 125                    | 1                   |
| 35            | 1         | A/3216-18               | T495A105(1)035A(2)E3K0       | 0.5                | 4.0                   | 3,000                  | 158                                    | 142                 | 63                   | 125                    | 1                   |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E1K5       | 0.5                | 4.0                   | 1,500                  | 238                                    | 214                 | 95                   | 125                    | 1                   |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E1K7       | 0.5                | 4.0                   | 1,700                  | 224                                    | 202                 | 90                   | 125                    | 1                   |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E2K0       | 0.5                | 4.0                   | 2,000                  | 206                                    | 185                 | 82                   | 125                    | 1                   |
| 35            | 1         | B/3528-21               | T495B105(1)035A(2)E7K0       | 0.5                | 4.0                   | 7,000                  | 110                                    | 99                  | 44                   | 125                    | 1                   |
| 35            | 2.2       | B/3528-21               | T495B225(1)035A(2)E1K5       | 0.8                | 6.0                   | 1,500                  | 238                                    | 214                 | 95                   | 125                    | 1                   |
| 35            | 2.2       | B/3528-21               | T495B225(1)035A(2)E2K0       | 0.8                | 6.0                   | 2,000                  | 206                                    | 185                 | 82                   | 125                    | 1                   |
| 35            | 2.2       | B/3528-21               | T495B225(1)035A(2)E4K0       | 0.8                | 6.0                   | 4,000                  | 146                                    | 131                 | 58                   | 125                    | 1                   |
| 35            | 2.2       | C/6032-28               | T495C225(1)035A(2)E750       | 0.8                | 6.0                   | 750                    | 383                                    | 345                 | 153                  | 125                    | 1                   |
| 35            | 3.3       | B/3528-21               | T495B335(1)035A(2)E1K0       | 1.2                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 35            | 3.3       | B/3528-21               | T495B335(1)035A(2)E900       | 1.2                | 6.0                   | 900                    | 307                                    | 276                 | 123                  | 125                    | 1                   |
| 35            | 3.3       | C/6032-28               | T495C335(1)035A(2)E525       | 1.2                | 6.0                   | 525                    | 458                                    | 412                 | 183                  | 125                    | 1                   |
| 35            | 3.3       | C/6032-28               | T495C335(1)035A(2)E550       | 1.2                | 6.0                   | 550                    | 447                                    | 402                 | 179                  | 125                    | 1                   |
| 35            | 3.3       | C/6032-28               | T495C335(1)035A(2)E600       | 1.2                | 6.0                   | 600                    | 428                                    | 385                 | 171                  | 125                    | 1                   |
| 35            | 4.7       | B/3528-21               | T495B475(1)035A(2)E850       | 1.6                | 6.0                   | 850                    | 316                                    | 284                 | 126                  | 125                    | 1                   |
| 35            | 4.7       | B/3528-21               | T495B475(1)035A(2)E1K0       | 1.6                | 6.0                   | 1,000                  | 292                                    | 263                 | 117                  | 125                    | 1                   |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)E450       | 1.6                | 6.0                   | 450                    | 494                                    | 445                 | 198                  | 125                    | 1                   |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)E500       | 1.6                | 6.0                   | 500                    | 469                                    | 422                 | 188                  | 125                    | 1                   |
| 35            | 4.7       | C/6032-28               | T495C475(1)035A(2)E600       | 1.6                | 6.0                   | 600                    | 428                                    | 385                 | 171                  | 125                    | 1                   |
| 35            | 4.7       | D/7343-31               | T495D475(1)035A(2)E300       | 1.6                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 35            | 6.8       | C/6032-28               | T495C685(1)035A(2)E1K8       | 2.4                | 6.0                   | 1,800                  | 247                                    | 222                 | 99                   | 125                    | 1                   |
| 35            | 6.8       | D/7343-31               | T495D685(1)035A(2)E150       | 2.4                | 6.0                   | 150                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 35            | 6.8       | D/7343-31               | T495D685(1)035A(2)E300       | 2.4                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 35            | 6.8       | D/7343-31               | T495D685(1)035A(2)E400       | 2.4                | 6.0                   | 400                    | 612                                    | 551                 | 245                  | 125                    | 1                   |
| 35            | 7         | V/7343-20               | T495V685(1)035A(2)E600       | 2.4                | 6.0                   | 600                    | 456                                    | 410                 | 182                  | 125                    | 1                   |
| 35            | 6.8       | X/7343-43               | T495X685(1)035A(2)E300       | 2.4                | 4.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 35            | 10        | C/6032-28               | T495C106(1)035A(2)E400       | 3.5                | 6.0                   | 400                    | 524                                    | 472                 | 210                  | 125                    | 1                   |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E120       | 3.5                | 4.0                   | 120                    | 1118                                   | 1006                | 447                  | 125                    | 1                   |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E125       | 3.5                | 6.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 35            | 10        | D/7343-31               | T495D106(1)035A(2)E130       | 3.5                | 6.0                   | 130                    | 1074                                   | 967                 | 430                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|----------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 35            | 10        | D/7343-31            | T495D106(1)035A(2)E250       | 3.5                | 6.0                   | 250                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 35            | 10        | D/7343-31            | T495D106(1)035A(2)E260       | 3.5                | 6.0                   | 260                    | 760                                    | 684                 | 304                  | 125                    | 1                   |
| 35            | 10        | D/7343-31            | T495D106(1)035A(2)E300       | 3.5                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 35            | 10        | D/7343-31            | T495D106(1)035A(2)E1K0       | 3.5                | 6.0                   | 1,000                  | 387                                    | 348                 | 155                  | 125                    | 1                   |
| 35            | 10        | V/7343-20            | T495V106(1)035A(2)E600       | 3.5                | 6.0                   | 600                    | 456                                    | 410                 | 182                  | 125                    | 1                   |
| 35            | 10        | X/7343-43            | T495X106(1)035A(2)E175       | 3.5                | 6.0                   | 175                    | 971                                    | 874                 | 388                  | 125                    | 1                   |
| 35            | 10        | X/7343-43            | T495X106(1)035A(2)E200       | 3.5                | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 35            | 10        | X/7343-43            | T495X106(1)035A(2)E250       | 3.5                | 4.0                   | 250                    | 812                                    | 731                 | 325                  | 125                    | 1                   |
| 35            | 10        | X/7343-43            | T495X106(1)035A(2)E260       | 3.5                | 4.0                   | 260                    | 797                                    | 717                 | 319                  | 125                    | 1                   |
| 35            | 15        | C/6032-28            | T495C156(1)035A(2)E350       | 5.3                | 6.0                   | 350                    | 561                                    | 505                 | 224                  | 125                    | 1                   |
| 35            | 15        | D/7343-31            | T495D156(1)035A(2)E225       | 5.3                | 6.0                   | 225                    | 816                                    | 734                 | 326                  | 125                    | 1                   |
| 35            | 15        | D/7343-31            | T495D156(1)035A(2)E260       | 5.3                | 6.0                   | 260                    | 760                                    | 684                 | 304                  | 125                    | 1                   |
| 35            | 15        | D/7343-31            | T495D156(1)035A(2)E300       | 5.3                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 35            | 15        | X/7343-43            | T495X156(1)035A(2)E200       | 5.3                | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 35            | 15        | X/7343-43            | T495X156(1)035A(2)E225       | 5.3                | 6.0                   | 225                    | 856                                    | 770                 | 342                  | 125                    | 1                   |
| 35            | 15        | X/7343-43            | T495X156(1)035A(2)E250       | 5.3                | 6.0                   | 250                    | 812                                    | 731                 | 325                  | 125                    | 1                   |
| 35            | 15        | X/7343-43            | T495X156(1)035A(2)E260       | 5.3                | 6.0                   | 260                    | 797                                    | 717                 | 319                  | 125                    | 1                   |
| 35            | 22        | D/7343-31            | T495D226(1)035A(2)E125       | 7.7                | 6.0                   | 125                    | 1095                                   | 986                 | 438                  | 125                    | 1                   |
| 35            | 22        | D/7343-31            | T495D226(1)035A(2)E200       | 7.7                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 35            | 22        | D/7343-31            | T495D226(1)035A(2)E250       | 7.7                | 6.0                   | 250                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 35            | 22        | D/7343-31            | T495D226(1)035A(2)E260       | 7.7                | 6.0                   | 260                    | 760                                    | 684                 | 304                  | 125                    | 1                   |
| 35            | 22        | D/7343-31            | T495D226(1)035A(2)E300       | 7.7                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E125       | 7.7                | 6.0                   | 125                    | 1149                                   | 1034                | 460                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E130       | 7.7                | 6.0                   | 130                    | 1127                                   | 1014                | 451                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E180       | 7.7                | 6.0                   | 180                    | 957                                    | 861                 | 383                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E200       | 7.7                | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E260       | 7.7                | 6.0                   | 260                    | 797                                    | 717                 | 319                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E275       | 7.7                | 6.0                   | 275                    | 775                                    | 698                 | 310                  | 125                    | 1                   |
| 35            | 22        | X/7343-43            | T495X226(1)035A(2)E300       | 7.7                | 6.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 35            | 33        | D/7343-31            | T495D336(1)035A(2)E200       | 11.6               | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 35            | 33        | D/7343-31            | T495D336(1)035A(2)E300       | 11.6               | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 35            | 33        | X/7343-43            | T495X336(1)035A(2)E100       | 11.6               | 6.0                   | 100                    | 1285                                   | 1157                | 514                  | 125                    | 1                   |
| 35            | 33        | X/7343-43            | T495X336(1)035A(2)E175       | 11.6               | 6.0                   | 175                    | 971                                    | 874                 | 388                  | 125                    | 1                   |
| 35            | 33        | X/7343-43            | T495X336(1)035A(2)E250       | 11.6               | 6.0                   | 250                    | 812                                    | 731                 | 325                  | 125                    | 1                   |
| 35            | 33        | X/7343-43            | T495X336(1)035A(2)E260       | 11.6               | 6.0                   | 260                    | 797                                    | 717                 | 319                  | 125                    | 1                   |
| 35            | 33        | E/7360-38            | T495E336(1)035A(2)E200       | 11.6               | 6.0                   | 200                    | 1000                                   | 900                 | 400                  | 125                    | 1                   |
| 35            | 47        | X/7343-43            | T495X476(1)035A(2)E185       | 16.5               | 8.0                   | 185                    | 944                                    | 850                 | 378                  | 125                    | 1                   |
| 35            | 47        | X/7343-43            | T495X476(1)035A(2)E200       | 16.5               | 8.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 35            | 47        | X/7343-43            | T495X476(1)035A(2)E230       | 16.5               | 8.0                   | 230                    | 847                                    | 762                 | 339                  | 125                    | 1                   |
| 35            | 47        | X/7343-43            | T495X476(1)035A(2)E300       | 16.5               | 8.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 50            | 1         | C/6032-28            | T495C105(1)050A(2)E1K3       | 0.5                | 4.0                   | 1,300                  | 291                                    | 262                 | 116                  | 125                    | 1                   |
| 50            | 1         | C/6032-28            | T495C105(1)050A(2)E1K6       | 0.5                | 4.0                   | 1,600                  | 262                                    | 236                 | 105                  | 125                    | 1                   |
| 50            | 2.2       | D/7343-31            | T495D225(1)050A(2)E600       | 1.1                | 6.0                   | 600                    | 500                                    | 450                 | 200                  | 125                    | 1                   |
| 50            | 3.3       | D/7343-31            | T495D335(1)050A(2)E700       | 1.7                | 6.0                   | 700                    | 463                                    | 417                 | 185                  | 125                    | 1                   |
| 50            | 4.7       | D/7343-31            | T495D475(1)050A(2)E275       | 2.4                | 6.0                   | 275                    | 739                                    | 665                 | 296                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA            | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/ Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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.**

| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |
|---------------|-----------|-------------------------|------------------------------|--------------------|-----------------------|------------------------|----------------------------------------|---------------------|----------------------|------------------------|---------------------|
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| 50            | 4.7       | D/7343-31               | T495D475(1)050A(2)E300       | 2.4                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 50            | 4.7       | X/7343-43               | T495X475(1)050A(2)E300       | 2.4                | 4.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E190       | 3.4                | 6.0                   | 190                    | 889                                    | 800                 | 356                  | 125                    | 1                   |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E200       | 3.4                | 6.0                   | 200                    | 866                                    | 779                 | 346                  | 125                    | 1                   |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E275       | 3.4                | 6.0                   | 275                    | 739                                    | 665                 | 296                  | 125                    | 1                   |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E300       | 3.4                | 6.0                   | 300                    | 707                                    | 636                 | 283                  | 125                    | 1                   |
| 50            | 6.8       | D/7343-31               | T495D685(1)050A(2)E400       | 3.4                | 6.0                   | 400                    | 612                                    | 551                 | 245                  | 125                    | 1                   |
| 50            | 7         | X/7343-43               | T495X685(1)050A(2)E300       | 3.4                | 6.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 50            | 10        | X/7343-43               | T495X106(1)050A(2)E250       | 5.0                | 8.0                   | 250                    | 812                                    | 731                 | 325                  | 125                    | 1                   |
| 50            | 10        | X/7343-43               | T495X106(1)050A(2)E260       | 5.0                | 6.0                   | 260                    | 797                                    | 717                 | 319                  | 125                    | 1                   |
| 50            | 10        | X/7343-43               | T495X106(1)050A(2)E300       | 5.0                | 6.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| 50            | 15        | X/7343-43               | T495X156(1)050A(2)E200       | 7.5                | 6.0                   | 200                    | 908                                    | 817                 | 363                  | 125                    | 1                   |
| 50            | 15        | X/7343-43               | T495X156(1)050A(2)E250       | 7.5                | 6.0                   | 250                    | 812                                    | 731                 | 325                  | 125                    | 1                   |
| 50            | 15        | X/7343-43               | T495X156(1)050A(2)E300       | 7.5                | 6.0                   | 300                    | 742                                    | 668                 | 297                  | 125                    | 1                   |
| VDC at 85°C   | µF        | KEMET/EIA               | (See below for part options) | µA +20°C Max/5 Min | % at +20°C 120 Hz Max | mΩ at 20°C 100 kHz Max | mA at +25°C 100 kHz                    | mA at +85°C 100 kHz | mA at +125°C 100 kHz | °C                     | Reflow Temp ≤ 260°C |
| Rated Voltage | Rated Cap | Case Code/<br>Case Size | KEMET Part Number            | DC Leakage         | DF                    | ESR                    | Maximum Allowable Ripple Current (rms) |                     |                      | Maximum Operating Temp | MSL                 |

(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), N = Non-Magnetic 100% Tin (Sn) or M = Non-Magnetic (SnPb). 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

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

| KEMET<br>Case Code | EIA<br>Case Code | Maximum Power<br>Dissipation (P max)<br>mWatts at 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                                                                    |

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)

## 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 Protrusion (mm) |      |      |       |      | Density Level B:<br>Median (Nominal) Land Protrusion (mm) |      |      |      |      | Density Level C:<br>Minimum (Least) Land 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 |
| M              | 3528-15          | 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 |
| C              | 6032-28          | 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 |
| U              | 6032-15          | 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              | 7343-21          | 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 |

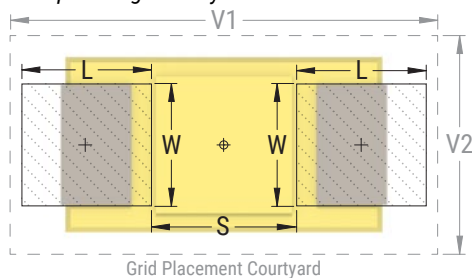
**Density Level A:** For low-density product applications. Recommended for wave solder applications and provides a wider process window for reflow solder processes.

**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

The KEMET 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.

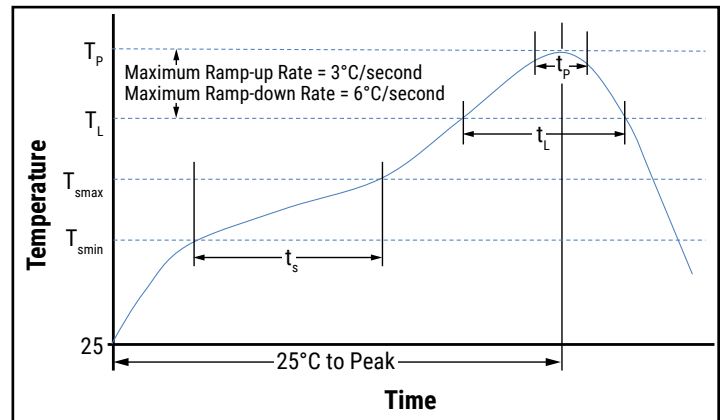
During typical reflow operations, a slight darkening of the gold-colored epoxy may be observed. This slight darkening is normal and not harmful to the product. Marking permanency is not affected by this change.

| Profile Feature                                       | SnPb Assembly      | Pb-Free Assembly   |
|-------------------------------------------------------|--------------------|--------------------|
| Preheat/Soak                                          |                    |                    |
| Temperature Minimum ( $T_{smin}$ )                    | 100°C              | 150°C              |
| Temperature Maximum ( $T_{smax}$ )                    | 150°C              | 200°C              |
| Time ( $t_s$ ) from $T_{smin}$ to $T_{smax}$          | 60 – 120 seconds   | 60 – 120 seconds   |
| Ramp-up Rate ( $T_L$ to $T_p$ )                       | 3°C/second maximum | 3°C/second 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/second maximum | 6°C/second 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.*

\* For Case Size height > 2.5 mm

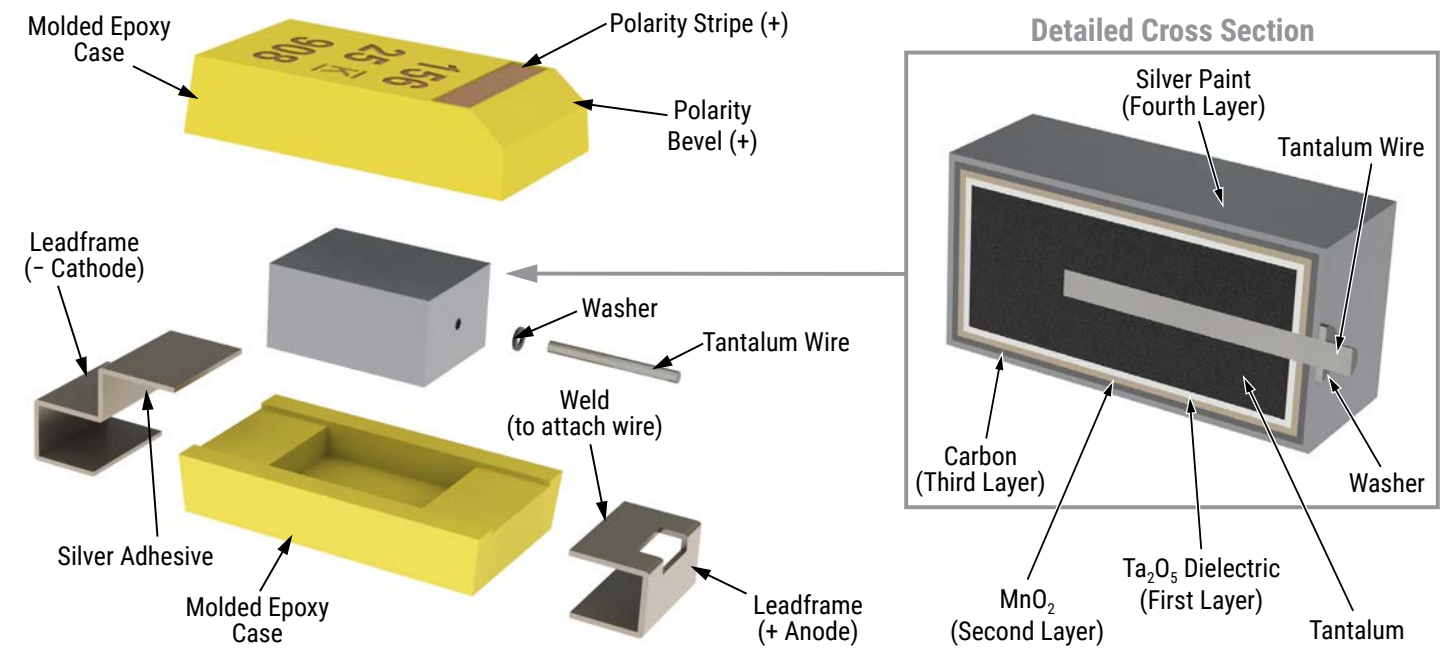
\*\* For Case Size height ≤ 2.5 mm



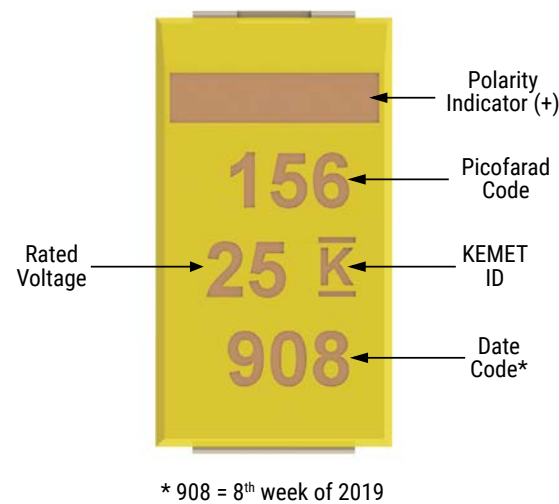
## Storage

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



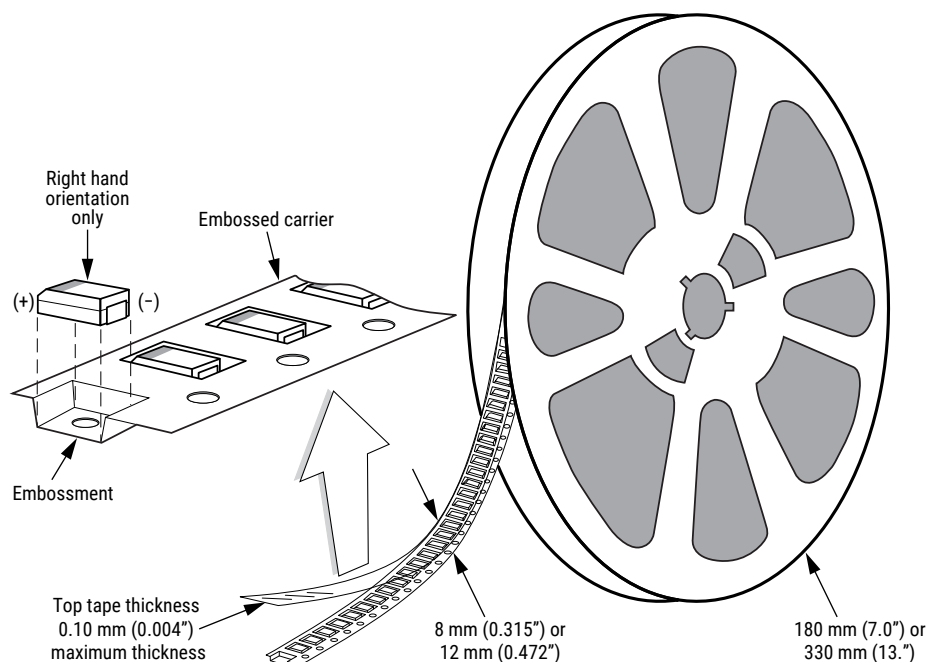
Capacitor Marking



| Date Code *                                                  |                                                                                    |
|--------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1 <sup>st</sup> digit = last number of year                  | 6 = 2016<br>7 = 2017<br>8 = 2018<br>9 = 2019<br>0 = 2020                           |
| 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 |

## Tape & Reel Packaging Information

KEMET's molded 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               | 3,000    | 10,000    |
| M         | 3528-15 | 8               | 2,500    | 8,000     |
| U         | 6032-15 | 12              | 1,000    | 5,000     |
| L         | 6032-19 | 12              | 1,000    | 3,000     |
| 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     |
| O         | 7360-43 | 12              | 250      | 1,000     |

\* 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)                   |                              |                             |                             | 30<br>(1.181)         |                                  |                  |                        |

| 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>and Double<br>(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<br>4.0 ±0.10 (0.157 ±0.004) or<br>8.0 ±0.10 (0.315 ±0.004) | 4.6<br>(0.181)         | 12.3<br>(0.484) |                                                  |

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 (see Figure 2).
  - (d) lateral movement of the component is restricted to 0.5 mm maximum for 8 mm and 12 mm wide tape (see Figure 3).
  - (e) see Addendum in EIA Standard 481-D for standards relating to more precise taping requirements.

## Packaging Information Performance Notes

- Cover tape break force:** 1.0 kg minimum.
- 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 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.

- 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



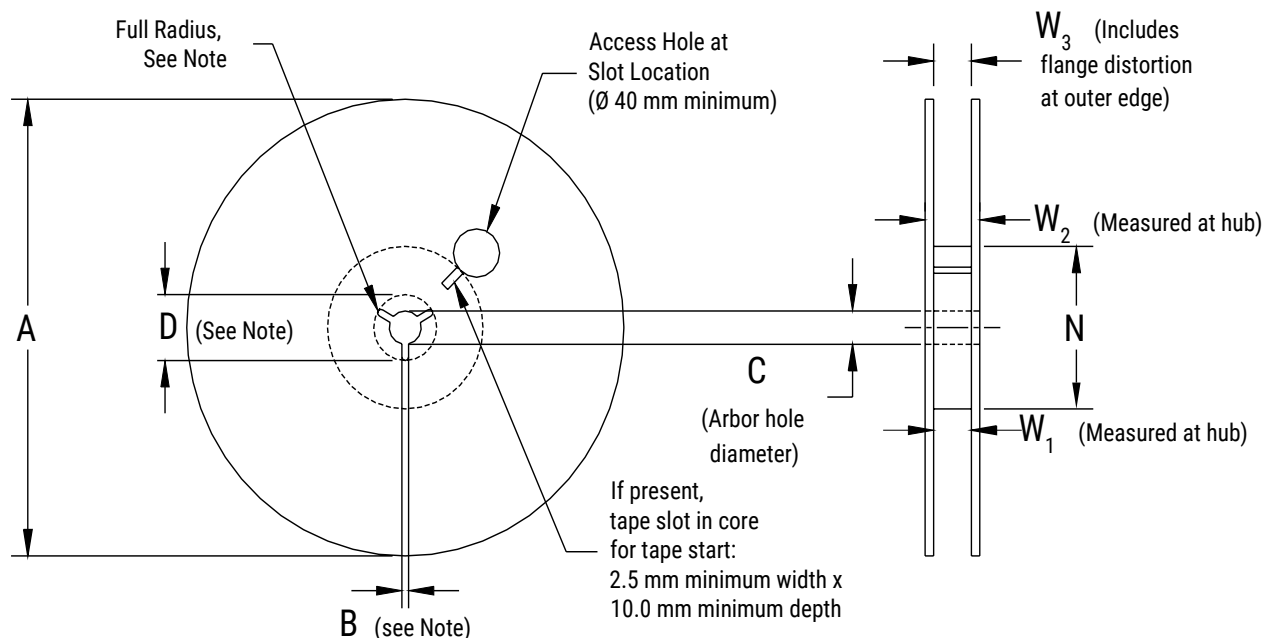
## Figure 3 – Maximum Lateral Movement



## 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                                      |                                                                   |                                       |                                        |                                                      |
| 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<br>width without interference |
| 12 mm                                      |                                                                   | 12.4 +2.0/-0.0<br>(0.488 +0.078/-0.0) | 18.4<br>(0.724)                        |                                                      |

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



**Figure 7 – Maximum Camber**



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