# ESU, +105°C



#### **Overview**

# **Applications**

The KEMET ESU radial aluminum electrolytic capacitors are designed for long life (up to 12,000 hours) applications.

Typical applications include electronic lighting and power.

#### **Benefits**

- · Long life, up to 12,000 hours
- Operating temperature of up to +105°C
- · Safety vent on the capacitor base



### **Part Number System**

| ESU                                | 336  | M         | 160  | Α                        | Н8                     | AA                            |
|------------------------------------|--|-----------|--|--------------------------|------------------------|-------------------------------|
| Series                             | Capacitance<br>Code (pF)   | Tolerance | Rated Voltage<br>(VDC)   | Electrical<br>Parameters | Size Code              | Packaging                     |
| Radial<br>Aluminum<br>Electrolytic | First two digits represent significant figures for capacitance values. Last digit specifies the number of zeros to be added. | M = ±20%  | 160 = 160<br>200 = 200<br>250 = 250<br>350 = 350<br>400 = 400<br>450 = 450 | A = Standard             | See Dimension<br>Table | See Ordering<br>Options Table |



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

| Rated<br>Voltage | Surge<br>Voltage | Rated Capacitance    | Case Size     | DF                      | RC                   | LC                     | Part Number                          |
|------------------|------------------|----------------------|---------------|-------------------------|----------------------|------------------------|--------------------------------------|
| (VDC)            | (VDC)            | 120 Hz 20°C<br>(μF)  | D x L<br>(mm) | 120 Hz 20°C<br>(tanδ %) | 100 Hz 105°C<br>(mA) | 20°C<br>2 minutes (μΑ) | () Represents<br>Part Number Options |
| 160              | 200              | 33.0                 | 10 x 16       | 15                      | 500                  | 311.2                  | ESU336M160AH8(1)                     |
| 160              | 200              | 47.0                 | 10 x 20       | 15                      | 580                  | 400.8                  | ESU476M160AH4(1)                     |
| 160              | 200              | 68.0                 | 13 x 20       | 15                      | 720                  | 535.2                  | ESU686M160AL3(1)                     |
| 160              | 200              | 100.0                | 13 x 25       | 15                      | 970                  | 740.0                  | ESU107M160AL4(1)                     |
| 160              | 200              | 150.0                | 16 x 25       | 15                      | 1120                 | 1060.0                 | ESU157M160AM7(1)                     |
| 160              | 200              | 220.0                | 16 x 32       | 15                      | 1300                 | 1508.0                 | ESU227M160AM2(1)                     |
| 160              | 200              | 330.0                | 18 x 36       | 15                      | 1380                 | 2212.0                 | ESU337M160AN2(1)                     |
| 160              | 200              | 560.0                | 18 x 50       | 15                      | 2086                 | 3684.0                 | ESU567M160AN9(1)                     |
| 200              | 250              | 22.0                 | 10 x 16       | 15                      | 500                  | 276.0                  | ESU226M200AH8(1)                     |
| 200              | 250              | 33.0                 | 10 x 20       | 15                      | 520                  | 364.0                  | ESU336M200AH4(1)                     |
| 200              | 250              | 47.0                 | 13 x 20       | 15                      | 660                  | 476.0                  | ESU476M200AL3(1)                     |
| 200              | 250              | 68.0                 | 13 x 25       | 15                      | 720                  | 644.0                  | ESU686M200AL4(1)                     |
| 200              | 250              | 100.0                | 16 x 25       | 15                      | 1120                 | 900.0                  | ESU107M200AM7(1)                     |
| 200              | 250              | 150.0                | 16 x 32       | 15                      | 1620                 | 1300.0                 | ESU157M200AM2(1)                     |
| 200              | 250              | 220.0                | 18 x 32       | 15                      | 2080                 | 1860.0                 | ESU227M200AN1(1)                     |
| 200              | 250              | 390.0                | 18 x 50       | 15                      | 3380                 | 3220.0                 | ESU397M200AN9(1)                     |
| 250              | 300              | 10.0                 | 10 x 16       | 15                      | 320                  | 200.0                  | ESU106M250AH8(1)                     |
| 250              | 300              | 22.0                 | 10 x 20       | 15                      | 500                  | 320.0                  | ESU226M250AH4(1)                     |
| 250              | 300              | 33.0                 | 13 x 20       | 15                      | 800                  | 430.0                  | ESU336M250AL3(1)                     |
| 250              | 300              | 47.0                 | 13 x 20       | 15                      | 980                  | 570.0                  | ESU476M250AL3(1)                     |
| 250              | 300              | 100.0                | 16 x 25       | 15                      | 1530                 | 1100.0                 | ESU107M250AM7(1)                     |
| 250              | 300              | 150.0                | 18 x 25       | 15                      | 1940                 | 1600.0                 | ESU157M250AN5(1)                     |
| 250              | 300              | 220.0                | 18 x 36       | 15                      | 2753                 | 2300.0                 | ESU227M250AN2(1)                     |
| 250              | 300              | 330.0                | 18 x 50       | 15                      | 3912                 | 3400.0                 | ESU337M250AN9(1)                     |
| 350              | 400              | 6.8                  | 10 x 16       | 20                      | 280                  | 195.2                  | ESU685M350AH8(1)                     |
| 350              | 400              | 10.0                 | 10 x 20       | 20                      | 350                  | 240.0                  | ESU106M350AH4(1)                     |
| 350              | 400              | 22.0                 | 13 x 20       | 20                      | 650                  | 408.0                  | ESU226M350AL3(1)                     |
| 350              | 400              | 33.0                 | 13 x 25       | 20                      | 900                  | 562.0                  | ESU336M350AL4(1)                     |
| 350              | 400              | 47.0                 | 16 x 25       | 20                      | 1000                 | 758.0                  | ESU476M350AM7(1)                     |
| 350              | 400              | 68.0                 | 16 x 32       | 20                      | 1100                 | 1052.0                 | ESU686M350AM2(1)                     |
| 400              | 450              | 6.8                  | 10 x 16       | 20                      | 140                  | 208.8                  | ESU685M400AH8(1)                     |
| 400              | 450              | 10.0                 | 10 x 20       | 20                      | 180                  | 260.0                  | ESU106M400AH4(1)                     |
| 400              | 450              | 22.0                 | 13 x 20       | 20                      | 430                  | 452.0                  | ESU226M400AL3(1)                     |
| 400              | 450              | 33.0                 | 16 x 25       | 20                      | 520                  | 628.0                  | ESU336M400AM7(1)                     |
| 400              | 450              | 47.0                 | 16 x 20       | 20                      | 852                  | 520                    | ESU476M400AM5(1)                     |
| 400              | 450              | 47.0                 | 16 x 32       | 20                      | 700                  | 852.0                  | ESU476M400AM2(1)                     |
| 400              | 450              | 68.0                 | 18 x 32       | 20                      | 870                  | 1188.0                 | ESU686M400AN1(1)                     |
| 400              | 450              | 100.0                | 18 x 50       | 20                      | 1290                 | 1700.0                 | ESU107M400AN9(1)                     |
| 450              | 500              | 10.0                 | 10 x 20       | 20                      | 180                  | 280.0                  | ESU106M450AH4(1)                     |
| 450              | 500              | 15.0                 | 13 x 20       | 20                      | 380                  | 370.0                  | ESU156M450AL3(1)                     |
| 450              | 500              | 22.0                 | 13 x 25       | 20                      | 500                  | 496.0                  | ESU226M450AL4(1)                     |
| 450              | 500              | 33.0                 | 16 x 25       | 20                      | 560                  | 694.0                  | ESU336M450AM7(1)                     |
| 450              | 500              | 47.0                 | 16 x 36       | 20                      | 880                  | 946.0                  | ESU476M450AM3(1)                     |
| 450              | 500              | 68.0                 | 16 x 36       | 20                      | 1110                 | 1324.0                 | ESU686M450AM3(1)                     |
| 450              | 500              | 100.0                | 18 x 50       | 20                      | 1560                 | 1900.0                 | ESU107M450AN9(1)                     |
| VDC              |                  | Rated<br>Capacitance | Case Size     | DF                      | RC                   | LC                     | Part Number                          |

<sup>(1)</sup> Insert packaging code. See Ordering Options Table for available options.