

## Overview

The KEMET ESC radial aluminum electrolytic capacitors are designed for low impedance and high frequency applications.

## Applications

Typical applications include high frequency switch mode circuits.

## Benefits

- Low impedance
- 1,000 – 3,000 hour operating life
- Operating temperature of up to 105°C
- Case with  $\varnothing D \geq 5$  mm
- Safety vent on the capacitor base



## Part Number System

| ESC                          | 157  | M              | 6R3   |   | A                     | C3                  | AA                         |
|------------------------------|--|----------------|---|---|-----------------------|---------------------|----------------------------|
| Series                       | Capacitance Code (pF)  | Tolerance      | Rated Voltage (VDC)                           |   | Electrical Parameters | Size Code           | Packaging                  |
| Radial Aluminum Electrolytic | First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added. | M = $\pm 20\%$ | 6R3 = 6.3<br>010 = 10<br>016 = 16<br>025 = 25 | 035 = 35<br>050 = 50<br>063 = 63<br>100 = 100 | A = Standard          | See Dimension Table | See Ordering Options Table |

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

| VDC | VDC Surge Voltage | Rated Capacitance<br>120 Hz 20°C<br>(μF) | Case Size<br>D x L (mm) | DF<br>120 Hz<br>20°C<br>(tan δ %) <sup>1</sup> | Z<br>100 kHz<br>20°C (Ω) | RC<br>100 kHz<br>105°C (mA) | LC 20°C<br>2 Minutes<br>(μA) | Part Number      |
|-----|-------------------|--|-------------------------|--|--------------------------|-----------------------------|------------------------------|------------------|
| 6.3 | 8                 | 150                                      | 5 x 11                  | 22   | 0.420                    | 200                         | 9.5                          | ESC157M6R3AC3(1) |
| 6.3 | 8                 | 220                                      | 6.3 x 11                | 22   | 0.320                    | 250                         | 13.9                         | ESC227M6R3AE3(1) |
| 6.3 | 8                 | 270                                      | 6.3 x 11                | 22   | 0.220                    | 250                         | 17.0                         | ESC277M6R3AE3(1) |
| 6.3 | 8                 | 330                                      | 6.3 x 11                | 22   | 0.230                    | 250                         | 20.8                         | ESC337M6R3AE3(1) |
| 6.3 | 8                 | 330                                      | 8 x 11                  | 22   | 0.180                    | 400                         | 20.8                         | ESC337M6R3AG3(1) |
| 6.3 | 8                 | 470                                      | *6.3 x 11               | 22   | 0.180                    | 440                         | 29.6                         | ESC477M6R3AE3(1) |
| 6.3 | 8                 | 470                                      | 8 x 11                  | 22   | 0.140                    | 550                         | 29.6                         | ESC477M6R3AG3(1) |
| 6.3 | 8                 | 680                                      | *8 x 11                 | 22   | 0.120                    | 580                         | 42.8                         | ESC687M6R3AG3(1) |
| 6.3 | 8                 | 680                                      | 8 x 15                  | 22   | 0.100                    | 700                         | 42.8                         | ESC687M6R3AG4(1) |
| 6.3 | 8                 | 820                                      | 8 x 20                  | 22   | 0.085                    | 750                         | 51.7                         | ESC827M6R3AG6(1) |
| 6.3 | 8                 | 1,000                                    | *8 x 11                 | 22   | 0.150                    | 580                         | 63.0                         | ESC108M6R3AG3(1) |
| 6.3 | 8                 | 1,000                                    | 8 x 15                  | 22   | 0.085                    | 700                         | 63.0                         | ESC108M6R3AG4(1) |
| 6.3 | 8                 | 1,000                                    | 8 x 20                  | 22   | 0.069                    | 800                         | 63.0                         | ESC108M6R3AG6(1) |
| 6.3 | 8                 | 1,000                                    | 10 x 12.5               | 22   | 0.080                    | 690                         | 63.0                         | ESC108M6R3AH9(1) |
| 6.3 | 8                 | 1,200                                    | 10 x 16                 | 22   | 0.064                    | 1,000                       | 75.6                         | ESC128M6R3AH8(1) |
| 6.3 | 8                 | 1,500                                    | *8 x 15                 | 22   | 0.085                    | 980                         | 94.5                         | ESC158M6R3AG4(1) |
| 6.3 | 8                 | 1,500                                    | 8 x 20                  | 22   | 0.051                    | 800                         | 94.5                         | ESC158M6R3AG6(1) |
| 6.3 | 8                 | 1,500                                    | *10 x 16                | 22   | 0.055                    | 1,070                       | 94.5                         | ESC158M6R3AH8(1) |
| 6.3 | 8                 | 1,500                                    | 10 x 20                 | 22   | 0.044                    | 1,250                       | 94.5                         | ESC158M6R3AH4(1) |
| 6.3 | 8                 | 2,200                                    | *10 x 20                | 22   | 0.051                    | 1,220                       | 138.6                        | ESC228M6R3AH4(1) |
| 6.3 | 8                 | 2,200                                    | *10 x 25                | 22   | 0.048                    | 1,310                       | 138.6                        | ESC228M6R3AH5(1) |
| 6.3 | 8                 | 2,200                                    | 13 x 20                 | 22   | 0.043                    | 1,450                       | 138.6                        | ESC228M6R3AL3(1) |
| 6.3 | 8                 | 3,300                                    | *10 x 25                | 22   | 0.043                    | 1,400                       | 207.9                        | ESC338M6R3AH5(1) |
| 6.3 | 8                 | 3,300                                    | 13 x 25                 | 22   | 0.035                    | 1,700                       | 207.9                        | ESC338M6R3AL4(1) |
| 6.3 | 8                 | 3,900                                    | 13 x 25                 | 22   | 0.032                    | 1,750                       | 245.7                        | ESC398M6R3AL4(1) |
| 6.3 | 8                 | 4,700                                    | *13 x 25                | 22   | 0.032                    | 1,520                       | 296.1                        | ESC478M6R3AL4(1) |
| 6.3 | 8                 | 4,700                                    | *13 x 30                | 22   | 0.033                    | 1,570                       | 296.1                        | ESC478M6R3AL8(1) |
| 6.3 | 8                 | 4,700                                    | 16 x 25                 | 22   | 0.028                    | 1,800                       | 296.1                        | ESC478M6R3AM7(1) |
| 6.3 | 8                 | 6,800                                    | 16 x 32                 | 22   | 0.024                    | 2,000                       | 428.4                        | ESC688M6R3AM2(1) |
| 6.3 | 8                 | 8,200                                    | 16 x 32                 | 22   | 0.019                    | 2,350                       | 516.6                        | ESC828M6R3AM2(1) |
| 6.3 | 8                 | 10,000                                   | 16 x 36                 | 22   | 0.019                    | 2,550                       | 630.0                        | ESC109M6R3AM3(1) |
| 6.3 | 8                 | 15,000                                   | 18 x 36                 | 22   | 0.019                    | 3,000                       | 945.0                        | ESC159M6R3AN2(1) |
| 10  | 13                | 100                                      | 5 x 11                  | 19   | 0.420                    | 150                         | 10.0                         | ESC107M010AC3(1) |
| 10  | 13                | 120                                      | 5 x 11                  | 19   | 0.370                    | 200                         | 12.0                         | ESC127M010AC3(1) |
| 10  | 13                | 150                                      | 6.3 x 11                | 19   | 0.320                    | 250                         | 15.0                         | ESC157M010AE3(1) |
| 10  | 13                | 220                                      | 6.3 x 11                | 19   | 0.220                    | 300                         | 22.0                         | ESC227M010AE3(1) |
| 10  | 13                | 330                                      | 8 x 11                  | 19   | 0.140                    | 550                         | 33.0                         | ESC337M010AG3(1) |
| 10  | 13                | 470                                      | 8 x 11                  | 19   | 0.120                    | 550                         | 47.0                         | ESC477M010AG3(1) |
| 10  | 13                | 470                                      | 8 x 15                  | 19   | 0.100                    | 750                         | 47.0                         | ESC477M010AG4(1) |
| 10  | 13                | 680                                      | *8 x 11                 | 19   | 0.110                    | 640                         | 68.0                         | ESC687M010AG3(1) |
| 10  | 13                | 680                                      | 10 x 12.5               | 19   | 0.085                    | 800                         | 68.0                         | ESC687M010AH9(1) |
| 10  | 13                | 820                                      | 10 x 16                 | 19   | 0.064                    | 1050                        | 82.0                         | ESC827M010AH8(1) |
| 10  | 13                | 1,000                                    | 8 x 20                  | 19   | 0.065                    | 1080                        | 100.0                        | ESC108M010AG6(1) |
| 10  | 13                | 1,000                                    | *10 x 12.5              | 19   | 0.075                    | 930                         | 100.0                        | ESC108M010AH9(1) |
| 10  | 13                | 1,000                                    | 10 x 16                 | 19   | 0.085                    | 990                         | 100.0                        | ESC108M010AH8(1) |
| 10  | 13                | 1,000                                    | 10 x 20                 | 19   | 0.050                    | 1,100                       | 100.0                        | ESC108M010AH4(1) |
| 10  | 13                | 1,200                                    | 10 x 20                 | 19   | 0.044                    | 1,250                       | 120.0                        | ESC128M010AH4(1) |
| 10  | 13                | 1,500                                    | 10 x 20                 | 19   | 0.039                    | 1,450                       | 150.0                        | ESC158M010AH4(1) |
| 10  | 13                | 2,200                                    | *10 x 20                | 19   | 0.047                    | 1,330                       | 220.0                        | ESC228M010AH4(1) |
| 10  | 13                | 2,200                                    | *10 x 25                | 19   | 0.039                    | 1,450                       | 220.0                        | ESC228M010AH5(1) |
| 10  | 13                | 2,200                                    | 13 x 20                 | 19   | 0.038                    | 1,600                       | 220.0                        | ESC228M010AL3(1) |
| 10  | 13                | 3,300                                    | *10 x 30                | 19   | 0.032                    | 2,000                       | 330.0                        | ESC338M010AH6(1) |
| 10  | 13                | 3,300                                    | 13 x 25                 | 19   | 0.028                    | 2,000                       | 330.0                        | ESC338M010AL4(1) |
| 10  | 13                | 4,700                                    | *13 x 25                | 19   | 0.028                    | 1,860                       | 470.0                        | ESC478M010AL4(1) |
| 10  | 13                | 4,700                                    | 16 x 25                 | 19   | 0.024                    | 2,200                       | 470.0                        | ESC478M010AM7(1) |
| 10  | 13                | 6,800                                    | 16 x 36                 | 19   | 0.019                    | 2,550                       | 680.0                        | ESC688M010AM3(1) |
| VDC | VDC Surge         | Rated Capacitance                        | Case Size               | DF   | Z                        | RC                          | LC                           | Part Number      |

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

<sup>1</sup> When capacitance exceeds 1,000 μF, the DF value (%) is increased by 2% for every additional 1,000 μF.

\* Dimension is down size, Endurance will be less 1,000 hours than standard.

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

| VDC | VDC Surge Voltage | Rated Capacitance<br>120 Hz 20°C<br>(μF) | Case Size<br>D x L (mm) | DF<br>120 Hz<br>20°C<br>(tan δ %) <sup>1</sup> | Z<br>100 kHz<br>20°C (Ω) | RC<br>100 kHz<br>105°C (mA) | LC 20°C<br>2 Minutes<br>(μA) | Part Number      |
|-----|-------------------|--|-------------------------|--|--------------------------|-----------------------------|------------------------------|------------------|
| 10  | 13                | 8,200                                    | 18 x 36                 | 19   | 0.019                    | 2,800                       | 820.0                        | ESC828M010AN2(1) |
| 16  | 20                | 56                                       | 5 x 11                  | 16   | 0.630                    | 100                         | 9.0                          | ESC566M016AC3(1) |
| 16  | 20                | 68                                       | 5 x 11                  | 16   | 0.420                    | 150                         | 10.9                         | ESC686M016AC3(1) |
| 16  | 20                | 100                                      | 5 x 11                  | 16   | 0.370                    | 200                         | 16.0                         | ESC107M016AC3(1) |
| 16  | 20                | 120                                      | 6.3 x 11                | 16   | 0.320                    | 250                         | 19.2                         | ESC127M016AE3(1) |
| 16  | 20                | 150                                      | 6.3 x 11                | 16   | 0.220                    | 300                         | 24.0                         | ESC157M016AE3(1) |
| 16  | 20                | 220                                      | 8 x 11                  | 16   | 0.140                    | 550                         | 35.2                         | ESC227M016AG3(1) |
| 16  | 20                | 330                                      | 8 x 11                  | 16   | 0.120                    | 550                         | 52.8                         | ESC337M016AG3(1) |
| 16  | 20                | 330                                      | 8 x 15                  | 16   | 0.100                    | 750                         | 52.8                         | ESC337M016AG4(1) |
| 16  | 20                | 330                                      | 10 x 12.5               | 16   | 0.080                    | 688                         | 52.8                         | ESC337M016AH9(1) |
| 16  | 20                | 470                                      | 8 x 15                  | 16   | 0.093                    | 730                         | 75.2                         | ESC477M016AG4(1) |
| 16  | 20                | 470                                      | 10 x 12.5               | 16   | 0.085                    | 800                         | 75.2                         | ESC477M016AH9(1) |
| 16  | 20                | 680                                      | 10 x 16                 | 16   | 0.064                    | 1,050                       | 108.8                        | ESC687M016AH8(1) |
| 16  | 20                | 820                                      | 10 x 20                 | 16   | 0.044                    | 1,100                       | 131.2                        | ESC827M016AH4(1) |
| 16  | 20                | 1,000                                    | *10 x 16                | 16   | 0.043                    | 1,140                       | 160.0                        | ESC108M016AH8(1) |
| 16  | 20                | 1,000                                    | 10 x 20                 | 16   | 0.039                    | 1,250                       | 160.0                        | ESC108M016AH4(1) |
| 16  | 20                | 1,200                                    | *10 x 25                | 16   | 0.042                    | 1,310                       | 192.0                        | ESC128M016AH5(1) |
| 16  | 20                | 1,200                                    | 13 x 20                 | 16   | 0.038                    | 1,450                       | 192.0                        | ESC128M016AL3(1) |
| 16  | 20                | 1,500                                    | *10 x 20                | 16   | 0.045                    | 1,200                       | 240.0                        | ESC158M016AH4(1) |
| 16  | 20                | 1,500                                    | 13 x 20                 | 16   | 0.034                    | 1,600                       | 240.0                        | ESC158M016AL3(1) |
| 16  | 20                | 2,200                                    | *10 x 30                | 16   | 0.032                    | 1,780                       | 352.0                        | ESC228M016AH6(1) |
| 16  | 20                | 2,200                                    | *13 x 20                | 16   | 0.033                    | 1,720                       | 352.0                        | ESC228M016AL3(1) |
| 16  | 20                | 2,200                                    | 13 x 25                 | 16   | 0.028                    | 2,000                       | 352.0                        | ESC228M016AL4(1) |
| 16  | 20                | 3,300                                    | *13 x 40                | 16   | 0.026                    | 2,200                       | 528.0                        | ESC338M016AL7(1) |
| 16  | 20                | 3,300                                    | 16 x 25                 | 16   | 0.024                    | 2,200                       | 528.0                        | ESC338M016AM7(1) |
| 16  | 20                | 4,700                                    | 16 x 36                 | 16   | 0.019                    | 2,550                       | 752.0                        | ESC478M016AM3(1) |
| 16  | 20                | 6,800                                    | 18 x 36                 | 16   | 0.019                    | 2,800                       | 1088.0                       | ESC688M016AN2(1) |
| 25  | 32                | 10                                       | 5 x 11                  | 14   | 0.550                    | 50                          | 3.0                          | ESC106M025AC3(1) |
| 25  | 32                | 47                                       | 5 x 11                  | 14   | 0.450                    | 150                         | 11.8                         | ESC476M025AC3(1) |
| 25  | 32                | 56                                       | 5 x 11                  | 14   | 0.420                    | 150                         | 14.0                         | ESC566M025AC3(1) |
| 25  | 32                | 68                                       | 6.3 x 11                | 14   | 0.370                    | 200                         | 17.0                         | ESC686M025AE3(1) |
| 25  | 32                | 100                                      | 6.3 x 11                | 14   | 0.220                    | 250                         | 25.0                         | ESC107M025AE3(1) |
| 25  | 32                | 120                                      | 8 x 11                  | 14   | 0.200                    | 300                         | 30.0                         | ESC127M025AG3(1) |
| 25  | 32                | 150                                      | 8 x 11                  | 14   | 0.140                    | 550                         | 37.5                         | ESC157M025AG3(1) |
| 25  | 32                | 220                                      | 8 x 11                  | 14   | 0.120                    | 550                         | 55.0                         | ESC227M025AG3(1) |
| 25  | 32                | 220                                      | 8 x 15                  | 14   | 0.100                    | 750                         | 55.0                         | ESC227M025AG4(1) |
| 25  | 32                | 330                                      | *8 x 15                 | 14   | 0.100                    | 660                         | 82.5                         | ESC337M025AG4(1) |
| 25  | 32                | 330                                      | 8 x 20                  | 14   | 0.069                    | 800                         | 82.5                         | ESC337M025AG6(1) |
| 25  | 32                | 330                                      | 10 x 16                 | 14   | 0.086                    | 900                         | 82.5                         | ESC337M025AH8(1) |
| 25  | 32                | 470                                      | 8 x 20                  | 14   | 0.067                    | 800                         | 117.5                        | ESC477M025AG6(1) |
| 25  | 32                | 470                                      | 10 x 16                 | 14   | 0.064                    | 1050                        | 117.5                        | ESC477M025AH8(1) |
| 25  | 32                | 470                                      | 10 x 12.5               | 14   | 0.086                    | 760                         | 117.5                        | ESC477M025AH9(1) |
| 25  | 32                | 680                                      | 10 x 20                 | 14   | 0.039                    | 1,100                       | 170.0                        | ESC687M025AH4(1) |
| 25  | 32                | 820                                      | 10 x 20                 | 14   | 0.039                    | 1,250                       | 205.0                        | ESC827M025AH4(1) |
| 25  | 32                | 1,000                                    | *10 x 20                | 14   | 0.047                    | 1,160                       | 250.0                        | ESC108M025AH4(1) |
| 25  | 32                | 1,000                                    | *10 x 25                | 14   | 0.042                    | 1,310                       | 250.0                        | ESC108M025AH5(1) |
| 25  | 32                | 1,000                                    | 13 x 20                 | 14   | 0.038                    | 1,450                       | 250.0                        | ESC108M025AL3(1) |
| 25  | 32                | 1,200                                    | 13 x 25                 | 14   | 0.035                    | 1,600                       | 300.0                        | ESC128M025AL4(1) |
| 25  | 32                | 1,500                                    | *13 x 30                | 14   | 0.032                    | 1,750                       | 375.0                        | ESC158M025AL8(1) |
| 25  | 32                | 1,500                                    | 16 x 25                 | 14   | 0.028                    | 2,000                       | 375.0                        | ESC158M025AM7(1) |
| 25  | 32                | 2,200                                    | *13 x 30                | 14   | 0.029                    | 1,810                       | 550.0                        | ESC228M025AL8(1) |
| 25  | 32                | 2,200                                    | *16 x 25                | 14   | 0.032                    | 1,660                       | 550.0                        | ESC228M025AM7(1) |
| 25  | 32                | 2,200                                    | 16 x 32                 | 14   | 0.024                    | 2,200                       | 550.0                        | ESC228M025AM2(1) |
| 25  | 32                | 3,300                                    | *16 x 36                | 14   | 0.019                    | 2,540                       | 825.0                        | ESC338M025AM3(1) |
| 25  | 32                | 3,300                                    | 18 x 36                 | 14   | 0.019                    | 2,550                       | 825.0                        | ESC338M025AN2(1) |
| 25  | 32                | 4,700                                    | 18 x 36                 | 14   | 0.019                    | 2,800                       | 1175.0                       | ESC478M025AN2(1) |
| VDC | VDC Surge         | Rated Capacitance                        | Case Size               | DF   | Z                        | RC                          | LC                           | Part Number      |

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

<sup>1</sup> When capacitance exceeds 1,000 μF, the DF value (%) is increased by 2% for every additional 1,000 μF.

\* Dimension is down size, Endurance will be less 1,000 hours than standard.

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

| VDC | VDC Surge Voltage | Rated Capacitance 120 Hz 20°C (μF) | Case Size D x L (mm) | DF 120 Hz 20°C (tan δ %) <sup>1</sup> | Z 100 kHz 20°C (Ω) | RC 100 kHz 105°C (mA) | LC 20°C 2 Minutes (μA) | Part Number      |
|-----|-------------------|------------------------------------|----------------------|---------------------------------------|--------------------|-----------------------|------------------------|------------------|
| 25  | 32                | 6,800                              | 18 x 36              | 14                                    | 0.019              | 2,800                 | 1700.0                 | ESC688M025AN2(1) |
| 35  | 44                | 4.7                                | 5 x 11               | 12                                    | 1.200              | 115                   | 3.0                    | ESC475M035AC3(1) |
| 35  | 44                | 6.8                                | 5 x 11               | 12                                    | 1.000              | 120                   | 3.0                    | ESC685M035AC3(1) |
| 35  | 44                | 10                                 | 5 x 11               | 12                                    | 0.900              | 140                   | 3.5                    | ESC106M035AC3(1) |
| 35  | 44                | 15                                 | 5 x 11               | 12                                    | 0.690              | 170                   | 5.3                    | ESC156M035AC3(1) |
| 35  | 44                | 22                                 | 5 x 11               | 12                                    | 0.600              | 190                   | 7.7                    | ESC226M035AC3(1) |
| 35  | 44                | 33                                 | 5 x 11               | 12                                    | 0.580              | 200                   | 11.6                   | ESC336M035AC3(1) |
| 35  | 44                | 47                                 | 6.3 x 11             | 12                                    | 0.039              | 250                   | 16.5                   | ESC476M035AE3(1) |
| 35  | 44                | 68                                 | 6.3 x 11             | 12                                    | 0.220              | 300                   | 23.8                   | ESC686M035AE3(1) |
| 35  | 44                | 100                                | 6.3 x 11             | 12                                    | 0.180              | 300                   | 35.0                   | ESC107M035AE3(1) |
| 35  | 44                | 100                                | 8 x 11               | 12                                    | 0.140              | 450                   | 35.0                   | ESC107M035AG3(1) |
| 35  | 44                | 120                                | 8 x 11               | 12                                    | 0.130              | 550                   | 42.0                   | ESC127M035AG3(1) |
| 35  | 44                | 150                                | 8 x 15               | 12                                    | 0.100              | 650                   | 52.5                   | ESC157M035AG4(1) |
| 35  | 44                | 220                                | 8 x 15               | 12                                    | 0.100              | 650                   | 77.0                   | ESC227M035AG4(1) |
| 35  | 44                | 220                                | 10 x 12.5            | 12                                    | 0.069              | 800                   | 77.0                   | ESC227M035AH9(1) |
| 35  | 44                | 330                                | *10 x 16             | 12                                    | 0.052              | 900                   | 115.5                  | ESC337M035AH8(1) |
| 35  | 44                | 330                                | 10 x 20              | 12                                    | 0.044              | 1,050                 | 115.5                  | ESC337M035AH4(1) |
| 35  | 44                | 470                                | 10 x 20              | 12                                    | 0.039              | 1,300                 | 164.5                  | ESC477M035AH4(1) |
| 35  | 44                | 680                                | 13 x 20              | 12                                    | 0.038              | 1,400                 | 238.0                  | ESC687M035AL3(1) |
| 35  | 44                | 820                                | 13 x 20              | 12                                    | 0.034              | 1,550                 | 287.0                  | ESC827M035AL3(1) |
| 35  | 44                | 1,000                              | 13 x 25              | 12                                    | 0.029              | 1,700                 | 350.0                  | ESC108M035AL4(1) |
| 35  | 44                | 1,200                              | 16 x 25              | 12                                    | 0.028              | 1,900                 | 420.0                  | ESC128M035AM7(1) |
| 35  | 44                | 1,500                              | 16 x 25              | 12                                    | 0.024              | 2,100                 | 525.0                  | ESC158M035AM7(1) |
| 35  | 44                | 2,200                              | *16 x 32             | 12                                    | 0.021              | 2,300                 | 770.0                  | ESC228M035AM2(1) |
| 35  | 44                | 2,200                              | 16 x 36              | 12                                    | 0.019              | 2,550                 | 770.0                  | ESC228M035AM3(1) |
| 35  | 44                | 3,300                              | 18 x 36              | 12                                    | 0.019              | 2,800                 | 1155.0                 | ESC338M035AN2(1) |
| 50  | 63                | 4.7                                | 5 x 11               | 10                                    | 2.000              | 115                   | 3.0                    | ESC475M050AC3(1) |
| 50  | 63                | 6.8                                | 5 x 11               | 10                                    | 1.850              | 120                   | 3.4                    | ESC685M050AC3(1) |
| 50  | 63                | 10                                 | 5 x 11               | 10                                    | 1.700              | 140                   | 5.0                    | ESC106M050AC3(1) |
| 50  | 63                | 15                                 | 5 x 11               | 10                                    | 1.200              | 180                   | 7.5                    | ESC156M050AC3(1) |
| 50  | 63                | 22                                 | 5 x 11               | 10                                    | 0.700              | 200                   | 11.0                   | ESC226M050AC3(1) |
| 50  | 63                | 33                                 | 6.3 x 11             | 10                                    | 0.600              | 250                   | 16.5                   | ESC336M050AE3(1) |
| 50  | 63                | 47                                 | 6.3 x 11             | 10                                    | 0.520              | 300                   | 23.5                   | ESC476M050AE3(1) |
| 50  | 63                | 68                                 | 8 x 11               | 10                                    | 0.350              | 450                   | 34.0                   | ESC686M050AG3(1) |
| 50  | 63                | 100                                | 8 x 11               | 10                                    | 0.290              | 450                   | 50.0                   | ESC107M050AG3(1) |
| 50  | 63                | 100                                | 8 x 15               | 10                                    | 0.250              | 550                   | 50.0                   | ESC107M050AG4(1) |
| 50  | 63                | 120                                | 8 x 20               | 10                                    | 0.210              | 650                   | 60.0                   | ESC127M050AG6(1) |
| 50  | 63                | 150                                | 10 x 12.5            | 10                                    | 0.160              | 800                   | 75.0                   | ESC157M050AH9(1) |
| 50  | 63                | 220                                | *10 x 16             | 10                                    | 0.100              | 1,050                 | 110.0                  | ESC227M050AH8(1) |
| 50  | 63                | 220                                | 10 x 25              | 10                                    | 0.068              | 1,050                 | 110.0                  | ESC227M050AH5(1) |
| 50  | 63                | 330                                | 10 x 20              | 10                                    | 0.072              | 1,300                 | 165.0                  | ESC337M050AH4(1) |
| 50  | 63                | 470                                | *10 x 20             | 10                                    | 0.075              | 1,390                 | 235.0                  | ESC477M050AH4(1) |
| 50  | 63                | 470                                | 13 x 20              | 10                                    | 0.060              | 1,400                 | 235.0                  | ESC477M050AL3(1) |
| 50  | 63                | 680                                | 13 x 25              | 10                                    | 0.050              | 1,550                 | 340.0                  | ESC687M050AL4(1) |
| 50  | 63                | 820                                | 16 x 25              | 10                                    | 0.040              | 1,700                 | 410.0                  | ESC827M050AM7(1) |
| 50  | 63                | 1,000                              | 16 x 25              | 10                                    | 0.039              | 1,900                 | 500.0                  | ESC108M050AM7(1) |
| 50  | 63                | 1,200                              | 16 x 32              | 10                                    | 0.025              | 2,100                 | 600.0                  | ESC128M050AM2(1) |
| 50  | 63                | 1,500                              | 16 x 36              | 10                                    | 0.025              | 2,550                 | 750.0                  | ESC158M050AM3(1) |
| 50  | 63                | 2,200                              | 18 x 40              | 10                                    | 0.025              | 2,800                 | 1100.0                 | ESC228M050AN3(1) |
| 63  | 79                | 4.7                                | 5 x 11               | 9                                     | 2.200              | 115                   | 3.0                    | ESC475M063AC3(1) |
| 63  | 79                | 6.8                                | 5 x 11               | 9                                     | 2.000              | 120                   | 4.3                    | ESC685M063AC3(1) |
| 63  | 79                | 10                                 | 5 x 11               | 9                                     | 1.850              | 140                   | 6.3                    | ESC106M063AC3(1) |
| 63  | 79                | 15                                 | 5 x 11               | 9                                     | 1.700              | 200                   | 9.5                    | ESC156M063AC3(1) |
| 63  | 79                | 22                                 | 6.3 x 11             | 9                                     | 1.200              | 250                   | 13.9                   | ESC226M063AE3(1) |
| 63  | 79                | 33                                 | 6.3 x 11             | 9                                     | 0.900              | 300                   | 20.8                   | ESC336M063AE3(1) |
| 63  | 79                | 47                                 | 6.3 x 11             | 9                                     | 0.900              | 300                   | 29.6                   | ESC476M063AE3(1) |
| VDC | VDC Surge         | Rated Capacitance                  | Case Size            | DF                                    | Z                  | RC                    | LC                     | Part Number      |

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

<sup>1</sup> When capacitance exceeds 1,000 μF, the DF value (%) is increased by 2% for every additional 1,000 μF.

\* Dimension is down size, Endurance will be less 1,000 hours than standard.

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

| VDC | VDC Surge Voltage | Rated Capacitance<br>120 Hz 20°C<br>(μF) | Case Size<br>D x L (mm) | DF<br>120 Hz<br>20°C<br>(tan δ %) <sup>1</sup> | Z<br>100 kHz<br>20°C (Ω) | RC<br>100 kHz<br>105°C (mA) | LC 20°C<br>2 Minutes<br>(μA) | Part Number      |
|-----|-------------------|--|-------------------------|--|--------------------------|-----------------------------|------------------------------|------------------|
| 63  | 79                | 47                                       | 8 x 11                  | 9  | 0.700                    | 450                         | 29.6                         | ESC476M063AG3(1) |
| 63  | 79                | 68                                       | 8 x 11                  | 9  | 0.520                    | 550                         | 42.8                         | ESC686M063AG3(1) |
| 63  | 79                | 100                                      | 8 x 20                  | 9  | 0.350                    | 650                         | 63.0                         | ESC107M063AG6(1) |
| 63  | 79                | 120                                      | 10 x 16                 | 9  | 0.300                    | 800                         | 75.6                         | ESC127M063AH8(1) |
| 63  | 79                | 150                                      | 10 x 16                 | 9  | 0.200                    | 1,050                       | 94.5                         | ESC157M063AH8(1) |
| 63  | 79                | 220                                      | 10 x 20                 | 9  | 0.150                    | 1,300                       | 138.6                        | ESC227M063AH4(1) |
| 63  | 79                | 330                                      | 13 x 20                 | 9  | 0.100                    | 1,400                       | 207.9                        | ESC337M063AL3(1) |
| 63  | 79                | 470                                      | 13 x 25                 | 9  | 0.064                    | 1,550                       | 296.1                        | ESC477M063AL4(1) |
| 63  | 79                | 680                                      | 16 x 25                 | 9  | 0.052                    | 1,700                       | 428.4                        | ESC687M063AM7(1) |
| 63  | 79                | 820                                      | 16 x 32                 | 9  | 0.048                    | 1,900                       | 516.6                        | ESC827M063AM2(1) |
| 63  | 79                | 1,000                                    | 16 x 32                 | 9  | 0.042                    | 2,100                       | 630.0                        | ESC108M063AM2(1) |
| 63  | 79                | 1,200                                    | 16 x 36                 | 9  | 0.036                    | 2,550                       | 756.0                        | ESC128M063AM3(1) |
| 63  | 79                | 1,500                                    | 18 x 36                 | 9  | 0.033                    | 2,800                       | 945.0                        | ESC158M063AN2(1) |
| 100 | 125               | 4.7                                      | 5 x 11                  | 8  | 2.000                    | 120                         | 4.7                          | ESC475M100AC3(1) |
| 100 | 125               | 6.8                                      | 5 x 11                  | 8  | 1.850                    | 140                         | 6.8                          | ESC685M100AC3(1) |
| 100 | 125               | 10                                       | 6.3 x 11                | 8  | 1.500                    | 200                         | 10.0                         | ESC106M100AE3(1) |
| 100 | 125               | 15                                       | 6.3 x 11                | 8  | 1.200                    | 250                         | 15.0                         | ESC156M100AE3(1) |
| 100 | 125               | 22                                       | 8 x 11                  | 8  | 0.790                    | 300                         | 22.0                         | ESC226M100AG3(1) |
| 100 | 125               | 33                                       | 8 x 15                  | 8  | 0.590                    | 450                         | 33.0                         | ESC336M100AG4(1) |
| 100 | 125               | 47                                       | 10 x 16                 | 8  | 0.350                    | 550                         | 47.0                         | ESC476M100AH8(1) |
| 100 | 125               | 68                                       | 10 x 20                 | 8  | 0.240                    | 650                         | 68.0                         | ESC686M100AH4(1) |
| 100 | 125               | 100                                      | 13 x 20                 | 8  | 0.180                    | 800                         | 100.0                        | ESC107M100AL3(1) |
| 100 | 125               | 120                                      | 13 x 25                 | 8  | 0.150                    | 1,050                       | 120.0                        | ESC127M100AL4(1) |
| 100 | 125               | 150                                      | 13 x 25                 | 8  | 0.110                    | 1,300                       | 150.0                        | ESC157M100AL4(1) |
| 100 | 125               | 220                                      | 16 x 25                 | 8  | 0.071                    | 1,400                       | 220.0                        | ESC227M100AM7(1) |
| 100 | 125               | 330                                      | 16 x 32                 | 8  | 0.049                    | 1,550                       | 330.0                        | ESC337M100AM2(1) |
| 100 | 125               | 470                                      | 18 x 36                 | 8  | 0.038                    | 1,700                       | 470.0                        | ESC477M100AN2(1) |
| VDC | VDC Surge         | Rated Capacitance                        | Case Size               | DF   | Z                        | RC                          | LC                           | Part Number      |

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

<sup>1</sup> When capacitance exceeds 1,000 μF, the DF value (%) is increased by 2% for every additional 1,000 μF.

\* Dimension is down size, Endurance will be less 1,000 hours than standard.