

# R75, Single Metallized Polypropylene Film, Radial, DC and Pulse Applications (Automotive Grade)

## Overview

The R75 Series is constructed of metallized polypropylene film with radial leads of tinned wire. The radial leads are electrically welded to the metal layer on the ends of the capacitor winding. The capacitor is encapsulated in a self-extinguishing solvent resistant plastic case with thermosetting resin material meeting the UL 94 V-0 requirements. Two different winding constructions are used depending on voltage parameters and lead spacing. Please see the Performance Characteristics for more information.

Automotive grade devices (up to lead spacing 22.5 mm) meet the demanding Automotive Electronics Council's AEC-Q200 qualification requirements.

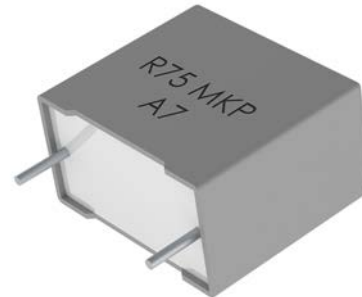
## Applications

Typical applications include resonant circuit, high frequency medium to high current, silicon-controlled rectifier (SCR and IGBT) and SiC (e.g. MOSFET) commutation circuits as well as applications with high voltage and medium to high current and DC link.

Not suitable for across-the-line application (see Suppressor Capacitors).

## Benefits

- Voltage range: 160 – 2,000 VDC
- Capacitance range: 220 pF – 33  $\mu$ F
- Lead Spacing: 7.5 – 37.5 mm
- Capacitance tolerance:  $\pm 5\%$ ,  $\pm 10\%$ ,  $\pm 20\%$
- Climatic category: 55/105/56 IEC 60068-1
- Operating temperature range of  $-55^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$
- RoHS compliance and lead-free terminations
- Tape & Reel packaging in accordance with IEC 60286-2
- Self-healing
- Automotive (AEC-Q200) grades available up to lead spacing 22.5 mm



## Part Number System

| R75                      | P                   | N                 | 2820                                                             | AA                         | 30           |    | K                     |
|--------------------------|---------------------|-------------------|------------------------------------------------------------------|----------------------------|--------------|----|-----------------------|
| Series                   | Rated Voltage (VDC) | Lead Spacing (mm) | Capacitance Code (pF)                                            | Packaging                  | Internal Use |    | Capacitance Tolerance |
| Metallized Polypropylene | G = 160             | D = 7.5           | The last three digits represent significant figures.             | See Ordering Options Table | 00           | 50 | J = ±5%               |
|                          | I = 250             | F = 10            |                                                                  |                            | 10           | 60 | K = ±10%              |
|                          | M = 400             | I = 15            |                                                                  |                            | 20           | 70 | M = ±20%              |
|                          | P = 630             | N = 22.5          | The first digit specifies the total number of zeros to be added. | 30                         | 80           |    |                       |
|                          | Q = 1,000           | R = 27.5          |                                                                  | 40                         | L0           |    |                       |
|                          | R = 1,250           | W = 37.5          |                                                                  |                            |              |    |                       |
|                          | T = 1,600           |                   |                                                                  |                            |              |    |                       |
| U = 2,000                |                     |                   |                                                                  |                            |              |    |                       |

## Ordering Options Table

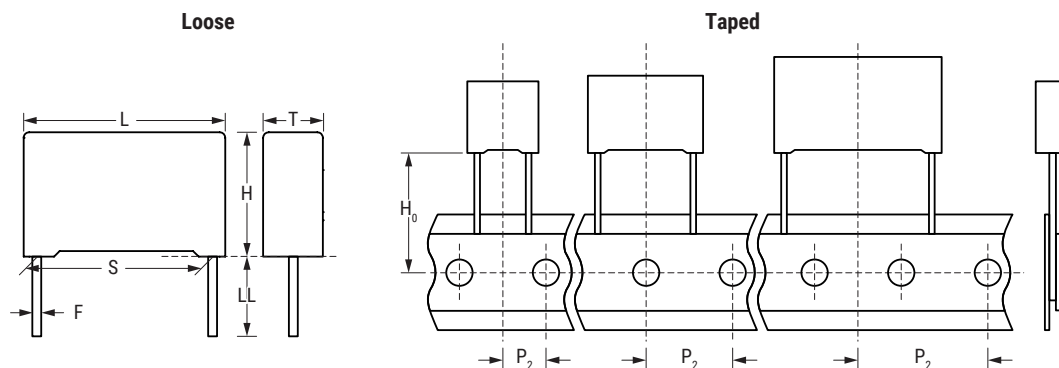
| Lead Spacing<br>Nominal<br>(mm) | Type of Leads and Packaging                | Lead Length<br>(mm)       | Lead and<br>Packaging<br>Code |
|---------------------------------|--------------------------------------------|---------------------------|-------------------------------|
| 7.5                             | <b>Standard Lead and Packaging Options</b> |                           |                               |
|                                 | Bulk (Bag) – Short Leads                   | 4 +2/-0                   | AA                            |
|                                 | Ammo Pack                                  | H <sub>0</sub> = 18.5±0.5 | DQ                            |
|                                 | <b>Other Lead and Packaging Options</b>    |                           |                               |
|                                 | Tape & Reel (Standard Reel Ø 355 mm)       | H <sub>0</sub> = 18.5±0.5 | CK                            |
|                                 | Bulk (Bag) – Short Leads                   | 2.7 +0.5/-0               | JA                            |
|                                 | Bulk (Bag) – Short Leads                   | 3.5 +0.5/-0               | JB                            |
|                                 | Bulk (Bag) – Short Leads                   | 4.0 +0.5/-0               | JE                            |
|                                 | Bulk (Bag) – Short Leads                   | 3.2 +0.3/-0.2             | JH                            |
|                                 | Bulk (Bag) – Long Leads                    | 18±1                      | JM                            |
|                                 | Bulk (Bag) – Long Leads                    | 17 +1/-2                  | Z3                            |
| 10<br><br>15<br><br>22.5        | <b>Standard Lead and Packaging Options</b> |                           |                               |
|                                 | Bulk (Bag) – Short Leads                   | 4 +2/-0                   | AA                            |
|                                 | Ammo Pack                                  | H <sub>0</sub> = 18.5±0.5 | DQ                            |
|                                 | <b>Other Lead and Packaging Options</b>    |                           |                               |
|                                 | Tape & Reel (Standard Reel Ø 355 mm)       | H <sub>0</sub> = 18.5±0.5 | GY                            |
|                                 | Tape & Reel (Large Reel Ø 500 mm)          | H <sub>0</sub> = 18.5±0.5 | CK                            |
|                                 | Bulk (Bag) – Short Leads                   | 2.7 +0.5/-0               | JA                            |
|                                 | Bulk (Bag) – Short Leads                   | 3.5 +0.5/-0               | JB                            |
|                                 | Bulk (Bag) – Short Leads                   | 10±1                      | JC                            |
|                                 | Bulk (Bag) – Short Leads                   | 4.0 +0.5/-0               | JE                            |
|                                 | Bulk (Bag) – Short Leads                   | 3.2 +0.3/-0.2             | JH                            |
|                                 | Bulk (Bag) – Long Leads                    | 18±1                      | JM                            |
|                                 | Bulk (Bag) – Long Leads                    | 30 +5/-0                  | 40                            |
|                                 | Bulk (Bag) – Long Leads                    | 25 +2/-1                  | 50                            |
| 27.5                            | <b>Standard Lead and Packaging Options</b> |                           |                               |
|                                 | Bulk (Tray) – Short Leads                  | 4 +2/-0                   | AA                            |
|                                 | <b>Other Lead and Packaging Options</b>    |                           |                               |
|                                 | Tape & Reel (Standard Reel Ø 355 mm)       | H <sub>0</sub> = 18.5±0.5 | GY                            |
|                                 | Tape & Reel (Large Reel Ø 500 mm)          | H <sub>0</sub> = 18.5±0.5 | CK <sup>1</sup>               |
|                                 | Bulk (Tray) – Short Leads                  | 3.5 +0.5/-0               | JB                            |
|                                 | Bulk (Tray) – Short Leads                  | 4.0 +0.5/-0               | JE                            |
|                                 | Bulk (Tray) – Short Leads                  | 3.2 +0.3/-0.2             | JH                            |
|                                 | Bulk (Tray) – Long Leads                   | 30 +5/-0                  | 40                            |
|                                 | Bulk (Tray) – Long Leads                   | 25 +2/-1                  | 50                            |

<sup>1</sup> = Not for all sizes, see "Packaging Quantities" table.

## Ordering Options Table cont.

| Lead Spacing<br>Nominal<br>(mm) | Type of Leads and Packaging                | Lead Length<br>(mm) | Lead and<br>Packaging<br>Code |
|---------------------------------|--------------------------------------------|---------------------|-------------------------------|
| 37.5                            | <b>Standard Lead and Packaging Options</b> |                     |                               |
|                                 | Bulk (Tray) – Short Leads                  | 4 +2/-0             | AA                            |
|                                 | <b>Other Lead and Packaging Options</b>    |                     |                               |
|                                 | Bulk (Tray) – Short Leads                  | 3.5 +0.5/-0         | JB                            |
|                                 | Bulk (Tray) – Short Leads                  | 4.0 +0.5/-0         | JE                            |
|                                 | Bulk (Tray) – Short Leads                  | 3.2 +0.3/-0.2       | JH                            |
|                                 | Bulk (Tray) – Long Leads                   | 30 +5/-0            | 40                            |
|                                 | Bulk (Tray) – Long Leads                   | 25 +2/-1            | 50                            |

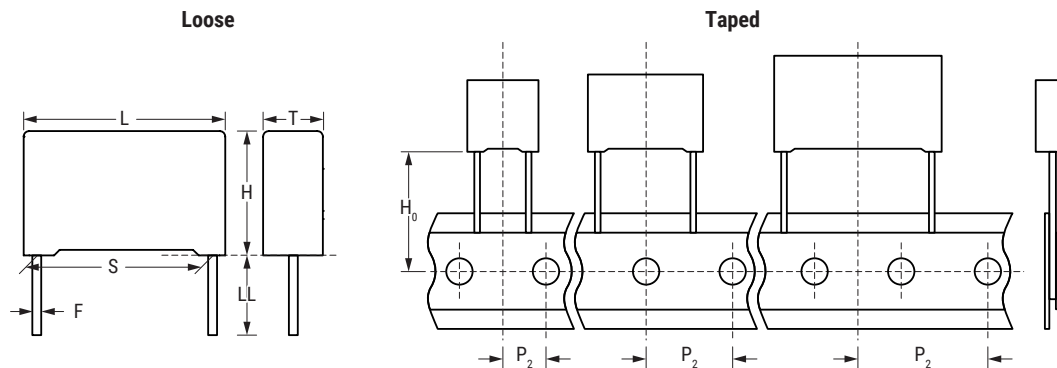
## Dimensions – Millimeters



| S       |           | T       |           | H       |           | L       |           | F       |           |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| 7.5     | ±0.4      | 3.0     | +0.1/-0.5 | 8.0     | +0.1/-0.5 | 10.0    | +0.2/-0.5 | 0.5     | ±0.05     |
| 7.5     | ±0.4      | 4.0     | +0.1/-0.5 | 9.0     | +0.1/-0.5 | 10.0    | +0.2/-0.5 | 0.5     | ±0.05     |
| 7.5     | ±0.4      | 5.0     | +0.1/-0.5 | 10.5    | +0.1/-0.5 | 10.0    | +0.2/-0.5 | 0.5     | ±0.05     |
| 7.5     | ±0.4      | 6.0     | +0.1/-0.5 | 12.0    | +0.1/-0.5 | 10.5    | +0.2/-0.5 | 0.5     | ±0.05     |
| 10.0    | ±0.4      | 4.0     | +0.2/-0.5 | 9.0     | +0.1/-0.5 | 13.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 10.0    | ±0.4      | 5.0     | +0.2/-0.5 | 11.0    | +0.1/-0.5 | 13.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 10.0    | ±0.4      | 6.0     | +0.2/-0.5 | 12.0    | +0.1/-0.5 | 13.0    | +0.2/-0.5 | 0.6     | ±0.05     |
| 15.0    | ±0.4      | 4.0     | +0.2/-0.5 | 10.0    | +0.1/-0.5 | 18.0    | +0.3/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 5.0     | +0.2/-0.5 | 11.0    | +0.1/-0.5 | 18.0    | +0.3/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 6.0     | +0.2/-0.5 | 12.0    | +0.1/-0.5 | 18.0    | +0.3/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 7.5     | +0.2/-0.5 | 13.5    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 8.5     | +0.2/-0.5 | 14.5    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |

**Note:** See Ordering Options Table for lead length (LL/Ho) options.

## Dimensions – Millimeters cont.



| S       |           | T       |           | H       |           | L       |           | F       |           |
|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| 15.0    | ±0.4      | 9.0     | +0.2/-0.5 | 12.5    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 10.0    | +0.2/-0.5 | 16.0    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 11.0    | +0.2/-0.5 | 19.0    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 15.0    | ±0.4      | 13.0    | +0.1/-0.5 | 12.0    | +0.1/-0.5 | 18.0    | +0.5/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 6.0     | +0.2/-0.5 | 15.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 7.0     | +0.2/-0.5 | 16.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 8.5     | +0.2/-0.5 | 17.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 10.0    | +0.2/-0.5 | 18.5    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 11.0    | +0.2/-0.5 | 20.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 22.5    | ±0.4      | 13.0    | +0.2/-0.5 | 22.0    | +0.1/-0.5 | 26.5    | +0.3/-0.5 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 9.0     | +0.2/-0.7 | 17.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 11.0    | +0.2/-0.7 | 20.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 13.0    | +0.2/-0.7 | 22.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 13.0    | +0.2/-0.7 | 25.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 14.0    | +0.2/-0.7 | 28.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 18.0    | +0.2/-0.7 | 33.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 22.0    | +0.2/-0.7 | 37.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 27.5    | ±0.4      | 24.0    | +0.2/-0.7 | 15.0    | +0.1/-0.7 | 32.0    | +0.3/-0.7 | 0.8     | ±0.05     |
| 37.5    | ±0.4      | 11.0    | +0.3/-0.7 | 22.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 13.0    | +0.3/-0.7 | 24.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 16.0    | +0.3/-0.7 | 28.5    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 19.0    | +0.3/-0.7 | 32.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 20.0    | +0.3/-0.7 | 40.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 24.0    | +0.3/-0.7 | 44.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 24.0    | +0.3/-0.7 | 15.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 24.0    | +0.3/-0.7 | 19.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |
| 37.5    | ±0.4      | 30.0    | +0.3/-0.7 | 45.0    | +0.1/-0.7 | 41.5    | +0.3/-0.7 | 1.0     | ±0.05     |

**Note:** See Ordering Options Table for lead length (LL/Ho) options.

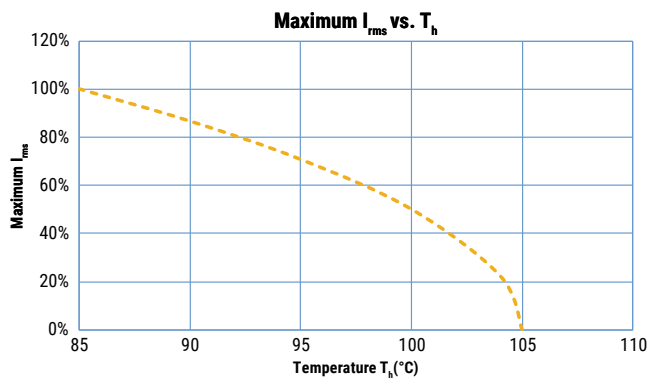
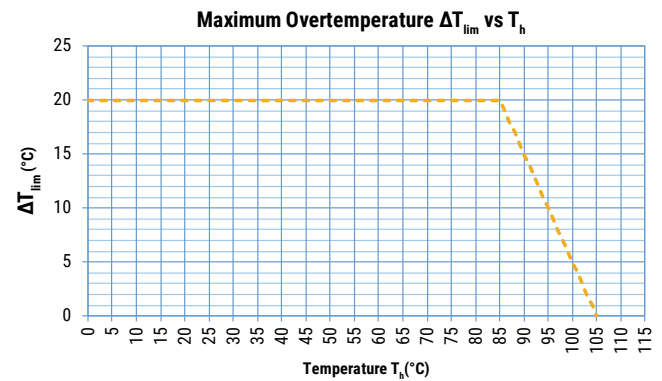
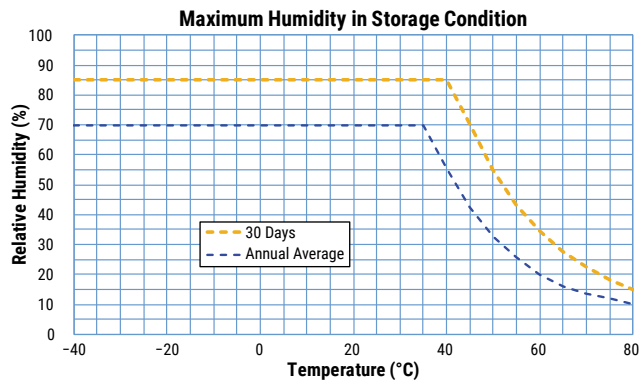
## Performance Characteristics

|                                         |                                                                                                                                                                                                                                       |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|---------------|------------------|--------------|-----------------|----------------|----------------|---------------------|-----------------|-----------------|--------------|
| Dielectric                              | Polypropylene film                                                                                                                                                                                                                    |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Plates                                  | Metal layer deposited by evaporation under vacuum                                                                                                                                                                                     |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Winding                                 | Non-inductive type                                                                                                                                                                                                                    |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Leads                                   | Tinned wire                                                                                                                                                                                                                           |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Protection                              | Plastic case, thermosetting resin filled. Box material is solvent resistant and flame retardant according to UL94.                                                                                                                    |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Related Documents                       | IEC 60384–16                                                                                                                                                                                                                          |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Sections                                | 1                                                                                                                                                                                                                                     |               |                 |               |                  |              |                 |                |                | 3                   |                 |                 |              |
| Rated Voltage V <sub>R</sub> (VDC)      | 160                                                                                                                                                                                                                                   | 160           | 250             | 250           | 400              | 400          | 630             | 630            | 1,000          | 1,000               | 1,250           | 1,600           | 2,000        |
| Rated Voltage V <sub>R</sub> (VAC)      | 70                                                                                                                                                                                                                                    | 90            | 140             | 160           | 200              | 220          | 220             | 250            | 250            | 400                 | 600             | 650             | 700          |
| Capacitance Range (μF)                  | 0.1<br>– 0.33                                                                                                                                                                                                                         | 0.068<br>– 33 | 0.068<br>– 0.22 | 0.027<br>– 33 | 0.027<br>– 0.068 | 0.01<br>– 15 | 0.01<br>– 0.027 | 0.001<br>– 8.2 | 0.012<br>– 3.9 | 0.00022<br>– 0.0082 | 0.0082<br>– 2.2 | 0.0039<br>– 1.5 | 0.001<br>– 1 |
| Capacitance Values                      | E12 series (IEC 60063) measured at 1 kHz and +20 ±1°C                                                                                                                                                                                 |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Capacitance Tolerance                   | ±5%, ±10%, ±20%                                                                                                                                                                                                                       |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Operating Temperature Range             | –55°C to +105°C                                                                                                                                                                                                                       |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Rated Temperature T <sub>R</sub>        | +85°C                                                                                                                                                                                                                                 |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Voltage Derating                        | Above +85°C DC voltage derating is 2%/°C and AC voltage derating is 1.25%/°C                                                                                                                                                          |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Climatic Category                       | 55/105/56 IEC 60068–1                                                                                                                                                                                                                 |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Storage Conditions                      | Storage time: ≤ 24 months from the date marked on the label package                                                                                                                                                                   |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
|                                         | Average relative humidity per year ≤ 70%                                                                                                                                                                                              |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
|                                         | RH ≤ 85% for 30 days randomly distributed throughout the year                                                                                                                                                                         |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
|                                         | Dew is absent                                                                                                                                                                                                                         |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
|                                         | Temperature: –40 to 80°C (see "Maximum Humidity in Storage Conditions" graph above)                                                                                                                                                   |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Test Voltage                            | 1.6 x V <sub>R</sub> VDC for 2 seconds (between terminations) at +25°C ±5°C                                                                                                                                                           |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Capacitance Drift                       | Maximum 0.5% after a 2 year storage period at a temperature of +10°C to +40°C and a relative humidity of 40% to 60%                                                                                                                   |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Maximum Pulse Steepness                 | dV/dt according to Table 1. For working voltages lower than rated voltage (V < V <sub>R</sub> ), the specified dV/dt can be multiplied by the factor V <sub>R</sub> /V.                                                               |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Reliability<br>(Reference IEC 61709)    | Operational life > 200,000 hours at 85°C<br>Failure rate ≤ 1 FIT, T = +40°C, V = 0.5 x V <sub>R</sub><br>Failure criteria: open or short circuit, capacitance change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Temperature Coefficient                 | –(200 ±100) ppm/°C at 1 kHz                                                                                                                                                                                                           |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |
| Self Inductance<br>(Lead Length ~ 2 mm) | Lead Spacing<br>(mm)                                                                                                                                                                                                                  | 7.5           |                 | 10            |                  | 15           |                 | 22.5           |                | 27.5                |                 | 37.5            |              |
|                                         | L (nH) ≈                                                                                                                                                                                                                              | 8             |                 | 9             |                  | 10           |                 | 16             |                | 18                  |                 | 20              |              |
|                                         | Maximum 1 nH per 1 mm lead and capacitor length.                                                                                                                                                                                      |               |                 |               |                  |              |                 |                |                |                     |                 |                 |              |

## Performance Characteristics cont.

| Dissipation Factor $\tan\delta$ | Maximum Values at 25°C ±5°C                                           |                          |                                                                                                          |                                            |                       |
|---------------------------------|-----------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------|
|                                 | Frequency                                                             | $C \leq 0.1 \mu\text{F}$ | $0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$                                                               | $1.0 \mu\text{F} < C \leq 4.7 \mu\text{F}$ | $C > 4.7 \mu\text{F}$ |
|                                 | 1 kHz                                                                 | 0.04%                    | 0.05%                                                                                                    | 0.06%                                      | 0.10%                 |
|                                 | 10 kHz                                                                | 0.06%                    | 0.08%                                                                                                    | -                                          | -                     |
|                                 | 100 kHz                                                               | 0.25%                    | -                                                                                                        | -                                          | -                     |
| Insulation Resistance           | Measured at +25°C ±5°C, 100 VDC 60 seconds                            |                          |                                                                                                          |                                            |                       |
|                                 | Minimum Values Between Terminals                                      |                          |                                                                                                          |                                            |                       |
|                                 | $C \leq 0.33 \mu\text{F}$                                             |                          | $C > 0.33 \mu\text{F}$                                                                                   |                                            |                       |
|                                 | $\geq 100,000 \text{ M}\Omega$<br>( $\geq 500,000 \text{ M}\Omega$ )* |                          | $\geq 30,000 \text{ M}\Omega \cdot \mu\text{F}$<br>( $\geq 150,000 \text{ M}\Omega \cdot \mu\text{F}$ )* |                                            |                       |

\* Typical value

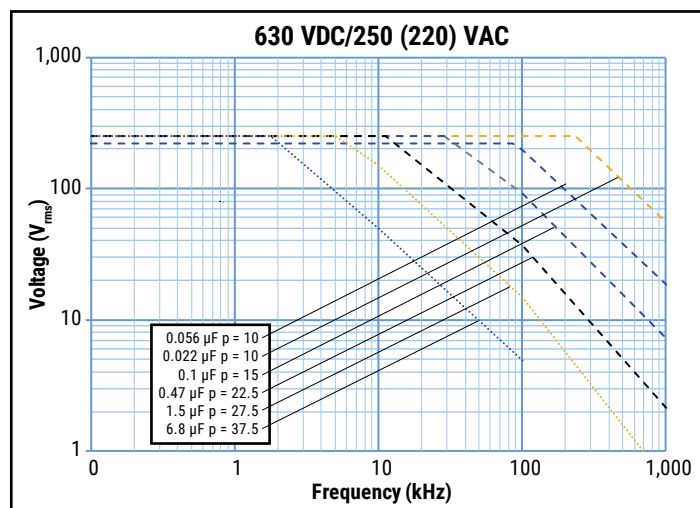
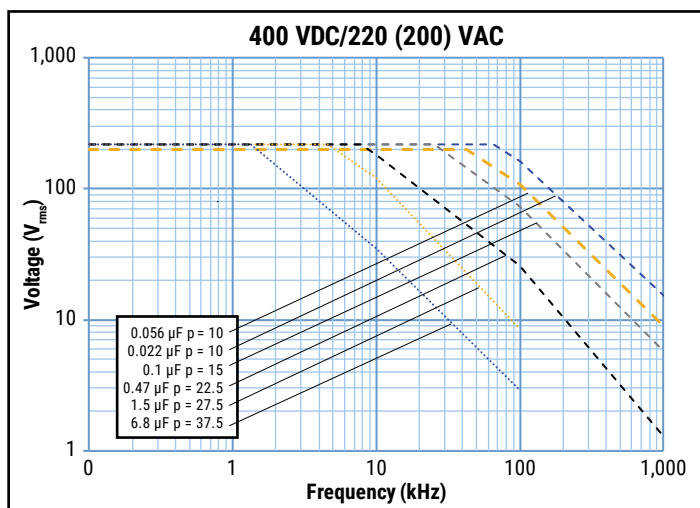
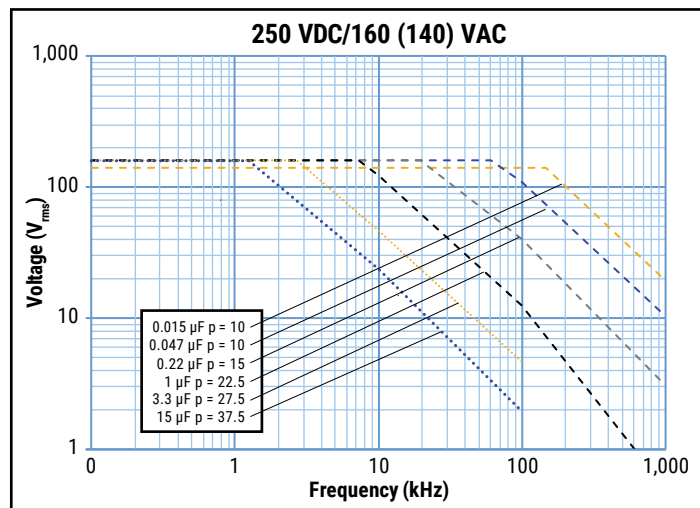
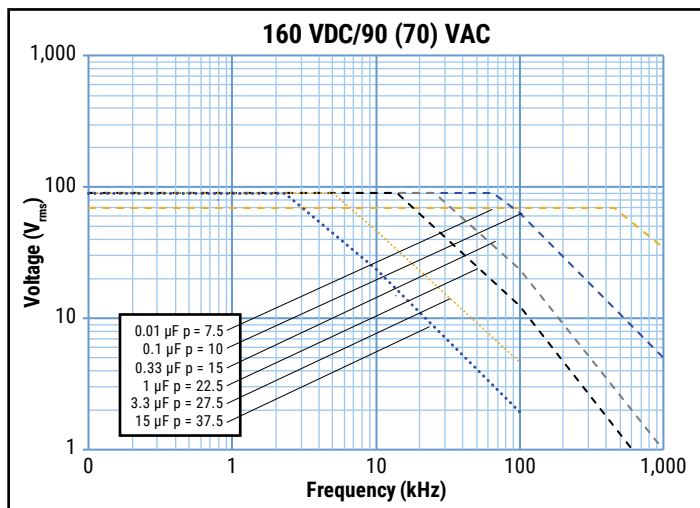


$T_h$  is the maximum ambient temperature surrounding the capacitor or hottest contact point (e.g. tracks), whichever is higher, in the worst operation conditions in °C.

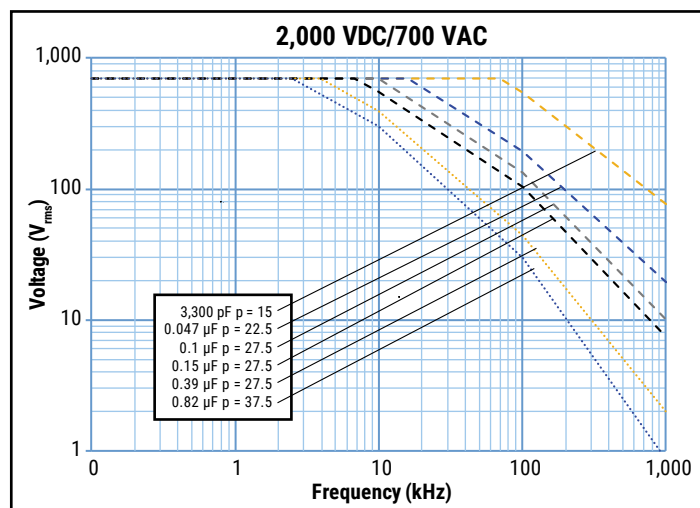
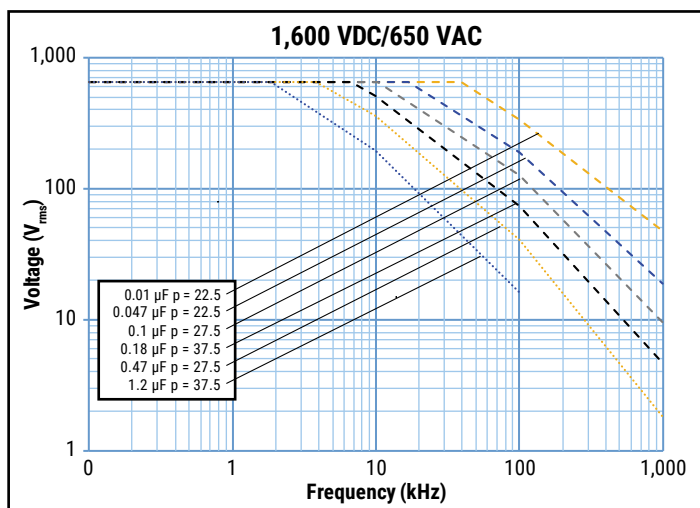
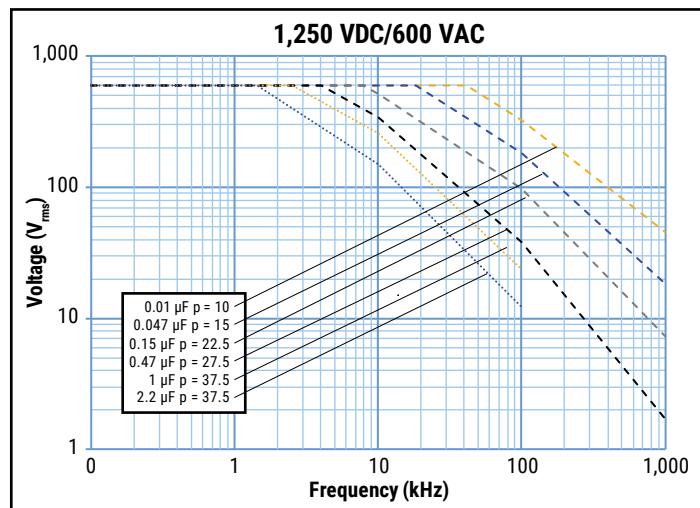
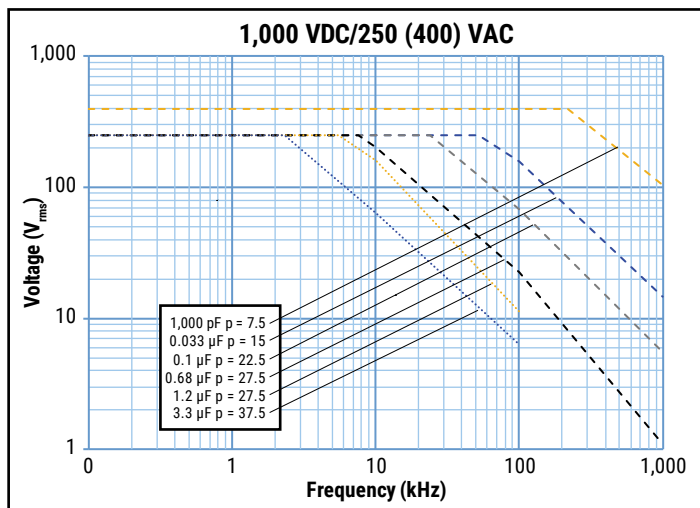
## Qualification

Automotive Grade products meet or exceed the requirements outlined by the Automotive Electronics Council. Details regarding test methods and conditions are referenced in document AEC-Q200, Stress Test Qualification for Passive Components. For additional information regarding the Automotive Electronics Council and AEC-Q200, please visit their website at [www.aecouncil.com](http://www.aecouncil.com).

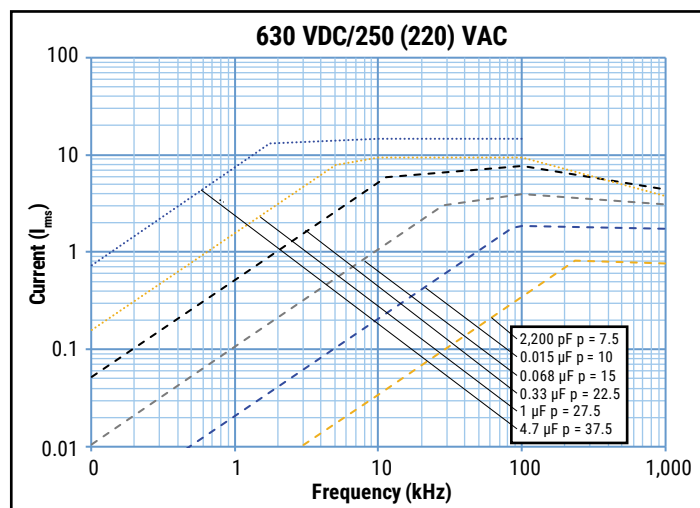
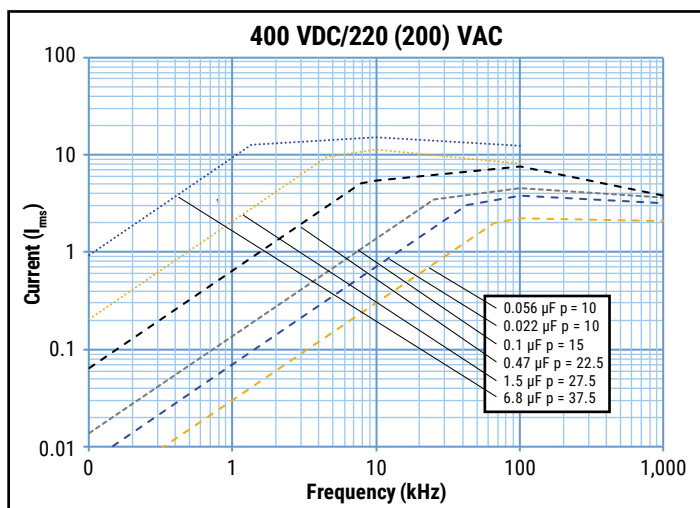
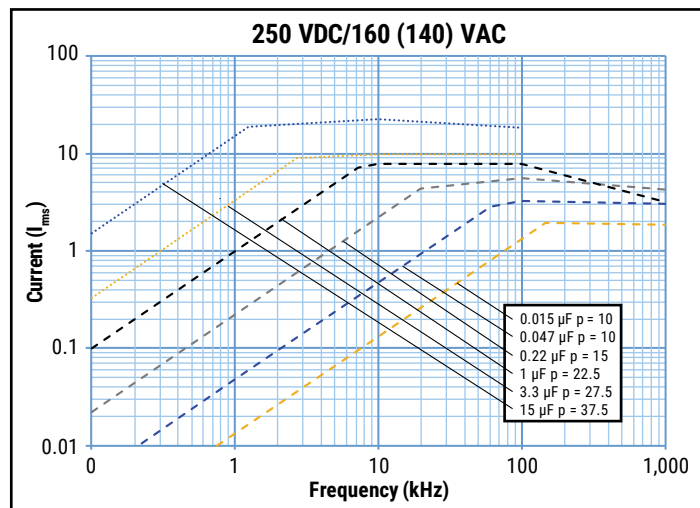
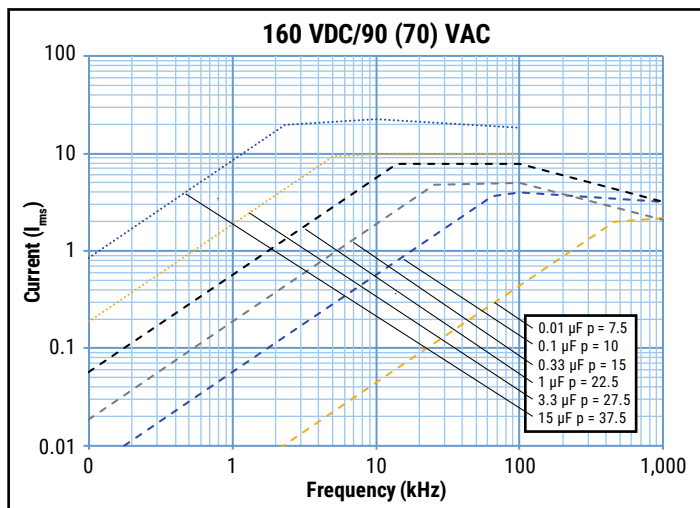
## Maximum Voltage ( $V_{rms}$ ) vs. Frequency (Sinusoidal Waveform/ $T_h \leq 85^\circ\text{C}$ )



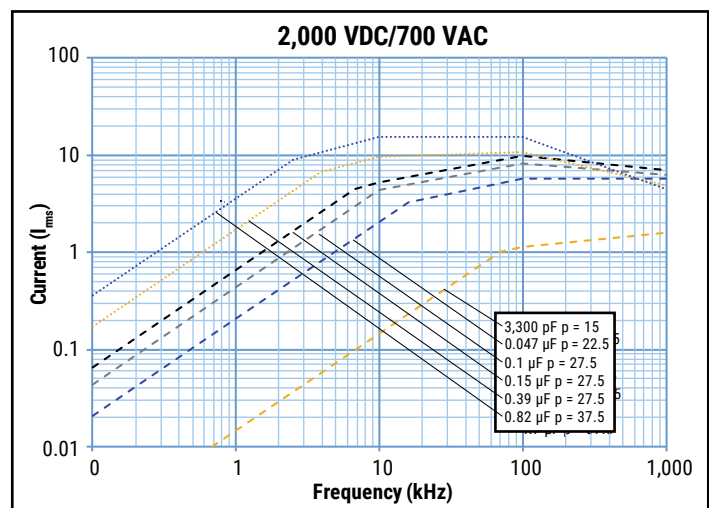
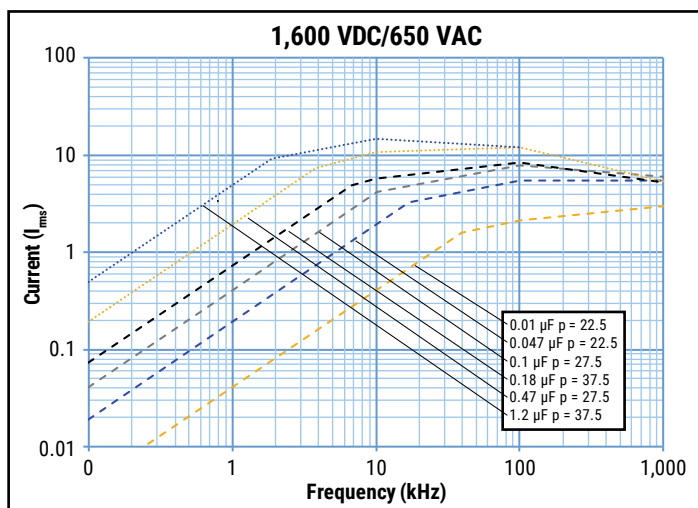
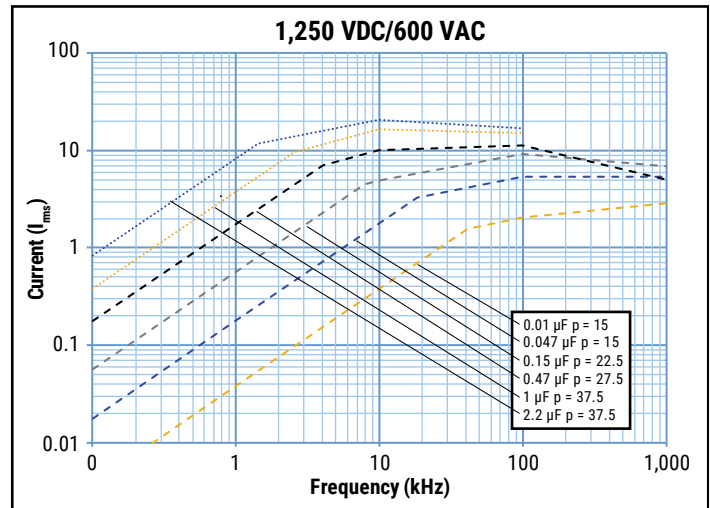
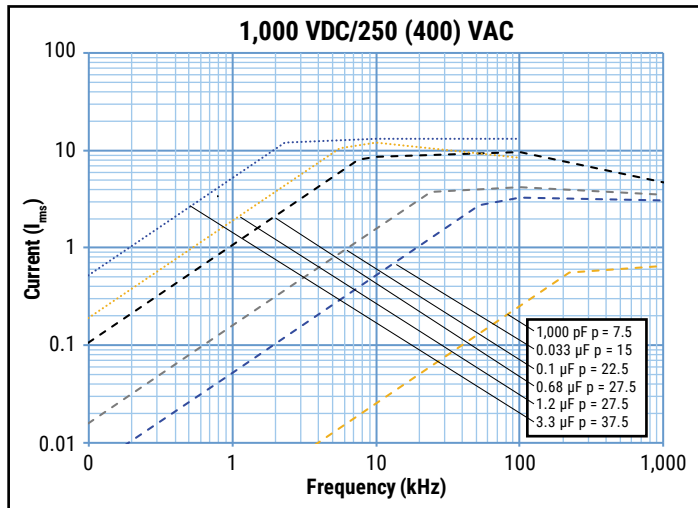
## Maximum Voltage ( $V_{rms}$ ) vs. Frequency (Sinusoidal Waveform/ $T_h \leq 85^\circ\text{C}$ ) cont.



## Maximum Current ( $I_{rms}$ ) vs. Frequency (Sinusoidal Waveform/ $T_h \leq 85^\circ\text{C}$ )



## Maximum Current ( $I_{rms}$ ) vs. Frequency (Sinusoidal Waveform/ $T_h \leq 85^\circ\text{C}$ ) cont.



## Environmental Test Data

| Damp Heat, Steady State Test      | Test Conditions:                                                |                                                         | Performances                                                                                                                                                                  |
|-----------------------------------|-----------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | Temperature:<br>Relative humidity (RH):<br>Test duration:       | +40°C ±2°C<br>93% ±2%<br>56 days                        | $\Delta C/C$   ≤ 2%,<br>$\Delta \tan\delta \leq 0.001$ at 1 kHz<br>IR after test ≥ 50% of initial limit                                                                       |
| Endurance Test                    | Test Conditions                                                 |                                                         | Performances                                                                                                                                                                  |
|                                   | Temperature:<br>Voltage applied:<br>Test duration:              | +85°C ±2°C<br>1.25 x V <sub>R</sub> (DC)<br>2,000 hours | $\Delta C/C$   ≤ 3%,<br>$\Delta \tan\delta \leq 0.001$ at 10 kHz for C ≤ 1 µF<br>$\Delta \tan\delta \leq 0.001$ at 1 kHz for C > 1 µF<br>IR after test ≥ 50% of initial limit |
| Resistance to Soldering Heat Test | Test Conditions                                                 |                                                         | Performances                                                                                                                                                                  |
|                                   | Solder bath temperature:<br>Dipping time<br>(with heat screen): | 260°C ±5°C<br>10 seconds ±1 second                      | $\Delta C/C$   ≤ 1%,<br>$\Delta \tan\delta \leq 0.001$ at 10 kHz for C ≤ 1 µF<br>$\Delta \tan\delta \leq 0.001$ at 1 kHz for C > 1 µF<br>IR after test ≥ initial limit        |

## Environmental Compliance

All KEMET pulse capacitors are RoHS Compliant.



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

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>v</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub>  | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|------------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                  | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | A <sub>pk</sub>  | nH   | mΩ   |                  |              |                                         | A <sub>rms</sub> | (°C/W)              |            |                          |                 |                            |                      |
| 160 | 70  | 0.1            | 4.0              | 9.0  | 10.0 | 7.5              | 100          | 32,000                                  | 10               | 8                   | 11.1       | 4.40                     | 88              | 75GD3100(1)B0(2)           | R75GD3100(1)B0(2)    |
| 160 | 70  | 0.12           | 5.0              | 10.5 | 10.0 | 7.5              | 100          | 32,000                                  | 12               | 8                   | 9.3        | 5.25                     | 78              | 75GD3120(1)B0(2)           | R75GD3120(1)B0(2)    |
| 160 | 70  | 0.15           | 5.0              | 10.5 | 10.0 | 7.5              | 100          | 32,000                                  | 15               | 8                   | 7.4        | 5.87                     | 78              | 75GD3150(1)B0(2)           | R75GD3150(1)B0(2)    |
| 160 | 70  | 0.18           | 6.0              | 12.0 | 10.5 | 7.5              | 100          | 32,000                                  | 18               | 8                   | 10.6       | 5.21                     | 69              | 75GD3180(1)A0(2)           | R75GD3180(1)A0(2)    |
| 160 | 70  | 0.22           | 6.0              | 12.0 | 10.5 | 7.5              | 100          | 32,000                                  | 22               | 8                   | 8.7        | 5.76                     | 69              | 75GD3220(1)A0(2)           | R75GD3220(1)A0(2)    |
| 160 | 70  | 0.12           | 4.0              | 9.0  | 13.0 | 10.0             | 90           | 28,800                                  | 11               | 9                   | 13.3       | 4.38                     | 79              | 75GF3120(1)A0(2)           | R75GF3120(1)A0(2)    |
| 160 | 70  | 0.15           | 4.0              | 9.0  | 13.0 | 10.0             | 90           | 28,800                                  | 14               | 9                   | 10.6       | 4.90                     | 79              | 75GF3150(1)A0(2)           | R75GF3150(1)A0(2)    |
| 160 | 70  | 0.18           | 5.0              | 11.0 | 13.0 | 10.0             | 90           | 28,800                                  | 16               | 9                   | 13.3       | 4.67                     | 69              | 75GF3180(1)A0(2)           | R75GF3180(1)A0(2)    |
| 160 | 70  | 0.22           | 5.0              | 11.0 | 13.0 | 10.0             | 90           | 28,800                                  | 20               | 9                   | 10.9       | 5.17                     | 69              | 75GF3220(1)A0(2)           | R75GF3220(1)A0(2)    |
| 160 | 70  | 0.27           | 6.0              | 12.0 | 13.0 | 10.0             | 90           | 28,800                                  | 24               | 9                   | 17.7       | 4.21                     | 64              | 75GF3270(1)A0(2)           | R75GF3270(1)A0(2)    |
| 160 | 70  | 0.33           | 6.0              | 12.0 | 13.0 | 10.0             | 90           | 28,800                                  | 30               | 9                   | 14.5       | 4.65                     | 64              | 75GF3330(1)A0(2)           | R75GF3330(1)A0(2)    |
| 160 | 90  | 0.068          | 4.0              | 9.0  | 10.0 | 7.5              | 310          | 99,200                                  | 21               | 8                   | 16.4       | 3.73                     | 88              | 75GD2680(1)40(2)           | R75GD2680(1)40(2)    |
| 160 | 90  | 0.082          | 4.0              | 9.0  | 10.0 | 7.5              | 310          | 99,200                                  | 25               | 8                   | 13.6       | 4.10                     | 88              | 75GD2820(1)40(2)           | R75GD2820(1)40(2)    |
| 160 | 90  | 0.1            | 5.0              | 10.5 | 10.0 | 7.5              | 310          | 99,200                                  | 31               | 8                   | 11.1       | 4.80                     | 78              | 75GD3100(1)40(2)           | R75GD3100(1)40(2)    |
| 160 | 90  | 0.12           | 5.0              | 10.5 | 10.0 | 7.5              | 310          | 99,200                                  | 37               | 8                   | 9.3        | 5.25                     | 78              | 75GD3120(1)40(2)           | R75GD3120(1)40(2)    |
| 160 | 90  | 0.15           | 6.0              | 12.0 | 10.5 | 7.5              | 310          | 99,200                                  | 47               | 8                   | 7.4        | 6.23                     | 69              | 75GD3150(1)00(2)           | R75GD3150(1)00(2)    |
| 160 | 90  | 0.18           | 6.0              | 12.0 | 10.5 | 7.5              | 310          | 99,200                                  | 56               | 8                   | 10.6       | 5.21                     | 69              | 75GD3180(1)30(2)           | R75GD3180(1)30(2)    |
| 160 | 90  | 0.082          | 4.0              | 9.0  | 13.0 | 10.0             | 200          | 64,000                                  | 16               | 9                   | 19.4       | 3.62                     | 79              | 75GF2820(1)00(2)           | R75GF2820(1)00(2)    |
| 160 | 90  | 0.1            | 4.0              | 9.0  | 13.0 | 10.0             | 200          | 64,000                                  | 20               | 9                   | 15.9       | 4.00                     | 79              | 75GF3100(1)30(2)           | R75GF3100(1)30(2)    |
| 160 | 90  | 0.12           | 5.0              | 11.0 | 13.0 | 10.0             | 200          | 64,000                                  | 24               | 9                   | 13.3       | 4.67                     | 69              | 75GF3120(1)00(2)           | R75GF3120(1)00(2)    |
| 160 | 90  | 0.15           | 5.0              | 11.0 | 13.0 | 10.0             | 200          | 64,000                                  | 30               | 9                   | 10.6       | 5.22                     | 69              | 75GF3150(1)00(2)           | R75GF3150(1)00(2)    |
| 160 | 90  | 0.18           | 6.0              | 12.0 | 13.0 | 10.0             | 200          | 64,000                                  | 36               | 9                   | 13.3       | 4.86                     | 64              | 75GF3180(1)00(2)           | R75GF3180(1)00(2)    |
| 160 | 90  | 0.22           | 6.0              | 12.0 | 13.0 | 10.0             | 200          | 64,000                                  | 44               | 9                   | 10.9       | 5.37                     | 64              | 75GF3220(1)30(2)           | R75GF3220(1)30(2)    |
| 160 | 90  | 0.18           | 5.0              | 11.0 | 18.0 | 15.0             | 120          | 38,400                                  | 22               | 10                  | 13.3       | 5.00                     | 60              | 75GI3180(1)00(2)           | R75GI3180(1)00(2)    |
| 160 | 90  | 0.22           | 5.0              | 11.0 | 18.0 | 15.0             | 120          | 38,400                                  | 26               | 10                  | 10.9       | 5.53                     | 60              | 75GI3220(1)00(2)           | R75GI3220(1)00(2)    |
| 160 | 90  | 0.27           | 6.0              | 12.0 | 18.0 | 15.0             | 120          | 38,400                                  | 32               | 10                  | 17.7       | 4.50                     | 56              | 75GI3270(1)00(2)           | R75GI3270(1)00(2)    |
| 160 | 90  | 0.33           | 6.0              | 12.0 | 18.0 | 15.0             | 120          | 38,400                                  | 40               | 10                  | 14.5       | 4.97                     | 56              | 75GI3330(1)00(2)           | R75GI3330(1)00(2)    |
| 160 | 90  | 0.39           | 7.5              | 13.5 | 18.0 | 15.0             | 120          | 38,400                                  | 47               | 10                  | 12.2       | 5.68                     | 51              | 75GI3390(1)00(2)           | R75GI3390(1)00(2)    |
| 160 | 90  | 0.47           | 7.5              | 13.5 | 18.0 | 15.0             | 120          | 38,400                                  | 56               | 10                  | 10.2       | 6.23                     | 51              | 75GI3470(1)00(2)           | R75GI3470(1)00(2)    |
| 160 | 90  | 0.47           | 9.0              | 12.5 | 18.0 | 15.0             | 120          | 38,400                                  | 56               | 10                  | 10.2       | 6.30                     | 50              | 75GI3470(1)60(2)           | R75GI3470(1)60(2)    |
| 160 | 90  | 0.56           | 8.5              | 14.5 | 18.0 | 15.0             | 120          | 38,400                                  | 67               | 10                  | 8.5        | 7.01                     | 48              | 75GI3560(1)00(2)           | R75GI3560(1)00(2)    |
| 160 | 90  | 0.56           | 9.0              | 12.5 | 18.0 | 15.0             | 120          | 38,400                                  | 67               | 10                  | 8.5        | 6.88                     | 50              | 75GI3560(1)60(2)           | R75GI3560(1)60(2)    |
| 160 | 90  | 0.68           | 8.5              | 14.5 | 18.0 | 15.0             | 120          | 38,400                                  | 82               | 10                  | 7.0        | 7.72                     | 48              | 75GI3680(1)00(2)           | R75GI3680(1)00(2)    |
| 160 | 90  | 0.68           | 13.0             | 12.0 | 18.0 | 15.0             | 120          | 38,400                                  | 82               | 10                  | 7.0        | 7.96                     | 45              | 75GI3680(1)60(2)           | R75GI3680(1)60(2)    |
| 160 | 90  | 0.82           | 10.0             | 16.0 | 18.0 | 15.0             | 120          | 38,400                                  | 98               | 10                  | 5.8        | 8.83                     | 44              | 75GI3820(1)00(2)           | R75GI3820(1)00(2)    |
| 160 | 90  | 1              | 10.0             | 16.0 | 18.0 | 15.0             | 120          | 38,400                                  | 120              | 10                  | 4.8        | 9.75                     | 44              | 75GI4100(1)00(2)           | R75GI4100(1)00(2)    |
| 160 | 90  | 0.82           | 7.0              | 16.0 | 26.5 | 22.5             | 70           | 22,400                                  | 57               | 16                  | 9.7        | 7.09                     | 41              | 75GN3820(1)00(2)           | R75GN3820(1)00(2)    |
| 160 | 90  | 1              | 7.0              | 16.0 | 26.5 | 22.5             | 70           | 22,400                                  | 70               | 16                  | 8.0        | 7.83                     | 41              | 75GN4100(1)00(2)           | R75GN4100(1)00(2)    |
| 160 | 90  | 1.2            | 8.5              | 17.0 | 26.5 | 22.5             | 70           | 22,400                                  | 84               | 16                  | 13.3       | 6.27                     | 38              | 75GN4120(1)00(2)           | R75GN4120(1)00(2)    |
| 160 | 90  | 1.5            | 10.0             | 18.5 | 26.5 | 22.5             | 70           | 22,400                                  | 105              | 16                  | 10.6       | 7.26                     | 36              | 75GN4150(1)00(2)           | R75GN4150(1)00(2)    |
| 160 | 90  | 1.8            | 10.0             | 18.5 | 26.5 | 22.5             | 70           | 22,400                                  | 126              | 16                  | 8.8        | 7.95                     | 36              | 75GN4180(1)00(2)           | R75GN4180(1)00(2)    |
| 160 | 90  | 1.5            | 9.0              | 17.0 | 32.0 | 27.5             | 60           | 19,200                                  | 90               | 18                  | 10.6       | 7.34                     | 35              | 75GR4150(1)00(2)           | R75GR4150(1)00(2)    |
| 160 | 90  | 1.8            | 9.0              | 17.0 | 32.0 | 27.5             | 60           | 19,200                                  | 108              | 18                  | 8.8        | 8.05                     | 35              | 75GR4180(1)00(2)           | R75GR4180(1)00(2)    |
| 160 | 90  | 2.2            | 11.0             | 20.0 | 32.0 | 27.5             | 60           | 19,200                                  | 132              | 18                  | 7.2        | 9.38                     | 31              | 75GR4220(1)30(2)           | R75GR4220(1)30(2)    |
| 160 | 90  | 2.7            | 11.0             | 20.0 | 32.0 | 27.5             | 60           | 19,200                                  | 162              | 18                  | 8.8        | 8.49                     | 31              | 75GR4270(1)00(2)           | R75GR4270(1)00(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>v</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub>  | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         |                  | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub>  | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub>  | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|------------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                  | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | A <sub>pk</sub>  | nH   | mΩ   |                  |              |                                         | A <sub>rms</sub> | (°C/W)              |            |                          |                 |                            |                      |
| 160 | 90  | 3.3            | 13.0             | 22.0 | 32.0 | 27.5             | 60           | 19,200                                  | 198              | 18                  | 7.2        | 9.75                     | 29              | 75GR4330(1)00(2)           | R75GR4330(1)00(2)    |
| 160 | 90  | 3.9            | 13.0             | 22.0 | 32.0 | 27.5             | 60           | 19,200                                  | 234              | 18                  | 6.1        | 10.60                    | 29              | 75GR4390(1)00(2)           | R75GR4390(1)00(2)    |
| 160 | 90  | 4.7            | 13.0             | 25.0 | 32.0 | 27.5             | 60           | 19,200                                  | 282              | 18                  | 5.1        | 11.91                    | 28              | 75GR4470(1)30(2)           | R75GR4470(1)30(2)    |
| 160 | 90  | 5.6            | 14.0             | 28.0 | 32.0 | 27.5             | 60           | 19,200                                  | 336              | 18                  | 4.3        | 13.41                    | 26              | 75GR4560(1)00(2)           | R75GR4560(1)00(2)    |
| 160 | 90  | 6.8            | 18.0             | 33.0 | 32.0 | 27.5             | 60           | 19,200                                  | 408              | 18                  | 7.0        | 11.14                    | 23              | 75GR4680(1)00(2)           | R75GR4680(1)00(2)    |
| 160 | 90  | 8.2            | 18.0             | 33.0 | 32.0 | 27.5             | 60           | 19,200                                  | 492              | 18                  | 5.8        | 12.24                    | 23              | 75GR4820(1)00(2)           | R75GR4820(1)00(2)    |
| 160 | 90  | 10             | 22.0             | 37.0 | 32.0 | 27.5             | 60           | 19,200                                  | 600              | 18                  | 4.8        | 14.20                    | 21              | 75GR5100(1)00(2)           | R75GR5100(1)00(2)    |
| 160 | 90  | 12             | 22.0             | 37.0 | 32.0 | 27.5             | 60           | 19,200                                  | 720              | 18                  | 4.0        | 15.56                    | 21              | 75GR5120(1)00(2)           | R75GR5120(1)00(2)    |
| 160 | 90  | 3.3            | 11.0             | 22.0 | 41.5 | 37.5             | 35           | 11,200                                  | 116              | 20                  | 7.2        | 10.10                    | 27              | 75GW4330(1)00(2)           | R75GW4330(1)00(2)    |
| 160 | 90  | 3.9            | 11.0             | 22.0 | 41.5 | 37.5             | 35           | 11,200                                  | 137              | 20                  | 6.1        | 10.98                    | 27              | 75GW4390(1)00(2)           | R75GW4390(1)00(2)    |
| 160 | 90  | 4.7            | 11.0             | 22.0 | 41.5 | 37.5             | 35           | 11,200                                  | 165              | 20                  | 5.1        | 12.05                    | 27              | 75GW4470(1)00(2)           | R75GW4470(1)00(2)    |
| 160 | 90  | 5.6            | 13.0             | 24.0 | 41.5 | 37.5             | 35           | 11,200                                  | 196              | 20                  | 4.3        | 13.63                    | 25              | 75GW4560(1)00(2)           | R75GW4560(1)00(2)    |
| 160 | 90  | 6.8            | 16.0             | 28.5 | 41.5 | 37.5             | 35           | 11,200                                  | 238              | 20                  | 7.0        | 11.24                    | 23              | 75GW4680(1)00(2)           | R75GW4680(1)00(2)    |
| 160 | 90  | 8.2            | 16.0             | 28.5 | 41.5 | 37.5             | 35           | 11,200                                  | 287              | 20                  | 5.8        | 12.34                    | 23              | 75GW4820(1)00(2)           | R75GW4820(1)00(2)    |
| 160 | 90  | 10             | 19.0             | 32.0 | 41.5 | 37.5             | 35           | 11,200                                  | 350              | 20                  | 4.8        | 14.23                    | 21              | 75GW5100(1)00(2)           | R75GW5100(1)00(2)    |
| 160 | 90  | 12             | 19.0             | 32.0 | 41.5 | 37.5             | 35           | 11,200                                  | 420              | 20                  | 4.0        | 15.59                    | 21              | 75GW5120(1)00(2)           | R75GW5120(1)00(2)    |
| 160 | 90  | 15             | 20.0             | 40.0 | 41.5 | 37.5             | 35           | 11,200                                  | 525              | 20                  | 3.2        | 18.30                    | 19              | 75GW5150(1)00(2)           | R75GW5150(1)00(2)    |
| 160 | 90  | 18             | 20.0             | 40.0 | 41.5 | 37.5             | 35           | 11,200                                  | 630              | 20                  | 2.7        | 20.05                    | 19              | 75GW5180(1)00(2)           | R75GW5180(1)00(2)    |
| 160 | 90  | 22             | 24.0             | 44.0 | 41.5 | 37.5             | 35           | 11,200                                  | 770              | 20                  | 2.2        | 23.13                    | 17              | 75GW5220(1)00(2)           | R75GW5220(1)00(2)    |
| 160 | 90  | 27             | 30.0             | 45.0 | 41.5 | 37.5             | 35           | 11,200                                  | 945              | 20                  | 1.8        | 26.57                    | 16              | 75GW5270(1)00(2)           | R75GW5270(1)00(2)    |
| 160 | 90  | 33             | 30.0             | 45.0 | 41.5 | 37.5             | 35           | 11,200                                  | 1,155            | 20                  | 1.4        | 29.37                    | 16              | 75GW5330(1)00(2)           | R75GW5330(1)00(2)    |
| 250 | 140 | 0.068          | 4.0              | 9.0  | 10.0 | 7.5              | 180          | 90,000                                  | 12               | 8                   | 16.4       | 3.73                     | 88              | 75ID2680(1)B0(2)           | R75ID2680(1)B0(2)    |
| 250 | 140 | 0.082          | 4.0              | 9.0  | 10.0 | 7.5              | 180          | 90,000                                  | 15               | 8                   | 13.6       | 4.10                     | 88              | 75ID2820(1)B0(2)           | R75ID2820(1)B0(2)    |
| 250 | 140 | 0.1            | 5.0              | 10.5 | 10.0 | 7.5              | 180          | 90,000                                  | 18               | 8                   | 11.1       | 4.80                     | 78              | 75ID3100(1)B0(2)           | R75ID3100(1)B0(2)    |
| 250 | 140 | 0.12           | 5.0              | 10.5 | 10.0 | 7.5              | 180          | 90,000                                  | 22               | 8                   | 9.3        | 5.25                     | 78              | 75ID3120(1)B0(2)           | R75ID3120(1)B0(2)    |
| 250 | 140 | 0.15           | 6.0              | 12.0 | 10.5 | 7.5              | 180          | 90,000                                  | 27               | 8                   | 7.4        | 6.23                     | 69              | 75ID3150(1)A0(2)           | R75ID3150(1)A0(2)    |
| 250 | 140 | 0.18           | 6.0              | 12.0 | 10.5 | 7.5              | 180          | 90,000                                  | 32               | 8                   | 10.6       | 5.21                     | 69              | 75ID3180(1)A0(2)           | R75ID3180(1)A0(2)    |
| 250 | 140 | 0.082          | 4.0              | 9.0  | 13.0 | 10.0             | 150          | 75,000                                  | 12               | 9                   | 19.4       | 3.62                     | 79              | 75IF2820(1)A0(2)           | R75IF2820(1)A0(2)    |
| 250 | 140 | 0.1            | 4.0              | 9.0  | 13.0 | 10.0             | 150          | 75,000                                  | 15               | 9                   | 15.9       | 4.00                     | 79              | 75IF3100(1)A0(2)           | R75IF3100(1)A0(2)    |
| 250 | 140 | 0.12           | 5.0              | 11.0 | 13.0 | 10.0             | 150          | 75,000                                  | 18               | 9                   | 13.3       | 4.67                     | 69              | 75IF3120(1)A0(2)           | R75IF3120(1)A0(2)    |
| 250 | 140 | 0.15           | 5.0              | 11.0 | 13.0 | 10.0             | 150          | 75,000                                  | 23               | 9                   | 10.6       | 5.22                     | 69              | 75IF3150(1)A0(2)           | R75IF3150(1)A0(2)    |
| 250 | 140 | 0.18           | 6.0              | 12.0 | 13.0 | 10.0             | 150          | 75,000                                  | 27               | 9                   | 13.3       | 4.86                     | 64              | 75IF3180(1)A0(2)           | R75IF3180(1)A0(2)    |
| 250 | 140 | 0.22           | 6.0              | 12.0 | 13.0 | 10.0             | 150          | 75,000                                  | 33               | 9                   | 10.9       | 5.37                     | 64              | 75IF3220(1)A0(2)           | R75IF3220(1)A0(2)    |
| 250 | 160 | 0.027          | 4.0              | 9.0  | 10.0 | 7.5              | 650          | 325,000                                 | 18               | 8                   | 41.3       | 2.35                     | 88              | 75ID2270(1)40(2)           | R75ID2270(1)40(2)    |
| 250 | 160 | 0.033          | 4.0              | 9.0  | 10.0 | 7.5              | 650          | 325,000                                 | 21               | 8                   | 33.8       | 2.60                     | 88              | 75ID2330(1)40(2)           | R75ID2330(1)40(2)    |
| 250 | 160 | 0.039          | 4.0              | 9.0  | 10.0 | 7.5              | 650          | 325,000                                 | 25               | 8                   | 28.6       | 2.83                     | 88              | 75ID2390(1)40(2)           | R75ID2390(1)40(2)    |
| 250 | 160 | 0.047          | 4.0              | 9.0  | 10.0 | 7.5              | 650          | 325,000                                 | 31               | 8                   | 23.7       | 3.10                     | 88              | 75ID2470(1)40(2)           | R75ID2470(1)40(2)    |
| 250 | 160 | 0.056          | 4.0              | 9.0  | 10.0 | 7.5              | 650          | 325,000                                 | 36               | 8                   | 19.9       | 3.39                     | 88              | 75ID2560(1)40(2)           | R75ID2560(1)40(2)    |
| 250 | 160 | 0.068          | 5.0              | 10.5 | 10.0 | 7.5              | 650          | 325,000                                 | 44               | 8                   | 16.4       | 3.95                     | 78              | 75ID2680(1)40(2)           | R75ID2680(1)40(2)    |
| 250 | 160 | 0.082          | 5.0              | 10.5 | 10.0 | 7.5              | 650          | 325,000                                 | 53               | 8                   | 13.6       | 4.34                     | 78              | 75ID2820(1)40(2)           | R75ID2820(1)40(2)    |
| 250 | 160 | 0.1            | 6.0              | 12.0 | 10.5 | 7.5              | 650          | 325,000                                 | 65               | 8                   | 11.1       | 5.09                     | 69              | 75ID3100(1)30(2)           | R75ID3100(1)30(2)    |
| 250 | 160 | 0.12           | 6.0              | 12.0 | 10.5 | 7.5              | 650          | 325,000                                 | 78               | 8                   | 9.3        | 5.57                     | 69              | 75ID3120(1)30(2)           | R75ID3120(1)30(2)    |
| 250 | 160 | 0.033          | 4.0              | 9.0  | 13.0 | 10.0             | 570          | 285,000                                 | 19               | 9                   | 33.8       | 2.75                     | 79              | 75IF2330(1)00(2)           | R75IF2330(1)00(2)    |
| 250 | 160 | 0.039          | 4.0              | 9.0  | 13.0 | 10.0             | 570          | 285,000                                 | 22               | 9                   | 28.6       | 2.99                     | 79              | 75IF2390(1)00(2)           | R75IF2390(1)00(2)    |
| 250 | 160 | 0.047          | 4.0              | 9.0  | 13.0 | 10.0             | 570          | 285,000                                 | 27               | 9                   | 23.7       | 3.28                     | 79              | 75IF2470(1)30(2)           | R75IF2470(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub>  | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         |                  | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub>  | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 250 | 160 | 0.056          | 4.0              | 9.0  | 13.0 | 10.0             | 570          | 285,000                                 | 32              | 9                   | 28.4       | 2.99                     | 79              | 75IF2560(1)30(2)           | R75IF2560(1)30(2)    |
| 250 | 160 | 0.068          | 4.0              | 9.0  | 13.0 | 10.0             | 570          | 285,000                                 | 39              | 9                   | 23.4       | 3.30                     | 79              | 75IF2680(1)30(2)           | R75IF2680(1)30(2)    |
| 250 | 160 | 0.082          | 5.0              | 11.0 | 13.0 | 10.0             | 570          | 285,000                                 | 47              | 9                   | 19.4       | 3.86                     | 69              | 75IF2820(1)30(2)           | R75IF2820(1)30(2)    |
| 250 | 160 | 0.1            | 5.0              | 11.0 | 13.0 | 10.0             | 570          | 285,000                                 | 57              | 9                   | 15.9       | 4.27                     | 69              | 75IF3100(1)30(2)           | R75IF3100(1)30(2)    |
| 250 | 160 | 0.12           | 6.0              | 12.0 | 13.0 | 10.0             | 570          | 285,000                                 | 68              | 9                   | 13.3       | 4.86                     | 64              | 75IF3120(1)30(2)           | R75IF3120(1)30(2)    |
| 250 | 160 | 0.15           | 6.0              | 12.0 | 13.0 | 10.0             | 570          | 285,000                                 | 86              | 9                   | 10.6       | 5.43                     | 64              | 75IF3150(1)30(2)           | R75IF3150(1)30(2)    |
| 250 | 160 | 0.12           | 5.0              | 11.0 | 18.0 | 15.0             | 310          | 155,000                                 | 37              | 10                  | 13.3       | 5.00                     | 60              | 75II3120(1)30(2)           | R75II3120(1)30(2)    |
| 250 | 160 | 0.15           | 5.0              | 11.0 | 18.0 | 15.0             | 310          | 155,000                                 | 47              | 10                  | 10.6       | 5.59                     | 60              | 75II3150(1)30(2)           | R75II3150(1)30(2)    |
| 250 | 160 | 0.18           | 5.0              | 11.0 | 18.0 | 15.0             | 310          | 155,000                                 | 56              | 10                  | 13.3       | 5.00                     | 60              | 75II3180(1)40(2)           | R75II3180(1)40(2)    |
| 250 | 160 | 0.22           | 5.0              | 11.0 | 18.0 | 15.0             | 310          | 155,000                                 | 68              | 10                  | 10.9       | 5.53                     | 60              | 75II3220(1)40(2)           | R75II3220(1)40(2)    |
| 250 | 160 | 0.27           | 6.0              | 12.0 | 18.0 | 15.0             | 310          | 155,000                                 | 84              | 10                  | 17.7       | 4.50                     | 56              | 75II3270(1)40(2)           | R75II3270(1)40(2)    |
| 250 | 160 | 0.33           | 6.0              | 12.0 | 18.0 | 15.0             | 310          | 155,000                                 | 102             | 10                  | 14.5       | 4.97                     | 56              | 75II3330(1)40(2)           | R75II3330(1)40(2)    |
| 250 | 160 | 0.39           | 7.5              | 13.5 | 18.0 | 15.0             | 310          | 155,000                                 | 121             | 10                  | 12.2       | 5.68                     | 51              | 75II3390(1)40(2)           | R75II3390(1)40(2)    |
| 250 | 160 | 0.39           | 9.0              | 12.5 | 18.0 | 15.0             | 310          | 155,000                                 | 121             | 10                  | 12.2       | 5.74                     | 50              | 75II3390(1)70(2)           | R75II3390(1)70(2)    |
| 250 | 160 | 0.47           | 7.5              | 13.5 | 18.0 | 15.0             | 310          | 155,000                                 | 146             | 10                  | 10.2       | 6.23                     | 51              | 75II3470(1)40(2)           | R75II3470(1)40(2)    |
| 250 | 160 | 0.47           | 9.0              | 12.5 | 18.0 | 15.0             | 310          | 155,000                                 | 146             | 10                  | 10.2       | 6.30                     | 50              | 75II3470(1)80(2)           | R75II3470(1)80(2)    |
| 250 | 160 | 0.56           | 7.5              | 13.5 | 18.0 | 15.0             | 310          | 155,000                                 | 174             | 10                  | 8.5        | 6.80                     | 51              | 75II3560(1)40(2)           | R75II3560(1)40(2)    |
| 250 | 160 | 0.56           | 9.0              | 12.5 | 18.0 | 15.0             | 310          | 155,000                                 | 174             | 10                  | 8.5        | 6.88                     | 50              | 75II3560(1)80(2)           | R75II3560(1)80(2)    |
| 250 | 160 | 0.68           | 8.5              | 14.5 | 18.0 | 15.0             | 310          | 155,000                                 | 211             | 10                  | 7.0        | 7.72                     | 48              | 75II3680(1)40(2)           | R75II3680(1)40(2)    |
| 250 | 160 | 0.68           | 13.0             | 12.0 | 18.0 | 15.0             | 310          | 155,000                                 | 211             | 10                  | 7.0        | 7.96                     | 45              | 75II3680(1)80(2)           | R75II3680(1)80(2)    |
| 250 | 160 | 0.82           | 10.0             | 16.0 | 18.0 | 15.0             | 310          | 155,000                                 | 254             | 10                  | 5.8        | 8.83                     | 44              | 75II3820(1)40(2)           | R75II3820(1)40(2)    |
| 250 | 160 | 0.82           | 13.0             | 12.0 | 18.0 | 15.0             | 310          | 155,000                                 | 254             | 10                  | 5.8        | 8.75                     | 45              | 75II3820(1)80(2)           | R75II3820(1)80(2)    |
| 250 | 160 | 1              | 10.0             | 16.0 | 18.0 | 15.0             | 310          | 155,000                                 | 310             | 10                  | 4.8        | 9.75                     | 44              | 75II4100(1)40(2)           | R75II4100(1)40(2)    |
| 250 | 160 | 1.2            | 11.0             | 19.0 | 18.0 | 15.0             | 310          | 155,000                                 | 372             | 10                  | 6.6        | 8.66                     | 40              | 75II4120(1)40(2)           | R75II4120(1)40(2)    |
| 250 | 160 | 0.39           | 6.0              | 15.0 | 26.5 | 22.5             | 130          | 65,000                                  | 51              | 16                  | 10.2       | 6.72                     | 43              | 75IN3390(1)30(2)           | R75IN3390(1)30(2)    |
| 250 | 160 | 0.47           | 6.0              | 15.0 | 26.5 | 22.5             | 130          | 65,000                                  | 61              | 16                  | 8.5        | 7.38                     | 43              | 75IN3470(1)30(2)           | R75IN3470(1)30(2)    |
| 250 | 160 | 0.56           | 6.0              | 15.0 | 26.5 | 22.5             | 130          | 65,000                                  | 73              | 16                  | 11.4       | 6.37                     | 43              | 75IN3560(1)40(2)           | R75IN3560(1)40(2)    |
| 250 | 160 | 0.68           | 6.0              | 15.0 | 26.5 | 22.5             | 130          | 65,000                                  | 88              | 16                  | 9.4        | 7.01                     | 43              | 75IN3680(1)40(2)           | R75IN3680(1)40(2)    |
| 250 | 160 | 0.82           | 7.0              | 16.0 | 26.5 | 22.5             | 130          | 65,000                                  | 107             | 16                  | 9.7        | 7.09                     | 41              | 75IN3820(1)40(2)           | R75IN3820(1)40(2)    |
| 250 | 160 | 1              | 7.0              | 16.0 | 26.5 | 22.5             | 130          | 65,000                                  | 130             | 16                  | 8.0        | 7.83                     | 41              | 75IN4100(1)40(2)           | R75IN4100(1)40(2)    |
| 250 | 160 | 1.2            | 8.5              | 17.0 | 26.5 | 22.5             | 130          | 65,000                                  | 156             | 16                  | 13.3       | 6.27                     | 38              | 75IN4120(1)40(2)           | R75IN4120(1)40(2)    |
| 250 | 160 | 1.5            | 10.0             | 18.5 | 26.5 | 22.5             | 130          | 65,000                                  | 195             | 16                  | 10.6       | 7.26                     | 36              | 75IN4150(1)40(2)           | R75IN4150(1)40(2)    |
| 250 | 160 | 1.8            | 10.0             | 18.5 | 26.5 | 22.5             | 130          | 65,000                                  | 234             | 16                  | 8.8        | 7.95                     | 36              | 75IN4180(1)40(2)           | R75IN4180(1)40(2)    |
| 250 | 160 | 2.2            | 11.0             | 20.0 | 26.5 | 22.5             | 130          | 65,000                                  | 286             | 16                  | 7.2        | 9.02                     | 34              | 75IN4220(1)40(2)           | R75IN4220(1)40(2)    |
| 250 | 160 | 2.7            | 13.0             | 22.0 | 26.5 | 22.5             | 130          | 65,000                                  | 351             | 16                  | 8.8        | 8.49                     | 31              | 75IN4270(1)40(2)           | R75IN4270(1)40(2)    |
| 250 | 160 | 3.3            | 13.0             | 22.0 | 26.5 | 22.5             | 130          | 65,000                                  | 429             | 16                  | 7.2        | 9.39                     | 31              | 75IN4330(1)40(2)           | R75IN4330(1)40(2)    |
| 250 | 160 | 1              | 9.0              | 17.0 | 32.0 | 27.5             | 100          | 50,000                                  | 100             | 18                  | 8.0        | 8.48                     | 35              | 75IR4100(1)30(2)           | R75IR4100(1)30(2)    |
| 250 | 160 | 1.2            | 9.0              | 17.0 | 32.0 | 27.5             | 100          | 50,000                                  | 120             | 18                  | 13.3       | 6.57                     | 35              | 75IR4120(1)30(2)           | R75IR4120(1)30(2)    |
| 250 | 160 | 1.5            | 9.0              | 17.0 | 32.0 | 27.5             | 100          | 50,000                                  | 150             | 18                  | 10.6       | 7.34                     | 35              | 75IR4150(1)40(2)           | R75IR4150(1)40(2)    |
| 250 | 160 | 1.8            | 9.0              | 17.0 | 32.0 | 27.5             | 100          | 50,000                                  | 180             | 18                  | 8.8        | 8.05                     | 35              | 75IR4180(1)40(2)           | R75IR4180(1)40(2)    |
| 250 | 160 | 2.2            | 11.0             | 20.0 | 32.0 | 27.5             | 100          | 50,000                                  | 220             | 18                  | 7.2        | 9.38                     | 31              | 75IR4220(1)50(2)           | R75IR4220(1)50(2)    |
| 250 | 160 | 2.7            | 11.0             | 20.0 | 32.0 | 27.5             | 100          | 50,000                                  | 270             | 18                  | 8.8        | 8.49                     | 31              | 75IR4270(1)40(2)           | R75IR4270(1)40(2)    |
| 250 | 160 | 3.3            | 13.0             | 22.0 | 32.0 | 27.5             | 100          | 50,000                                  | 330             | 18                  | 7.2        | 9.75                     | 29              | 75IR4330(1)40(2)           | R75IR4330(1)40(2)    |
| 250 | 160 | 3.9            | 13.0             | 22.0 | 32.0 | 27.5             | 100          | 50,000                                  | 390             | 18                  | 6.1        | 10.60                    | 29              | 75IR4390(1)40(2)           | R75IR4390(1)40(2)    |
| 250 | 160 | 4.7            | 13.0             | 25.0 | 32.0 | 27.5             | 100          | 50,000                                  | 470             | 18                  | 5.1        | 11.91                    | 28              | 75IR4470(1)50(2)           | R75IR4470(1)50(2)    |
| 250 | 160 | 5.6            | 14.0             | 28.0 | 32.0 | 27.5             | 100          | 50,000                                  | 560             | 18                  | 4.3        | 13.41                    | 26              | 75IR4560(1)40(2)           | R75IR4560(1)40(2)    |
| 250 | 160 | 6.8            | 18.0             | 33.0 | 32.0 | 27.5             | 100          | 50,000                                  | 680             | 18                  | 7.0        | 11.14                    | 23              | 75IR4680(1)40(2)           | R75IR4680(1)40(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> r | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub>          | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-------------------|---------------------|------------|--------------------------|--------------------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                   | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub>   | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   |                            |                      |
| 250 | 160 | 8.2            | 18.0             | 33.0 | 32.0 | 27.5             | 100          | 50,000                                  | 820               | 18                  | 5.8        | 12.24                    | 23                       | 75IR4820(1)40(2)           | R75IR4820(1)40(2)    |
| 250 | 160 | 10             | 22.0             | 37.0 | 32.0 | 27.5             | 100          | 50,000                                  | 1,000             | 18                  | 4.8        | 14.20                    | 21                       | 75IR5100(1)40(2)           | R75IR5100(1)40(2)    |
| 250 | 160 | 12             | 22.0             | 37.0 | 32.0 | 27.5             | 100          | 50,000                                  | 1,200             | 18                  | 4.0        | 15.56                    | 21                       | 75IR5120(1)40(2)           | R75IR5120(1)40(2)    |
| 250 | 160 | 3.3            | 11.0             | 22.0 | 41.5 | 37.5             | 40           | 20,000                                  | 132               | 20                  | 7.2        | 10.10                    | 27                       | 75IW4330(1)40(2)           | R75IW4330(1)40(2)    |
| 250 | 160 | 3.9            | 11.0             | 22.0 | 41.5 | 37.5             | 40           | 20,000                                  | 156               | 20                  | 6.1        | 10.98                    | 27                       | 75IW4390(1)40(2)           | R75IW4390(1)40(2)    |
| 250 | 160 | 4.7            | 11.0             | 22.0 | 41.5 | 37.5             | 40           | 20,000                                  | 188               | 20                  | 5.1        | 12.05                    | 27                       | 75IW4470(1)40(2)           | R75IW4470(1)40(2)    |
| 250 | 160 | 5.6            | 13.0             | 24.0 | 41.5 | 37.5             | 40           | 20,000                                  | 224               | 20                  | 4.3        | 13.63                    | 25                       | 75IW4560(1)40(2)           | R75IW4560(1)40(2)    |
| 250 | 160 | 6.8            | 16.0             | 28.5 | 41.5 | 37.5             | 40           | 20,000                                  | 272               | 20                  | 7.0        | 11.24                    | 23                       | 75IW4680(1)40(2)           | R75IW4680(1)40(2)    |
| 250 | 160 | 8.2            | 16.0             | 28.5 | 41.5 | 37.5             | 40           | 20,000                                  | 328               | 20                  | 5.8        | 12.34                    | 23                       | 75IW4820(1)40(2)           | R75IW4820(1)40(2)    |
| 250 | 160 | 10             | 19.0             | 32.0 | 41.5 | 37.5             | 40           | 20,000                                  | 400               | 20                  | 4.8        | 14.23                    | 21                       | 75IW5100(1)40(2)           | R75IW5100(1)40(2)    |
| 250 | 160 | 12             | 19.0             | 32.0 | 41.5 | 37.5             | 40           | 20,000                                  | 480               | 20                  | 4.0        | 15.59                    | 21                       | 75IW5120(1)40(2)           | R75IW5120(1)40(2)    |
| 250 | 160 | 15             | 20.0             | 40.0 | 41.5 | 37.5             | 40           | 20,000                                  | 600               | 20                  | 3.2        | 18.30                    | 19                       | 75IW5150(1)40(2)           | R75IW5150(1)40(2)    |
| 250 | 160 | 18             | 20.0             | 40.0 | 41.5 | 37.5             | 40           | 20,000                                  | 720               | 20                  | 2.7        | 20.05                    | 19                       | 75IW5180(1)40(2)           | R75IW5180(1)40(2)    |
| 250 | 160 | 22             | 24.0             | 44.0 | 41.5 | 37.5             | 40           | 20,000                                  | 880               | 20                  | 2.2        | 23.13                    | 17                       | 75IW5220(1)40(2)           | R75IW5220(1)40(2)    |
| 250 | 160 | 27             | 24.0             | 44.0 | 41.5 | 37.5             | 40           | 20,000                                  | 1,080             | 20                  | 1.8        | 25.62                    | 17                       | 75IW5270(1)40(2)           | R75IW5270(1)40(2)    |
| 250 | 160 | 33             | 30.0             | 45.0 | 41.5 | 37.5             | 40           | 20,000                                  | 1,320             | 20                  | 1.4        | 29.37                    | 16                       | 75IW5330(1)40(2)           | R75IW5330(1)40(2)    |
| 400 | 200 | 0.027          | 4.0              | 9.0  | 10.0 | 7.5              | 390          | 312,000                                 | 11                | 8                   | 41.3       | 2.35                     | 88                       | 75MD2270(1)B0(2)           | R75MD2270(1)B0(2)    |
| 400 | 200 | 0.033          | 5.0              | 10.5 | 10.0 | 7.5              | 390          | 312,000                                 | 13                | 8                   | 33.8       | 2.75                     | 78                       | 75MD2330(1)B0(2)           | R75MD2330(1)B0(2)    |
| 400 | 200 | 0.039          | 5.0              | 10.5 | 10.0 | 7.5              | 390          | 312,000                                 | 15                | 8                   | 28.6       | 2.99                     | 78                       | 75MD2390(1)B0(2)           | R75MD2390(1)B0(2)    |
| 400 | 200 | 0.047          | 5.0              | 10.5 | 10.0 | 7.5              | 390          | 312,000                                 | 18                | 8                   | 23.7       | 3.29                     | 78                       | 75MD2470(1)B0(2)           | R75MD2470(1)B0(2)    |
| 400 | 200 | 0.056          | 6.0              | 12.0 | 10.5 | 7.5              | 390          | 312,000                                 | 22                | 8                   | 19.9       | 3.81                     | 69                       | 75MD2560(1)A0(2)           | R75MD2560(1)A0(2)    |
| 400 | 200 | 0.068          | 6.0              | 12.0 | 10.5 | 7.5              | 390          | 312,000                                 | 27                | 8                   | 16.4       | 4.20                     | 69                       | 75MD2680(1)A0(2)           | R75MD2680(1)A0(2)    |
| 400 | 220 | 0.01           | 4.0              | 9.0  | 10.0 | 7.5              | 1,500        | 1,200,000                               | 15                | 8                   | 79.6       | 1.38                     | 88                       | 75MD2100(1)40(2)           | R75MD2100(1)40(2)    |
| 400 | 220 | 0.012          | 4.0              | 9.0  | 10.0 | 7.5              | 1,500        | 1,200,000                               | 18                | 8                   | 92.8       | 1.57                     | 88                       | 75MD2120(1)40(2)           | R75MD2120(1)40(2)    |
| 400 | 220 | 0.015          | 4.0              | 9.0  | 10.0 | 7.5              | 1,500        | 1,200,000                               | 23                | 8                   | 74.3       | 1.75                     | 88                       | 75MD2150(1)40(2)           | R75MD2150(1)40(2)    |
| 400 | 220 | 0.018          | 4.0              | 9.0  | 10.0 | 7.5              | 1,500        | 1,200,000                               | 27                | 8                   | 61.9       | 1.92                     | 88                       | 75MD2180(1)40(2)           | R75MD2180(1)40(2)    |
| 400 | 220 | 0.022          | 4.0              | 9.0  | 10.0 | 7.5              | 1,500        | 1,200,000                               | 33                | 8                   | 50.6       | 2.12                     | 88                       | 75MD2220(1)40(2)           | R75MD2220(1)40(2)    |
| 400 | 220 | 0.027          | 5.0              | 10.5 | 10.0 | 7.5              | 1,500        | 1,200,000                               | 41                | 8                   | 41.3       | 2.49                     | 78                       | 75MD2270(1)40(2)           | R75MD2270(1)40(2)    |
| 400 | 220 | 0.033          | 5.0              | 10.5 | 10.0 | 7.5              | 1,500        | 1,200,000                               | 50                | 8                   | 33.8       | 2.75                     | 78                       | 75MD2330(1)40(2)           | R75MD2330(1)40(2)    |
| 400 | 220 | 0.039          | 6.0              | 12.0 | 10.5 | 7.5              | 1,500        | 1,200,000                               | 59                | 8                   | 28.6       | 3.18                     | 69                       | 75MD2390(1)30(2)           | R75MD2390(1)30(2)    |
| 400 | 220 | 0.047          | 6.0              | 12.0 | 10.5 | 7.5              | 1,500        | 1,200,000                               | 71                | 8                   | 23.7       | 3.49                     | 69                       | 75MD2470(1)30(2)           | R75MD2470(1)30(2)    |
| 400 | 220 | 0.015          | 4.0              | 9.0  | 13.0 | 10.0             | 1,300        | 1,040,000                               | 20                | 9                   | 74.3       | 1.85                     | 79                       | 75MF2150(1)00(2)           | R75MF2150(1)00(2)    |
| 400 | 220 | 0.018          | 4.0              | 9.0  | 13.0 | 10.0             | 1,300        | 1,040,000                               | 23                | 9                   | 61.9       | 2.03                     | 79                       | 75MF2180(1)00(2)           | R75MF2180(1)00(2)    |
| 400 | 220 | 0.022          | 4.0              | 9.0  | 13.0 | 10.0             | 1,300        | 1,040,000                               | 29                | 9                   | 50.6       | 2.24                     | 79                       | 75MF2220(1)30(2)           | R75MF2220(1)30(2)    |
| 400 | 220 | 0.027          | 4.0              | 9.0  | 13.0 | 10.0             | 1,300        | 1,040,000                               | 35                | 9                   | 41.3       | 2.48                     | 79                       | 75MF2270(1)30(2)           | R75MF2270(1)30(2)    |
| 400 | 220 | 0.033          | 5.0              | 11.0 | 13.0 | 10.0             | 1,300        | 1,040,000                               | 43                | 9                   | 33.8       | 2.93                     | 69                       | 75MF2330(1)30(2)           | R75MF2330(1)30(2)    |
| 400 | 220 | 0.039          | 5.0              | 11.0 | 13.0 | 10.0             | 1,300        | 1,040,000                               | 51                | 9                   | 28.6       | 3.18                     | 69                       | 75MF2390(1)30(2)           | R75MF2390(1)30(2)    |
| 400 | 220 | 0.047          | 5.0              | 11.0 | 13.0 | 10.0             | 1,300        | 1,040,000                               | 61                | 9                   | 23.7       | 3.50                     | 69                       | 75MF2470(1)30(2)           | R75MF2470(1)30(2)    |
| 400 | 220 | 0.056          | 6.0              | 12.0 | 13.0 | 10.0             | 1,300        | 1,040,000                               | 73                | 9                   | 28.4       | 3.32                     | 64                       | 75MF2560(1)30(2)           | R75MF2560(1)30(2)    |
| 400 | 220 | 0.068          | 6.0              | 12.0 | 13.0 | 10.0             | 1,300        | 1,040,000                               | 88                | 9                   | 23.4       | 3.66                     | 64                       | 75MF2680(1)30(2)           | R75MF2680(1)30(2)    |
| 400 | 220 | 0.068          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 61                | 10                  | 23.4       | 3.77                     | 60                       | 75MI2680(1)30(2)           | R75MI2680(1)30(2)    |
| 400 | 220 | 0.082          | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 74                | 10                  | 19.4       | 4.14                     | 60                       | 75MI2820(1)30(2)           | R75MI2820(1)30(2)    |
| 400 | 220 | 0.1            | 5.0              | 11.0 | 18.0 | 15.0             | 900          | 720,000                                 | 90                | 10                  | 15.9       | 4.57                     | 60                       | 75MI3100(1)30(2)           | R75MI3100(1)30(2)    |
| 400 | 220 | 0.12           | 6.0              | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 108               | 10                  | 13.3       | 5.19                     | 56                       | 75MI3120(1)30(2)           | R75MI3120(1)30(2)    |
| 400 | 220 | 0.15           | 6.0              | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 135               | 10                  | 10.6       | 5.81                     | 56                       | 75MI3150(1)30(2)           | R75MI3150(1)30(2)    |
| 400 | 220 | 0.18           | 7.5              | 13.5 | 18.0 | 15.0             | 900          | 720,000                                 | 162               | 10                  | 13.3       | 5.45                     | 51                       | 75MI3180(1)30(2)           | R75MI3180(1)30(2)    |
| 400 | 220 | 0.22           | 7.5              | 13.5 | 18.0 | 15.0             | 900          | 720,000                                 | 198               | 10                  | 10.9       | 6.03                     | 51                       | 75MI3220(1)30(2)           | R75MI3220(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub>   | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         |                   | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|     |     |                | Dimensions       |      |      |                  |              |                                         |                   | I <sub>pk</sub> r   | ESL        | ESR                      | I <sub>rms</sub> max (*) |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> r | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub>          | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-------------------|---------------------|------------|--------------------------|--------------------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                   | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|     |     |                | A <sub>pk</sub>  | nH   | mΩ   |                  |              |                                         | A <sub>rms</sub>  | (°C/W)              |            |                          |                          |                            |                      |
| 400 | 220 | 0.22           | 9.0              | 12.5 | 18.0 | 15.0             | 900          | 720,000                                 | 198               | 10                  | 10.9       | 6.10                     | 50                       | 75MI3220(1)70(2)           | R75MI3220(1)70(2)    |
| 400 | 220 | 0.27           | 8.5              | 14.5 | 18.0 | 15.0             | 900          | 720,000                                 | 243               | 10                  | 17.7       | 4.87                     | 48                       | 75MI3270(1)30(2)           | R75MI3270(1)30(2)    |
| 400 | 220 | 0.27           | 9.0              | 12.5 | 18.0 | 15.0             | 900          | 720,000                                 | 243               | 10                  | 17.7       | 4.77                     | 50                       | 75MI3270(1)70(2)           | R75MI3270(1)70(2)    |
| 400 | 220 | 0.33           | 10.0             | 16.0 | 18.0 | 15.0             | 900          | 720,000                                 | 297               | 10                  | 14.5       | 5.60                     | 44                       | 75MI3330(1)30(2)           | R75MI3330(1)30(2)    |
| 400 | 220 | 0.33           | 13.0             | 12.0 | 18.0 | 15.0             | 900          | 720,000                                 | 297               | 10                  | 14.5       | 5.55                     | 45                       | 75MI3330(1)70(2)           | R75MI3330(1)70(2)    |
| 400 | 220 | 0.39           | 10.0             | 16.0 | 18.0 | 15.0             | 900          | 720,000                                 | 351               | 10                  | 12.2       | 6.09                     | 44                       | 75MI3390(1)30(2)           | R75MI3390(1)30(2)    |
| 400 | 220 | 0.47           | 10.0             | 16.0 | 18.0 | 15.0             | 900          | 720,000                                 | 423               | 10                  | 10.2       | 6.68                     | 44                       | 75MI3470(1)30(2)           | R75MI3470(1)30(2)    |
| 400 | 220 | 0.56           | 11.0             | 19.0 | 18.0 | 15.0             | 900          | 720,000                                 | 504               | 10                  | 8.5        | 7.63                     | 40                       | 75MI3560(1)30(2)           | R75MI3560(1)30(2)    |
| 400 | 220 | 0.18           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 240,000                                 | 54                | 16                  | 15.0       | 5.54                     | 43                       | 75MN3180(1)30(2)           | R75MN3180(1)30(2)    |
| 400 | 220 | 0.22           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 240,000                                 | 66                | 16                  | 12.3       | 6.12                     | 43                       | 75MN3220(1)30(2)           | R75MN3220(1)30(2)    |
| 400 | 220 | 0.27           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 240,000                                 | 81                | 16                  | 11.8       | 6.25                     | 43                       | 75MN3270(1)30(2)           | R75MN3270(1)30(2)    |
| 400 | 220 | 0.33           | 6.0              | 15.0 | 26.5 | 22.5             | 300          | 240,000                                 | 99                | 16                  | 9.6        | 6.91                     | 43                       | 75MN3330(1)30(2)           | R75MN3330(1)30(2)    |
| 400 | 220 | 0.39           | 7.0              | 16.0 | 26.5 | 22.5             | 300          | 240,000                                 | 117               | 16                  | 10.2       | 6.91                     | 41                       | 75MN3390(1)30(2)           | R75MN3390(1)30(2)    |
| 400 | 220 | 0.47           | 7.0              | 16.0 | 26.5 | 22.5             | 300          | 240,000                                 | 141               | 16                  | 8.5        | 7.59                     | 41                       | 75MN3470(1)30(2)           | R75MN3470(1)30(2)    |
| 400 | 220 | 0.56           | 8.5              | 17.0 | 26.5 | 22.5             | 300          | 240,000                                 | 168               | 16                  | 11.4       | 6.77                     | 38                       | 75MN3560(1)30(2)           | R75MN3560(1)30(2)    |
| 400 | 220 | 0.68           | 10.0             | 18.5 | 26.5 | 22.5             | 300          | 240,000                                 | 204               | 16                  | 9.4        | 7.73                     | 36                       | 75MN3680(1)30(2)           | R75MN3680(1)30(2)    |
| 400 | 220 | 0.82           | 10.0             | 18.5 | 26.5 | 22.5             | 300          | 240,000                                 | 246               | 16                  | 9.7        | 7.59                     | 36                       | 75MN3820(1)30(2)           | R75MN3820(1)30(2)    |
| 400 | 220 | 1              | 11.0             | 20.0 | 26.5 | 22.5             | 300          | 240,000                                 | 300               | 16                  | 8.0        | 8.60                     | 34                       | 75MN4100(1)30(2)           | R75MN4100(1)30(2)    |
| 400 | 220 | 1.2            | 13.0             | 22.0 | 26.5 | 22.5             | 300          | 240,000                                 | 360               | 16                  | 13.3       | 6.93                     | 31                       | 75MN4120(1)30(2)           | R75MN4120(1)30(2)    |
| 400 | 220 | 1.5            | 13.0             | 22.0 | 26.5 | 22.5             | 300          | 240,000                                 | 450               | 16                  | 10.6       | 7.75                     | 31                       | 75MN4150(1)30(2)           | R75MN4150(1)30(2)    |
| 400 | 220 | 0.56           | 9.0              | 17.0 | 32.0 | 27.5             | 130          | 104,000                                 | 73                | 18                  | 11.4       | 7.10                     | 35                       | 75MR3560(1)30(2)           | R75MR3560(1)30(2)    |
| 400 | 220 | 0.68           | 9.0              | 17.0 | 32.0 | 27.5             | 130          | 104,000                                 | 88                | 18                  | 9.4        | 7.82                     | 35                       | 75MR3680(1)30(2)           | R75MR3680(1)30(2)    |
| 400 | 220 | 0.82           | 9.0              | 17.0 | 32.0 | 27.5             | 130          | 104,000                                 | 107               | 18                  | 9.7        | 7.68                     | 35                       | 75MR3820(1)30(2)           | R75MR3820(1)30(2)    |
| 400 | 220 | 1              | 11.0             | 20.0 | 32.0 | 27.5             | 130          | 104,000                                 | 130               | 18                  | 8.0        | 8.95                     | 31                       | 75MR4100(1)40(2)           | R75MR4100(1)40(2)    |
| 400 | 220 | 1.2            | 11.0             | 20.0 | 32.0 | 27.5             | 130          | 104,000                                 | 156               | 18                  | 13.3       | 6.93                     | 31                       | 75MR4120(1)30(2)           | R75MR4120(1)30(2)    |
| 400 | 220 | 1.5            | 13.0             | 22.0 | 32.0 | 27.5             | 130          | 104,000                                 | 195               | 18                  | 10.6       | 8.05                     | 29                       | 75MR4150(1)30(2)           | R75MR4150(1)30(2)    |
| 400 | 220 | 1.8            | 13.0             | 22.0 | 32.0 | 27.5             | 130          | 104,000                                 | 234               | 18                  | 8.8        | 8.82                     | 29                       | 75MR4180(1)30(2)           | R75MR4180(1)30(2)    |
| 400 | 220 | 2.2            | 13.0             | 25.0 | 32.0 | 27.5             | 130          | 104,000                                 | 286               | 18                  | 7.2        | 9.98                     | 28                       | 75MR4220(1)40(2)           | R75MR4220(1)40(2)    |
| 400 | 220 | 2.7            | 14.0             | 28.0 | 32.0 | 27.5             | 130          | 104,000                                 | 351               | 18                  | 8.8        | 9.31                     | 26                       | 75MR4270(1)30(2)           | R75MR4270(1)30(2)    |
| 400 | 220 | 3.3            | 18.0             | 33.0 | 32.0 | 27.5             | 130          | 104,000                                 | 429               | 18                  | 7.2        | 10.98                    | 23                       | 75MR4330(1)30(2)           | R75MR4330(1)30(2)    |
| 400 | 220 | 3.9            | 18.0             | 33.0 | 32.0 | 27.5             | 130          | 104,000                                 | 507               | 18                  | 6.1        | 11.93                    | 23                       | 75MR4390(1)30(2)           | R75MR4390(1)30(2)    |
| 400 | 220 | 4.7            | 22.0             | 37.0 | 32.0 | 27.5             | 130          | 104,000                                 | 611               | 18                  | 5.1        | 13.77                    | 21                       | 75MR4470(1)30(2)           | R75MR4470(1)30(2)    |
| 400 | 220 | 5.6            | 22.0             | 37.0 | 32.0 | 27.5             | 130          | 104,000                                 | 728               | 18                  | 4.3        | 15.03                    | 21                       | 75MR4560(1)30(2)           | R75MR4560(1)30(2)    |
| 400 | 220 | 1.2            | 11.0             | 22.0 | 41.5 | 37.5             | 70           | 56,000                                  | 84                | 20                  | 13.3       | 7.46                     | 27                       | 75MW4120(1)30(2)           | R75MW4120(1)30(2)    |
| 400 | 220 | 1.5            | 11.0             | 22.0 | 41.5 | 37.5             | 70           | 56,000                                  | 105               | 20                  | 10.6       | 8.34                     | 27                       | 75MW4150(1)30(2)           | R75MW4150(1)30(2)    |
| 400 | 220 | 1.8            | 11.0             | 22.0 | 41.5 | 37.5             | 70           | 56,000                                  | 126               | 20                  | 8.8        | 9.14                     | 27                       | 75MW4180(1)30(2)           | R75MW4180(1)30(2)    |
| 400 | 220 | 2.2            | 11.0             | 22.0 | 41.5 | 37.5             | 70           | 56,000                                  | 154               | 20                  | 7.2        | 10.10                    | 27                       | 75MW4220(1)30(2)           | R75MW4220(1)30(2)    |
| 400 | 220 | 2.7            | 13.0             | 24.0 | 41.5 | 37.5             | 70           | 56,000                                  | 189               | 20                  | 8.8        | 9.46                     | 25                       | 75MW4270(1)30(2)           | R75MW4270(1)30(2)    |
| 400 | 220 | 3.3            | 16.0             | 28.5 | 41.5 | 37.5             | 70           | 56,000                                  | 231               | 20                  | 7.2        | 11.07                    | 23                       | 75MW4330(1)30(2)           | R75MW4330(1)30(2)    |
| 400 | 220 | 3.9            | 16.0             | 28.5 | 41.5 | 37.5             | 70           | 56,000                                  | 273               | 20                  | 6.1        | 12.04                    | 23                       | 75MW4390(1)30(2)           | R75MW4390(1)30(2)    |
| 400 | 220 | 4.7            | 19.0             | 32.0 | 41.5 | 37.5             | 70           | 56,000                                  | 329               | 20                  | 5.1        | 13.80                    | 21                       | 75MW4470(1)30(2)           | R75MW4470(1)30(2)    |
| 400 | 220 | 5.6            | 19.0             | 32.0 | 41.5 | 37.5             | 70           | 56,000                                  | 392               | 20                  | 4.3        | 15.06                    | 21                       | 75MW4560(1)30(2)           | R75MW4560(1)30(2)    |
| 400 | 220 | 6.8            | 20.0             | 40.0 | 41.5 | 37.5             | 70           | 56,000                                  | 476               | 20                  | 7.0        | 12.32                    | 19                       | 75MW4680(1)20(2)           | R75MW4680(1)20(2)    |
| 400 | 220 | 8.2            | 20.0             | 40.0 | 41.5 | 37.5             | 70           | 56,000                                  | 574               | 20                  | 5.8        | 13.53                    | 19                       | 75MW4820(1)30(2)           | R75MW4820(1)30(2)    |
| 400 | 220 | 10             | 24.0             | 44.0 | 41.5 | 37.5             | 70           | 56,000                                  | 700               | 20                  | 4.8        | 15.59                    | 17                       | 75MW5100(1)30(2)           | R75MW5100(1)30(2)    |
| 400 | 220 | 12             | 30.0             | 45.0 | 41.5 | 37.5             | 70           | 56,000                                  | 840               | 20                  | 4.0        | 17.71                    | 16                       | 75MW5120(1)20(2)           | R75MW5120(1)20(2)    |
| 400 | 220 | 15             | 30.0             | 45.0 | 41.5 | 37.5             | 70           | 56,000                                  | 1,050             | 20                  | 3.2        | 19.80                    | 16                       | 75MW5150(1)30(2)           | R75MW5150(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub>   | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         |                   | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|     |     |                | Dimensions       |      |      |                  |              |                                         |                   | I <sub>pk</sub> r   | ESL        | ESR                      | I <sub>rms</sub> max (*) |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|-----|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 630 | 220 | 0.01           | 4.0              | 9.0  | 10.0 | 7.5              | 600          | 756,000                                 | 6               | 8                   | 79.6       | 1.38                     | 88              | 75PD2100(1)B0(2)           | R75PD2100(1)B0(2)    |
| 630 | 220 | 0.012          | 4.0              | 9.0  | 10.0 | 7.5              | 600          | 756,000                                 | 7               | 8                   | 92.8       | 1.57                     | 88              | 75PD2120(1)B0(2)           | R75PD2120(1)B0(2)    |
| 630 | 220 | 0.015          | 5.0              | 10.5 | 10.0 | 7.5              | 600          | 756,000                                 | 9               | 8                   | 74.3       | 1.86                     | 78              | 75PD2150(1)B0(2)           | R75PD2150(1)B0(2)    |
| 630 | 220 | 0.018          | 5.0              | 10.5 | 10.0 | 7.5              | 600          | 756,000                                 | 11              | 8                   | 61.9       | 2.03                     | 78              | 75PD2180(1)B0(2)           | R75PD2180(1)B0(2)    |
| 630 | 220 | 0.022          | 6.0              | 12.0 | 10.5 | 7.5              | 600          | 756,000                                 | 13              | 8                   | 50.6       | 2.39                     | 69              | 75PD2220(1)A0(2)           | R75PD2220(1)A0(2)    |
| 630 | 220 | 0.027          | 6.0              | 12.0 | 10.5 | 7.5              | 600          | 756,000                                 | 16              | 8                   | 41.3       | 2.64                     | 69              | 75PD2270(1)A0(2)           | R75PD2270(1)A0(2)    |
| 630 | 250 | 0.0033         | 4.0              | 9.0  | 10.0 | 7.5              | 2,400        | 3,024,000                               | 8               | 8                   | 241.1      | 0.52                     | 88              | 75PD1330(1)40(2)           | R75PD1330(1)40(2)    |
| 630 | 250 | 0.0039         | 4.0              | 9.0  | 10.0 | 7.5              | 2,400        | 3,024,000                               | 9               | 8                   | 204.0      | 0.61                     | 88              | 75PD1390(1)40(2)           | R75PD1390(1)40(2)    |
| 630 | 250 | 0.0047         | 4.0              | 9.0  | 10.0 | 7.5              | 2,400        | 3,024,000                               | 11              | 8                   | 169.3      | 0.74                     | 88              | 75PD1470(1)40(2)           | R75PD1470(1)40(2)    |
| 630 | 250 | 0.0056         | 4.0              | 9.0  | 10.0 | 7.5              | 2,400        | 3,024,000                               | 13              | 8                   | 142.1      | 0.88                     | 88              | 75PD1560(1)40(2)           | R75PD1560(1)40(2)    |
| 630 | 250 | 0.0068         | 4.0              | 9.0  | 10.0 | 7.5              | 2,400        | 3,024,000                               | 16              | 8                   | 117.0      | 1.07                     | 88              | 75PD1680(1)40(2)           | R75PD1680(1)40(2)    |
| 630 | 250 | 0.0082         | 4.0              | 9.0  | 10.0 | 7.5              | 2,400        | 3,024,000                               | 20              | 8                   | 97.0       | 1.29                     | 88              | 75PD1820(1)40(2)           | R75PD1820(1)40(2)    |
| 630 | 250 | 0.01           | 5.0              | 10.5 | 10.0 | 7.5              | 2,400        | 3,024,000                               | 24              | 8                   | 79.6       | 1.57                     | 78              | 75PD2100(1)40(2)           | R75PD2100(1)40(2)    |
| 630 | 250 | 0.012          | 5.0              | 10.5 | 10.0 | 7.5              | 2,400        | 3,024,000                               | 29              | 8                   | 92.8       | 1.66                     | 78              | 75PD2120(1)40(2)           | R75PD2120(1)40(2)    |
| 630 | 250 | 0.015          | 6.0              | 12.0 | 10.5 | 7.5              | 2,400        | 3,024,000                               | 36              | 8                   | 74.3       | 1.97                     | 69              | 75PD2150(1)30(2)           | R75PD2150(1)30(2)    |
| 630 | 250 | 0.018          | 6.0              | 12.0 | 10.5 | 7.5              | 2,400        | 3,024,000                               | 43              | 8                   | 61.9       | 2.16                     | 69              | 75PD2180(1)30(2)           | R75PD2180(1)30(2)    |
| 630 | 250 | 0.001          | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 2               | 9                   | 795.8      | 0.16                     | 79              | 75PF1100(1)00(2)           | R75PF1100(1)00(2)    |
| 630 | 250 | 0.0012         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 2               | 9                   | 663.1      | 0.19                     | 79              | 75PF1120(1)00(2)           | R75PF1120(1)00(2)    |
| 630 | 250 | 0.0015         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 3               | 9                   | 530.5      | 0.24                     | 79              | 75PF1150(1)00(2)           | R75PF1150(1)00(2)    |
| 630 | 250 | 0.0018         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 4               | 9                   | 442.1      | 0.28                     | 79              | 75PF1180(1)00(2)           | R75PF1180(1)00(2)    |
| 630 | 250 | 0.0022         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 4               | 9                   | 361.7      | 0.35                     | 79              | 75PF1220(1)00(2)           | R75PF1220(1)00(2)    |
| 630 | 250 | 0.0027         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 5               | 9                   | 294.7      | 0.42                     | 79              | 75PF1270(1)00(2)           | R75PF1270(1)00(2)    |
| 630 | 250 | 0.0033         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 7               | 9                   | 241.1      | 0.52                     | 79              | 75PF1330(1)00(2)           | R75PF1330(1)00(2)    |
| 630 | 250 | 0.0039         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 8               | 9                   | 204.0      | 0.61                     | 79              | 75PF1390(1)00(2)           | R75PF1390(1)00(2)    |
| 630 | 250 | 0.0047         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 9               | 9                   | 169.3      | 0.74                     | 79              | 75PF1470(1)00(2)           | R75PF1470(1)00(2)    |
| 630 | 250 | 0.0056         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 11              | 9                   | 142.1      | 0.88                     | 79              | 75PF1560(1)00(2)           | R75PF1560(1)00(2)    |
| 630 | 250 | 0.0068         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 14              | 9                   | 117.0      | 1.07                     | 79              | 75PF1680(1)00(2)           | R75PF1680(1)00(2)    |
| 630 | 250 | 0.0082         | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 16              | 9                   | 97.0       | 1.29                     | 79              | 75PF1820(1)00(2)           | R75PF1820(1)00(2)    |
| 630 | 250 | 0.01           | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 20              | 9                   | 79.6       | 1.57                     | 79              | 75PF2100(1)30(2)           | R75PF2100(1)30(2)    |
| 630 | 250 | 0.012          | 4.0              | 9.0  | 13.0 | 10.0             | 2,000        | 2,520,000                               | 24              | 9                   | 92.8       | 1.66                     | 79              | 75PF2120(1)30(2)           | R75PF2120(1)30(2)    |
| 630 | 250 | 0.015          | 5.0              | 11.0 | 13.0 | 10.0             | 2,000        | 2,520,000                               | 30              | 9                   | 74.3       | 1.97                     | 69              | 75PF2150(1)30(2)           | R75PF2150(1)30(2)    |
| 630 | 250 | 0.018          | 5.0              | 11.0 | 13.0 | 10.0             | 2,000        | 2,520,000                               | 36              | 9                   | 61.9       | 2.16                     | 69              | 75PF2180(1)30(2)           | R75PF2180(1)30(2)    |
| 630 | 250 | 0.022          | 6.0              | 12.0 | 13.0 | 10.0             | 2,000        | 2,520,000                               | 44              | 9                   | 50.6       | 2.49                     | 64              | 75PF2220(1)30(2)           | R75PF2220(1)30(2)    |
| 630 | 250 | 0.027          | 5.0              | 11.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 27              | 10                  | 41.3       | 2.84                     | 60              | 75PI2270(1)00(2)           | R75PI2270(1)00(2)    |
| 630 | 250 | 0.033          | 5.0              | 11.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 33              | 10                  | 33.8       | 3.14                     | 60              | 75PI2330(1)00(2)           | R75PI2330(1)00(2)    |
| 630 | 250 | 0.039          | 5.0              | 11.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 39              | 10                  | 28.6       | 3.41                     | 60              | 75PI2390(1)30(2)           | R75PI2390(1)30(2)    |
| 630 | 250 | 0.047          | 5.0              | 11.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 47              | 10                  | 23.7       | 3.74                     | 60              | 75PI2470(1)30(2)           | R75PI2470(1)30(2)    |
| 630 | 250 | 0.056          | 5.0              | 11.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 56              | 10                  | 28.4       | 3.42                     | 60              | 75PI2560(1)30(2)           | R75PI2560(1)30(2)    |
| 630 | 250 | 0.068          | 6.0              | 12.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 68              | 10                  | 23.4       | 3.91                     | 56              | 75PI2680(1)30(2)           | R75PI2680(1)30(2)    |
| 630 | 250 | 0.082          | 6.0              | 12.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 82              | 10                  | 19.4       | 4.29                     | 56              | 75PI2820(1)30(2)           | R75PI2820(1)30(2)    |
| 630 | 250 | 0.1            | 7.5              | 13.5 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 100             | 10                  | 15.9       | 4.98                     | 51              | 75PI3100(1)30(2)           | R75PI3100(1)30(2)    |
| 630 | 250 | 0.1            | 9.0              | 12.5 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 100             | 10                  | 15.9       | 5.03                     | 50              | 75PI3100(1)70(2)           | R75PI3100(1)70(2)    |
| 630 | 250 | 0.12           | 7.5              | 13.5 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 120             | 10                  | 13.3       | 5.45                     | 51              | 75PI3120(1)30(2)           | R75PI3120(1)30(2)    |
| 630 | 250 | 0.12           | 9.0              | 12.5 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 120             | 10                  | 13.3       | 5.51                     | 50              | 75PI3120(1)70(2)           | R75PI3120(1)70(2)    |
| 630 | 250 | 0.15           | 8.5              | 14.5 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 150             | 10                  | 10.6       | 6.28                     | 48              | 75PI3150(1)30(2)           | R75PI3150(1)30(2)    |
| 630 | 250 | 0.15           | 13.0             | 12.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 150             | 10                  | 10.6       | 6.48                     | 45              | 75PI3150(1)70(2)           | R75PI3150(1)70(2)    |
| 630 | 250 | 0.18           | 10.0             | 16.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 180             | 10                  | 13.3       | 5.85                     | 44              | 75PI3180(1)30(2)           | R75PI3180(1)30(2)    |
| VDC | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|     |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|     |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC  | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub>          | KEMET Internal Part Number | Customer Part Number |
|------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|--------------------------|----------------------------|----------------------|
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|      |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   |                            |                      |
| 630  | 250 | 0.18           | 13.0             | 12.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 180             | 10                  | 13.3       | 5.80                     | 45                       | 75PI3180(1)70(2)           | R75PI3180(1)70(2)    |
| 630  | 250 | 0.22           | 10.0             | 16.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 220             | 10                  | 10.9       | 6.47                     | 44                       | 75PI3220(1)30(2)           | R75PI3220(1)30(2)    |
| 630  | 250 | 0.27           | 11.0             | 19.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 270             | 10                  | 17.7       | 5.30                     | 40                       | 75PI3270(1)30(2)           | R75PI3270(1)30(2)    |
| 630  | 250 | 0.33           | 11.0             | 19.0 | 18.0 | 15.0             | 1,000        | 1,260,000                               | 330             | 10                  | 14.5       | 5.86                     | 40                       | 75PI3330(1)30(2)           | R75PI3330(1)30(2)    |
| 630  | 250 | 0.082          | 6.0              | 15.0 | 26.5 | 22.5             | 400          | 504,000                                 | 33              | 16                  | 33.0       | 3.74                     | 43                       | 75PN2820(1)30(2)           | R75PN2820(1)30(2)    |
| 630  | 250 | 0.1            | 6.0              | 15.0 | 26.5 | 22.5             | 400          | 504,000                                 | 40              | 16                  | 27.1       | 4.13                     | 43                       | 75PN3100(1)30(2)           | R75PN3100(1)30(2)    |
| 630  | 250 | 0.12           | 6.0              | 15.0 | 26.5 | 22.5             | 400          | 504,000                                 | 48              | 16                  | 22.5       | 4.52                     | 43                       | 75PN3120(1)30(2)           | R75PN3120(1)30(2)    |
| 630  | 250 | 0.15           | 6.0              | 15.0 | 26.5 | 22.5             | 400          | 504,000                                 | 60              | 16                  | 18.0       | 5.05                     | 43                       | 75PN3150(1)30(2)           | R75PN3150(1)30(2)    |
| 630  | 250 | 0.18           | 7.0              | 16.0 | 26.5 | 22.5             | 400          | 504,000                                 | 72              | 16                  | 15.0       | 5.69                     | 41                       | 75PN3180(1)30(2)           | R75PN3180(1)30(2)    |
| 630  | 250 | 0.22           | 7.0              | 16.0 | 26.5 | 22.5             | 400          | 504,000                                 | 88              | 16                  | 12.3       | 6.30                     | 41                       | 75PN3220(1)30(2)           | R75PN3220(1)30(2)    |
| 630  | 250 | 0.27           | 8.5              | 17.0 | 26.5 | 22.5             | 400          | 504,000                                 | 108             | 16                  | 11.8       | 6.65                     | 38                       | 75PN3270(1)30(2)           | R75PN3270(1)30(2)    |
| 630  | 250 | 0.33           | 10.0             | 18.5 | 26.5 | 22.5             | 400          | 504,000                                 | 132             | 16                  | 9.6        | 7.61                     | 36                       | 75PN3330(1)30(2)           | R75PN3330(1)30(2)    |
| 630  | 250 | 0.39           | 10.0             | 18.5 | 26.5 | 22.5             | 400          | 504,000                                 | 156             | 16                  | 10.2       | 7.40                     | 36                       | 75PN3390(1)30(2)           | R75PN3390(1)30(2)    |
| 630  | 250 | 0.47           | 11.0             | 20.0 | 26.5 | 22.5             | 400          | 504,000                                 | 188             | 16                  | 8.5        | 8.34                     | 34                       | 75PN3470(1)30(2)           | R75PN3470(1)30(2)    |
| 630  | 250 | 0.56           | 11.0             | 20.0 | 26.5 | 22.5             | 400          | 504,000                                 | 224             | 16                  | 11.4       | 7.20                     | 34                       | 75PN3560(1)30(2)           | R75PN3560(1)30(2)    |
| 630  | 250 | 0.68           | 13.0             | 22.0 | 26.5 | 22.5             | 400          | 504,000                                 | 272             | 16                  | 9.4        | 8.25                     | 31                       | 75PN3680(1)30(2)           | R75PN3680(1)30(2)    |
| 630  | 250 | 0.39           | 9.0              | 17.0 | 32.0 | 27.5             | 180          | 226,800                                 | 70              | 18                  | 10.2       | 7.49                     | 35                       | 75PR3390(1)30(2)           | R75PR3390(1)30(2)    |
| 630  | 250 | 0.47           | 9.0              | 17.0 | 32.0 | 27.5             | 180          | 226,800                                 | 85              | 18                  | 8.5        | 8.22                     | 35                       | 75PR3470(1)40(2)           | R75PR3470(1)40(2)    |
| 630  | 250 | 0.56           | 11.0             | 20.0 | 32.0 | 27.5             | 180          | 226,800                                 | 101             | 18                  | 11.4       | 7.49                     | 31                       | 75PR3560(1)30(2)           | R75PR3560(1)30(2)    |
| 630  | 250 | 0.68           | 11.0             | 20.0 | 32.0 | 27.5             | 180          | 226,800                                 | 122             | 18                  | 9.4        | 8.25                     | 31                       | 75PR3680(1)30(2)           | R75PR3680(1)30(2)    |
| 630  | 250 | 0.82           | 13.0             | 22.0 | 32.0 | 27.5             | 180          | 226,800                                 | 148             | 18                  | 9.7        | 8.42                     | 29                       | 75PR3820(1)30(2)           | R75PR3820(1)30(2)    |
| 630  | 250 | 1              | 13.0             | 22.0 | 32.0 | 27.5             | 180          | 226,800                                 | 180             | 18                  | 8.0        | 9.30                     | 29                       | 75PR4100(1)30(2)           | R75PR4100(1)30(2)    |
| 630  | 250 | 1.2            | 14.0             | 28.0 | 32.0 | 27.5             | 180          | 226,800                                 | 216             | 18                  | 13.3       | 7.60                     | 26                       | 75PR4120(1)40(2)           | R75PR4120(1)40(2)    |
| 630  | 250 | 1.5            | 14.0             | 28.0 | 32.0 | 27.5             | 180          | 226,800                                 | 270             | 18                  | 10.6       | 8.50                     | 26                       | 75PR4150(1)30(2)           | R75PR4150(1)30(2)    |
| 630  | 250 | 1.8            | 18.0             | 33.0 | 32.0 | 27.5             | 180          | 226,800                                 | 324             | 18                  | 8.8        | 9.93                     | 23                       | 75PR4180(1)30(2)           | R75PR4180(1)30(2)    |
| 630  | 250 | 2.2            | 18.0             | 33.0 | 32.0 | 27.5             | 180          | 226,800                                 | 396             | 18                  | 7.2        | 10.98                    | 23                       | 75PR4220(1)30(2)           | R75PR4220(1)30(2)    |
| 630  | 250 | 2.7            | 22.0             | 37.0 | 32.0 | 27.5             | 180          | 226,800                                 | 486             | 18                  | 8.8        | 10.44                    | 21                       | 75PR4270(1)30(2)           | R75PR4270(1)30(2)    |
| 630  | 250 | 3.3            | 22.0             | 37.0 | 32.0 | 27.5             | 180          | 226,800                                 | 594             | 18                  | 7.2        | 11.54                    | 21                       | 75PR4330(1)30(2)           | R75PR4330(1)30(2)    |
| 630  | 250 | 0.68           | 11.0             | 22.0 | 41.5 | 37.5             | 90           | 113,400                                 | 61              | 20                  | 9.4        | 8.88                     | 27                       | 75PW3680(1)30(2)           | R75PW3680(1)30(2)    |
| 630  | 250 | 0.82           | 11.0             | 22.0 | 41.5 | 37.5             | 90           | 113,400                                 | 74              | 20                  | 9.7        | 8.72                     | 27                       | 75PW3820(1)30(2)           | R75PW3820(1)30(2)    |
| 630  | 250 | 1              | 11.0             | 22.0 | 41.5 | 37.5             | 90           | 113,400                                 | 90              | 20                  | 8.0        | 9.63                     | 27                       | 75PW4100(1)30(2)           | R75PW4100(1)30(2)    |
| 630  | 250 | 1.2            | 13.0             | 24.0 | 41.5 | 37.5             | 90           | 113,400                                 | 108             | 20                  | 13.3       | 7.73                     | 25                       | 75PW4120(1)30(2)           | R75PW4120(1)30(2)    |
| 630  | 250 | 1.5            | 13.0             | 24.0 | 41.5 | 37.5             | 90           | 113,400                                 | 135             | 20                  | 10.6       | 8.64                     | 25                       | 75PW4150(1)30(2)           | R75PW4150(1)30(2)    |
| 630  | 250 | 1.8            | 16.0             | 28.5 | 41.5 | 37.5             | 90           | 113,400                                 | 162             | 20                  | 8.8        | 10.02                    | 23                       | 75PW4180(1)30(2)           | R75PW4180(1)30(2)    |
| 630  | 250 | 2.2            | 16.0             | 28.5 | 41.5 | 37.5             | 90           | 113,400                                 | 198             | 20                  | 7.2        | 11.07                    | 23                       | 75PW4220(1)30(2)           | R75PW4220(1)30(2)    |
| 630  | 250 | 2.7            | 19.0             | 32.0 | 41.5 | 37.5             | 90           | 113,400                                 | 243             | 20                  | 8.8        | 10.46                    | 21                       | 75PW4270(1)30(2)           | R75PW4270(1)30(2)    |
| 630  | 250 | 3.3            | 19.0             | 32.0 | 41.5 | 37.5             | 90           | 113,400                                 | 297             | 20                  | 7.2        | 11.56                    | 21                       | 75PW4330(1)30(2)           | R75PW4330(1)30(2)    |
| 630  | 250 | 3.9            | 20.0             | 40.0 | 41.5 | 37.5             | 90           | 113,400                                 | 351             | 20                  | 6.1        | 13.20                    | 19                       | 75PW4390(1)30(2)           | R75PW4390(1)30(2)    |
| 630  | 250 | 4.7            | 20.0             | 40.0 | 41.5 | 37.5             | 90           | 113,400                                 | 423             | 20                  | 5.1        | 14.49                    | 19                       | 75PW4470(1)30(2)           | R75PW4470(1)30(2)    |
| 630  | 250 | 5.6            | 24.0             | 44.0 | 41.5 | 37.5             | 90           | 113,400                                 | 504             | 20                  | 4.3        | 16.50                    | 17                       | 75PW4560(1)30(2)           | R75PW4560(1)30(2)    |
| 630  | 250 | 6.8            | 30.0             | 45.0 | 41.5 | 37.5             | 90           | 113,400                                 | 612             | 20                  | 7.0        | 13.33                    | 16                       | 75PW4680(1)20(2)           | R75PW4680(1)20(2)    |
| 630  | 250 | 8.2            | 30.0             | 45.0 | 41.5 | 37.5             | 90           | 113,400                                 | 738             | 20                  | 5.8        | 14.64                    | 16                       | 75PW4820(1)30(2)           | R75PW4820(1)30(2)    |
| 1000 | 250 | 0.012          | 5.0              | 11.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 24              | 10                  | 92.8       | 1.88                     | 60                       | 75QI2120(1)00(2)           | R75QI2120(1)00(2)    |
| 1000 | 250 | 0.015          | 5.0              | 11.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 30              | 10                  | 74.3       | 2.11                     | 60                       | 75QI2150(1)00(2)           | R75QI2150(1)00(2)    |
| 1000 | 250 | 0.018          | 5.0              | 11.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 36              | 10                  | 61.9       | 2.32                     | 60                       | 75QI2180(1)00(2)           | R75QI2180(1)00(2)    |
| 1000 | 250 | 0.022          | 5.0              | 11.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 44              | 10                  | 50.6       | 2.56                     | 60                       | 75QI2220(1)00(2)           | R75QI2220(1)00(2)    |
| 1000 | 250 | 0.027          | 6.0              | 12.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 54              | 10                  | 41.3       | 2.94                     | 56                       | 75QI2270(1)00(2)           | R75QI2270(1)00(2)    |
| VDC  | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   | KEMET Internal Part Number | Customer Part Number |
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|      |     |                | Dimensions       |      |      |                  |              |                                         |                 | I <sub>pk</sub>     | ESL        | ESR                      | I <sub>rms</sub> max (*) |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC  | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|      |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 1000 | 250 | 0.033          | 6.0              | 12.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 66              | 10                  | 33.8       | 3.25                     | 56              | 75QI2330(1)00(2)           | R75QI2330(1)00(2)    |
| 1000 | 250 | 0.039          | 7.5              | 13.5 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 78              | 10                  | 28.6       | 3.72                     | 51              | 75QI2390(1)00(2)           | R75QI2390(1)00(2)    |
| 1000 | 250 | 0.047          | 7.5              | 13.5 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 94              | 10                  | 23.7       | 4.08                     | 51              | 75QI2470(1)00(2)           | R75QI2470(1)00(2)    |
| 1000 | 250 | 0.047          | 9.0              | 12.5 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 94              | 10                  | 23.7       | 4.12                     | 50              | 75QI2470(1)60(2)           | R75QI2470(1)60(2)    |
| 1000 | 250 | 0.056          | 8.5              | 14.5 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 112             | 10                  | 28.4       | 3.84                     | 48              | 75QI2560(1)00(2)           | R75QI2560(1)00(2)    |
| 1000 | 250 | 0.056          | 9.0              | 12.5 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 112             | 10                  | 28.4       | 3.77                     | 50              | 75QI2560(1)60(2)           | R75QI2560(1)60(2)    |
| 1000 | 250 | 0.068          | 8.5              | 14.5 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 136             | 10                  | 23.4       | 4.23                     | 48              | 75QI2680(1)00(2)           | R75QI2680(1)00(2)    |
| 1000 | 250 | 0.068          | 13.0             | 12.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 136             | 10                  | 23.4       | 4.36                     | 45              | 75QI2680(1)60(2)           | R75QI2680(1)60(2)    |
| 1000 | 250 | 0.082          | 10.0             | 16.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 164             | 10                  | 19.4       | 4.83                     | 44              | 75QI2820(1)00(2)           | R75QI2820(1)00(2)    |
| 1000 | 250 | 0.1            | 11.0             | 19.0 | 18.0 | 15.0             | 2,000        | 4,000,000                               | 200             | 10                  | 15.9       | 5.59                     | 40              | 75QI3100(1)00(2)           | R75QI3100(1)00(2)    |
| 1000 | 250 | 0.047          | 6.0              | 15.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 38              | 16                  | 50.8       | 3.01                     | 43              | 75QN2470(1)00(2)           | R75QN2470(1)00(2)    |
| 1000 | 250 | 0.056          | 6.0              | 15.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 45              | 16                  | 48.3       | 3.09                     | 43              | 75QN2560(1)00(2)           | R75QN2560(1)00(2)    |
| 1000 | 250 | 0.068          | 6.0              | 15.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 54              | 16                  | 39.8       | 3.40                     | 43              | 75QN2680(1)00(2)           | R75QN2680(1)00(2)    |
| 1000 | 250 | 0.082          | 7.0              | 16.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 66              | 16                  | 33.0       | 3.84                     | 41              | 75QN2820(1)00(2)           | R75QN2820(1)00(2)    |
| 1000 | 250 | 0.1            | 7.0              | 16.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 80              | 16                  | 27.1       | 4.24                     | 41              | 75QN3100(1)00(2)           | R75QN3100(1)00(2)    |
| 1000 | 250 | 0.12           | 8.5              | 17.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 96              | 16                  | 22.5       | 4.81                     | 38              | 75QN3120(1)00(2)           | R75QN3120(1)00(2)    |
| 1000 | 250 | 0.15           | 10.0             | 18.5 | 26.5 | 22.5             | 800          | 1,600,000                               | 120             | 16                  | 18.0       | 5.57                     | 36              | 75QN3150(1)00(2)           | R75QN3150(1)00(2)    |
| 1000 | 250 | 0.18           | 10.0             | 18.5 | 26.5 | 22.5             | 800          | 1,600,000                               | 144             | 16                  | 15.0       | 6.10                     | 36              | 75QN3180(1)00(2)           | R75QN3180(1)00(2)    |
| 1000 | 250 | 0.22           | 11.0             | 20.0 | 26.5 | 22.5             | 800          | 1,600,000                               | 176             | 16                  | 12.3       | 6.92                     | 34              | 75QN3220(1)00(2)           | R75QN3220(1)00(2)    |
| 1000 | 250 | 0.15           | 9.0              | 17.0 | 32.0 | 27.5             | 350          | 700,000                                 | 53              | 18                  | 18.0       | 5.63                     | 35              | 75QR3150(1)00(2)           | R75QR3150(1)00(2)    |
| 1000 | 250 | 0.18           | 9.0              | 17.0 | 32.0 | 27.5             | 350          | 700,000                                 | 63              | 18                  | 15.0       | 6.17                     | 35              | 75QR3180(1)00(2)           | R75QR3180(1)00(2)    |
| 1000 | 250 | 0.22           | 11.0             | 20.0 | 32.0 | 27.5             | 350          | 700,000                                 | 77              | 18                  | 12.3       | 7.20                     | 31              | 75QR3220(1)10(2)           | R75QR3220(1)10(2)    |
| 1000 | 250 | 0.27           | 11.0             | 20.0 | 32.0 | 27.5             | 350          | 700,000                                 | 95              | 18                  | 11.8       | 7.35                     | 31              | 75QR3270(1)00(2)           | R75QR3270(1)00(2)    |
| 1000 | 250 | 0.33           | 13.0             | 22.0 | 32.0 | 27.5             | 350          | 700,000                                 | 116             | 18                  | 9.6        | 8.44                     | 29              | 75QR3330(1)00(2)           | R75QR3330(1)00(2)    |
| 1000 | 250 | 0.39           | 13.0             | 22.0 | 32.0 | 27.5             | 350          | 700,000                                 | 137             | 18                  | 10.2       | 8.21                     | 29              | 75QR3390(1)00(2)           | R75QR3390(1)00(2)    |
| 1000 | 250 | 0.47           | 13.0             | 25.0 | 32.0 | 27.5             | 350          | 700,000                                 | 165             | 18                  | 8.5        | 9.23                     | 28              | 75QR3470(1)10(2)           | R75QR3470(1)10(2)    |
| 1000 | 250 | 0.56           | 14.0             | 28.0 | 32.0 | 27.5             | 350          | 700,000                                 | 196             | 18                  | 11.4       | 8.21                     | 26              | 75QR3560(1)10(2)           | R75QR3560(1)10(2)    |
| 1000 | 250 | 0.68           | 18.0             | 33.0 | 32.0 | 27.5             | 350          | 700,000                                 | 238             | 18                  | 9.4        | 9.65                     | 23              | 75QR3680(1)00(2)           | R75QR3680(1)00(2)    |
| 1000 | 250 | 0.82           | 18.0             | 33.0 | 32.0 | 27.5             | 350          | 700,000                                 | 287             | 18                  | 9.7        | 9.48                     | 23              | 75QR3820(1)00(2)           | R75QR3820(1)00(2)    |
| 1000 | 250 | 1              | 18.0             | 33.0 | 32.0 | 27.5             | 350          | 700,000                                 | 350             | 18                  | 8.0        | 10.47                    | 23              | 75QR4100(1)00(2)           | R75QR4100(1)00(2)    |
| 1000 | 250 | 1.2            | 22.0             | 37.0 | 32.0 | 27.5             | 350          | 700,000                                 | 420             | 18                  | 13.3       | 8.52                     | 21              | 75QR4120(1)00(2)           | R75QR4120(1)00(2)    |
| 1000 | 250 | 1.5            | 22.0             | 37.0 | 32.0 | 27.5             | 350          | 700,000                                 | 525             | 18                  | 10.6       | 9.53                     | 21              | 75QR4150(1)00(2)           | R75QR4150(1)00(2)    |
| 1000 | 250 | 0.27           | 11.0             | 22.0 | 41.5 | 37.5             | 200          | 400,000                                 | 54              | 20                  | 11.8       | 7.91                     | 27              | 75QW3270(1)00(2)           | R75QW3270(1)00(2)    |
| 1000 | 250 | 0.33           | 11.0             | 22.0 | 41.5 | 37.5             | 200          | 400,000                                 | 66              | 20                  | 9.6        | 8.75                     | 27              | 75QW3330(1)00(2)           | R75QW3330(1)00(2)    |
| 1000 | 250 | 0.39           | 11.0             | 22.0 | 41.5 | 37.5             | 200          | 400,000                                 | 78              | 20                  | 10.2       | 8.50                     | 27              | 75QW3390(1)00(2)           | R75QW3390(1)00(2)    |
| 1000 | 250 | 0.47           | 11.0             | 22.0 | 41.5 | 37.5             | 200          | 400,000                                 | 94              | 20                  | 8.5        | 9.34                     | 27              | 75QW3470(1)00(2)           | R75QW3470(1)00(2)    |
| 1000 | 250 | 0.56           | 13.0             | 24.0 | 41.5 | 37.5             | 200          | 400,000                                 | 112             | 20                  | 11.4       | 8.35                     | 25              | 75QW3560(1)00(2)           | R75QW3560(1)00(2)    |
| 1000 | 250 | 0.68           | 13.0             | 24.0 | 41.5 | 37.5             | 200          | 400,000                                 | 136             | 20                  | 9.4        | 9.20                     | 25              | 75QW3680(1)00(2)           | R75QW3680(1)00(2)    |
| 1000 | 250 | 0.82           | 16.0             | 28.5 | 41.5 | 37.5             | 200          | 400,000                                 | 164             | 20                  | 9.7        | 9.56                     | 23              | 75QW3820(1)00(2)           | R75QW3820(1)00(2)    |
| 1000 | 250 | 1              | 16.0             | 28.5 | 41.5 | 37.5             | 200          | 400,000                                 | 200             | 20                  | 8.0        | 10.56                    | 23              | 75QW4100(1)00(2)           | R75QW4100(1)00(2)    |
| 1000 | 250 | 1.2            | 19.0             | 32.0 | 41.5 | 37.5             | 200          | 400,000                                 | 240             | 20                  | 13.3       | 8.54                     | 21              | 75QW4120(1)00(2)           | R75QW4120(1)00(2)    |
| 1000 | 250 | 1.5            | 19.0             | 32.0 | 41.5 | 37.5             | 200          | 400,000                                 | 300             | 20                  | 10.6       | 9.55                     | 21              | 75QW4150(1)00(2)           | R75QW4150(1)00(2)    |
| 1000 | 250 | 1.8            | 20.0             | 40.0 | 41.5 | 37.5             | 200          | 400,000                                 | 360             | 20                  | 8.8        | 10.98                    | 19              | 75QW4180(1)00(2)           | R75QW4180(1)00(2)    |
| 1000 | 250 | 2.2            | 20.0             | 40.0 | 41.5 | 37.5             | 200          | 400,000                                 | 440             | 20                  | 7.2        | 12.14                    | 19              | 75QW4220(1)00(2)           | R75QW4220(1)00(2)    |
| 1000 | 250 | 2.2            | 24.0             | 44.0 | 41.5 | 37.5             | 200          | 400,000                                 | 440             | 20                  | 7.2        | 12.67                    | 17              | 75QW4220(1)30(2)           | R75QW4220(1)30(2)    |
| 1000 | 250 | 2.7            | 24.0             | 44.0 | 41.5 | 37.5             | 200          | 400,000                                 | 540             | 20                  | 8.8        | 11.46                    | 17              | 75QW4270(1)00(2)           | R75QW4270(1)00(2)    |
| 1000 | 250 | 3.3            | 30.0             | 45.0 | 41.5 | 37.5             | 200          | 400,000                                 | 660             | 20                  | 7.2        | 13.13                    | 16              | 75QW4330(1)00(2)           | R75QW4330(1)00(2)    |
| VDC  | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|      |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC  | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> r | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub>          | KEMET Internal Part Number | Customer Part Number |
|------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-------------------|---------------------|------------|--------------------------|--------------------------|----------------------------|----------------------|
|      |     |                |                  |      |      |                  |              |                                         |                   | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|      |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub>   | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   |                            |                      |
| 1000 | 250 | 3.9            | 30.0             | 45.0 | 41.5 | 37.5             | 200          | 400,000                                 | 780               | 20                  | 6.1        | 14.28                    | 16                       | 75QW4390(1)00(2)           | R75QW4390(1)00(2)    |
| 1000 | 400 | 0.00022        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 1                 | 8                   | 3617.2     | 0.06                     | 98                       | 75QD0220(1)30(2)           | R75QD0220(1)30(2)    |
| 1000 | 400 | 0.00027        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 1                 | 8                   | 2947.3     | 0.07                     | 98                       | 75QD0270(1)30(2)           | R75QD0270(1)30(2)    |
| 1000 | 400 | 0.00033        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 1                 | 8                   | 2411.4     | 0.08                     | 98                       | 75QD0330(1)30(2)           | R75QD0330(1)30(2)    |
| 1000 | 400 | 0.00039        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 2                 | 8                   | 2040.4     | 0.10                     | 98                       | 75QD0390(1)30(2)           | R75QD0390(1)30(2)    |
| 1000 | 400 | 0.00047        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 2                 | 8                   | 1693.1     | 0.12                     | 98                       | 75QD0470(1)30(2)           | R75QD0470(1)30(2)    |
| 1000 | 400 | 0.00056        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 2                 | 8                   | 1421.0     | 0.14                     | 98                       | 75QD0560(1)30(2)           | R75QD0560(1)30(2)    |
| 1000 | 400 | 0.00068        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 3                 | 8                   | 1170.3     | 0.17                     | 98                       | 75QD0680(1)30(2)           | R75QD0680(1)30(2)    |
| 1000 | 400 | 0.00082        | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 3                 | 8                   | 970.5      | 0.21                     | 98                       | 75QD0820(1)30(2)           | R75QD0820(1)30(2)    |
| 1000 | 400 | 0.001          | 3.0              | 8.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 4                 | 8                   | 795.8      | 0.25                     | 98                       | 75QD1100(1)30(2)           | R75QD1100(1)30(2)    |
| 1000 | 400 | 0.0012         | 4.0              | 9.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 5                 | 8                   | 663.1      | 0.30                     | 88                       | 75QD1120(1)30(2)           | R75QD1120(1)30(2)    |
| 1000 | 400 | 0.0015         | 4.0              | 9.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 6                 | 8                   | 530.5      | 0.38                     | 88                       | 75QD1150(1)30(2)           | R75QD1150(1)30(2)    |
| 1000 | 400 | 0.0018         | 4.0              | 9.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 7                 | 8                   | 442.1      | 0.45                     | 88                       | 75QD1180(1)30(2)           | R75QD1180(1)30(2)    |
| 1000 | 400 | 0.0022         | 4.0              | 9.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 9                 | 8                   | 361.7      | 0.55                     | 88                       | 75QD1220(1)30(2)           | R75QD1220(1)30(2)    |
| 1000 | 400 | 0.0027         | 4.0              | 9.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 11                | 8                   | 294.7      | 0.68                     | 88                       | 75QD1270(1)30(2)           | R75QD1270(1)30(2)    |
| 1000 | 400 | 0.0033         | 4.0              | 9.0  | 10.0 | 7.5              | 4,000        | 8,000,000                               | 13                | 8                   | 241.1      | 0.83                     | 88                       | 75QD1330(1)30(2)           | R75QD1330(1)30(2)    |
| 1000 | 400 | 0.0039         | 5.0              | 10.5 | 10.0 | 7.5              | 4,000        | 8,000,000                               | 16                | 8                   | 204.0      | 0.98                     | 78                       | 75QD1390(1)30(2)           | R75QD1390(1)30(2)    |
| 1000 | 400 | 0.0047         | 5.0              | 10.5 | 10.0 | 7.5              | 4,000        | 8,000,000                               | 19                | 8                   | 169.3      | 1.18                     | 78                       | 75QD1470(1)30(2)           | R75QD1470(1)30(2)    |
| 1000 | 400 | 0.0056         | 5.0              | 10.5 | 10.0 | 7.5              | 4,000        | 8,000,000                               | 22                | 8                   | 142.1      | 1.34                     | 78                       | 75QD1560(1)30(2)           | R75QD1560(1)30(2)    |
| 1000 | 400 | 0.0068         | 6.0              | 12.0 | 10.5 | 7.5              | 4,000        | 8,000,000                               | 27                | 8                   | 117.0      | 1.57                     | 69                       | 75QD1680(1)30(2)           | R75QD1680(1)30(2)    |
| 1000 | 400 | 0.0082         | 6.0              | 12.0 | 10.5 | 7.5              | 4,000        | 8,000,000                               | 33                | 8                   | 97.0       | 1.72                     | 69                       | 75QD1820(1)30(2)           | R75QD1820(1)30(2)    |
| 1250 | 600 | 0.0082         | 5.0              | 11.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 27                | 10                  | 97.0       | 1.85                     | 60                       | 75RI1820(1)30(2)           | R75RI1820(1)30(2)    |
| 1250 | 600 | 0.01           | 5.0              | 11.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 33                | 10                  | 79.6       | 2.04                     | 60                       | 75RI2100(1)30(2)           | R75RI2100(1)30(2)    |
| 1250 | 600 | 0.012          | 6.0              | 12.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 40                | 10                  | 66.3       | 2.32                     | 56                       | 75RI2120(1)30(2)           | R75RI2120(1)30(2)    |
| 1250 | 600 | 0.015          | 6.0              | 12.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 50                | 10                  | 53.1       | 2.60                     | 56                       | 75RI2150(1)30(2)           | R75RI2150(1)30(2)    |
| 1250 | 600 | 0.018          | 7.5              | 13.5 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 59                | 10                  | 44.2       | 2.99                     | 51                       | 75RI2180(1)30(2)           | R75RI2180(1)30(2)    |
| 1250 | 600 | 0.022          | 7.5              | 13.5 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 73                | 10                  | 36.2       | 3.30                     | 51                       | 75RI2220(1)30(2)           | R75RI2220(1)30(2)    |
| 1250 | 600 | 0.022          | 9.0              | 12.5 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 73                | 10                  | 36.2       | 3.34                     | 50                       | 75RI2220(1)70(2)           | R75RI2220(1)70(2)    |
| 1250 | 600 | 0.027          | 8.5              | 14.5 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 89                | 10                  | 29.5       | 3.77                     | 48                       | 75RI2270(1)30(2)           | R75RI2270(1)30(2)    |
| 1250 | 600 | 0.027          | 13.0             | 12.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 89                | 10                  | 29.5       | 3.89                     | 45                       | 75RI2270(1)70(2)           | R75RI2270(1)70(2)    |
| 1250 | 600 | 0.033          | 10.0             | 16.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 109               | 10                  | 24.1       | 4.34                     | 44                       | 75RI2330(1)30(2)           | R75RI2330(1)30(2)    |
| 1250 | 600 | 0.033          | 13.0             | 12.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 109               | 10                  | 24.1       | 4.30                     | 45                       | 75RI2330(1)70(2)           | R75RI2330(1)70(2)    |
| 1250 | 600 | 0.039          | 10.0             | 16.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 129               | 10                  | 20.4       | 4.72                     | 44                       | 75RI2390(1)30(2)           | R75RI2390(1)30(2)    |
| 1250 | 600 | 0.047          | 11.0             | 19.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 155               | 10                  | 16.9       | 5.42                     | 40                       | 75RI2470(1)30(2)           | R75RI2470(1)30(2)    |
| 1250 | 600 | 0.056          | 11.0             | 19.0 | 18.0 | 15.0             | 3,300        | 8,250,000                               | 185               | 10                  | 19.9       | 5.00                     | 40                       | 75RI2560(1)30(2)           | R75RI2560(1)30(2)    |
| 1250 | 600 | 0.033          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 69                | 16                  | 24.1       | 4.37                     | 43                       | 75RN2330(1)30(2)           | R75RN2330(1)30(2)    |
| 1250 | 600 | 0.039          | 6.0              | 15.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 82                | 16                  | 20.4       | 4.75                     | 43                       | 75RN2390(1)30(2)           | R75RN2390(1)30(2)    |
| 1250 | 600 | 0.047          | 7.0              | 16.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 99                | 16                  | 16.9       | 5.37                     | 41                       | 75RN2470(1)30(2)           | R75RN2470(1)30(2)    |
| 1250 | 600 | 0.056          | 7.0              | 16.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 118               | 16                  | 19.9       | 4.95                     | 41                       | 75RN2560(1)30(2)           | R75RN2560(1)30(2)    |
| 1250 | 600 | 0.068          | 8.5              | 17.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 143               | 16                  | 16.4       | 5.64                     | 38                       | 75RN2680(1)30(2)           | R75RN2680(1)30(2)    |
| 1250 | 600 | 0.082          | 10.0             | 18.5 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 172               | 16                  | 13.6       | 6.41                     | 36                       | 75RN2820(1)30(2)           | R75RN2820(1)30(2)    |
| 1250 | 600 | 0.1            | 10.0             | 18.5 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 210               | 16                  | 11.1       | 7.08                     | 36                       | 75RN3100(1)30(2)           | R75RN3100(1)30(2)    |
| 1250 | 600 | 0.12           | 11.0             | 20.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 252               | 16                  | 9.3        | 7.97                     | 34                       | 75RN3120(1)30(2)           | R75RN3120(1)30(2)    |
| 1250 | 600 | 0.15           | 13.0             | 22.0 | 26.5 | 22.5             | 2,100        | 5,250,000                               | 315               | 16                  | 7.4        | 9.26                     | 31                       | 75RN3150(1)30(2)           | R75RN3150(1)30(2)    |
| 1250 | 600 | 0.1            | 9.0              | 17.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 75                | 18                  | 11.1       | 7.17                     | 35                       | 75RR3100(1)40(2)           | R75RR3100(1)40(2)    |
| 1250 | 600 | 0.12           | 9.0              | 17.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 90                | 18                  | 9.3        | 7.85                     | 35                       | 75RR3120(1)40(2)           | R75RR3120(1)40(2)    |
| 1250 | 600 | 0.15           | 11.0             | 20.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 113               | 18                  | 7.4        | 9.26                     | 31                       | 75RR3150(1)40(2)           | R75RR3150(1)40(2)    |
| VDC  | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub>   | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   | KEMET Internal Part Number | Customer Part Number |
|      |     |                |                  |      |      |                  |              |                                         |                   | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|      |     |                | Dimensions       |      |      |                  |              |                                         |                   | I <sub>pk</sub> r   | ESL        | ESR                      | I <sub>rms</sub> max (*) |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

Table 1 – Ratings &amp; Part Number Reference cont.

| VDC  | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub>          | KEMET Internal Part Number | Customer Part Number |
|------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|--------------------------|----------------------------|----------------------|
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|      |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   |                            |                      |
| 1250 | 600 | 0.18           | 11.0             | 20.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 135             | 18                  | 6.2        | 10.14                    | 31                       | 75RR3180(1)40(2)           | R75RR3180(1)40(2)    |
| 1250 | 600 | 0.22           | 13.0             | 22.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 165             | 18                  | 5.1        | 11.65                    | 29                       | 75RR3220(1)40(2)           | R75RR3220(1)40(2)    |
| 1250 | 600 | 0.27           | 13.0             | 25.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 203             | 18                  | 10.0       | 8.48                     | 28                       | 75RR3270(1)40(2)           | R75RR3270(1)40(2)    |
| 1250 | 600 | 0.33           | 14.0             | 28.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 248             | 18                  | 8.2        | 9.67                     | 26                       | 75RR3330(1)30(2)           | R75RR3330(1)30(2)    |
| 1250 | 600 | 0.39           | 18.0             | 33.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 293             | 18                  | 8.2        | 10.33                    | 23                       | 75RR3390(1)40(2)           | R75RR3390(1)40(2)    |
| 1250 | 600 | 0.47           | 18.0             | 33.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 353             | 18                  | 6.8        | 11.35                    | 23                       | 75RR3470(1)40(2)           | R75RR3470(1)40(2)    |
| 1250 | 600 | 0.56           | 18.0             | 33.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 420             | 18                  | 5.7        | 12.38                    | 23                       | 75RR3560(1)40(2)           | R75RR3560(1)40(2)    |
| 1250 | 600 | 0.68           | 22.0             | 37.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 510             | 18                  | 4.7        | 14.35                    | 21                       | 75RR3680(1)40(2)           | R75RR3680(1)40(2)    |
| 1250 | 600 | 0.82           | 22.0             | 37.0 | 32.0 | 27.5             | 750          | 1,875,000                               | 615             | 18                  | 3.9        | 15.75                    | 21                       | 75RR3820(1)40(2)           | R75RR3820(1)40(2)    |
| 1250 | 600 | 0.27           | 11.0             | 22.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 149             | 20                  | 10.0       | 8.58                     | 27                       | 75RW3270(1)30(2)           | R75RW3270(1)30(2)    |
| 1250 | 600 | 0.33           | 13.0             | 24.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 182             | 20                  | 8.2        | 9.83                     | 25                       | 75RW3330(1)20(2)           | R75RW3330(1)20(2)    |
| 1250 | 600 | 0.39           | 13.0             | 24.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 215             | 20                  | 8.2        | 9.85                     | 25                       | 75RW3390(1)30(2)           | R75RW3390(1)30(2)    |
| 1250 | 600 | 0.47           | 16.0             | 28.5 | 41.5 | 37.5             | 550          | 1,375,000                               | 259             | 20                  | 6.8        | 11.44                    | 23                       | 75RW3470(1)40(2)           | R75RW3470(1)40(2)    |
| 1250 | 600 | 0.56           | 16.0             | 28.5 | 41.5 | 37.5             | 550          | 1,375,000                               | 308             | 20                  | 5.7        | 12.49                    | 23                       | 75RW3560(1)40(2)           | R75RW3560(1)40(2)    |
| 1250 | 600 | 0.68           | 19.0             | 32.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 374             | 20                  | 4.7        | 14.38                    | 21                       | 75RW3680(1)30(2)           | R75RW3680(1)30(2)    |
| 1250 | 600 | 0.82           | 19.0             | 32.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 451             | 20                  | 3.9        | 15.79                    | 21                       | 75RW3820(1)40(2)           | R75RW3820(1)40(2)    |
| 1250 | 600 | 1              | 20.0             | 40.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 550             | 20                  | 3.2        | 18.30                    | 19                       | 75RW4100(1)30(2)           | R75RW4100(1)30(2)    |
| 1250 | 600 | 1.2            | 20.0             | 40.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 660             | 20                  | 4.0        | 16.37                    | 19                       | 75RW4120(1)40(2)           | R75RW4120(1)40(2)    |
| 1250 | 600 | 1.5            | 24.0             | 44.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 825             | 20                  | 3.2        | 19.10                    | 17                       | 75RW4150(1)40(2)           | R75RW4150(1)40(2)    |
| 1250 | 600 | 1.8            | 24.0             | 44.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 990             | 20                  | 2.7        | 20.92                    | 17                       | 75RW4180(1)30(2)           | R75RW4180(1)30(2)    |
| 1250 | 600 | 1.8            | 30.0             | 45.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 990             | 20                  | 2.7        | 21.69                    | 16                       | 75RW4180(1)20(2)           | R75RW4180(1)20(2)    |
| 1250 | 600 | 2.2            | 30.0             | 45.0 | 41.5 | 37.5             | 550          | 1,375,000                               | 1,210           | 20                  | 2.2        | 23.98                    | 16                       | 75RW4220(1)30(2)           | R75RW4220(1)30(2)    |
| 1600 | 650 | 0.0039         | 4.0              | 10.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 23              | 10                  | 204.0      | 1.22                     | 65                       | 75TI1390(1)30(2)           | R75TI1390(1)30(2)    |
| 1600 | 650 | 0.0047         | 4.0              | 10.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 28              | 10                  | 169.3      | 1.34                     | 65                       | 75TI1470(1)30(2)           | R75TI1470(1)30(2)    |
| 1600 | 650 | 0.0056         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 34              | 10                  | 142.1      | 1.53                     | 60                       | 75TI1560(1)30(2)           | R75TI1560(1)30(2)    |
| 1600 | 650 | 0.0068         | 5.0              | 11.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 41              | 10                  | 117.0      | 1.68                     | 60                       | 75TI1680(1)30(2)           | R75TI1680(1)30(2)    |
| 1600 | 650 | 0.0082         | 6.0              | 12.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 49              | 10                  | 97.0       | 1.92                     | 56                       | 75TI1820(1)30(2)           | R75TI1820(1)30(2)    |
| 1600 | 650 | 0.01           | 6.0              | 12.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 60              | 10                  | 79.6       | 2.12                     | 56                       | 75TI2100(1)30(2)           | R75TI2100(1)30(2)    |
| 1600 | 650 | 0.012          | 7.5              | 13.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 72              | 10                  | 66.3       | 2.44                     | 51                       | 75TI2120(1)30(2)           | R75TI2120(1)30(2)    |
| 1600 | 650 | 0.015          | 7.5              | 13.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 90              | 10                  | 53.1       | 2.73                     | 51                       | 75TI2150(1)30(2)           | R75TI2150(1)30(2)    |
| 1600 | 650 | 0.018          | 8.5              | 14.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 108             | 10                  | 44.2       | 3.08                     | 48                       | 75TI2180(1)30(2)           | R75TI2180(1)30(2)    |
| 1600 | 650 | 0.018          | 9.0              | 12.5 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 108             | 10                  | 44.2       | 3.02                     | 50                       | 75TI2180(1)70(2)           | R75TI2180(1)70(2)    |
| 1600 | 650 | 0.022          | 10.0             | 16.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 132             | 10                  | 36.2       | 3.54                     | 44                       | 75TI2220(1)30(2)           | R75TI2220(1)30(2)    |
| 1600 | 650 | 0.022          | 13.0             | 12.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 132             | 10                  | 36.2       | 3.51                     | 45                       | 75TI2220(1)70(2)           | R75TI2220(1)70(2)    |
| 1600 | 650 | 0.027          | 10.0             | 16.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 162             | 10                  | 29.5       | 3.92                     | 44                       | 75TI2270(1)30(2)           | R75TI2270(1)30(2)    |
| 1600 | 650 | 0.033          | 11.0             | 19.0 | 18.0 | 15.0             | 6,000        | 19,200,000                              | 198             | 10                  | 24.1       | 4.54                     | 40                       | 75TI2330(1)30(2)           | R75TI2330(1)30(2)    |
| 1600 | 650 | 0.027          | 6.0              | 15.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 81              | 16                  | 29.5       | 3.95                     | 43                       | 75TN2270(1)30(2)           | R75TN2270(1)30(2)    |
| 1600 | 650 | 0.033          | 7.0              | 16.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 99              | 16                  | 24.1       | 4.50                     | 41                       | 75TN2330(1)30(2)           | R75TN2330(1)30(2)    |
| 1600 | 650 | 0.039          | 7.0              | 16.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 117             | 16                  | 20.4       | 4.89                     | 41                       | 75TN2390(1)30(2)           | R75TN2390(1)30(2)    |
| 1600 | 650 | 0.047          | 8.5              | 17.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 141             | 16                  | 16.9       | 5.55                     | 38                       | 75TN2470(1)30(2)           | R75TN2470(1)30(2)    |
| 1600 | 650 | 0.056          | 10.0             | 18.5 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 168             | 16                  | 19.9       | 5.30                     | 36                       | 75TN2560(1)30(2)           | R75TN2560(1)30(2)    |
| 1600 | 650 | 0.068          | 10.0             | 18.5 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 204             | 16                  | 16.4       | 5.84                     | 36                       | 75TN2680(1)30(2)           | R75TN2680(1)30(2)    |
| 1600 | 650 | 0.082          | 11.0             | 20.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 246             | 16                  | 13.6       | 6.58                     | 34                       | 75TN2820(1)30(2)           | R75TN2820(1)30(2)    |
| 1600 | 650 | 0.1            | 13.0             | 22.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 300             | 16                  | 11.1       | 7.56                     | 31                       | 75TN3100(1)30(2)           | R75TN3100(1)30(2)    |
| 1600 | 650 | 0.12           | 13.0             | 22.0 | 26.5 | 22.5             | 3,000        | 9,600,000                               | 360             | 16                  | 9.3        | 8.29                     | 31                       | 75TN3120(1)30(2)           | R75TN3120(1)30(2)    |
| 1600 | 650 | 0.068          | 9.0              | 17.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 102             | 18                  | 16.4       | 5.91                     | 35                       | 75TR2680(1)30(2)           | R75TR2680(1)30(2)    |
| 1600 | 650 | 0.082          | 9.0              | 17.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 123             | 18                  | 13.6       | 6.49                     | 35                       | 75TR2820(1)30(2)           | R75TR2820(1)30(2)    |
| VDC  | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)                   | KEMET Internal Part Number | Customer Part Number |
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                          |                            |                      |
|      |     |                | Dimensions       |      |      |                  |              |                                         |                 | I <sub>pk</sub>     | ESL        | ESR                      | I <sub>rms</sub> max (*) |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

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

| VDC  | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|      |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 1600 | 650 | 0.1            | 11.0             | 20.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 150             | 18                  | 11.1       | 7.56                     | 31              | 75TR3100(1)40(2)           | R75TR3100(1)40(2)    |
| 1600 | 650 | 0.12           | 11.0             | 20.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 180             | 18                  | 9.3        | 8.28                     | 31              | 75TR3120(1)30(2)           | R75TR3120(1)30(2)    |
| 1600 | 650 | 0.15           | 13.0             | 22.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 225             | 18                  | 7.4        | 9.62                     | 29              | 75TR3150(1)30(2)           | R75TR3150(1)30(2)    |
| 1600 | 650 | 0.18           | 13.0             | 25.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 270             | 18                  | 6.2        | 10.79                    | 28              | 75TR3180(1)20(2)           | R75TR3180(1)20(2)    |
| 1600 | 650 | 0.22           | 13.0             | 25.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 330             | 18                  | 5.1        | 11.93                    | 28              | 75TR3220(1)40(2)           | R75TR3220(1)40(2)    |
| 1600 | 650 | 0.27           | 18.0             | 33.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 405             | 18                  | 10.0       | 9.33                     | 23              | 75TR3270(1)30(2)           | R75TR3270(1)30(2)    |
| 1600 | 650 | 0.33           | 18.0             | 33.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 495             | 18                  | 8.2        | 10.31                    | 23              | 75TR3330(1)30(2)           | R75TR3330(1)30(2)    |
| 1600 | 650 | 0.39           | 18.0             | 33.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 585             | 18                  | 8.2        | 10.33                    | 23              | 75TR3390(1)30(2)           | R75TR3390(1)30(2)    |
| 1600 | 650 | 0.47           | 22.0             | 37.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 705             | 18                  | 6.8        | 11.93                    | 21              | 75TR3470(1)30(2)           | R75TR3470(1)30(2)    |
| 1600 | 650 | 0.56           | 22.0             | 37.0 | 32.0 | 27.5             | 1,500        | 4,800,000                               | 840             | 18                  | 5.7        | 13.02                    | 21              | 75TR3560(1)30(2)           | R75TR3560(1)30(2)    |
| 1600 | 650 | 0.18           | 11.0             | 22.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 135             | 20                  | 6.2        | 10.92                    | 27              | 75TW3180(1)30(2)           | R75TW3180(1)30(2)    |
| 1600 | 650 | 0.22           | 13.0             | 24.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 165             | 20                  | 5.1        | 12.50                    | 25              | 75TW3220(1)20(2)           | R75TW3220(1)20(2)    |
| 1600 | 650 | 0.27           | 13.0             | 24.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 203             | 20                  | 10.0       | 8.89                     | 25              | 75TW3270(1)30(2)           | R75TW3270(1)30(2)    |
| 1600 | 650 | 0.33           | 16.0             | 28.5 | 41.5 | 37.5             | 750          | 2,400,000                               | 248             | 20                  | 8.2        | 10.40                    | 23              | 75TW3330(1)30(2)           | R75TW3330(1)30(2)    |
| 1600 | 650 | 0.39           | 16.0             | 28.5 | 41.5 | 37.5             | 750          | 2,400,000                               | 293             | 20                  | 8.2        | 10.43                    | 23              | 75TW3390(1)30(2)           | R75TW3390(1)30(2)    |
| 1600 | 650 | 0.47           | 19.0             | 32.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 353             | 20                  | 6.8        | 11.95                    | 21              | 75TW3470(1)20(2)           | R75TW3470(1)20(2)    |
| 1600 | 650 | 0.56           | 19.0             | 32.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 420             | 20                  | 5.7        | 13.05                    | 21              | 75TW3560(1)30(2)           | R75TW3560(1)30(2)    |
| 1600 | 650 | 0.68           | 20.0             | 40.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 510             | 20                  | 4.7        | 15.09                    | 19              | 75TW3680(1)20(2)           | R75TW3680(1)20(2)    |
| 1600 | 650 | 0.82           | 20.0             | 40.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 615             | 20                  | 3.9        | 16.57                    | 19              | 75TW3820(1)30(2)           | R75TW3820(1)30(2)    |
| 1600 | 650 | 1              | 24.0             | 44.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 750             | 20                  | 3.2        | 19.10                    | 17              | 75TW4100(1)30(2)           | R75TW4100(1)30(2)    |
| 1600 | 650 | 1.2            | 24.0             | 44.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 900             | 20                  | 4.0        | 17.08                    | 17              | 75TW4120(1)30(2)           | R75TW4120(1)30(2)    |
| 1600 | 650 | 1.5            | 30.0             | 45.0 | 41.5 | 37.5             | 750          | 2,400,000                               | 1,125           | 20                  | 3.2        | 19.80                    | 16              | 75TW4150(1)30(2)           | R75TW4150(1)30(2)    |
| 2000 | 700 | 0.001          | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 10              | 10                  | 795.8      | 0.44                     | 65              | 75UI1100(1)40(2)           | R75UI1100(1)40(2)    |
| 2000 | 700 | 0.0012         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 11              | 10                  | 663.1      | 0.53                     | 65              | 75UI1120(1)40(2)           | R75UI1120(1)40(2)    |
| 2000 | 700 | 0.0015         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 14              | 10                  | 530.5      | 0.66                     | 65              | 75UI1150(1)40(2)           | R75UI1150(1)40(2)    |
| 2000 | 700 | 0.0018         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 17              | 10                  | 442.1      | 0.79                     | 65              | 75UI1180(1)40(2)           | R75UI1180(1)40(2)    |
| 2000 | 700 | 0.0022         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 21              | 10                  | 361.7      | 0.92                     | 65              | 75UI1220(1)40(2)           | R75UI1220(1)40(2)    |
| 2000 | 700 | 0.0027         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 26              | 10                  | 294.7      | 1.02                     | 65              | 75UI1270(1)40(2)           | R75UI1270(1)40(2)    |
| 2000 | 700 | 0.0033         | 4.0              | 10.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 31              | 10                  | 241.1      | 1.13                     | 65              | 75UI1330(1)40(2)           | R75UI1330(1)40(2)    |
| 2000 | 700 | 0.0039         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 37              | 10                  | 204.0      | 1.28                     | 60              | 75UI1390(1)30(2)           | R75UI1390(1)30(2)    |
| 2000 | 700 | 0.0047         | 5.0              | 11.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 45              | 10                  | 169.3      | 1.40                     | 60              | 75UI1470(1)30(2)           | R75UI1470(1)30(2)    |
| 2000 | 700 | 0.0056         | 6.0              | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 53              | 10                  | 142.1      | 1.59                     | 56              | 75UI1560(1)30(2)           | R75UI1560(1)30(2)    |
| 2000 | 700 | 0.0068         | 6.0              | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 65              | 10                  | 117.0      | 1.75                     | 56              | 75UI1680(1)30(2)           | R75UI1680(1)30(2)    |
| 2000 | 700 | 0.0082         | 7.5              | 13.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 78              | 10                  | 97.0       | 2.02                     | 51              | 75UI1820(1)30(2)           | R75UI1820(1)30(2)    |
| 2000 | 700 | 0.01           | 7.5              | 13.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 95              | 10                  | 79.6       | 2.23                     | 51              | 75UI2100(1)30(2)           | R75UI2100(1)30(2)    |
| 2000 | 700 | 0.012          | 8.5              | 14.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 114             | 10                  | 66.3       | 2.51                     | 48              | 75UI2120(1)30(2)           | R75UI2120(1)30(2)    |
| 2000 | 700 | 0.012          | 9.0              | 12.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 114             | 10                  | 66.3       | 2.47                     | 50              | 75UI2120(1)70(2)           | R75UI2120(1)70(2)    |
| 2000 | 700 | 0.015          | 8.5              | 14.5 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 143             | 10                  | 53.1       | 2.81                     | 48              | 75UI2150(1)30(2)           | R75UI2150(1)30(2)    |
| 2000 | 700 | 0.015          | 13.0             | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 143             | 10                  | 53.1       | 2.90                     | 45              | 75UI2150(1)70(2)           | R75UI2150(1)70(2)    |
| 2000 | 700 | 0.018          | 10.0             | 16.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 171             | 10                  | 44.2       | 3.20                     | 44              | 75UI2180(1)30(2)           | R75UI2180(1)30(2)    |
| 2000 | 700 | 0.018          | 13.0             | 12.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 171             | 10                  | 44.2       | 3.17                     | 45              | 75UI2180(1)70(2)           | R75UI2180(1)70(2)    |
| 2000 | 700 | 0.022          | 11.0             | 19.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 209             | 10                  | 36.2       | 3.71                     | 40              | 75UI2220(1)30(2)           | R75UI2220(1)30(2)    |
| 2000 | 700 | 0.027          | 11.0             | 19.0 | 18.0 | 15.0             | 9,500        | 38,000,000                              | 257             | 10                  | 29.5       | 4.11                     | 40              | 75UI2270(1)30(2)           | R75UI2270(1)30(2)    |
| 2000 | 700 | 0.0047         | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 19              | 16                  | 169.3      | 1.65                     | 43              | 75UN1470(1)30(2)           | R75UN1470(1)30(2)    |
| 2000 | 700 | 0.0056         | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 22              | 16                  | 142.1      | 1.80                     | 43              | 75UN1560(1)30(2)           | R75UN1560(1)30(2)    |
| 2000 | 700 | 0.0068         | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 27              | 16                  | 117.0      | 1.98                     | 43              | 75UN1680(1)30(2)           | R75UN1680(1)30(2)    |
| 2000 | 700 | 0.0082         | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 33              | 16                  | 97.0       | 2.18                     | 43              | 75UN1820(1)30(2)           | R75UN1820(1)30(2)    |
| VDC  | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|      |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) |                 |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

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

| VDC  | VAC | Cap Value (μF) | Dimensions in mm |      |      | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> | KEMET Internal Part Number | Customer Part Number |
|------|-----|----------------|------------------|------|------|------------------|--------------|-----------------------------------------|-----------------|---------------------|------------|--------------------------|-----------------|----------------------------|----------------------|
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|      |     |                | T                | H    | L    |                  |              |                                         | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          |                            |                      |
| 2000 | 700 | 0.01           | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 40              | 16                  | 79.6       | 2.41                     | 43              | 75UN2100(1)30(2)           | R75UN2100(1)30(2)    |
| 2000 | 700 | 0.012          | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 48              | 16                  | 66.3       | 2.64                     | 43              | 75UN2120(1)30(2)           | R75UN2120(1)30(2)    |
| 2000 | 700 | 0.015          | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 60              | 16                  | 53.1       | 2.95                     | 43              | 75UN2150(1)30(2)           | R75UN2150(1)30(2)    |
| 2000 | 700 | 0.018          | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 72              | 16                  | 44.2       | 3.23                     | 43              | 75UN2180(1)30(2)           | R75UN2180(1)30(2)    |
| 2000 | 700 | 0.022          | 6.0              | 15.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 88              | 16                  | 36.2       | 3.57                     | 43              | 75UN2220(1)30(2)           | R75UN2220(1)30(2)    |
| 2000 | 700 | 0.027          | 7.0              | 16.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 108             | 16                  | 29.5       | 4.07                     | 41              | 75UN2270(1)30(2)           | R75UN2270(1)30(2)    |
| 2000 | 700 | 0.033          | 8.5              | 17.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 132             | 16                  | 24.1       | 4.65                     | 38              | 75UN2330(1)30(2)           | R75UN2330(1)30(2)    |
| 2000 | 700 | 0.039          | 10.0             | 18.5 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 156             | 16                  | 20.4       | 5.23                     | 36              | 75UN2390(1)30(2)           | R75UN2390(1)30(2)    |
| 2000 | 700 | 0.047          | 10.0             | 18.5 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 188             | 16                  | 16.9       | 5.74                     | 36              | 75UN2470(1)30(2)           | R75UN2470(1)30(2)    |
| 2000 | 700 | 0.056          | 11.0             | 20.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 224             | 16                  | 19.9       | 5.44                     | 34              | 75UN2560(1)30(2)           | R75UN2560(1)30(2)    |
| 2000 | 700 | 0.068          | 13.0             | 22.0 | 26.5 | 22.5             | 4,000        | 16,000,000                              | 272             | 16                  | 16.4       | 6.24                     | 31              | 75UN2680(1)30(2)           | R75UN2680(1)30(2)    |
| 2000 | 700 | 0.047          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 94              | 18                  | 16.9       | 5.81                     | 35              | 75UR2470(1)30(2)           | R75UR2470(1)30(2)    |
| 2000 | 700 | 0.056          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 112             | 18                  | 19.9       | 5.36                     | 35              | 75UR2560(1)30(2)           | R75UR2560(1)30(2)    |
| 2000 | 700 | 0.068          | 9.0              | 17.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 136             | 18                  | 16.4       | 5.91                     | 35              | 75UR2680(1)40(2)           | R75UR2680(1)40(2)    |
| 2000 | 700 | 0.082          | 11.0             | 20.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 164             | 18                  | 13.6       | 6.85                     | 31              | 75UR2820(1)40(2)           | R75UR2820(1)40(2)    |
| 2000 | 700 | 0.1            | 11.0             | 20.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 200             | 18                  | 11.1       | 7.56                     | 31              | 75UR3100(1)30(2)           | R75UR3100(1)30(2)    |
| 2000 | 700 | 0.12           | 13.0             | 22.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 240             | 18                  | 9.3        | 8.61                     | 29              | 75UR3120(1)30(2)           | R75UR3120(1)30(2)    |
| 2000 | 700 | 0.15           | 13.0             | 25.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 300             | 18                  | 7.4        | 9.85                     | 28              | 75UR3150(1)40(2)           | R75UR3150(1)40(2)    |
| 2000 | 700 | 0.18           | 13.0             | 25.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 360             | 18                  | 6.2        | 10.79                    | 28              | 75UR3180(1)40(2)           | R75UR3180(1)40(2)    |
| 2000 | 700 | 0.22           | 14.0             | 28.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 440             | 18                  | 5.1        | 12.30                    | 26              | 75UR3220(1)40(2)           | R75UR3220(1)40(2)    |
| 2000 | 700 | 0.27           | 18.0             | 33.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 540             | 18                  | 10.0       | 9.33                     | 23              | 75UR3270(1)30(2)           | R75UR3270(1)30(2)    |
| 2000 | 700 | 0.33           | 18.0             | 33.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 660             | 18                  | 8.2        | 10.31                    | 23              | 75UR3330(1)40(2)           | R75UR3330(1)40(2)    |
| 2000 | 700 | 0.39           | 22.0             | 37.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 780             | 18                  | 8.2        | 10.86                    | 21              | 75UR3390(1)30(2)           | R75UR3390(1)30(2)    |
| 2000 | 700 | 0.47           | 22.0             | 37.0 | 32.0 | 27.5             | 2,000        | 8,000,000                               | 940             | 18                  | 6.8        | 11.93                    | 21              | 75UR3470(1)40(2)           | R75UR3470(1)40(2)    |
| 2000 | 700 | 0.15           | 11.0             | 22.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 105             | 20                  | 7.4        | 9.97                     | 27              | 75UW3150(1)30(2)           | R75UW3150(1)30(2)    |
| 2000 | 700 | 0.18           | 13.0             | 24.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 126             | 20                  | 6.2        | 11.31                    | 25              | 75UW3180(1)30(2)           | R75UW3180(1)30(2)    |
| 2000 | 700 | 0.22           | 13.0             | 24.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 154             | 20                  | 5.1        | 12.50                    | 25              | 75UW3220(1)30(2)           | R75UW3220(1)30(2)    |
| 2000 | 700 | 0.27           | 16.0             | 28.5 | 41.5 | 37.5             | 700          | 2,800,000                               | 189             | 20                  | 10.0       | 9.41                     | 23              | 75UW3270(1)30(2)           | R75UW3270(1)30(2)    |
| 2000 | 700 | 0.33           | 16.0             | 28.5 | 41.5 | 37.5             | 700          | 2,800,000                               | 231             | 20                  | 8.2        | 10.40                    | 23              | 75UW3330(1)30(2)           | R75UW3330(1)30(2)    |
| 2000 | 700 | 0.39           | 19.0             | 32.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 273             | 20                  | 8.2        | 10.89                    | 21              | 75UW3390(1)30(2)           | R75UW3390(1)30(2)    |
| 2000 | 700 | 0.47           | 19.0             | 32.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 329             | 20                  | 6.8        | 11.95                    | 21              | 75UW3470(1)30(2)           | R75UW3470(1)30(2)    |
| 2000 | 700 | 0.56           | 20.0             | 40.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 392             | 20                  | 5.7        | 13.70                    | 19              | 75UW3560(1)40(2)           | R75UW3560(1)40(2)    |
| 2000 | 700 | 0.68           | 20.0             | 40.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 476             | 20                  | 4.7        | 15.09                    | 19              | 75UW3680(1)30(2)           | R75UW3680(1)30(2)    |
| 2000 | 700 | 0.82           | 24.0             | 44.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 574             | 20                  | 3.9        | 17.29                    | 17              | 75UW3820(1)40(2)           | R75UW3820(1)40(2)    |
| 2000 | 700 | 1              | 24.0             | 44.0 | 41.5 | 37.5             | 700          | 2,800,000                               | 700             | 20                  | 3.2        | 19.10                    | 17              | 75UW4100(1)30(2)           | R75UW4100(1)30(2)    |
| VDC  | VAC | Cap Value      | T                | H    | L    | Lead Spacing (S) | dV/dt (V/μs) | Max K <sub>0</sub> (V <sup>2</sup> /μs) | A <sub>pk</sub> | nH                  | mΩ         | A <sub>rms</sub>         | (°C/W)          | KEMET Internal Part Number | Customer Part Number |
|      |     |                |                  |      |      |                  |              |                                         |                 | Lead Length 2x 4 mm | at 100 kHz | at 100 kHz, 85°C         |                 |                            |                      |
|      |     |                | Dimensions       |      |      |                  |              |                                         | I <sub>pk</sub> | ESL                 | ESR        | I <sub>rms</sub> max (*) | R <sub>th</sub> |                            |                      |

(1) Insert lead and packaging code. See Ordering Options Table for available options.

(2) J = 5%, K = 10%, M = 20%

(\*) I<sub>rms</sub> value that leads to a ΔT of ≈ 20°C on the box surface > T<sub>BOX</sub> = T<sub>AMB</sub> + ΔT = 85°C + 20°C = 105°C

## Soldering Process

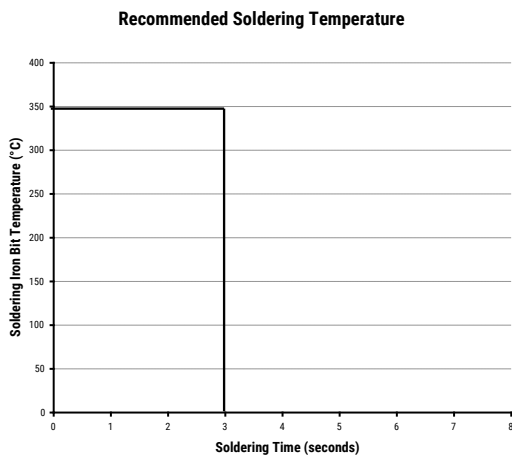
The implementation of the RoHS directive has resulted in the selection of SnAgCu (SAC) alloys or SnCu alloys as a primary solder. This has increased the liquidus temperature from that of 183°C for SnPb eutectic alloy to 217 – 221°C for the new alloys. As a result, the heat stress to the components, even in wave soldering, has increased considerably due to higher pre-heat and wave temperatures. Polypropylene capacitors are especially sensitive to heat (the melting point of polypropylene is 160 – 170°C). Wave soldering can be destructive, especially for mechanically small polypropylene capacitors (with lead spacing of 5 mm to 15 mm), and great care has to be taken during soldering. The recommended solder profiles from KEMET should be used. Please consult KEMET with any questions. In general, the wave soldering curve from IEC Publication 61760–1 Edition 2 serves as a solid guideline for successful soldering. Please see Figure 1.

Reflow soldering is not recommended for through-hole film capacitors. Exposing capacitors to a soldering profile in excess of the above recommended limits may result in degradation or permanent damage to the capacitors.

Do not place the polypropylene capacitor through an adhesive curing oven to cure resin for surface mount components. Insert through-hole parts after the curing of surface mount parts. Consult KEMET to discuss the actual temperature profile in the oven, if through-hole components must pass through the adhesive curing process. A maximum two soldering cycles is recommended. Please allow time for the capacitor surface temperature to return to a normal temperature before the second soldering cycle.

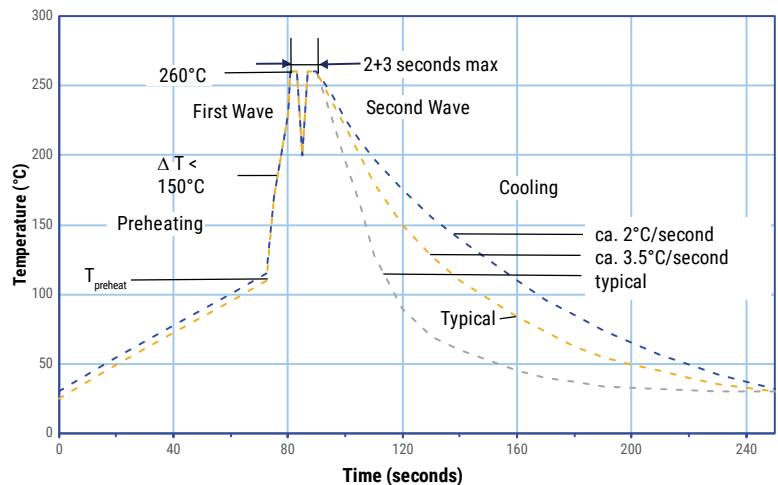
### Manual Soldering Recommendations

The following is recommended for manual soldering with a soldering iron.



The soldering iron tip temperature should be set at 350°C (+10°C maximum) with the soldering duration not to exceed more than 3 seconds.

### Wave Soldering Recommendations



## Soldering Process cont.

### Wave Soldering Recommendations cont.

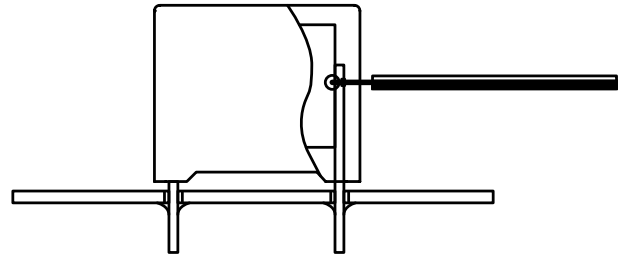
1. The table indicates the maximum set-up temperature of the soldering process  
Figure 1.

| Dielectric Film Material | Maximum Preheat Temperature |                         | Maximum Peak Soldering Temperature |                         |
|--------------------------|-----------------------------|-------------------------|------------------------------------|-------------------------|
|                          | Capacitor Pitch ≤ 15 mm     | Capacitor Pitch > 15 mm | Capacitor Pitch ≤ 15 mm            | Capacitor Pitch > 15 mm |
| Polyester                | 130°C                       | 130°C                   | 270°C                              | 270°C                   |
| Polypropylene            | 110°C                       | 130°C                   | 260°C                              | 270°C                   |
| Paper                    | 130°C                       | 140°C                   | 270°C                              | 270°C                   |
| Polyphenylene Sulphide   | 150°C                       | 160°C                   | 270°C                              | 270°C                   |

2. The maximum temperature measured inside the capacitor:

Set the temperature so that inside the element the maximum temperature is below the limit:

| Dielectric Film Material | Maximum temperature measured inside the element |
|--------------------------|-------------------------------------------------|
| Polyester                | 160°C                                           |
| Polypropylene            | 110°C                                           |
| Paper                    | 160°C                                           |
| Polyphenylene Sulphide   | 160°C                                           |



*Temperature monitored inside the capacitor.*

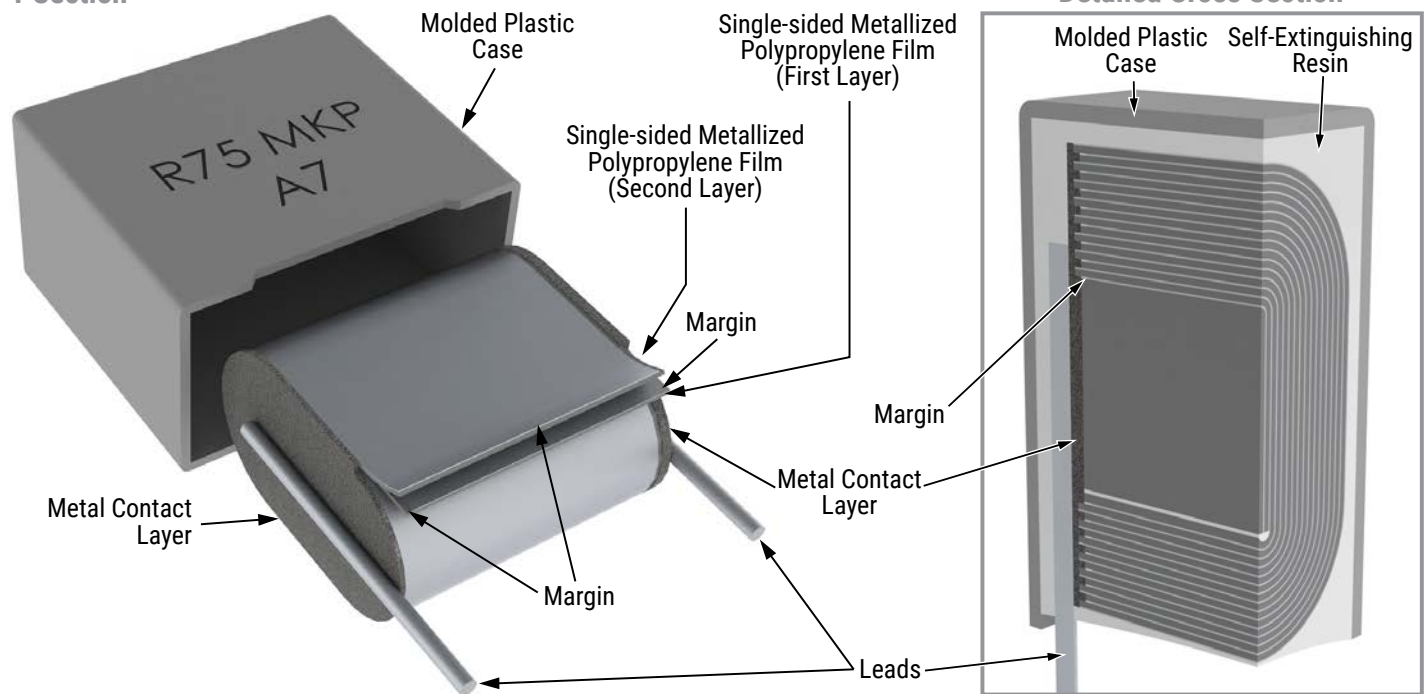
### Selective Soldering Recommendations

Selective dip soldering is a variation of reflow soldering. In this method, the printed circuit board with through-hole components to be soldered is preheated and transported over the solder bath as in normal flow soldering without touching the solder. When the board is over the bath, it is stopped and pre-designed solder pots are lifted from the bath with molten solder only at the places of the selected components, and pressed against the lower surface of the board to solder the components.

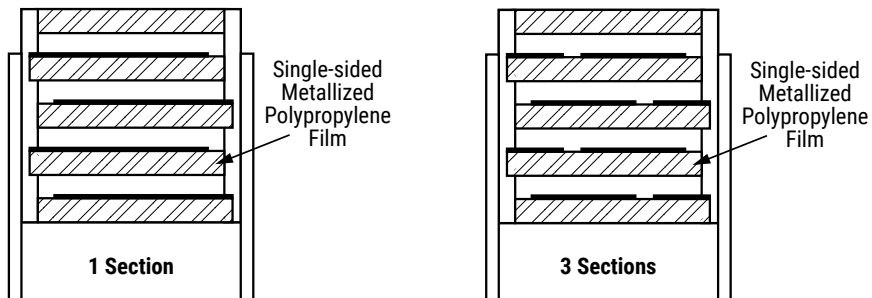
The temperature profile for selective soldering is similar to the double wave flow soldering outlined in this document, **however, instead of two baths, there is only one bath with a time from 3 to 10 seconds.** In selective soldering, the risk of overheating is greater than in double wave flow soldering. Great care must be taken so that the parts are not overheated.

## Construction

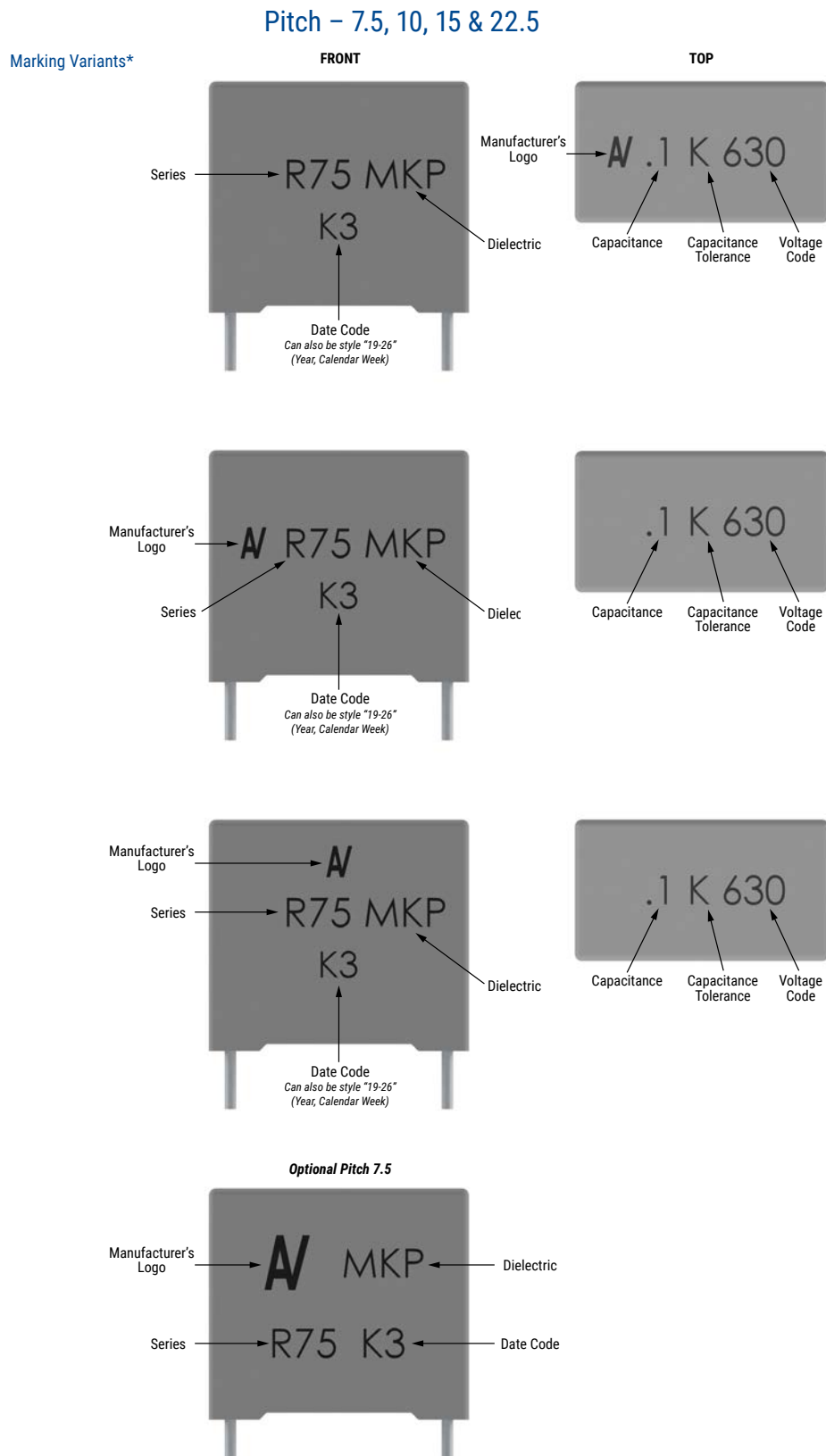
### 1 Section



### Winding Scheme



## Marking

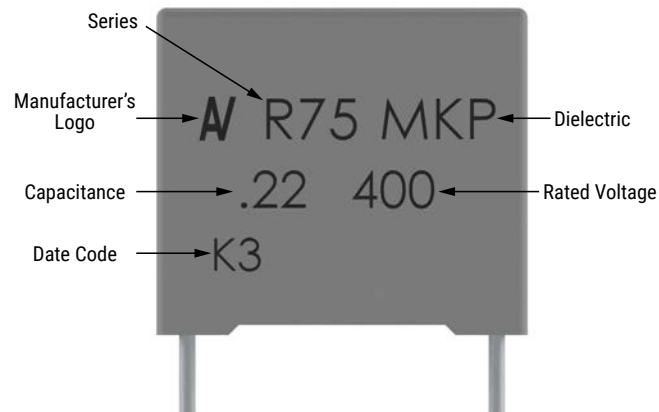
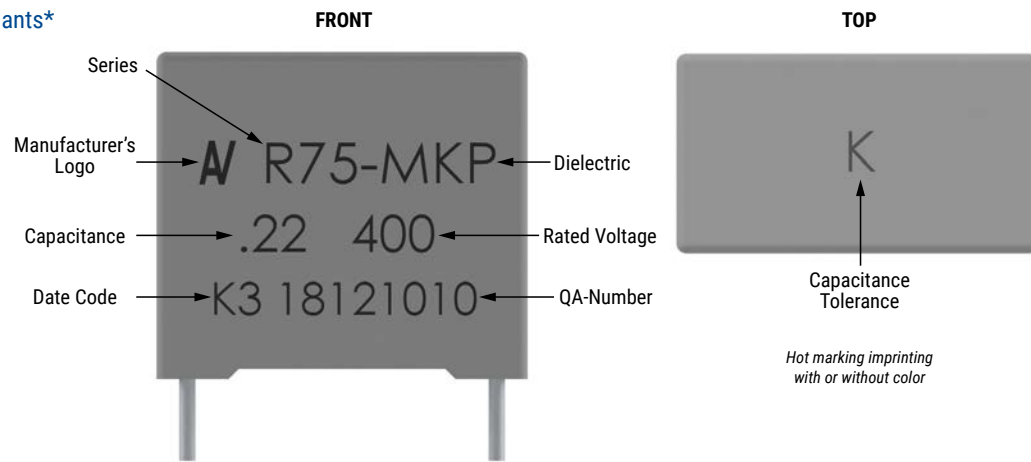


\* Differences are caused by technology (clichee, laser or ink jet) and technic (production line)

## Marking cont.

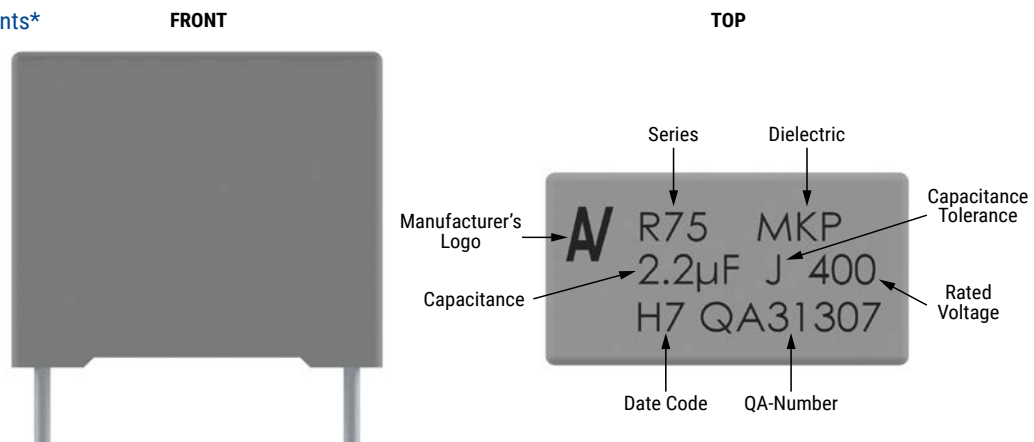
Pitch – 7.5, 10, 15, 22.5, 27.5 & 37.5

Marking Variants\*



Pitch – 22.5, 27.5 & 37.5

Marking Variants\*



\* Differences are caused by technology (clichee, laser or ink jet) and technic (production line)

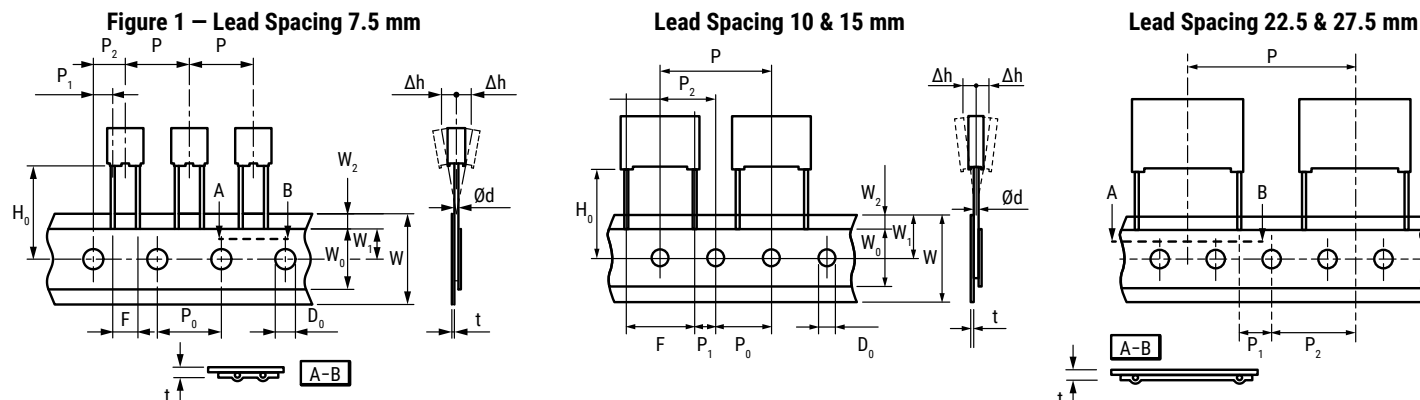
## Packaging Quantities

| Lead Spacing | Thickness (mm)          | Height (mm) | Length (mm) | Bulk Short Leads        | Bulk Long Leads                   |         | Standard Reel<br>ø 355 mm | Large Reel<br>ø 500 mm | Ammo Taped |
|--------------|-------------------------|-------------|-------------|-------------------------|-----------------------------------|---------|---------------------------|------------------------|------------|
|              | Lead and Packaging Code |             |             | AA - JA - JB<br>JE - JH | Z3 <sup>1</sup> - JM <sup>2</sup> | 40 - 50 | GY - CK <sup>1</sup>      | CK                     | DQ         |
| 7.5          | 3.0                     | 8.0         | 10.0        | 1,500                   | 1,750                             | -       | 2,100                     | -                      | 2,800      |
|              | 4.0                     | 9.0         | 10.0        | 2,000                   | 1,500                             | -       | 1,500                     | -                      | 2,100      |
|              | 5.0                     | 10.5        | 10.0        | 1,500                   | 1,000                             | -       | 1,200                     | -                      | 1,600      |
|              | 6.0                     | 12.0        | 10.5        | 1,000                   | 800                               | -       | 1,000                     | -                      | 1,350      |
| 10           | 4.0                     | 9.0         | 13.0        | 2,000                   | 2,200                             | 1,800   | 750                       | 1,500                  | 1,000      |
|              | 5.0                     | 11.0        | 13.0        | 1,300                   | 2,000                             | 1,500   | 600                       | 1,250                  | 800        |
|              | 6.0                     | 12.0        | 13.0        | 1,000                   | 1,800                             | 1,200   | 500                       | 1,000                  | 680        |
| 15           | 4.0                     | 10.0        | 18.0        | 2,500                   | 1,500                             | 1,500   | 750                       | 1,500                  | 1,000      |
|              | 5.0                     | 11.0        | 18.0        | 2,000                   | 1,250                             | 1,000   | 600                       | 1,250                  | 800        |
|              | 6.0                     | 12.0        | 18.0        | 1,750                   | 1,000                             | 900     | 500                       | 1,000                  | 680        |
|              | 7.5                     | 13.5        | 18.0        | 1,000                   | 800                               | 700     | 350                       | 800                    | 500        |
|              | 8.5                     | 14.5        | 18.0        | 1,000                   | 650                               | 500     | 300                       | 700                    | 440        |
|              | 9.0                     | 12.5        | 18.0        | 1,000                   | 700                               | 520     | 270                       | 650                    | 410        |
|              | 10.0                    | 16.0        | 18.0        | 750                     | 550                               | 500     | 270                       | 600                    | 380        |
|              | 11.0                    | 19.0        | 18.0        | 450                     | 400                               | 350     | 270                       | 500                    | 340        |
|              | 13.0                    | 12.0        | 18.0        | 750                     | 520                               | 490     | 200                       | 480                    | 280        |
| 22.5         | 6.0                     | 15.0        | 26.5        | 805                     | 450                               | 500     | 300                       | 700                    | 464        |
|              | 7.0                     | 16.0        | 26.5        | 700                     | 450                               | 500     | 250                       | 550                    | 380        |
|              | 8.5                     | 17.0        | 26.5        | 468                     | 350                               | 300     | 250                       | 450                    | 280        |
|              | 10.0                    | 18.5        | 26.5        | 396                     | 350                               | 300     | 160                       | 350                    | 235        |
|              | 11.0                    | 20.0        | 26.5        | 360                     | 200                               | 250     | 190                       | 350                    | 217        |
|              | 13.0                    | 22.0        | 26.5        | 300                     | 150                               | 200     | 130                       | 300                    | -          |
| 27.5         | 9.0                     | 17.0        | 32.0        | 816                     | -                                 | 408     | 230                       | 450                    | -          |
|              | 11.0                    | 20.0        | 32.0        | 560                     | -                                 | 336     | 190                       | 350                    | -          |
|              | 13.0                    | 12.0        | 32.0        | 672                     | -                                 | 288     | -                         | -                      | -          |
|              | 13.0                    | 22.0        | 32.0        | 480                     | -                                 | 288     | 150                       | 300                    | -          |
|              | 13.0                    | 25.0        | 32.0        | 480                     | -                                 | 288     | -                         | 300                    | -          |
|              | 14.0                    | 28.0        | 32.0        | 352                     | -                                 | 176     | -                         | -                      | -          |
|              | 18.0                    | 33.0        | 32.0        | 256                     | -                                 | 128     | -                         | -                      | -          |
|              | 22.0                    | 37.0        | 32.0        | 168                     | -                                 | 112     | -                         | -                      | -          |
|              | 24.0                    | 15.0        | 32.0        | 336                     | -                                 | 144     | -                         | -                      | -          |
| 37.5         | 11.0                    | 22.0        | 41.5        | 420                     | -                                 | 252     | -                         | -                      | -          |
|              | 13.0                    | 24.0        | 41.5        | 360                     | -                                 | 216     | -                         | -                      | -          |
|              | 16.0                    | 28.5        | 41.5        | 216                     | -                                 | 108     | -                         | -                      | -          |
|              | 19.0                    | 32.0        | 41.5        | 192                     | -                                 | 96      | -                         | -                      | -          |
|              | 20.0                    | 40.0        | 41.5        | 126                     | -                                 | 84      | -                         | -                      | -          |
|              | 24.0                    | 15.0        | 41.5        | 252                     | -                                 | 108     | -                         | -                      | -          |
|              | 24.0                    | 19.0        | 41.5        | 216                     | -                                 | 108     | -                         | -                      | -          |
|              | 24.0                    | 44.0        | 41.5        | 108                     | -                                 | 72      | -                         | -                      | -          |
|              | 30.0                    | 45.0        | 41.5        | 90                      | -                                 | 60      | -                         | -                      | -          |

1 Only for 7.5 mm lead spacing.

2 Only for > 7.5 mm lead spacing.

## Lead Taping & Packaging (IEC 60286-2)



## Taping Specification

| Description                          | Symbol              | Dimensions (mm) |          |           |          |          |           |
|--------------------------------------|---------------------|-----------------|----------|-----------|----------|----------|-----------|
|                                      |                     | Lead Spacing    |          |           |          |          | Tolerance |
|                                      |                     | 7.5             | 10.0     | 15.0      | 22.5     | 27.5     |           |
|                                      |                     | Figure 1        | Figure 2 | Figure 2  | Figure 3 | Figure 3 |           |
| Lead wire diameter                   | d                   | 0.5 – 0.6       | 0.6      | 0.6 – 0.8 | 0.8      | 0.8      | ±0.05     |
| Taping lead space                    | P                   | 12.7            | 25.4     | 25.4      | 38.1     | 38.1     | ±1        |
| Feed hole lead space *               | P <sub>0</sub>      | 12.7            | 12.7     | 12.7      | 12.7     | 12.7     | ±0.2 **   |
| Centering of the lead wire           | P <sub>1</sub>      | 2.6             | 7.7      | 5.2       | 7.8      | 5.3      | ±0.7      |
| Centering of the body                | P <sub>2</sub>      | 6.35            | 12.7     | 12.7      | 19.05    | 19.05    | ±1.3      |
| Lead spacing ***                     | F                   | 7.5             | 10.0     | 15.0      | 22.5     | 27.5     | +0.6/-0.1 |
| Component alignment                  | Δh                  | 0               | 0        | 0         | 0        | 0        | ±2        |
| Component deviation                  | Δp                  | 0               | 0        | 0         | 0        | 0        | ±1        |
| Height of component from tape center | H <sub>0</sub> **** | 18.5            | 18.5     | 18.5      | 18.5     | 18.5     | ±0.5      |
| Carrier tape width                   | W                   | 18              | 18       | 18        | 18       | 18       | +1/-0.5   |
| Hold down tape width                 | W <sub>0</sub>      | 6               | 9        | 10        | 10       | 10       | Minimum   |
| Hole position                        | W <sub>1</sub>      | 9               | 9        | 9         | 9        | 9        | ±0.5      |
| Hold down tape position              | W <sub>2</sub>      | 3               | 3        | 3         | 3        | 3        | Maximum   |
| Feed hole diameter                   | D <sub>0</sub>      | 4               | 4        | 4         | 4        | 4        | ±0.2      |
| Total tape thickness                 | t                   | 0.7             | 0.7      | 0.7       | 0.7      | 0.7      | ±0.2      |

\* Available also 15 mm.

\*\* Maximum 1 mm on 20 lead spacing.

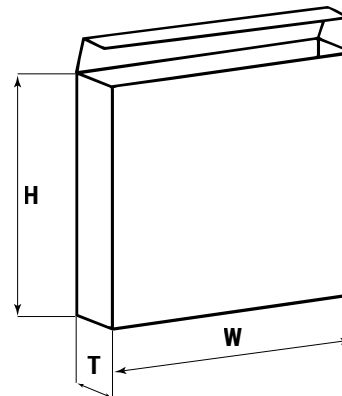
\*\*\* 15 mm and 10 mm taped to 7.5 mm (crimped leads) available upon request.

\*\*\*\* H<sub>0</sub> = 16.5 mm is available upon request.

## Lead Taping & Packaging (IEC 60286-2) cont.

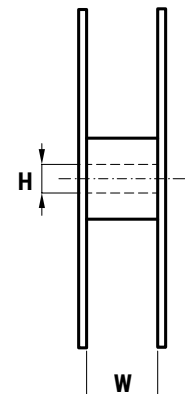
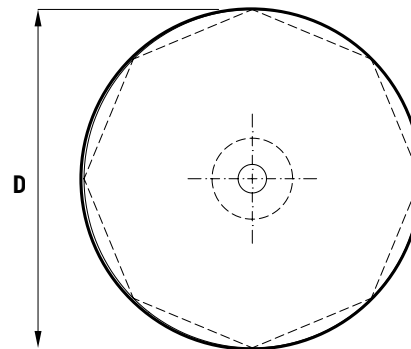
### Ammo Specifications

| Dimensions (mm) |     |    |
|-----------------|-----|----|
| H               | W   | T  |
| 360             | 340 | 59 |



### Reel Specifications

| Dimensions (mm) |          |            |
|-----------------|----------|------------|
| D               | H        | W          |
| 355<br>500      | 30<br>25 | 55 Maximum |



### Manufacturing Date Code (IEC-60062)

| Y = Year, Z = Month |      |           |      |
|---------------------|------|-----------|------|
| Year                | Code | Month     | Code |
| 2010                | A    | January   | 1    |
| 2011                | B    | February  | 2    |
| 2012                | C    | March     | 3    |
| 2013                | D    | April     | 4    |
| 2014                | E    | May       | 5    |
| 2015                | F    | June      | 6    |
| 2016                | H    | July      | 7    |
| 2017                | J    | August    | 8    |
| 2018                | K    | September | 9    |
| 2019                | L    | October   | 0    |
| 2020                | M    | November  | N    |
| 2021                | N    | December  | D    |
| 2022                | P    |           |      |
| 2023                | R    |           |      |
| 2024                | S    |           |      |
| 2025                | T    |           |      |
| 2026                | U    |           |      |
| 2027                | V    |           |      |
| 2028                | W    |           |      |
| 2029                | X    |           |      |
| 2030                | A    |           |      |

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