

## Overview

Polyethylene naphthalate (PEN) film capacitor for surface mounting. Encapsulation in self-extinguishing material meeting the requirements of UL 94 V-0.

## Applications

Typical applications include bypassing and signal coupling. GMC is a general purpose series designed for the highest reliability and high temperature service. Not suitable for across-the-line application (see suppressor capacitors).

## Benefits

- Rated voltage: 50 – 630 VDC
- Rated voltage: 30 – 300 VAC
- Capacitance range: 0.001 – 5.6  $\mu$ F
- EIA size: 2220 – 6560
- Capacitance tolerance:  $\pm 5\%$ ,  $\pm 10\%$ , other tolerances on request
- Climatic category: 55/125/56
- RoHS Compliant and lead-free terminations
- Operating temperature range of  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$



## Legacy Part Number System

| GMC            | 5.7                                | 102                                                                                                                                                 | K                                                              | 50                                   | J31                 | TR12                       |
|----------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------|---------------------|----------------------------|
| Series         | Chip Length (mm)                   | Capacitance Code (pF)                                                                                                                               | Capacitance Tolerance                                          | Rated Voltage (VDC)                  | Size Code           | Packaging Code             |
| Metallized PEN | 5.7<br>7.3<br>10.2<br>12.7<br>16.5 | First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros. | J = $\pm 5\%$<br>K = $\pm 10\%$<br>Other tolerances on request | 50<br>63<br>100<br>250<br>400<br>630 | See Dimension Table | See Ordering Options Table |

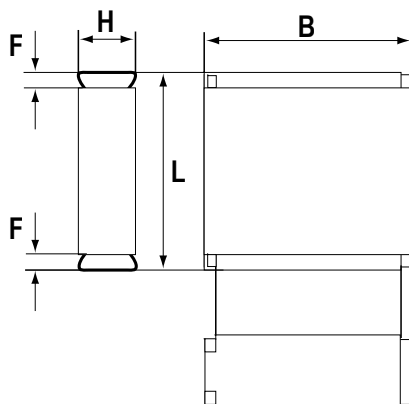
## New KEMET Part Number System

| F               | 115            | P                                                        | L                   | 102                                                                                                                                                 | K                                                              | 050                                                                      | V                          |
|-----------------|----------------|----------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------|
| Capacitor Class | Series         | Chip Size                                                | Size Code           | Capacitance Code (pF)                                                                                                                               | Capacitance Tolerance                                          | Rated Voltage (VDC)                                                      | Packaging Code             |
| F = Film        | Metallized PEN | P = 2220<br>S = 2824<br>W = 4036<br>Y = 5045<br>Z = 6560 | See Dimension Table | First two digits indicate the two most significant digits of the capacitance value in picofarads. The third digit is the number of following zeros. | J = $\pm 5\%$<br>K = $\pm 10\%$<br>Other tolerances on request | 050 = 50<br>063 = 63<br>100 = 100<br>250 = 250<br>400 = 400<br>630 = 630 | See Ordering Options Table |

## Ordering Options Table

| Chip Size<br>(EIA) | Packaging Type                                   | KEMET<br>Packaging<br>Code | Legacy<br>Packaging<br>Code |
|--------------------|--------------------------------------------------|----------------------------|-----------------------------|
| 2220               | <b>Standard Packaging Options</b>                |                            |                             |
|                    | Tape & Reel (Standard Reel)                      | V                          | TR12                        |
|                    | Bulk (Bag)                                       | A                          | BULK                        |
| 2824               | <b>Standard Packaging Options</b>                |                            |                             |
|                    | Tape & Reel (Standard Reel)                      | V                          | TR12                        |
|                    | Bulk (Bag)                                       | A                          | BULK                        |
| 4036               | <b>Standard Packaging Options</b>                |                            |                             |
|                    | Tape & Reel (Standard Reel)                      | V                          | TR16                        |
|                    | Bulk (Bag)                                       | A                          | BULK                        |
|                    | <b>Other Packaging Options</b>                   |                            |                             |
|                    | Tape & Reel (Vertical Orientation Standard Reel) | Y                          | TV24                        |
| 5045               | <b>Standard Packaging Options</b>                |                            |                             |
|                    | Tape & Reel (Standard Reel)                      | V                          | TR24                        |
|                    | Bulk (Bag)                                       | A                          | BULK                        |
|                    | <b>Other Packaging Options</b>                   |                            |                             |
|                    | Tape & Reel (Vertical Orientation Standard Reel) | Y                          | TV24                        |
| 6560               | <b>Standard Packaging Options</b>                |                            |                             |
|                    | Tape & Reel (Standard Reel)                      | V                          | TR24                        |
|                    | Bulk (Bag)                                       | A                          | BULK                        |
|                    | <b>Other Packaging Options</b>                   |                            |                             |
|                    | Tape & Reel (Vertical Orientation Standard Reel) | Y                          | TV44                        |

## Dimensions – Millimeters



| KEMET<br>Size Code | Legacy<br>Size Code | Chip Size<br>(EIA) | B       |           | H       |           | L       |           | F       |           |
|--------------------|---------------------|--------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
|                    |                     |                    | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance | Nominal | Tolerance |
| PL                 | J31                 | 2220               | 5.0     | +/-0.2    | 2.5     | +/-0.2    | 5.7     | +/-0.2    | 0.5     | Nominal   |
| PP                 | J33                 | 2220               | 5.0     | +/-0.2    | 3.0     | +/-0.2    | 5.7     | +/-0.2    | 0.5     | Nominal   |
| PU                 | J35                 | 2220               | 5.0     | +/-0.2    | 4.0     | +/-0.2    | 5.7     | +/-0.2    | 0.5     | Nominal   |
| SG                 | K31                 | 2824               | 6.0     | +/-0.2    | 2.5     | +/-0.2    | 7.3     | +/-0.2    | 0.5     | Nominal   |
| SL                 | K33                 | 2824               | 6.0     | +/-0.2    | 3.0     | +/-0.2    | 7.3     | +/-0.2    | 0.5     | Nominal   |
| SP                 | K35                 | 2824               | 6.0     | +/-0.2    | 3.5     | +/-0.2    | 7.3     | +/-0.2    | 0.5     | Nominal   |
| ST                 | K37                 | 2824               | 6.0     | +/-0.2    | 4.5     | +/-0.2    | 7.3     | +/-0.2    | 0.5     | Nominal   |
| WP                 | A31                 | 4036               | 9.1     | +/-0.2    | 5.5     | +/-0.2    | 10.2    | +/-0.2    | 0.5     | Nominal   |
| YR                 | B31                 | 5045               | 11.5    | +/-0.2    | 6.5     | +/-0.2    | 12.7    | +/-0.2    | 0.5     | Nominal   |
| ZS                 | C31                 | 6560               | 15      | +/-0.2    | 7.0     | +/-0.2    | 16.5    | +/-0.2    | 0.5     | Nominal   |

## Environmental Compliance

All KEMET surface mount capacitors are RoHS Compliant.



RoHS Compliant

## Performance Characteristics

|                            |                                                                                                                                                                                                                            |             |                |              |                |            |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|--------------|----------------|------------|
| Rated Voltage (VDC)        | 50                                                                                                                                                                                                                         | 63          | 100            | 250          | 400            | 630        |
| Rated Voltage (VAC)        | 30                                                                                                                                                                                                                         | 40          | 63             | 160          | 200            | 300        |
| Capacitance Range (μF)     | 0.001 – 5.6                                                                                                                                                                                                                | 0.001 – 4.7 | 0.001 – 2.2    | 0.001 – 0.68 | 0.001 – 0.33   | 0.022-0.15 |
| Chip Size (EIA)            | 2220 – 6560                                                                                                                                                                                                                |             |                |              |                |            |
| Capacitance Tolerance      | ±5%, ±10%, other tolerances on request                                                                                                                                                                                     |             |                |              |                |            |
| Category Temperature Range | -55°C to +125°C                                                                                                                                                                                                            |             |                |              |                |            |
| Rated Temperature          | +100°C                                                                                                                                                                                                                     |             |                |              |                |            |
| Voltage Derating           | The rated voltage should be decreased with 1.25%/°C from +100°C to +125°C and 1.5%/°C from +125°C to 175°C                                                                                                                 |             |                |              |                |            |
| Climatic Category          | 55/125/56                                                                                                                                                                                                                  |             |                |              |                |            |
| Test Voltage               | 1.6 x V <sub>R</sub> , 60 seconds                                                                                                                                                                                          |             |                |              |                |            |
| Insulation Resistance      | Measured at +20°C According to IEC 60384–19                                                                                                                                                                                |             |                |              |                |            |
|                            | Minimum Value Between Terminals                                                                                                                                                                                            |             |                |              |                |            |
|                            |                                                                                                                                                                                                                            | C ≤ 0.33 μF |                |              | C > 0.33 μF    |            |
|                            | V <sub>R</sub> ≤ 100                                                                                                                                                                                                       | 10,000 MΩ   |                |              | 3,000 MΩ • μF  |            |
|                            | V <sub>R</sub> > 100                                                                                                                                                                                                       | 30,000 MΩ   |                |              | 10,000 MΩ • μF |            |
| Dissipation Factor         | Maximum Values at +23°C                                                                                                                                                                                                    |             |                |              |                |            |
|                            |                                                                                                                                                                                                                            | C ≤ 0.1 μF  | 0.1 < C ≤ 1 μF |              | C > 1 μF       |            |
|                            | 1 kHz                                                                                                                                                                                                                      | 0.6%        | 0.6%           |              | 0.6%           |            |
|                            | 10 kHz                                                                                                                                                                                                                     | 1.0%        | 1.0%           |              | 1.0%           |            |
|                            | 100 kHz                                                                                                                                                                                                                    | 2.0%        | 2.5%           |              |                |            |
| Pulse Rise Time            | The capacitors can withstand an unlimited number of pulses with a dV/dt according to Table 1. For voltages (V) lower than the rated voltage (V <sub>R</sub> ), the specified dV/dt can be multiplied by V <sub>R</sub> /V. |             |                |              |                |            |

### Capacitance vs. Temperature



### Dissipation Factor vs. Temperature



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

| VDC | VAC | Cap Value<br>( $\mu$ F)         | Size Code<br>(New/Legacy) | Dimensions in mm |        |        | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part<br>Number |
|-----|-----|---------------------------------|---------------------------|------------------|--------|--------|-----------|-----------------------|--------------------------|-----------------------|
|     |     |                                 |                           | B                | H      | L      |           |                       |                          |                       |
| 50  | 30  | 0.0010                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL102(1)050(2)       | GMC5.7102(1)50J31(2)  |
| 50  | 30  | 0.0012                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL122(1)050(2)       | GMC5.7122(1)50J31(2)  |
| 50  | 30  | 0.0015                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL152(1)050(2)       | GMC5.7152(1)50J31(2)  |
| 50  | 30  | 0.0018                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL182(1)050(2)       | GMC5.7182(1)50J31(2)  |
| 50  | 30  | 0.0022                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL222(1)050(2)       | GMC5.7222(1)50J31(2)  |
| 50  | 30  | 0.0027                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL272(1)050(2)       | GMC5.7272(1)50J31(2)  |
| 50  | 30  | 0.0033                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL332(1)050(2)       | GMC5.7332(1)50J31(2)  |
| 50  | 30  | 0.0039                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL392(1)050(2)       | GMC5.7392(1)50J31(2)  |
| 50  | 30  | 0.0047                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL472(1)050(2)       | GMC5.7472(1)50J31(2)  |
| 50  | 30  | 0.0056                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL562(1)050(2)       | GMC5.7562(1)50J31(2)  |
| 50  | 30  | 0.0068                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL682(1)050(2)       | GMC5.7682(1)50J31(2)  |
| 50  | 30  | 0.0082                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL822(1)050(2)       | GMC5.7822(1)50J31(2)  |
| 50  | 30  | 0.010                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL103(1)050(2)       | GMC5.7103(1)50J31(2)  |
| 50  | 30  | 0.012                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL123(1)050(2)       | GMC5.7123(1)50J31(2)  |
| 50  | 30  | 0.015                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL153(1)050(2)       | GMC5.7153(1)50J31(2)  |
| 50  | 30  | 0.018                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL183(1)050(2)       | GMC5.7183(1)50J31(2)  |
| 50  | 30  | 0.022                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL223(1)050(2)       | GMC5.7223(1)50J31(2)  |
| 50  | 30  | 0.027                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL273(1)050(2)       | GMC5.7273(1)50J31(2)  |
| 50  | 30  | 0.033                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL333(1)050(2)       | GMC5.7333(1)50J31(2)  |
| 50  | 30  | 0.039                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL393(1)050(2)       | GMC5.7393(1)50J31(2)  |
| 50  | 30  | 0.047                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL473(1)050(2)       | GMC5.7473(1)50J31(2)  |
| 50  | 30  | 0.056                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL563(1)050(2)       | GMC5.7563(1)50J31(2)  |
| 50  | 30  | 0.068                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL683(1)050(2)       | GMC5.7683(1)50J31(2)  |
| 50  | 30  | 0.082                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL823(1)050(2)       | GMC5.7823(1)50J31(2)  |
| 50  | 30  | 0.10                            | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 20                    | F115PL104(1)050(2)       | GMC5.7104(1)50J31(2)  |
| 50  | 30  | 0.12                            | PU/J33                    | 5.0              | 3.0    | 5.7    | 2220      | 20                    | F115PP124(1)050(2)       | GMC5.7124(1)50J33(2)  |
| 50  | 30  | 0.15                            | PU/J35                    | 5.0              | 4.0    | 5.7    | 2220      | 20                    | F115PU154(1)050(2)       | GMC5.7154(1)50J35(2)  |
| 50  | 30  | 0.18                            | PU/J35                    | 5.0              | 4.0    | 5.7    | 2220      | 20                    | F115PU184(1)050(2)       | GMC5.7184(1)50J35(2)  |
| 50  | 30  | 0.022                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP223(1)050(2)       | GMC10.2223(1)50A31(2) |
| 50  | 30  | 0.027                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP273(1)050(2)       | GMC10.2273(1)50A31(2) |
| 50  | 30  | 0.033                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP333(1)050(2)       | GMC10.2333(1)50A31(2) |
| 50  | 30  | 0.039                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP393(1)050(2)       | GMC10.2393(1)50A31(2) |
| 50  | 30  | 0.047                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP473(1)050(2)       | GMC10.2473(1)50A31(2) |
| 50  | 30  | 0.056                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP563(1)050(2)       | GMC10.2563(1)50A31(2) |
| 50  | 30  | 0.068                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP683(1)050(2)       | GMC10.2683(1)50A31(2) |
| 50  | 30  | 0.082                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP823(1)050(2)       | GMC10.2823(1)50A31(2) |
| 50  | 30  | 0.10                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP104(1)050(2)       | GMC10.2104(1)50A31(2) |
| 50  | 30  | 0.12                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP124(1)050(2)       | GMC10.2124(1)50A31(2) |
| 50  | 30  | 0.15                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP154(1)050(2)       | GMC10.2154(1)50A31(2) |
| 50  | 30  | 0.18                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP184(1)050(2)       | GMC10.2184(1)50A31(2) |
| 50  | 30  | 0.22                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP224(1)050(2)       | GMC10.2224(1)50A31(2) |
| 50  | 30  | 0.27                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP274(1)050(2)       | GMC10.2274(1)50A31(2) |
| 50  | 30  | 0.33                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP334(1)050(2)       | GMC10.2334(1)50A31(2) |
| 50  | 30  | 0.39                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP394(1)050(2)       | GMC10.2394(1)50A31(2) |
| 50  | 30  | 0.47                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP474(1)050(2)       | GMC10.2474(1)50A31(2) |
| 50  | 30  | 0.56                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP564(1)050(2)       | GMC10.2564(1)50A31(2) |
| 50  | 30  | 0.68                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP684(1)050(2)       | GMC10.2684(1)50A31(2) |
| 50  | 30  | 0.82                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP824(1)050(2)       | GMC10.2824(1)50A31(2) |
| 50  | 30  | 1.0                             | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP105(1)050(2)       | GMC10.2105(1)50A31(2) |
| 50  | 30  | 1.2                             | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP125(1)050(2)       | GMC10.2125(1)50A31(2) |
| 50  | 30  | 1.5                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR155(1)050(2)       | GMC12.7155(1)50B31(2) |
| 50  | 30  | 1.8                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR185(1)050(2)       | GMC12.7185(1)50B31(2) |
| 50  | 30  | 2.2                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR225(1)050(2)       | GMC12.7225(1)50B31(2) |
| 50  | 30  | 2.7                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR275(1)050(2)       | GMC12.7275(1)50B31(2) |
| 50  | 30  | 3.0                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR305(1)050(2)       | GMC12.7305(1)50B31(2) |
| 50  | 30  | 3.9                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS395(1)050(2)       | GMC16.5395(1)50C31(2) |
| 50  | 30  | 4.7                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS475(1)050(2)       | GMC16.5475(1)50C31(2) |
| 50  | 30  | 5.6                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS565(1)050(2)       | GMC16.5565(1)50C31(2) |
| 63  | 40  | 0.0010                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG102(1)063(2)       | GMC7.3102(1)63K31(2)  |
| VDC | VAC | Capacitance<br>Value ( $\mu$ F) | Size Code<br>(New/Legacy) | B (mm)           | H (mm) | L (mm) | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part Number    |

(1) J =  $\pm 5\%$ , K =  $\pm 10\%$ , other tolerances on request.

(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.

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

| VDC | VAC | Cap Value<br>( $\mu$ F)         | Size Code<br>(New/Legacy) | Dimensions in mm |        |        | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part<br>Number |
|-----|-----|---------------------------------|---------------------------|------------------|--------|--------|-----------|-----------------------|--------------------------|-----------------------|
|     |     |                                 |                           | B                | H      | L      |           |                       |                          |                       |
| 63  | 40  | 0.0012                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG122(1)063(2)       | GMC7.3122(1)63K31(2)  |
| 63  | 40  | 0.0015                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG152(1)063(2)       | GMC7.3152(1)63K31(2)  |
| 63  | 40  | 0.0018                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG182(1)063(2)       | GMC7.3182(1)63K31(2)  |
| 63  | 40  | 0.0022                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG222(1)063(2)       | GMC7.3222(1)63K31(2)  |
| 63  | 40  | 0.0027                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG272(1)063(2)       | GMC7.3272(1)63K31(2)  |
| 63  | 40  | 0.0033                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG332(1)063(2)       | GMC7.3332(1)63K31(2)  |
| 63  | 40  | 0.0039                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG392(1)063(2)       | GMC7.3392(1)63K31(2)  |
| 63  | 40  | 0.0047                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG472(1)063(2)       | GMC7.3472(1)63K31(2)  |
| 63  | 40  | 0.0056                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG562(1)063(2)       | GMC7.3562(1)63K31(2)  |
| 63  | 40  | 0.0068                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG682(1)063(2)       | GMC7.3682(1)63K31(2)  |
| 63  | 40  | 0.0082                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG822(1)063(2)       | GMC7.3822(1)63K31(2)  |
| 63  | 40  | 0.010                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG103(1)063(2)       | GMC7.3103(1)63K31(2)  |
| 63  | 40  | 0.012                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG123(1)063(2)       | GMC7.3123(1)63K31(2)  |
| 63  | 40  | 0.015                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG153(1)063(2)       | GMC7.3153(1)63K31(2)  |
| 63  | 40  | 0.018                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG183(1)063(2)       | GMC7.3183(1)63K31(2)  |
| 63  | 40  | 0.022                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG223(1)063(2)       | GMC7.3223(1)63K31(2)  |
| 63  | 40  | 0.027                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG273(1)063(2)       | GMC7.3273(1)63K31(2)  |
| 63  | 40  | 0.033                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG333(1)063(2)       | GMC7.3333(1)63K31(2)  |
| 63  | 40  | 0.039                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG393(1)063(2)       | GMC7.3393(1)63K31(2)  |
| 63  | 40  | 0.047                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG473(1)063(2)       | GMC7.3473(1)63K31(2)  |
| 63  | 40  | 0.056                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG563(1)063(2)       | GMC7.3563(1)63K31(2)  |
| 63  | 40  | 0.068                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 20                    | F115SG683(1)063(2)       | GMC7.3683(1)63K31(2)  |
| 63  | 40  | 0.082                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 20                    | F115SG823(1)063(2)       | GMC7.3823(1)63K31(2)  |
| 63  | 40  | 0.10                            | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 20                    | F115SG104(1)063(2)       | GMC7.3104(1)63K31(2)  |
| 63  | 40  | 0.12                            | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 20                    | F115SG124(1)063(2)       | GMC7.3124(1)63K31(2)  |
| 63  | 40  | 0.15                            | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 20                    | F115SG154(1)063(2)       | GMC7.3154(1)63K31(2)  |
| 63  | 40  | 0.18                            | SL/K33                    | 6.0              | 3.0    | 7.3    | 2824      | 20                    | F115SL184(1)063(2)       | GMC7.3184(1)63K33(2)  |
| 63  | 40  | 0.22                            | SL/K33                    | 6.0              | 3.0    | 7.3    | 2824      | 20                    | F115SL224(1)063(2)       | GMC7.3224(1)63K33(2)  |
| 63  | 40  | 0.27                            | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 20                    | F115SP274(1)063(2)       | GMC7.3274(1)63K35(2)  |
| 63  | 40  | 0.33                            | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 20                    | F115SP334(1)063(2)       | GMC7.3334(1)63K35(2)  |
| 63  | 40  | 0.39                            | ST/K37                    | 6.0              | 4.5    | 7.3    | 2824      | 20                    | F115ST394(1)063(2)       | GMC7.3394(1)63K37(2)  |
| 63  | 40  | 0.022                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP223(1)063(2)       | GMC10.2223(1)63A31(2) |
| 63  | 40  | 0.027                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP273(1)063(2)       | GMC10.2273(1)63A31(2) |
| 63  | 40  | 0.033                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP333(1)063(2)       | GMC10.2333(1)63A31(2) |
| 63  | 40  | 0.039                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP393(1)063(2)       | GMC10.2393(1)63A31(2) |
| 63  | 40  | 0.047                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP473(1)063(2)       | GMC10.2473(1)63A31(2) |
| 63  | 40  | 0.056                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP563(1)063(2)       | GMC10.2563(1)63A31(2) |
| 63  | 40  | 0.068                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP683(1)063(2)       | GMC10.2683(1)63A31(2) |
| 63  | 40  | 0.082                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP823(1)063(2)       | GMC10.2823(1)63A31(2) |
| 63  | 40  | 0.10                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP104(1)063(2)       | GMC10.2104(1)63A31(2) |
| 63  | 40  | 0.12                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP124(1)063(2)       | GMC10.2124(1)63A31(2) |
| 63  | 40  | 0.15                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP154(1)063(2)       | GMC10.2154(1)63A31(2) |
| 63  | 40  | 0.18                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP184(1)063(2)       | GMC10.2184(1)63A31(2) |
| 63  | 40  | 0.22                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP224(1)063(2)       | GMC10.2224(1)63A31(2) |
| 63  | 40  | 0.27                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP274(1)063(2)       | GMC10.2274(1)63A31(2) |
| 63  | 40  | 0.33                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP334(1)063(2)       | GMC10.2334(1)63A31(2) |
| 63  | 40  | 0.39                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP394(1)063(2)       | GMC10.2394(1)63A31(2) |
| 63  | 40  | 0.47                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP474(1)063(2)       | GMC10.2474(1)63A31(2) |
| 63  | 40  | 0.56                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP564(1)063(2)       | GMC10.2564(1)63A31(2) |
| 63  | 40  | 0.68                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP684(1)063(2)       | GMC10.2684(1)63A31(2) |
| 63  | 40  | 0.82                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 10                    | F115WP824(1)063(2)       | GMC10.2824(1)63A31(2) |
| 63  | 40  | 1.0                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR105(1)063(2)       | GMC12.7105(1)63B31(2) |
| 63  | 40  | 1.2                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR125(1)063(2)       | GMC12.7125(1)63B31(2) |
| 63  | 40  | 1.5                             | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 8                     | F115YR155(1)063(2)       | GMC12.7155(1)63B31(2) |
| 63  | 40  | 1.8                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS185(1)063(2)       | GMC16.5185(1)63C31(2) |
| 63  | 40  | 2.2                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS225(1)063(2)       | GMC16.5225(1)63C31(2) |
| 63  | 40  | 2.7                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS275(1)063(2)       | GMC16.5275(1)63C31(2) |
| 63  | 40  | 3.3                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS335(1)063(2)       | GMC16.5335(1)63C31(2) |
| 63  | 40  | 3.9                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS395(1)063(2)       | GMC16.5395(1)63C31(2) |
| VDC | VAC | Capacitance<br>Value ( $\mu$ F) | Size Code<br>(New/Legacy) | B (mm)           | H (mm) | L (mm) | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part<br>Number |

(1)  $J = \pm 5\%$ ,  $K = \pm 10\%$ , other tolerances on request.

(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.

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

| VDC | VAC | Cap Value<br>( $\mu$ F)         | Size Code<br>(New/Legacy) | Dimensions in mm |        |        | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part<br>Number  |
|-----|-----|---------------------------------|---------------------------|------------------|--------|--------|-----------|-----------------------|--------------------------|------------------------|
|     |     |                                 |                           | B                | H      | L      |           |                       |                          |                        |
| 63  | 40  | 4.7                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 5                     | F115ZS475(1)063(2)       | GMC16.5475(1)63C31(2)  |
| 100 | 63  | 0.0010                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL102(1)100(2)       | GMC5.7102(1)100J31(2)  |
| 100 | 63  | 0.0012                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL122(1)100(2)       | GMC5.7122(1)100J31(2)  |
| 100 | 63  | 0.0015                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL152(1)100(2)       | GMC5.7152(1)100J31(2)  |
| 100 | 63  | 0.0018                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL182(1)100(2)       | GMC5.7182(1)100J31(2)  |
| 100 | 63  | 0.0022                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL222(1)100(2)       | GMC5.7222(1)100J31(2)  |
| 100 | 63  | 0.0027                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL272(1)100(2)       | GMC5.7272(1)100J31(2)  |
| 100 | 63  | 0.0033                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL332(1)100(2)       | GMC5.7332(1)100J31(2)  |
| 100 | 63  | 0.0039                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL392(1)100(2)       | GMC5.7392(1)100J31(2)  |
| 100 | 63  | 0.0047                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL472(1)100(2)       | GMC5.7472(1)100J31(2)  |
| 100 | 63  | 0.0056                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL562(1)100(2)       | GMC5.7562(1)100J31(2)  |
| 100 | 63  | 0.0068                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL682(1)100(2)       | GMC5.7682(1)100J31(2)  |
| 100 | 63  | 0.0082                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL822(1)100(2)       | GMC5.7822(1)100J31(2)  |
| 100 | 63  | 0.010                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL103(1)100(2)       | GMC5.7103(1)100J31(2)  |
| 100 | 63  | 0.012                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL123(1)100(2)       | GMC5.7123(1)100J31(2)  |
| 100 | 63  | 0.015                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL153(1)100(2)       | GMC5.7153(1)100J31(2)  |
| 100 | 63  | 0.018                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL183(1)100(2)       | GMC5.7183(1)100J31(2)  |
| 100 | 63  | 0.022                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 30                    | F115PL223(1)100(2)       | GMC5.7223(1)100J31(2)  |
| 100 | 63  | 0.027                           | PP/J33                    | 5.0              | 3.0    | 5.7    | 2220      | 30                    | F115PP273(1)100(2)       | GMC5.7273(1)100J33(2)  |
| 100 | 63  | 0.033                           | PP/J33                    | 5.0              | 3.0    | 5.7    | 2220      | 30                    | F115PP333(1)100(2)       | GMC5.7333(1)100J33(2)  |
| 100 | 63  | 0.039                           | PU/J35                    | 5.0              | 4.0    | 5.7    | 2220      | 30                    | F115PU393(1)100(2)       | GMC5.7393(1)100J35(2)  |
| 100 | 63  | 0.047                           | PU/J35                    | 5.0              | 4.0    | 5.7    | 2220      | 30                    | F115PU473(1)100(2)       | GMC5.7473(1)100J35(2)  |
| 100 | 63  | 0.0010                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG102(1)100(2)       | GMC7.3102(1)100K31(2)  |
| 100 | 63  | 0.0012                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG122(1)100(2)       | GMC7.3122(1)100K31(2)  |
| 100 | 63  | 0.0015                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG152(1)100(2)       | GMC7.3152(1)100K31(2)  |
| 100 | 63  | 0.0018                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG182(1)100(2)       | GMC7.3182(1)100K31(2)  |
| 100 | 63  | 0.0022                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG222(1)100(2)       | GMC7.3222(1)100K31(2)  |
| 100 | 63  | 0.0027                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG272(1)100(2)       | GMC7.3272(1)100K31(2)  |
| 100 | 63  | 0.0033                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG332(1)100(2)       | GMC7.3332(1)100K31(2)  |
| 100 | 63  | 0.0039                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG392(1)100(2)       | GMC7.3392(1)100K31(2)  |
| 100 | 63  | 0.0047                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG472(1)100(2)       | GMC7.3472(1)100K31(2)  |
| 100 | 63  | 0.0056                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG562(1)100(2)       | GMC7.3562(1)100K31(2)  |
| 100 | 63  | 0.0068                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG682(1)100(2)       | GMC7.3682(1)100K31(2)  |
| 100 | 63  | 0.0082                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG822(1)100(2)       | GMC7.3822(1)100K31(2)  |
| 100 | 63  | 0.010                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG103(1)100(2)       | GMC7.3103(1)100K31(2)  |
| 100 | 63  | 0.012                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG123(1)100(2)       | GMC7.3123(1)100K31(2)  |
| 100 | 63  | 0.015                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG153(1)100(2)       | GMC7.3153(1)100K31(2)  |
| 100 | 63  | 0.018                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG183(1)100(2)       | GMC7.3183(1)100K31(2)  |
| 100 | 63  | 0.022                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG223(1)100(2)       | GMC7.3223(1)100K31(2)  |
| 100 | 63  | 0.027                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG273(1)100(2)       | GMC7.3273(1)100K31(2)  |
| 100 | 63  | 0.033                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG333(1)100(2)       | GMC7.3333(1)100K31(2)  |
| 100 | 63  | 0.039                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG393(1)100(2)       | GMC7.3393(1)100K31(2)  |
| 100 | 63  | 0.047                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 30                    | F115SG473(1)100(2)       | GMC7.3473(1)100K31(2)  |
| 100 | 63  | 0.056                           | SL/K33                    | 6.0              | 3.0    | 7.3    | 2824      | 30                    | F115SL563(1)100(2)       | GMC7.3563(1)100K33(2)  |
| 100 | 63  | 0.068                           | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 30                    | F115SP683(1)100(2)       | GMC7.3683(1)100K35(2)  |
| 100 | 63  | 0.082                           | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 30                    | F115SP823(1)100(2)       | GMC7.3823(1)100K35(2)  |
| 100 | 63  | 0.10                            | ST/K37                    | 6.0              | 4.5    | 7.3    | 2824      | 30                    | F115ST104(1)100(2)       | GMC7.3104(1)100K37(2)  |
| 100 | 63  | 0.022                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP223(1)100(2)       | GMC10.2223(1)100A31(2) |
| 100 | 63  | 0.027                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP273(1)100(2)       | GMC10.2273(1)100A31(2) |
| 100 | 63  | 0.033                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP333(1)100(2)       | GMC10.2333(1)100A31(2) |
| 100 | 63  | 0.039                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP393(1)100(2)       | GMC10.2393(1)100A31(2) |
| 100 | 63  | 0.047                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP473(1)100(2)       | GMC10.2473(1)100A31(2) |
| 100 | 63  | 0.056                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP563(1)100(2)       | GMC10.2563(1)100A31(2) |
| 100 | 63  | 0.068                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP683(1)100(2)       | GMC10.2683(1)100A31(2) |
| 100 | 63  | 0.082                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP823(1)100(2)       | GMC10.2823(1)100A31(2) |
| 100 | 63  | 0.10                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP104(1)100(2)       | GMC10.2104(1)100A31(2) |
| 100 | 63  | 0.12                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP124(1)100(2)       | GMC10.2124(1)100A31(2) |
| 100 | 63  | 0.15                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP154(1)100(2)       | GMC10.2154(1)100A31(2) |
| 100 | 63  | 0.18                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP184(1)100(2)       | GMC10.2184(1)100A31(2) |
| VDC | VAC | Capacitance<br>Value ( $\mu$ F) | Size Code<br>(New/Legacy) | B (mm)           | H (mm) | L (mm) | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part Number     |

(1)  $J = \pm 5\%$ ,  $K = \pm 10\%$ , other tolerances on request.

(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.

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

| VDC | VAC | Cap Value<br>( $\mu$ F)         | Size Code<br>(New/Legacy) | Dimensions in mm |        |        | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part<br>Number  |
|-----|-----|---------------------------------|---------------------------|------------------|--------|--------|-----------|-----------------------|--------------------------|------------------------|
|     |     |                                 |                           | B                | H      | L      |           |                       |                          |                        |
| 100 | 63  | 0.22                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP224(1)100(2)       | GMC10.2224(1)100A31(2) |
| 100 | 63  | 0.27                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP274(1)100(2)       | GMC10.2274(1)100A31(2) |
| 100 | 63  | 0.33                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 20                    | F115WP334(1)100(2)       | GMC10.2334(1)100A31(2) |
| 100 | 63  | 0.39                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 12                    | F115YR394(1)100(2)       | GMC12.7394(1)100B31(2) |
| 100 | 63  | 0.47                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 12                    | F115YR474(1)100(2)       | GMC12.7474(1)100B31(2) |
| 100 | 63  | 0.56                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 12                    | F115YR564(1)100(2)       | GMC12.7564(1)100B31(2) |
| 100 | 63  | 0.68                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 12                    | F115YR684(1)100(2)       | GMC12.7684(1)100B31(2) |
| 100 | 63  | 0.82                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 8                     | F115ZS824(1)100(2)       | GMC16.5824(1)100C31(2) |
| 100 | 63  | 1.0                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 8                     | F115ZS105(1)100(2)       | GMC16.5105(1)100C31(2) |
| 100 | 63  | 1.2                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 8                     | F115ZS125(1)100(2)       | GMC16.5125(1)100C31(2) |
| 100 | 63  | 1.5                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 8                     | F115ZS155(1)100(2)       | GMC16.5155(1)100C31(2) |
| 100 | 63  | 1.8                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 8                     | F115ZS185(1)100(2)       | GMC16.5185(1)100C31(2) |
| 100 | 63  | 2.2                             | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 8                     | F115ZS225(1)100(2)       | GMC16.5225(1)100C31(2) |
| 250 | 160 | 0.0010                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL102(1)250(2)       | GMC5.7102(1)250J31(2)  |
| 250 | 160 | 0.0012                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL122(1)250(2)       | GMC5.7122(1)250J31(2)  |
| 250 | 160 | 0.0015                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL152(1)250(2)       | GMC5.7152(1)250J31(2)  |
| 250 | 160 | 0.0018                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL182(1)250(2)       | GMC5.7182(1)250J31(2)  |
| 250 | 160 | 0.0022                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL222(1)250(2)       | GMC5.7222(1)250J31(2)  |
| 250 | 160 | 0.0027                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL272(1)250(2)       | GMC5.7272(1)250J31(2)  |
| 250 | 160 | 0.0033                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL332(1)250(2)       | GMC5.7332(1)250J31(2)  |
| 250 | 160 | 0.0039                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL392(1)250(2)       | GMC5.7392(1)250J31(2)  |
| 250 | 160 | 0.0047                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL472(1)250(2)       | GMC5.7472(1)250J31(2)  |
| 250 | 160 | 0.0056                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL562(1)250(2)       | GMC5.7562(1)250J31(2)  |
| 250 | 160 | 0.0068                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL682(1)250(2)       | GMC5.7682(1)250J31(2)  |
| 250 | 160 | 0.0082                          | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL822(1)250(2)       | GMC5.7822(1)250J31(2)  |
| 250 | 160 | 0.010                           | PL/J31                    | 5.0              | 2.5    | 5.7    | 2220      | 40                    | F115PL103(1)250(2)       | GMC5.7103(1)250J31(2)  |
| 250 | 160 | 0.012                           | PP/J33                    | 5.0              | 3.0    | 5.7    | 2220      | 40                    | F115PP123(1)250(2)       | GMC5.7123(1)250J33(2)  |
| 250 | 160 | 0.015                           | PP/J33                    | 5.0              | 3.0    | 5.7    | 2220      | 40                    | F115PP153(1)250(2)       | GMC5.7153(1)250J33(2)  |
| 250 | 160 | 0.018                           | PP/J33                    | 5.0              | 3.0    | 5.7    | 2220      | 40                    | F115PP183(1)250(2)       | GMC5.7183(1)250J33(2)  |
| 250 | 160 | 0.022                           | PU/J35                    | 5.0              | 4.0    | 5.7    | 2220      | 40                    | F115PU223(1)250(2)       | GMC5.7223(1)250J35(2)  |
| 250 | 160 | 0.0010                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG102(1)250(2)       | GMC7.3102(1)250K31(2)  |
| 250 | 160 | 0.0012                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG122(1)250(2)       | GMC7.3122(1)250K31(2)  |
| 250 | 160 | 0.0015                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG152(1)250(2)       | GMC7.3152(1)250K31(2)  |
| 250 | 160 | 0.0018                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG182(1)250(2)       | GMC7.3182(1)250K31(2)  |
| 250 | 160 | 0.0022                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG222(1)250(2)       | GMC7.3222(1)250K31(2)  |
| 250 | 160 | 0.0027                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG272(1)250(2)       | GMC7.3272(1)250K31(2)  |
| 250 | 160 | 0.0033                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG332(1)250(2)       | GMC7.3332(1)250K31(2)  |
| 250 | 160 | 0.0039                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG392(1)250(2)       | GMC7.3392(1)250K31(2)  |
| 250 | 160 | 0.0047                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG472(1)250(2)       | GMC7.3472(1)250K31(2)  |
| 250 | 160 | 0.0056                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG562(1)250(2)       | GMC7.3562(1)250K31(2)  |
| 250 | 160 | 0.0068                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG682(1)250(2)       | GMC7.3682(1)250K31(2)  |
| 250 | 160 | 0.0082                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG822(1)250(2)       | GMC7.3822(1)250K31(2)  |
| 250 | 160 | 0.010                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG103(1)250(2)       | GMC7.3103(1)250K31(2)  |
| 250 | 160 | 0.012                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG123(1)250(2)       | GMC7.3123(1)250K31(2)  |
| 250 | 160 | 0.015                           | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 40                    | F115SG153(1)250(2)       | GMC7.3153(1)250K31(2)  |
| 250 | 160 | 0.018                           | SL/K33                    | 6.0              | 3.0    | 7.3    | 2824      | 40                    | F115SL183(1)250(2)       | GMC7.3183(1)250K33(2)  |
| 250 | 160 | 0.022                           | SL/K33                    | 6.0              | 3.0    | 7.3    | 2824      | 40                    | F115SL223(1)250(2)       | GMC7.3223(1)250K33(2)  |
| 250 | 160 | 0.027                           | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 40                    | F115SP273(1)250(2)       | GMC7.3273(1)250K35(2)  |
| 250 | 160 | 0.033                           | ST/K37                    | 6.0              | 4.5    | 7.3    | 2824      | 30                    | F115ST333(1)250(2)       | GMC7.3333(1)250K37(2)  |
| 250 | 160 | 0.039                           | ST/K37                    | 6.0              | 4.5    | 7.3    | 2824      | 30                    | F115ST393(1)250(2)       | GMC7.3393(1)250K37(2)  |
| 250 | 160 | 0.022                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP223(1)250(2)       | GMC10.2223(1)250A31(2) |
| 250 | 160 | 0.027                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP273(1)250(2)       | GMC10.2273(1)250A31(2) |
| 250 | 160 | 0.033                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP333(1)250(2)       | GMC10.2333(1)250A31(2) |
| 250 | 160 | 0.039                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP393(1)250(2)       | GMC10.2393(1)250A31(2) |
| 250 | 160 | 0.047                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP473(1)250(2)       | GMC10.2473(1)250A31(2) |
| 250 | 160 | 0.056                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP563(1)250(2)       | GMC10.2563(1)250A31(2) |
| 250 | 160 | 0.068                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP683(1)250(2)       | GMC10.2683(1)250A31(2) |
| 250 | 160 | 0.082                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP823(1)250(2)       | GMC10.2823(1)250A31(2) |
| 250 | 160 | 0.10                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP104(1)250(2)       | GMC10.2104(1)250A31(2) |
| VDC | VAC | Capacitance<br>Value ( $\mu$ F) | Size Code<br>(New/Legacy) | B (mm)           | H (mm) | L (mm) | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part Number     |

(1)  $J = \pm 5\%$ ,  $K = \pm 10\%$ , other tolerances on request.

(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.

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

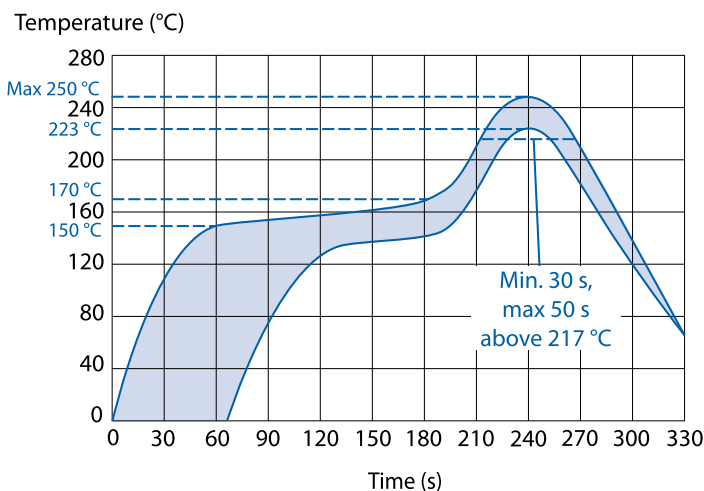
| VDC | VAC | Cap Value<br>( $\mu$ F)         | Size Code<br>(New/Legacy) | Dimensions in mm |        |        | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part<br>Number  |
|-----|-----|---------------------------------|---------------------------|------------------|--------|--------|-----------|-----------------------|--------------------------|------------------------|
|     |     |                                 |                           | B                | H      | L      |           |                       |                          |                        |
| 250 | 160 | 0.12                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP124(1)250(2)       | GMC10.2124(1)250A31(2) |
| 250 | 160 | 0.15                            | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 30                    | F115WP154(1)250(2)       | GMC10.2154(1)250A31(2) |
| 250 | 160 | 0.18                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 20                    | F115YR184(1)250(2)       | GMC12.7184(1)250B31(2) |
| 250 | 160 | 0.22                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 20                    | F115YR224(1)250(2)       | GMC12.7224(1)250B31(2) |
| 250 | 160 | 0.27                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 20                    | F115YR274(1)250(2)       | GMC12.7274(1)250B31(2) |
| 250 | 160 | 0.33                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 20                    | F115YR334(1)250(2)       | GMC12.7334(1)250B31(2) |
| 250 | 160 | 0.39                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 12                    | F115ZS394(1)250(2)       | GMC16.5394(1)250C31(2) |
| 250 | 160 | 0.47                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 12                    | F115ZS474(1)250(2)       | GMC16.5474(1)250C31(2) |
| 250 | 160 | 0.56                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 12                    | F115ZS564(1)250(2)       | GMC16.5564(1)250C31(2) |
| 250 | 160 | 0.68                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 12                    | F115ZS684(1)250(2)       | GMC16.5684(1)250C31(2) |
| 400 | 200 | 0.0010                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG102(1)400(2)       | GMC7.3102(1)400K31(2)  |
| 400 | 200 | 0.0012                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG122(1)400(2)       | GMC7.3122(1)400K31(2)  |
| 400 | 200 | 0.0015                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG152(1)400(2)       | GMC7.3152(1)400K31(2)  |
| 400 | 200 | 0.0018                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG182(1)400(2)       | GMC7.3182(1)400K31(2)  |
| 400 | 200 | 0.0022                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG222(1)400(2)       | GMC7.3222(1)400K31(2)  |
| 400 | 200 | 0.0027                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG272(1)400(2)       | GMC7.3272(1)400K31(2)  |
| 400 | 200 | 0.0033                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG332(1)400(2)       | GMC7.3332(1)400K31(2)  |
| 400 | 200 | 0.0039                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG392(1)400(2)       | GMC7.3392(1)400K31(2)  |
| 400 | 200 | 0.0047                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG472(1)400(2)       | GMC7.3472(1)400K31(2)  |
| 400 | 200 | 0.0056                          | SG/K31                    | 6.0              | 2.5    | 7.3    | 2824      | 50                    | F115SG562(1)400(2)       | GMC7.3562(1)400K31(2)  |
| 400 | 200 | 0.0068                          | SL/K33                    | 6.0              | 3.0    | 7.3    | 2824      | 50                    | F115SL682(1)400(2)       | GMC7.3682(1)400K33(2)  |
| 400 | 200 | 0.0082                          | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 50                    | F115SP822(1)400(2)       | GMC7.3822(1)400K35(2)  |
| 400 | 200 | 0.010                           | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 50                    | F115SP103(1)400(2)       | GMC7.3103(1)400K35(2)  |
| 400 | 200 | 0.012                           | SP/K35                    | 6.0              | 3.5    | 7.3    | 2824      | 50                    | F115SP123(1)400(2)       | GMC7.3123(1)400K35(2)  |
| 400 | 200 | 0.015                           | ST/K37                    | 6.0              | 4.5    | 7.3    | 2824      | 50                    | F115ST153(1)400(2)       | GMC7.3153(1)400K37(2)  |
| 400 | 200 | 0.022                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP223(1)400(2)       | GMC10.2223(1)400A31(2) |
| 400 | 200 | 0.027                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP273(1)400(2)       | GMC10.2273(1)400A31(2) |
| 400 | 200 | 0.033                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP333(1)400(2)       | GMC10.2333(1)400A31(2) |
| 400 | 200 | 0.039                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP393(1)400(2)       | GMC10.2393(1)400A31(2) |
| 400 | 200 | 0.047                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP473(1)400(2)       | GMC10.2473(1)400A31(2) |
| 400 | 200 | 0.056                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR563(1)400(2)       | GMC12.7563(1)400B31(2) |
| 400 | 200 | 0.068                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR683(1)400(2)       | GMC12.7683(1)400B31(2) |
| 400 | 200 | 0.082                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR823(1)400(2)       | GMC12.7823(1)400B31(2) |
| 400 | 200 | 0.10                            | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR104(1)400(2)       | GMC12.7104(1)400B31(2) |
| 400 | 200 | 0.12                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS124(1)400(2)       | GMC16.5124(1)400C31(2) |
| 400 | 200 | 0.15                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS154(1)400(2)       | GMC16.5154(1)400C31(2) |
| 400 | 200 | 0.18                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS184(1)400(2)       | GMC16.5184(1)400C31(2) |
| 400 | 200 | 0.22                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS224(1)400(2)       | GMC16.5224(1)400C31(2) |
| 400 | 200 | 0.27                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS274(1)400(2)       | GMC16.5274(1)400C31(2) |
| 400 | 200 | 0.33                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS334(1)400(2)       | GMC16.5334(1)400C31(2) |
| 630 | 300 | 0.022                           | WP/A31                    | 9.1              | 5.5    | 10.2   | 4036      | 40                    | F115WP223(1)630(2)       | GMC10.2223(1)630A31(2) |
| 630 | 300 | 0.027                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR273(1)630(2)       | GMC12.7273(1)630B31(2) |
| 630 | 300 | 0.033                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR333(1)630(2)       | GMC12.7333(1)630B31(2) |
| 630 | 300 | 0.039                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR393(1)630(2)       | GMC12.7393(1)630B31(2) |
| 630 | 300 | 0.047                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR473(1)630(2)       | GMC12.7473(1)630B31(2) |
| 630 | 300 | 0.056                           | YR/B31                    | 11.5             | 6.5    | 12.7   | 5045      | 30                    | F115YR563(1)630(2)       | GMC12.7563(1)630B31(2) |
| 630 | 300 | 0.068                           | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS683(1)630(2)       | GMC16.5683(1)630C31(2) |
| 630 | 300 | 0.082                           | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS823(1)630(2)       | GMC16.5823(1)630C31(2) |
| 630 | 300 | 0.10                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS104(1)630(2)       | GMC16.5104(1)630C31(2) |
| 630 | 300 | 0.12                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS124(1)630(2)       | GMC16.5124(1)630C31(2) |
| 630 | 300 | 0.15                            | ZS/C31                    | 15.0             | 7.0    | 16.5   | 6560      | 20                    | F115ZS154(1)630(2)       | GMC16.5154(1)630C31(2) |
| VDC | VAC | Capacitance<br>Value ( $\mu$ F) | Size Code<br>(New/Legacy) | B (mm)           | H (mm) | L (mm) | Chip Size | dV/dt<br>(V/ $\mu$ s) | New KEMET<br>Part Number | Legacy Part Number     |

(1) J =  $\pm 5\%$ , K =  $\pm 10\%$ , other tolerances on request.

(2) Insert ordering code for lead type and packaging. See Ordering Options Table for available options.

## Soldering Process

Reflow soldering temperature is measured on the top body surface of the component. Preheating temperature should be less than 170°C. The time above 217°C should be less than 50 seconds. The peak temperature must not exceed 250°C.



## Marking

- Capacitance
- Capacitance tolerance code
- Rated voltage code
- Capacitor type G for GMC
- Manufacturing date code

| Rated Voltage | Code |
|---------------|------|
| 50 VDC        | Z    |
| 63 VDC        | C    |
| 100 VDC       | D    |
| 250 VDC       | H    |
| 400 VDC       | K    |
| 630 VDC       | M    |

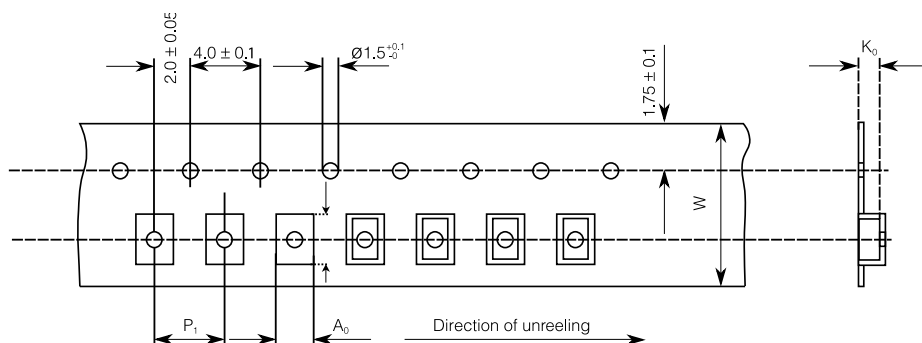
| Manufacturing Date Code (IEC 60062) |      |           |      |
|-------------------------------------|------|-----------|------|
| Y = Year, Z = Month                 |      |           |      |
| Year                                | Code | Month     | Code |
| 2000                                | M    | January   | 1    |
| 2001                                | N    | February  | 2    |
| 2002                                | P    | March     | 3    |
| 2003                                | R    | April     | 4    |
| 2004                                | S    | May       | 5    |
| 2005                                | T    | June      | 6    |
| 2006                                | U    | July      | 7    |
| 2007                                | V    | August    | 8    |
| 2008                                | W    | September | 9    |
| 2009                                | X    | October   | O    |
| 2010                                | A    | November  | N    |
| 2011                                | B    | December  | D    |
| 2012                                | C    |           |      |
| 2013                                | D    |           |      |
| 2014                                | E    |           |      |
| 2015                                | F    |           |      |
| 2016                                | H    |           |      |
| 2017                                | J    |           |      |
| 2018                                | K    |           |      |
| 2019                                | L    |           |      |
| 2020                                | M    |           |      |

## Packaging Quantities

| Chip Size (EIA) | Base (mm) | Height (mm) | Length (mm) | Bulk | Reel Horizontal Orientation | Reel Vertical Orientation |
|-----------------|-----------|-------------|-------------|------|-----------------------------|---------------------------|
| 2220            | 5         | 2.5         | 5.7         | 2000 | 3100                        |                           |
| 2220            | 5         | 3           | 5.7         | 2000 | 2400                        |                           |
| 2220            | 5         | 4           | 5.7         | 2000 | 2100                        |                           |
| 2824            | 6         | 2.5         | 7.3         | 2000 | 3100                        |                           |
| 2824            | 6         | 3           | 7.3         | 2000 | 2500                        |                           |
| 2824            | 6         | 3.5         | 7.3         | 2000 | 2300                        |                           |
| 2824            | 6         | 4.5         | 7.3         | 1000 | 1700                        |                           |
| 4036            | 9.1       | 5.5         | 10.2        | 1000 | 800                         | 500                       |
| 5045            | 11.5      | 6.5         | 12.7        | 1000 | 600                         | 400                       |
| 6560            | 15        | 7           | 16.5        | 800  | 500                         | 200                       |

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

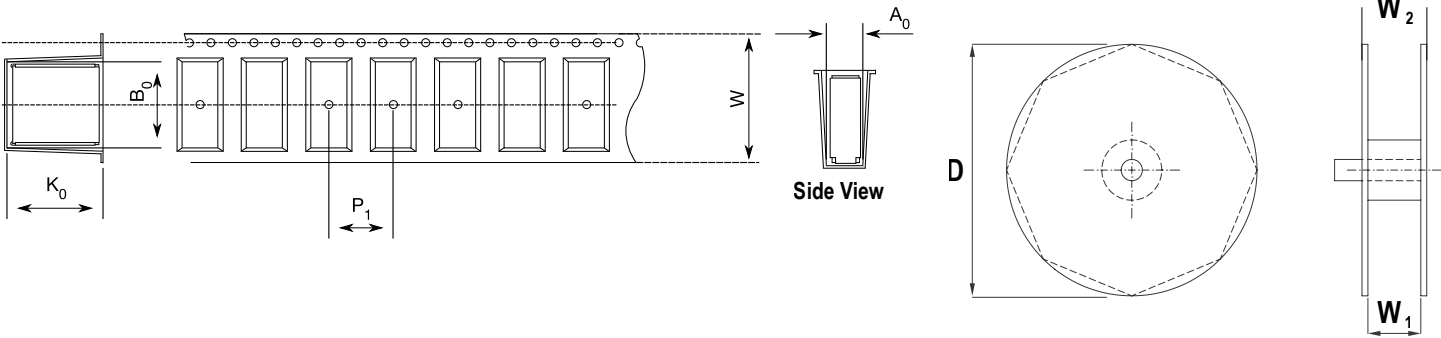
### Horizontal Taping Orientation



| Chip Size (EIA)<br>Horizontal Mounting | Dimensions in mm |         |         | Taping Specification |                |                |                |                |        |                |                |
|----------------------------------------|------------------|---------|---------|----------------------|----------------|----------------|----------------|----------------|--------|----------------|----------------|
|                                        | B                | H       | L       | W                    | P <sub>1</sub> | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | D      | W <sub>1</sub> | W <sub>2</sub> |
|                                        | Nominal          | Nominal | Nominal | -0/+0.3              | +/-0.1         | Nominal        | Nominal        | Nominal        | -/+2.0 | -0/+2          | Maximum        |
| 2220                                   | 5.0              | 2.5     | 5.7     | 12.0                 | 8.0            | 5.5            | 6.0            | 2.8            | 330    | 12.4           | 22.0           |
| 2220                                   | 5.0              | 3.0     | 5.7     | 12.0                 | 8.0            | 5.5            | 6.0            | 3.3            | 330    | 12.4           | 22.0           |
| 2220                                   | 5.0              | 4.0     | 5.7     | 12.0                 | 8.0            | 5.5            | 6.0            | 4.3            | 330    | 12.4           | 22.0           |
| 2824                                   | 6.0              | 2.5     | 7.3     | 12.0                 | 8.0            | 6.5            | 7.5            | 2.8            | 330    | 12.4           | 22.0           |
| 2824                                   | 6.0              | 3.0     | 7.3     | 12.0                 | 8.0            | 6.5            | 7.5            | 3.3            | 330    | 12.4           | 22.0           |
| 2824                                   | 6.0              | 3.5     | 7.3     | 12.0                 | 8.0            | 6.5            | 7.5            | 3.8            | 330    | 12.4           | 22.0           |
| 2824                                   | 6.0              | 4.5     | 7.3     | 16.0                 | 8.0            | 6.6            | 7.9            | 5.5            | 330    | 16.0           | 20.0           |
| 4036                                   | 9.1              | 5.5     | 10.2    | 16.0                 | 16.0           | 9.5            | 10.5           | 5.8            | 330    | 16.4           | 22.0           |
| 5045                                   | 11.5             | 6.5     | 12.7    | 24.0                 | 16.0           | 11.9           | 13.1           | 6.8            | 330    | 24.4           | 30.0           |
| 6560                                   | 15.0             | 7.0     | 16.5    | 24.0                 | 20.0           | 15.4           | 16.8           | 7.3            | 330    | 24.4           | 30.0           |

Carrier Taping & Packaging (IEC 60286–2) cont'd

Vertical Taping Orientation



| Size Code<br>Vertical<br>Mounting                                                                | Dimensions in mm |         |         | Taping Specification |                |                |                |                |        |                |                |
|--------------------------------------------------------------------------------------------------|------------------|---------|---------|----------------------|----------------|----------------|----------------|----------------|--------|----------------|----------------|
|                                                                                                  | B                | H       | L       | W                    | P <sub>1</sub> | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | D      | W <sub>1</sub> | W <sub>2</sub> |
|                                                                                                  | Nominal          | Nominal | Nominal | -0/+0.3              | +/-0.1         | Nominal        | Nominal        | Nominal        | -/+2.0 | -0/+2          | Maximum        |
| 4022                                                                                             | 5.5              | 9.1     | 10.2    | 24.0                 | 16.0           | 6.0            | 10.5           | 9.3            | 330    | 24.4           | 30.0           |
| 5026                                                                                             | 6.5              | 11.5    | 12.7    | 24.0                 | 16.0           | 6.9            | 13.1           | 11.8           | 330    | 24.4           | 30.0           |
| 6528                                                                                             | 7.0              | 15.0    | 16.5    | 44.0                 | 20.0           | 7.5            | 17.0           | 15.3           | 330    | 44.5           | 49.5           |
| Note: Chip dimensions B and H correspond to dimensions H and B in the horizontal mounting table. |                  |         |         |                      |                |                |                |                |        |                |                |

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