# T495 Surge Robust MnO<sub>2</sub>



#### **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



#### **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.

- Halogen-free
- Epoxy compliant with UL94 V-0
- Molded Epoxy complies for outgassing testing under ASTM E 595.



#### K-SIM

For a detailed analysis of specific part numbers, please visit 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**

| Т                  | 495                           | X  | 107  | M                        | 010   | A                       | Т  | E045  |                                    |
|--------------------|-------------------------------|--|--|--------------------------|---|-------------------------|--|---|------------------------------------|
| Capacitor<br>Class | Series                        | Case<br>Size                                       | Capacitance<br>Code (pF)   | Capacitance<br>Tolerance | Rated Voltage<br>(VDC)  | Failure Rate/<br>Design | Termination Finish   | ESR   | Packaging<br>(C-Spec)              |
| T =<br>Tantalum    | Surge<br>Robust<br>Low<br>ESR | A,<br>B,<br>C,<br>D,<br>E,<br>M,<br>T,<br>U,<br>V, | 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 H = Standard solder coated (SnPb 5% Pb minimum) G = Gold-plated (A, B, C, D, X only) N = Non-magnetic 100% tin (Sn) M = Non-magnetic (SnPb) | E = ESR<br>last three<br>digits specify<br>ESR in $m\Omega$<br>(45 = 45 $m\Omega$ ) | Blank = 7" reel<br>7280 = 13" reel |

#### **Performance Characteristics**

| Item                    | Performance Characteristics                         |
|-------------------------|---|
| Operating Temperature   | -55°C to 125°C                                      |
| Rated Capacitance Range | 0.47 - 1,000 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     |



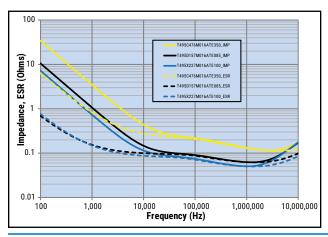
#### Qualification

| Test   | Condition   |        |       | Charact                      | teristics         |          |  |
|--|---|--------|-------|------------------------------|-------------------|----------|--|
|  |   |        | Δ C/C | Within ±10%                  | 6 of initial valu | е        |  |
| Fadanas  | 85°C at rated voltage, 2,000 hours  |        | DF    | Within initia                | al limits         |          |  |
| Endurance  | 125°C at 2/3 rated voltage, 2,000 hours   |        | DCL   | Within 1.25                  | x initial limit   |          |  |
|  |   |        | ESR   | Within initia                | al limits         |          |  |
|  |   |        | Δ C/C | Within ±10%                  | 6 of initial valu | е        |  |
| Chamana I ifa  | 105°0 at 0 valta 2 000 haves  |        | DF    | Within initia                | al limits         |          |  |
| Storage Life   | 125°C at 0 volts, 2,000 hours   |        | DCL   | Within 1.25                  | x initial limit   |          |  |
|  |   |        | ESR   | Within initia                | al limits         |          |  |
|  |   | ,      | Δ C/C | Within ±5%                   | of initial value  |          |  |
| Thermal Shock  | MIL-STD-202, Method 107, Condition B, mo  | unted, | DF    | Within initial limits        |                   |          |  |
| Thermal Shock  | -55C° to 125°C, 1,000 cycles  |        | DCL   | Within 1.25                  | x initial limit   |          |  |
|  |   |        | ESR   | Within initia                | al limits         |          |  |
|  |   | ,      | +25°C | -55°C                        | +85°C             | +125°C   |  |
| Tomporoturo Ctability  | Extreme temperature exposure at a   | ΔC/C   | IL*   | ±10%                         | ±10%              | ±20%     |  |
| Temperature Stability  | succession of continuous steps at +25°C,<br>-55°C, +25°C, +85°C, +125°C, +25°C. | DF     | IL    | IL                           | 1.5 x IL          | 1.5 x IL |  |
|  |   | DCL    | IL    | N/A                          | 10 x IL           | 12 x IL  |  |
|  |   | ,      | Δ C/C | Within ±5%                   | of initial value  |          |  |
| Curao Voltogo  | 85°C, 1.32 x rated voltage 1,000 cycles   |        | DF    | Within initia                | al limits         |          |  |
| Surge Voltage  | (125°C, 1.2 x rated voltage)  |        | DCL   | Within initia                | al limits         |          |  |
|  |   |        |       | Within initia                | al limits         |          |  |
|  | MIL-STD-202, Method 213, Condition I, 100 G pe                                  |        | Δ C/C | Within ±10% of initial value |                   |          |  |
| With a shock / Vibration   MIL-STD-202, Method 204, Condition D, 10 Hz |   |        | DF    | Within initial limits        |                   |          |  |
|  | Hz, 20 G peak   |        | DCL   | Within initial limits        |                   |          |  |

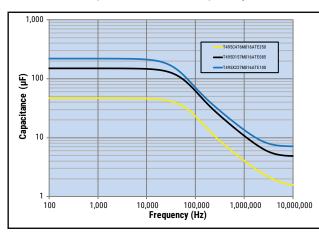
<sup>\*</sup>IL = Initial limit

#### **Electrical Characteristics**

#### ESR vs. Frequency



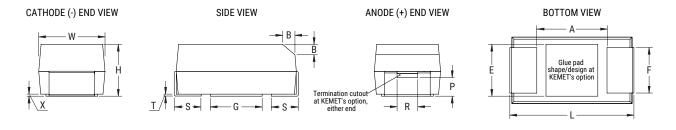
### Capacitance vs. Frequency





### **Dimensions - Millimeters (Inches)**

Metric will govern



| Case  | Size    |                            |                            |                             |                    | Comp   | onent                      |                              |                |                |                 |                |                |                | Typical<br>Weight |
|-------|---------|----------------------------|----------------------------|-----------------------------|--------------------|--|----------------------------|------------------------------|----------------|----------------|-----------------|----------------|----------------|----------------|-------------------|
| KEMET | EIA     | L                          | W                          | Н                           | 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)              |
| Α     | 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             |
| В     | 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            |
| М     | 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             |
| С     | 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            |
| Χ     | 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            |
| Е     | 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            |
| Т     | 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             |
| ٧     | 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



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          | _                         | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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                           |                       | 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                           |                       | 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<br>4           | 330          | D/7343-31<br>D/7343-31     | T495D337(1)004A(2)E030                           |                       | 8.0                      | 30                           | 2236                      | 2012                         | 894                        | 125                          | 1<br>1                    |
| 4                | 330          |                            | T495D337(1)004A(2)E045                           |                       | 8.0                      | 45                           | 1826                      | 1643                         | 730                        | 125                          | 1                         |
| 4                | 330          | D/7343-31<br>D/7343-31     | T495D337(1)004A(2)E100                           | 13.2                  | 8.0                      | 100                          | 1225<br>1826              | 1103                         | 490                        | 125<br>125                   | 1                         |
| 4                | 470<br>470   | D/7343-31<br>D/7343-31     | T495D477(1)004A(2)E045<br>T495D477(1)004A(2)E100 | 18.8<br>18.8          | 12.0<br>12.0             | 45<br>100                    | 1225                      | 1643<br>1103                 | 730<br>490                 | 125                          | 1                         |
| 4                | 470<br>470   | X/7343-43                  | T495X477(1)004A(2)E030                           | 18.8                  | 8.0                      | 30                           | 2345                      | 2111                         | 938                        | 125                          | 1                         |
| 4                | 470<br>470   | X/7343-43<br>X/7343-43     | T495X477(1)004A(2)E030                           | 18.8                  | 8.0                      | 45                           | 1915                      | 1724                         | 766                        | 125                          | 1                         |
| 4                | 470          | X/7343-43<br>X/7343-43     | T495X477(1)004A(2)E045                           | 18.8                  | 10.0                     | 60                           | 1658                      | 1492                         | 663                        | 125                          | 1                         |
| 4                | 470          | X/7343-43<br>X/7343-43     | T495X477(1)004A(2)E100                           | 18.8                  | 8.0                      | 100                          | 1285                      | 1157                         | 514                        | 125                          | 1                         |
| 4                | 680          | X/7343-43<br>X/7343-43     | T495X687(1)004A(2)E040                           |                       | 10.0                     | 40                           | 2031                      | 1828                         | 812                        | 125                          | 1                         |
| 4                | 680          | X/7343-43<br>X/7343-43     | T495X687(1)004A(2)E060                           | 27.2                  | 10.0                     | 60                           | 1658                      | 1492                         | 663                        | 125                          | 1                         |
| 4                | 680          | X/7343-43<br>X/7343-43     | T495X687(1)004A(2)E100                           | 27.2                  | 10.0                     | 100                          | 1285                      | 1157                         | 514                        | 125                          | 1                         |
| 4                | 1000         | X/7343-43<br>X/7343-43     | T495X108(1)004A(2)E100                           | 40.0                  | 10.0                     | 30                           | 2345                      | 2111                         | 938                        | 125                          | 1                         |
| 4                | 1000         | X/7343-43<br>X/7343-43     | T495X108(1)004A(2)E040                           | 40.0                  | 10.0                     | 40                           | 2031                      | 1828                         | 812                        | 125                          | 1                         |
| 4                | 1000         | X/7343-43<br>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                           |                       | 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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | rimum Allow<br>ple Current ( |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>6.3       | 10<br>10     | B/3528-21<br>T/3528-12     | T495B106(1)006A(2)E1K0<br>T495T106(1)006A(2)E1K2 | 0.6<br>0.6            | 6.0<br>6.0               | 1,000                        | 292<br>242                | 263<br>218                   | 117<br>97                  | 125<br>125                   | 1<br>1                    |
| 6.3              | 15           | A/3216-18                  | T495A156(1)006A(2)E2K0                           | 0.0                   | 6.0                      | 1,200<br>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<br>1                    |
| 6.3<br>6.3       | 47<br>47     | B/3528-21<br>C/6032-28     | T495B476(1)006A(2)E500                           | 3.0<br>3.0            | 6.0<br>6.0               | 500<br>250                   | 583<br>663                | 525<br>597                   | 233<br>265                 | 125<br>125                   | 1                         |
| 6.3              | 47           | C/6032-28                  | T495C476(1)006A(2)E250<br>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<br>150                    | 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<br>6.3       | 100          | D/7343-31                  | T495D107(1)006A(2)E050<br>T495D107(1)006A(2)E130 | 6.3<br>6.3            | 6.0<br>6.0               | 50<br>130                    | 1732<br>1074              | 1559<br>967                  | 693<br>430                 | 125<br>125                   | 1<br>1                    |
| 6.3              | 100<br>100   | D/7343-31<br>D/7343-31     | T495D107(1)006A(2)E130                           | 6.3                   | 8.0                      | 150                          | 1074                      | 907                          | 430                        | 125                          | 1                         |
| 6.3              | 100          | D/7343-31<br>D/7343-31     | T495D107(1)006A(2)E800                           | 6.3                   | 6.0                      | 800                          | 433                       | 390                          | 173                        | 125                          | 1                         |
| 6.3              | 100          | V/7343-31                  | T495V107(1)000A(2)E000                           | 6.3                   | 8.0                      | 90                           | 1179                      | 1061                         | 472                        | 125                          | 1                         |
| 6.3              | 100          | V/7343-20<br>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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | rimum Allow<br>ple Current ( |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | µA +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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                           |                       | 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<br>1                    |
| 6.3<br>6.3       | 150<br>150   | D/7343-31<br>D/7343-31     | T495D157(1)006A(2)E065                           | 9.5<br>9.5            | 6.0<br>6.0               | 65<br>80                     | 1519<br>1369              | 1367<br>1232                 | 608<br>548                 | 125<br>125                   | 1                         |
| 6.3              | 150          | D/7343-31<br>D/7343-31     | T495D157(1)006A(2)E080<br>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)E105                           | 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<br>V/7343-20     | T495X227(1)006A(2)E100                           | 13.9                  | 8.0                      | 100                          | 1285                      | 1157                         | 514                        | 125                          | 1<br>1                    |
| 6.3<br>6.3       | 220<br>330   | C/6032-28                  | T495V227(1)006ATE150<br>T495C337(1)006A(2)E200   | 13.9<br>20.8          | 8.0<br>18.0              | 150<br>200                   | 913<br>742                | 822<br>668                   | 365<br>297                 | 125<br>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<br>470   | E/7360-38                  | T495E337(1)006A(2)E100<br>T495D477(1)006A(2)E045 | 20.8                  | 8.0<br>12.0              | 100<br>45                    | 1414                      | 1273                         | 566<br>720                 | 125<br>125                   | 1<br>1                    |
| 6.3<br>6.3       | 470<br>470   | D/7343-31<br>D/7343-31     | T495D477(1)006A(2)E045                           | 29.6<br>29.6          | 12.0<br>12.0             | 45<br>100                    | 1826<br>1225              | 1643<br>1103                 | 730<br>490                 | 125<br>125                   | 1                         |
| 6.3              | 470<br>470   | D/7343-31<br>D/7343-31     | T495D477(1)006A(2)E100                           | 29.6<br>29.6          | 12.0                     | 125                          | 1095                      | 986                          | 438                        | 125                          | 1                         |
| 6.3              | 470          | D/7343-31<br>D/7343-31     | T495D477(1)006A(2)E125                           |                       | 12.0                     | 150                          | 1095                      | 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                           |                       | 10.0                     | 50                           | 1817                      | 1635                         | 727                        | 125                          | 1                         |
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | rimum Allow<br>ple Current ( | able                       | Maximum<br>Operating<br>Temp | MSL                       |

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

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<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                              | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|---|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                      | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>1                    |
| 6.3<br>6.3       | 680<br>680   | X/7343-43<br>X/7343-43     | T495X687(1)006A(2)E060<br>T495X687(1)006A(2)E045  | 42.8<br>42.8          | 12.0<br>12.0             | 60<br>45                     | 1658<br>1915              | 1492<br>1724                 | 663<br>766                 | 125<br>125                   | 1                         |
| 6.3              | 1,000        | X/7343-43<br>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<br>10         | 10<br>10     | B/3528-21<br>B/3528-21     | T495B106(1)010A(2) E1K2<br>T495B106(1)010A(2)E3K0 | 1.0<br>1.0            | 6.0<br>6.0               | 1,200<br>3,000               | 266<br>168                | 239<br>151                   | 106<br>67                  | 125<br>125                   | 1<br>1                    |
| 10               | 10           | C/6032-28                  | T495C106(1)010A(2)E3K0                            | 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)                      | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                 | DC<br>Leakage         | DF                       | ESR                          |                           | cimum Allow<br>ple Current ( |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>10         | 22<br>22     | C/6032-28<br>C/6032-28     | T495C226(1)010A(2)E200<br>T495C226(1)010A(2)E245 | 2.2<br>2.2            | 6.0<br>6.0               | 200<br>245                   | 742<br>670                | 668<br>603                   | 297<br>268                 | 125<br>125                   | 1<br>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<br>10         | 47<br>47     | C/6032-28<br>U/6032-15     | T495C476(1)010A(2)E300                           | 4.7                   | 6.0<br>6.0               | 300                          | 606                       | 545<br>427                   | 242                        | 125<br>125                   | 1<br>1                    |
| 10               | 47           | D/7343-31                  | T495U476(1)010A(2)E400<br>T495D476(1)010A(2)E080 | 4.7<br>4.7            | 4.0                      | 400<br>80                    | 474<br>1369               | 1232                         | 190<br>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<br>10         | 68           | V/7343-20                  | T495V686(1)010A(2)E100<br>T495V686(1)010A(2)E140 | 6.8                   | 6.0<br>6.0               | 100                          | 1118<br>945               | 1006                         | 447                        | 125                          | 1<br>1                    |
| 10               | 68<br>68     | V/7343-20<br>V/7343-20     | T495V686(1)010A(2)E140                           | 6.8<br>6.8            | 6.0                      | 140<br>200                   | 945<br>791                | 851<br>712                   | 378<br>316                 | 125<br>125                   | 1                         |
| 10               | 68           | D/7343-20<br>D/7343-31     | T495D686(1)010A(2)E070                           |                       | 6.0                      | 70                           | 1464                      | 1318                         | 586                        | 125                          | 1                         |
| 10               | 68           |                            | 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                      | 1102                         | 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                           |                       | 4.0                      | 150                          | 1049                      | 944                          | 420                        | 125                          | 1                         |
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | rimum Allow<br>ple Current ( |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>1                    |
| 10<br>10         | 100<br>100   | U/6032-15<br>W/7343-15     | T495U107(1)010A(2)E150<br>T495W107(1)010A(2)E200 | 10.0<br>10.0          | 8.0<br>8.0               | 150<br>200                   | 775<br>949                | 698<br>854                   | 310<br>380                 | 125<br>125                   | 1                         |
| 10               | 100          | V/7343-15<br>V/7343-20     | T495V107(1)010A(2)E100                           | 10.0                  | 8.0                      | 100                          | 1118                      | 1006                         | 447                        | 125                          | 1                         |
| 10               | 100          | V/7343-20<br>V/7343-20     | T495V107(1)010A(2)E150                           | 10.0                  | 8.0                      | 150                          | 913                       | 822                          | 365                        | 125                          | 1                         |
| 10               | 100          | V/7343-20<br>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<br>10         | 150<br>150   | V/7343-20<br>D/7343-31     | T495V157(1)010A(2)E200                           | 15.0<br>15.0          | 8.0<br>8.0               | 200<br>50                    | 791<br>1732               | 712<br>1559                  | 316<br>693                 | 125<br>125                   | 1<br>1                    |
| 10               | 150          | D/7343-31<br>D/7343-31     | T495D157(1)010A(2)E050<br>T495D157(1)010A(2)E060 | 15.0                  | 8.0                      | 60                           | 1732                      | 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<br>1                    |
| 10<br>10         | 220          | X/7343-43<br>X/7343-43     | T495X227(1)010A(2)E050                           | 22.0                  | 8.0<br>8.0               | 50<br>60                     | 1817<br>1658              | 1635                         | 727<br>663                 | 125<br>125                   |                           |
| 10<br>10         | 220<br>220   | X/7343-43<br>X/7343-43     | T495X227(1)010A(2)E060<br>T495X227(1)010A(2)E070 | 22.0<br>22.0          | 8.0<br>8.0               | 60<br>70                     | 1658<br>1535              | 1492<br>1382                 | 663<br>614                 | 125<br>125                   | 1<br>1                    |
| 10               | 220          | X/7343-43<br>X/7343-43     | T495X227(1)010A(2)E070                           | 22.0                  | 8.0                      | 80                           | 1436                      | 1292                         | 574                        | 125                          | 1                         |
| 10               | 220          | X/7343-43<br>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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | ximum Allow<br>ple Current ( | able                       | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>10         | 330<br>330   | X/7343-43<br>E/7360-38     | T495X337(1)010A(2)E100<br>T495E337(1)010A(2)E040 | 33.0<br>33.0          | 10.0<br>8.0              | 100<br>40                    | 1285<br>2236              | 1157<br>2012                 | 514<br>894                 | 125<br>125                   | 1<br>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<br>2.2     | A/3216-18<br>A/3216-18     | T495A155(1)016A(2)E5K0                           | 0.5                   | 6.0                      | 5,000                        | 122                       | 110<br>156                   | 49<br>69                   | 125<br>125                   | 1<br>1                    |
| 16<br>16         | 2.2          | A/3216-18<br>A/3216-18     | T495A225(1)016A(2)E2K5<br>T495A225(1)016A(2)E1K8 | 0.5<br>0.5            | 6.0<br>6.0               | 2,500<br>1,800               | 173<br>204                | 184                          | 82                         | 125                          | 1                         |
| 16               | 3.3          | A/3216-18<br>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<br>16         | 10<br>10     | B/3528-21                  | T495B106(1)016A(2)E800                           | 1.6                   | 6.0<br>6.0               | 800<br>2.500                 | 326<br>184                | 293<br>166                   | 130<br>74                  | 125<br>125                   | 1<br>1                    |
| 16               | 10           | B/3528-21<br>T/3528-12     | T495B106(1)016A(2)E2K5<br>T495T106(M)016A(2)E4K0 | 1.6<br>1.6            | 6.0<br>8.0               | 2,500<br>4,000               | 184                       | 119                          | 74<br>53                   | 125<br>125                   | 1<br>1                    |
| 16               | 15           | A/3216-18                  | T495A156(1)016A(2)E2K5                           |                       | 8.0                      | 2,500                        | 173                       | 156                          | 69                         | 125                          | 1                         |
| 16               | 15           |                            | 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                           |                       | 6.0                      | 400                          | 524                       | 472                          | 210                        | 125                          | 1                         |
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | rimum Allow<br>ple Current ( | able                       | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |                           | mum Allo<br>e Current        |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---------------------------|------------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>16         | 33<br>33     | C/6032-28<br>C/6032-28     | T495C336(1)016A(2)E225                           | 5.3                   | 6.0                      | 225                          | 699                       | 629                          | 280<br>277                 | 125<br>125                   | 1<br>1                    |
| 16               | 33           | C/6032-28                  | T495C336(1)016A(2)E230<br>T495C336(1)016A(2)E275 | 5.3<br>5.3            | 6.0<br>6.0               | 230<br>275                   | 692<br>632                | 623<br>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<br>7.5            | 6.0                      | 80                           | 1369                      | 1232                         | 548                        | 125<br>125                   | 1<br>1                    |
| 16<br>16         | 47<br>47     | D/7343-31<br>D/7343-31     | T495D476(1)016A(2)E100<br>T495D476(1)016A(2)E150 | 7.5<br>7.5            | 6.0<br>6.0               | 100<br>150                   | 1225<br>1000              | 1103<br>900                  | 490<br>400                 | 125                          | 1                         |
| 16               | 47           | D/7343-31<br>D/7343-31     | T495D476(1)016A(2)E180                           | 7.5<br>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<br>16         | 100          | C/6032-28                  | T495C107(1)016A(2)E200                           | 16.0                  | 10.0                     | 200                          | 742                       | 668                          | 297                        | 125                          | 1<br>1                    |
| 16<br>16         | 100<br>100   | D/7343-31<br>D/7343-31     | T495D107(1)016A(2)E060<br>T495D107(1)016A(2)E100 | 16.0<br>16.0          | 8.0<br>8.0               | 60<br>100                    | 1581<br>1225              | 1423<br>1103                 | 632<br>490                 | 125<br>125                   | 1                         |
| 16               | 100          | D/7343-31<br>D/7343-31     | T495D107(1)016A(2)E100                           | 16.0                  | 8.0                      | 125                          | 1095                      | 986                          | 438                        | 125                          | 1                         |
| 16               | 100          | D/7343-31                  | T495D107(1)016A(2)E120                           | 16.0                  | 8.0                      | 130                          | 1095                      | 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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz    | mA at<br>+85°C 100<br>kHz    | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          |                           | rimum Allow<br>ple Current ( |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |   | mum Allo<br>e Current     |                              | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---|---------------------------|------------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz                 | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 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<br>16         | 150<br>150   | X/7343-43<br>X/7343-43     | T495X157(1)016A(2)E075                           | 24.0<br>24.0          | 8.0<br>8.0               | 75<br>100                    | 1483<br>1285                              | 1335<br>1157              | 593<br>514                   | 125<br>125                   | 1<br>1                    |
| 16<br>16         | 220          | D/7343-43                  | T495X157(1)016A(2)E100<br>T495D227(1)016A(2)E150 | 35.2                  | 12.0                     | 150                          | 1000                                      | 900                       | 400                          | 125                          | 1                         |
| 16               | 220          | D/7343-31<br>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<br>20         | 4.7<br>7     | B/3528-21<br>C/6032-28     | T495B475(1)020A(2)E1K0                           | 0.9                   | 6.0<br>6.0               | 1,000<br>480                 | 292<br>479                                | 263<br>431                | 117<br>192                   | 125<br>125                   | 1                         |
| 20               | 10           | B/3528-21                  | T495C685(1)020A(2)E480<br>T495B106(1)020A(2)E1K0 | 1.4<br>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<br>550                                | 734                       | 326                          | 125                          | 1                         |
| 20               | 22           | V/7343-20                  | T495V226(1)020A(2)E400                           | 4.4                   | 6.0                      | 400                          | 559<br>742                                | 503                       | 224                          | 125<br>125                   | 1<br>1                    |
| 20<br>20         | 33<br>33     | C/6032-28<br>D/7343-31     | T495C336(1)020A(2)E200<br>T495D336(1)020A(2)E100 | 6.6<br>6.6            | 6.0<br>6.0               | 200<br>100                   | 742<br>1225                               | 668<br>1103               | 297<br>490                   | 125<br>125                   | 1                         |
| 20               | 33           | D/7343-31<br>D/7343-31     | T495D336(1)020A(2)E100                           | 6.6                   | 6.0                      | 150                          | 1000                                      | 900                       | 490                          | 125                          | 1                         |
| 20               | 33           | D/7343-31                  | T495D336(1)020A(2)E200                           |                       | 6.0                      | 200                          | 866                                       | 779                       | 346                          | 125                          | 1                         |
| 20               | 33           |                            | 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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz                    | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          | Maximum Allowable<br>Ripple Current (rms) |                           | Maximum<br>Operating<br>Temp | MSL                          |                           |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |   | mum Allo<br>e Current     |                              | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---|---------------------------|------------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz                 | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 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<br>20         | 47           | X/7343-43<br>X/7343-43     | T495X476(1)020A(2)E070                           | 9.4                   | 6.0                      | 70                           | 1535                                      | 1382                      | 614                          | 125                          | 1<br>1                    |
| 20               | 47<br>47     | X/7343-43<br>X/7343-43     | T495X476(1)020A(2)E100<br>T495X476(1)020A(2)E125 | 9.4<br>9.4            | 6.0<br>6.0               | 100<br>125                   | 1285<br>1149                              | 1157<br>1034              | 514<br>460                   | 125<br>125                   | 1                         |
| 20               | 47           | X/7343-43<br>X/7343-43     | T495X476(1)020A(2)E120                           | 9.4                   | 6.0                      | 130                          | 1127                                      | 1034                      | 451                          | 125                          | 1                         |
| 20               | 47           | X/7343-43<br>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<br>X/7343-43     | T495X107(1)020A(2)E100                           | 20.0                  | 6.0                      | 100                          | 1285                                      | 1157                      | 514                          | 125<br>125                   | 1<br>1                    |
| 20<br>20         | 100<br>100   | E/7360-38                  | T495X107(1)020A(2)E150<br>T495E107(1)020A(2)E060 | 20.0<br>20.0          | 8.0<br>8.0               | 150<br>60                    | 1049<br>1826                              | 944<br>1643               | 420<br>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<br>1                    |
| 25<br>25         | 3.3<br>3.3   | B/3528-21<br>C/6032-28     | T495B335(1)025A(2)E1K2<br>T495C335(1)025A(2)E750 | 0.8<br>0.8            | 6.0<br>6.0               | 1,200<br>750                 | 266<br>383                                | 239<br>345                | 106<br>153                   | 125<br>125                   | 1                         |
| 25               | 3.3<br>4.7   | C/6032-28<br>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                          | 430                                       | 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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz                    | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          | Maximum Allowable<br>Ripple Current (rms) |                           | Maximum<br>Operating<br>Temp | MSL                          |                           |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          | _   | mum Allo<br>e Current     |                              | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---|---------------------------|------------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz                 | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 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<br>25         | 10<br>10     | C/6032-28<br>C/6032-28     | T495C106(1)025A(2)E275                           | 2.5<br>2.5            | 6.0<br>6.0               | 275<br>300                   | 632<br>606                                | 569<br>545                | 253<br>242                   | 125<br>125                   | 1<br>1                    |
| 25               | 10           | C/6032-28                  | T495C106(1)025A(2)E300<br>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<br>125                   | 1<br>1                    |
| 25<br>25         | 33<br>33     | D/7343-31<br>D/7343-31     | T495D336(1)025A(2)E225                           | 8.3                   | 6.0                      | 225                          | 816                                       | 734<br>727                | 326                          | 125                          | 1                         |
| 25               | 33           | D/7343-31<br>D/7343-31     | T495D336(1)025A(2)E230<br>T495D336(1)025A(2)E300 | 8.3<br>8.3            | 6.0<br>6.0               | 230<br>300                   | 808<br>707                                | 636                       | 323<br>283                   | 125                          | 1                         |
| 25               | 33           | X/7343-31                  | T495X336(1)025A(2)E100                           | 8.3                   | 4.0                      | 100                          | 1285                                      | 1157                      | 514                          | 125                          | 1                         |
| 25               | 33           | X/7343-43<br>X/7343-43     | T495X336(1)025A(2)E175                           | 8.3                   | 4.0                      | 175                          | 971                                       | 874                       | 388                          | 125                          | 1                         |
| 25               | 33           | X/7343-43<br>X/7343-43     | T495X336(1)025A(2)E180                           | 8.3                   | 4.0                      | 180                          | 957                                       | 861                       | 383                          | 125                          | 1                         |
| 25               | 33           | X/7343-43<br>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           |                            | 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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz                    | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          | Maximum Allowable<br>Ripple Current (rms) |                           | Maximum<br>Operating<br>Temp | MSL                          |                           |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage                                 | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          |   | mum Allo<br>e Current     |                              | Maximum<br>Operating<br>Temp | MSL                       |
|--|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---|---------------------------|------------------------------|------------------------------|---------------------------|
| VDC at 85°C                                      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz                 | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz   | °C                           | Reflow<br>Temp<br>≤ 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                           |                       | 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<br>1                    |
| 35   | 0.33         | A/3216-18                  | T495A334(1)035A(2)E6K0                           | 0.5                   | 4.0                      | 6,000                        | 112                                       | 101                       | 45                           | 125                          | •                         |
| 35<br>35   | 0<br>0.47    | A/3216-18<br>B/3528-21     | T495A474(1)035A(2)E4K0<br>T495B474(1)035A(2)E1K5 | 0.5<br>0.5            | 4.0<br>4.0               | 4,000<br>1,500               | 137<br>238                                | 123<br>214                | 55<br>95                     | 125<br>125                   | 1<br>1                    |
| 35   | 0.47         | B/3528-21                  | ` ' ' '  | 0.5                   | 4.0                      | 2,200                        | 197                                       | 177                       | 95<br>79                     | 125                          | 1                         |
| 35   | 0.47         | B/3528-21                  | T495B474(1)035A(2)E2K2<br>T495B474(1)035A(2)E2K5 | 0.5                   | 4.0                      | 2,200                        | 184                                       | 166                       | 79<br>74                     | 125                          | 1                         |
| 35   | 0.47         | B/3528-21                  | T495B474(1)035A(2)E2K5                           | 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                           |                       | 6.0                      | 300                          | 707                                       | 636                       | 283                          | 125                          | 1                         |
| 35   | 6.8          | D/7343-31                  | T495D685(1)035A(2)E400                           |                       | 6.0                      | 400                          | 612                                       | 551<br>410                | 245                          | 125                          | 1<br>1                    |
| 35<br>35   | 7            | V/7343-20                  | T495V685(1)035A(2)E600                           | 2.4                   | 6.0<br>4.0               | 600                          | 456<br>742                                | 410                       | 182<br>297                   | 125<br>125                   | 1                         |
|  | 6.8<br>10    | X/7343-43                  | T495X685(1)035A(2)E300                           | 2.4                   |                          | 300<br>400                   | 742<br>524                                | 668<br>472                |                              |                              |                           |
| 35<br>35   | 10<br>10     | C/6032-28<br>D/7343-31     | T495C106(1)035A(2)E400<br>T495D106(1)035A(2)E120 | 3.5<br>3.5            | 6.0<br>4.0               | 400<br>120                   | 524<br>1118                               | 472<br>1006               | 210<br>447                   | 125<br>125                   | 1<br>1                    |
| 35   | 10           | D/7343-31<br>D/7343-31     | T495D106(1)035A(2)E125                           | 3.5                   | 6.0                      | 125                          | 1095                                      | 986                       | 438                          | 125                          | 1                         |
| 35   | 10           | D/7343-31<br>D/7343-31     | T495D106(1)035A(2)E130                           | 3.5                   | 6.0                      | 130                          | 1093                                      | 967                       | 430                          | 125                          | 1                         |
| <del>-                                    </del> | .0           | 2,.01001                   | ì ì  |                       |                          | mΩ at 25°C                   |   | mA at                     | mA at                        | ~                            | Reflow                    |
| VDC at 85°C                                      | μF           | KEMET/EIA                  | (See below for part options)                     | µA +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | 100 kHz<br>Max               | mA at +25°C<br>100 kHz                    | +85°C 100<br>kHz          | +125°C 100<br>kHz            | °C                           | Temp<br>≤ 260°C           |
| Rated<br>Voltage                                 | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          | Maximum Allowable<br>Ripple Current (rms) |                           | Maximum<br>Operating<br>Temp | MSL                          |                           |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



Table 1 - Ratings & Part Number Reference cont.

| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number                             | DC<br>Leakage         | DF                       | ESR                          | _   | mum Allo<br>e Current     |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|--|-----------------------|--------------------------|------------------------------|---|---------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz                 | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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<br>35         | 10<br>10     | X/7343-43<br>X/7343-43     | T495X106(1)035A(2)E175                           | 3.5                   | 6.0<br>6.0               | 175<br>200                   | 971<br>908                                | 874<br>817                | 388                        | 125<br>125                   | 1<br>1                    |
| 35               | 10           | X/7343-43<br>X/7343-43     | T495X106(1)035A(2)E200<br>T495X106(1)035A(2)E250 | 3.5<br>3.5            | 4.0                      | 250                          | 812                                       | 731                       | 363<br>325                 | 125                          | 1                         |
| 35               | 10           | X/7343-43<br>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<br>35         | 22<br>22     | D/7343-31<br>D/7343-31     | T495D226(1)035A(2)E260<br>T495D226(1)035A(2)E300 | 7.7<br>7.7            | 6.0<br>6.0               | 260<br>300                   | 760<br>707                                | 684<br>636                | 304<br>283                 | 125<br>125                   | 1<br>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<br>X/7343-43     | T495X226(1)035A(2)E130                           | 7.7                   | 6.0                      | 130                          | 1127                                      | 1034                      | 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<br>35         | 33<br>47     | E/7360-38<br>X/7343-43     | T495E336(1)035A(2)E200                           | 11.6<br>16.5          | 6.0<br>8.0               | 200<br>185                   | 1000<br>944                               | 900<br>850                | 400<br>378                 | 125<br>125                   | 1                         |
| 35               | 47<br>47     | X/7343-43<br>X/7343-43     | T495X476(1)035A(2)E185<br>T495X476(1)035A(2)E200 | 16.5<br>16.5          | 8.0                      | 200                          | 944                                       | 817                       | 363                        | 125                          | 1                         |
| 35               | 47           | X/7343-43<br>X/7343-43     | T495X476(1)035A(2)E230                           | 16.5                  | 8.0                      | 230                          | 847                                       | 762                       | 339                        | 125                          | 1                         |
| 35               | 47           | X/7343-43<br>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                           |                       | 6.0                      | 600                          | 500                                       | 450                       | 200                        | 125                          | 1                         |
| 50               | 3.3          | D/7343-31                  | T495D335(1)050A(2)E700                           |                       | 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)                     | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz                    | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number                                | DC<br>Leakage         | DF                       | ESR                          | Maximum Allowable<br>Ripple Current (rms) |                           |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb) or M = Non-Magnetic (SnPb). Designates termination finish.



| Rated<br>Voltage | Rated<br>Cap | Case<br>Code/<br>Case Size | KEMET Part<br>Number         | DC<br>Leakage         | DF                       | ESR                          |  | mum Allo<br>e Current     |                            | Maximum<br>Operating<br>Temp | MSL                       |
|------------------|--------------|----------------------------|------------------------------|-----------------------|--------------------------|------------------------------|--|---------------------------|----------------------------|------------------------------|---------------------------|
| VDC at 85°C      | μF           | KEMET/EIA                  | (See below for part options) | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at<br>+25°C 100<br>kHz                  | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 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) | μΑ +25°C<br>Max/5 Min | % at +25°C<br>120 Hz Max | mΩ at 25°C<br>100 kHz<br>Max | mA at +25°C<br>100 kHz                     | mA at<br>+85°C 100<br>kHz | mA at<br>+125°C 100<br>kHz | °C                           | Reflow<br>Temp<br>≤ 260°C |
| Rated<br>Voltage | Rated<br>Cap | Case Code/<br>Case Size    | KEMET Part Number            | DC<br>Leakage         | DF                       | ESR                          | ESR Maximum Allowable Ripple Current (rms) |                           |                            | Maximum<br>Operating<br>Temp | MSL                       |

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

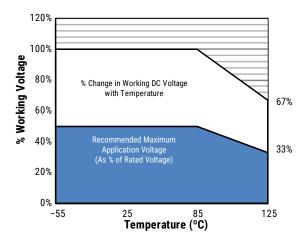
Refer to Ordering Information for additional detail.

<sup>(2)</sup> 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 (SnPb). Designates termination finish.



#### **Recommended Voltage Derating Guidelines**

|   | -55°C to 85°C         | 85°C to 125°C         |
|---|-----------------------|-----------------------|
| % Change in working DC voltage with temperature | V <sub>R</sub>        | 67% of V <sub>R</sub> |
| Recommended<br>maximum application<br>voltage   | 50% of V <sub>R</sub> | 33% of V <sub>R</sub> |



#### **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.

| -        | ure Compensation N<br>Maximum Ripple Cur |           |  |  |  |  |  |  |  |  |
|----------|--|-----------|--|--|--|--|--|--|--|--|
| T ≤ 25°C | T ≤ 85°C                                 | T ≤ 125°C |  |  |  |  |  |  |  |  |
| 1.00     | 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 Dissipation (P max) mWatts at 25°C w/+20°C Rise |
|--------------------|------------------|---|
| Α                  | 3216-18          | 75  |
| В                  | 3528-21          | 85  |
| С                  | 6032-28          | 110   |
| D                  | 7343-31          | 150   |
| Х                  | 7343-43          | 165   |
| E                  | 7360-38          | 200   |
| S                  | 3216-12          | 60  |
| Т                  | 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.

 $I(max) = \sqrt{P max/R}$  $E(max) = Z \sqrt{P max/R}$ 

I = rms ripple current (amperes)

E = rms ripple voltage (volts)

P 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                   |

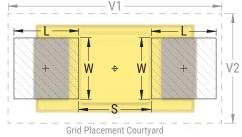
#### **Table 2 - Land Dimensions/Courtyard**

| KEMET                 | Metric<br>Size<br>Code | Density Level A:<br>Maximum (Most) Land<br>Protrusion (mm) |      |      |            | N    | Density Level B:<br>Median (Nominal) Land<br>Protrusion (mm) |      |      |      | Density Level C:<br>Minimum (Least) Land<br>Protrusion (mm) |      |      |      |      |      |
|-----------------------|------------------------|--|------|------|------------|------|--|------|------|------|---|------|------|------|------|------|
| Case                  | EIA                    | W  | L    | S    | <b>V</b> 1 | V2   | W  | L    | S    | V1   | V2  | W    | L    | S    | V1   | V2   |
| Α                     | 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 |
| В                     | 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 |
| М                     | 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 |
| С                     | 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 |
| Т                     | 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 |
| <b>X</b> <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>&</sup>lt;sup>2</sup> Land pattern geometry is too small for silkscreen outline.



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



#### **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.

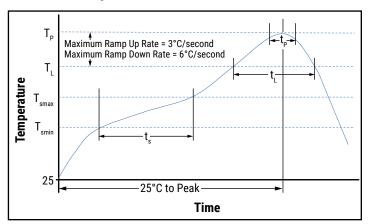
Hand soldering should be performed with care due to the difficulty in process control. If performed, care should be taken to avoid contact of the soldering iron to the molded case. The iron should be used to heat the solder pad, applying solder between the pad and the termination, until reflow occurs. 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 <sub>Smax</sub> )                         | 150°C              | 200°C              |
| Time $(t_s)$ from $T_{smin}$ to $T_{smax}$ )                     | 60 - 120 seconds   | 60 - 120 seconds   |
| Ramp-up Rate $(T_L \text{ to } T_P)$                             | 3°C/second maximum | 3°C/second maximum |
| Liquidous Temperature $(T_L)$                                    | 183°C              | 217°C              |
| Time Above Liquidous (t <sub>L</sub> )                           | 60 - 150 seconds   | 60 – 150 seconds   |
| Peak Temperature (T <sub>P</sub> )                               | 220°C*<br>235°C**  | 250°C*<br>260°C**  |
| Time within 5°C of Maximum<br>Peak Temperature (t <sub>p</sub> ) | 20 seconds maximum | 30 seconds maximum |
| Ramp-down Rate $(T_P \text{ to } T_L)$                           | 6°C/second maximum | 6°C/second maximum |
| Time 25°C to Peak<br>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.

<sup>\*\*</sup> For Case Size height ≤ 2.5 mm



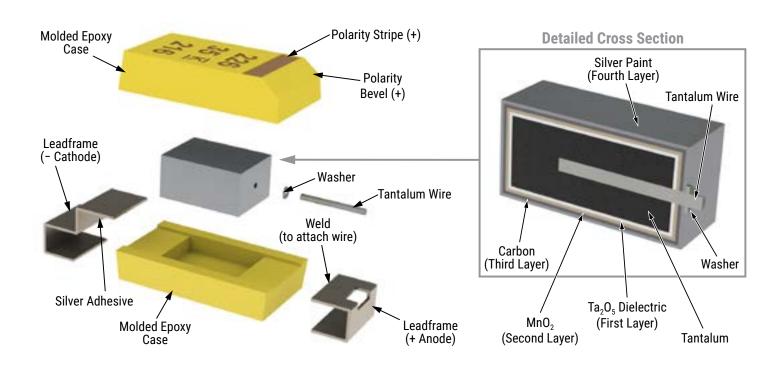
#### **Storage**

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.

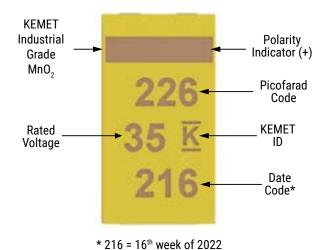
<sup>\*</sup> For Case Size height > 2.5 mm



#### Construction



## **Capacitor Marking**



| Date Code *   |  |  |  |  |
|---|--|--|--|--|
| 1st digit = last number of year                                 | 8 = 2018<br>9 = 2019   |  |  |  |
|   | 0 = 2020   |  |  |  |
|   | 1 = 2021<br>2 = 2022   |  |  |  |
| 2 <sup>nd</sup> and 3 <sup>rd</sup> digit = week of the<br>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.

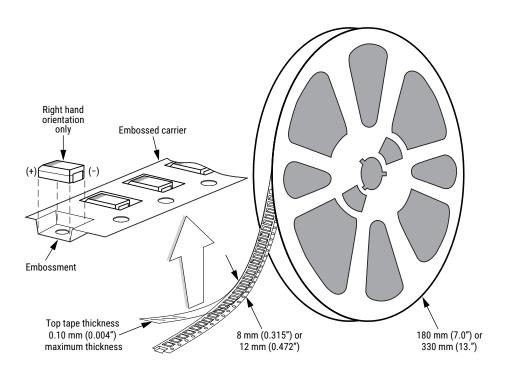


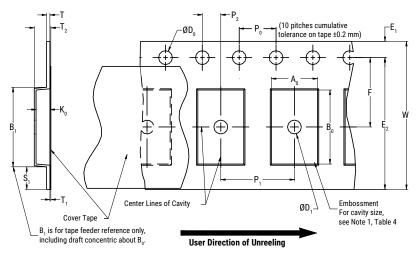
Table 3 - Packaging Quantity

| 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    |
| М         | 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     |
| Α         | 3216-18 | 8               | 2,000    | 9,000     |
| В         | 3528-21 | 8               | 2,000    | 8,000     |
| С         | 6032-28 | 12              | 500      | 3,000     |
| D         | 7343-31 | 12              | 500      | 2,500     |
| Q         | 7343-12 | 12              | 1,000    | 3,000     |
| Υ         | 7343-40 | 12              | 500      | 2,000     |
| Х         | 7343-43 | 12              | 500      | 2,000     |
| E/T428P   | 7360-38 | 12              | 500      | 2,000     |
| Н         | 7360-20 | 12              | 1,000    | 2,500     |
| 0         | 7360-43 | 12              | 250      | 1,000     |

<sup>\*</sup> 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><br>Maximum |
| 8 mm                                       | 1.5 +0.10/-0.0      | 1.0<br>(0.039)                   | 1.75 ±0.10     | 4.0 ±0.10      | 2.0 ±0.05      | 25.0<br>(0.984)       | 0.600                            | 0.600     | 0.100                     |
| 12 mm                                      | (0.059 +0.004/-0.0) | 1.5<br>(0.059)                   | (0.069 ±0.004) | (0.157 ±0.004) | (0.079 ±0.002) | 30<br>(1.181)         | (0.024)                          | (0.024)   | (0.004)                   |

| 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)  |  |
| 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) | Note 5   |

- 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.  $B_1$  dimension is a reference dimension for tape feeder clearance only.
- 5. The cavity defined by  $A_{o}$ ,  $B_{o}$  and  $K_{o}$  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**

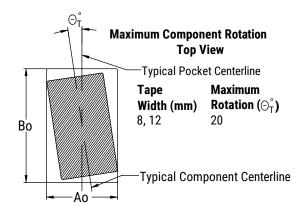
- 1. Cover tape break force: 1.0 kg minimum.
- 2. Cover tape peel strength: The total peel strength of the cover tape from the carrier tape shall be:

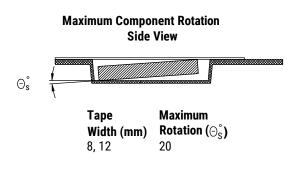
| Tape Width | Peel Strength                    |  |
|------------|----------------------------------|--|
| 8 mm       | 0.1 to 1.0 newton (10 to 100 gf) |  |
| 12 mm      | 0.1 to 1.3 newton (10 to 130 gf) |  |

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

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

#### Figure 2 - Maximum Component Rotation





### Figure 3 – Maximum Lateral Movement

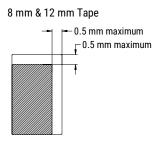
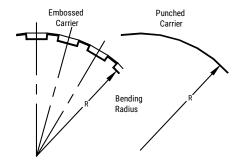


Figure 4 - Bending Radius





**Figure 5 - Reel Dimensions** 



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

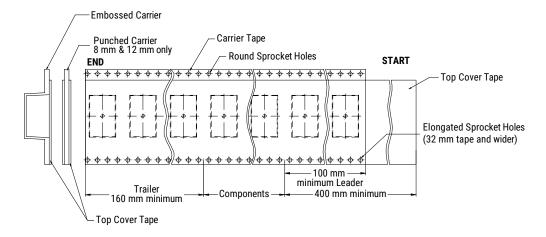
**Table 5 - Reel Dimensions** 

Metric will govern

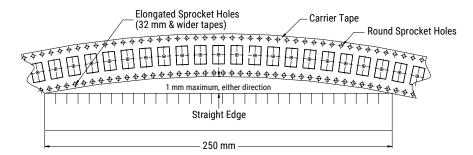
|           | Constant Dimensions — Millimeters (Inches) |                                       |  |                            |  |  |
|-----------|--|---------------------------------------|--|----------------------------|--|--|
| Tape Size | A  | B Minimum                             | С                                      | D Minimum                  |  |  |
| 8 mm      | 178 ±0.20<br>(7.008 ±0.008)                |                                       |  |                            |  |  |
| 12 mm     | 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)            |  |  |
|           | Variable Dimensions — Millimeters (Inches) |                                       |  |                            |  |  |
| Tape Size | N Minimum                                  | W <sub>1</sub>                        | W <sub>2</sub> Maximum                 | W <sub>3</sub>             |  |  |
| 8 mm      | 50   | 8.4 +1.5/-0.0<br>(0.331 +0.059/-0.0)  | 14.4<br>(0.567)                        | Shall accommodate tape     |  |  |
| 12 mm     | (1.969)                                    | 12.4 +2.0/-0.0<br>(0.488 +0.078/-0.0) | 18.4<br>(0.724)                        | width without interference |  |  |



#### Figure 6 - Tape Leader & Trailer Dimensions



## Figure 7 – Maximum Camber





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| T495X156K035ATE225 | T495X156K025ATE200 | T495C686K010ATE225 | T495D476K020ATE175 |
| T495D156M020ATE275 | T495D156M025ATE275 | T495D156K025ATE275 | T495D156K020ATE275 |
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| T495X106K050ATE300 | T495D686M020ATE150 | T495C686M010ATE225 | T495X106K035AHE250 |
| T495X336M025AHE175 | T495D475M050AHE300 | T495X107K010AHE100 | T495X226K025AHE225 |
| T495X226M035AHE275 | T495X226M025AHE225 | T495X685K035AHE300 | T495D156K035AH     |
| T495D336M016AHE225 | T495D226K020AHE225 | T495X477K004ATE030 | T495X477M004ATE030 |
| T495X477M004ATE045 | T495X477K004ATE045 | T495V686K010ATE100 | T495V686M010ATE100 |
| T495D475M050ATE275 | T495D475K050ATE275 | T495X477M006AHE045 | T495X477K006AHE045 |
| T495X477K006AHE030 | T495X477M006AHE030 | T495X337M006ATE045 | T495X337K006ATE045 |
| T495X686K025AHE125 | T495X686K025ATE125 | T495D226M025AHE200 | T495X476M020AHE150 |
| T495X476K020AHE150 | T495X107K016AHE100 | T495X686M020AHE150 | T495D107M010AHE100 |
| T495D107M016AHE125 | T495D107K016AHE125 | T495X477K006ATE045 | T495X477M006ATE045 |
| T495X477M006ATE030 | T495X477K006ATE030 | T495X337K006AHE045 | T495X337M006AHE045 |
| T495D336M025AHE090 | T495D336K025AHE090 | T495V686K010AHE100 | T495V686M010AHE100 |
| T495D476K020AHE100 | T495D476M020AHE100 | T495D107M010ATE080 | T495D475K050AHE275 |
| T495D475M050AHE275 | T495X477K004ATE100 | T495X477M004ATE100 | T495D685K050AHE300 |
| T495X106K050AHE300 | T495X475M050AHE300 | T495C227M006ATE225 | T495D227K006AHE100 |