



### FEATURES

Multiple Case Sizes - High Voltage – High Current

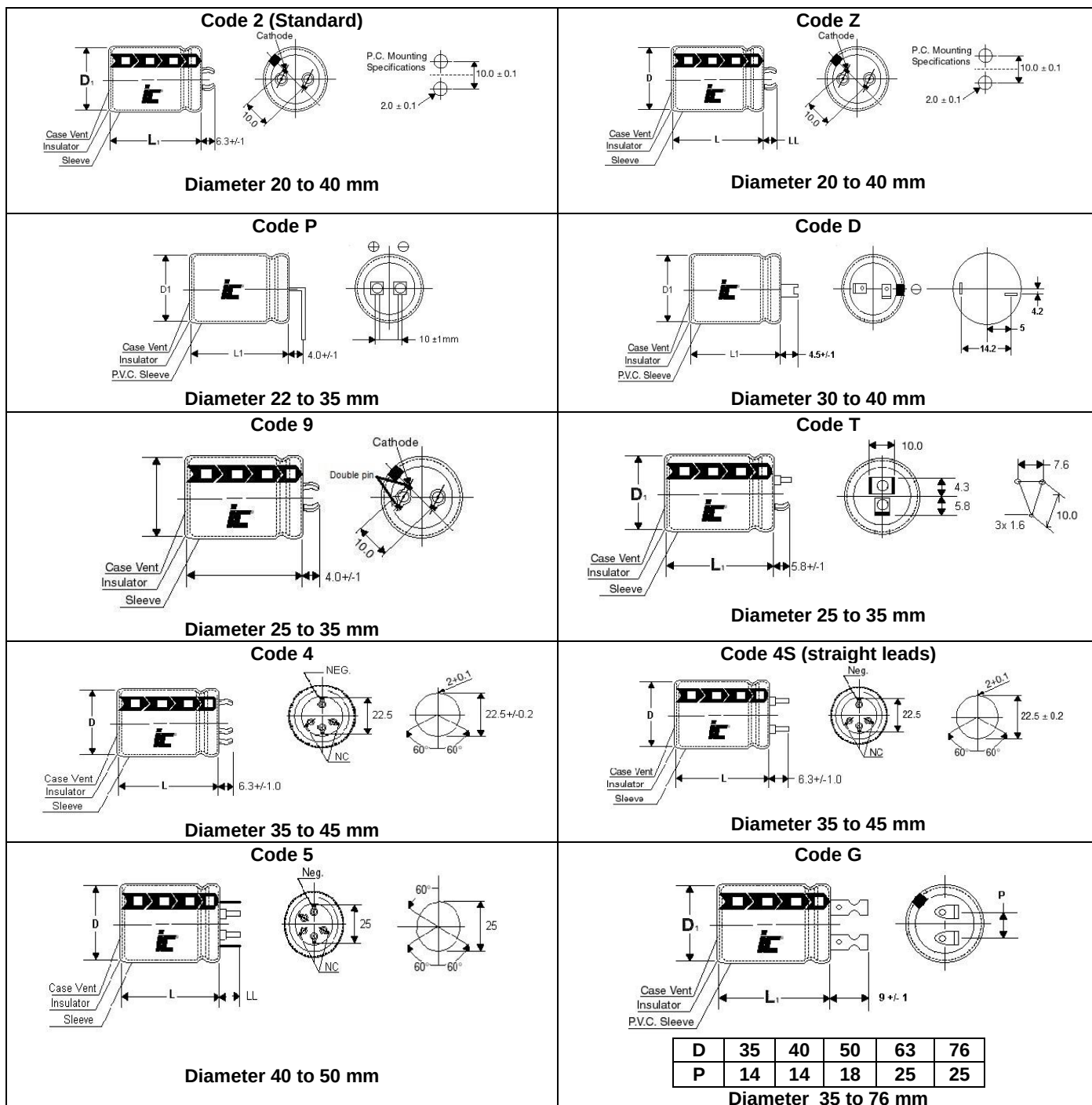
### APPLICATIONS

Filtering – Switching Power Supplies

|                                           |             |                                                                                                                                                  |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
|-------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----|-----|------|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| Operating Temperature Range               |             | <div>-40°C to +85°C (10VDC to 250VDC)</div> <div>-25°C to +85°C (350VDC to 500VDC)</div>                                                         |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
| Capacitance Tolerance                     |             | +20% at 120 Hz, 20°C                                                                                                                             |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
| Surge Voltage                             | WVDC        | 10                                                                                                                                               | 16        | 25  | 35  | 50   | 63                               | 80  | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 500 |   |
|                                           | SVDC        | 13                                                                                                                                               | 20        | 32  | 44  | 63   | 79                               | 100 | 120 | 200 | 250 | 300 | 400 | 450 | 500 | 550 |   |
| Dissipation Factor (120 Hz)               | WVDC        | 10                                                                                                                                               | 16        | 25  | 35  | 50   | 63                               | 80  | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 500 |   |
|                                           | tan δ       | .55                                                                                                                                              | .5        | .45 | .4  | .35  | .3                               | .25 | .2  | .15 | .15 | .15 | .15 | .15 | .2  | .2  |   |
|                                           |             | For capacitance values above 33000µF<br>the following to the Dissipation factors values above <div>(capacitance-33000 µF)*0.1 add 10000 µF</div> |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
| Leakage Current @20°C, Rated WVDC applied |             | Time                                                                                                                                             | 5 Minutes |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
|                                           |             | 3√CV                                                                                                                                             |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
| Impedance Ratio (120 Hz)                  | WVDC        | 10                                                                                                                                               | 16        | 25  | 35  | 50   | 63                               | 80  | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 500 |   |
|                                           | -25°C/+20°C | 4                                                                                                                                                | 4         | 4   | 4   | 4    | 4                                | 4   | 4   | 3   | 3   | 3   | 3   | 8   | 8   | 8   |   |
|                                           | -40°C/+20°C | 15                                                                                                                                               | 15        | 15  | 15  | 15   | 15                               | 15  | 15  | 15  | 15  | 15  | 15  | -   | -   | -   | - |
| Load Life                                 |             | 2000 hours with rated voltage applied at 85°C with full rated ripple current applied                                                             |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
|                                           |             | Capacitance Change                                                                                                                               |           |     |     |      | ≤20% of initial measured value   |     |     |     |     |     |     |     |     |     |   |
|                                           |             | Dissipation Factor                                                                                                                               |           |     |     |      | ≤200% of maximum specified value |     |     |     |     |     |     |     |     |     |   |
|                                           |             | Leakage Current                                                                                                                                  |           |     |     |      | ≤100% of maximum specified value |     |     |     |     |     |     |     |     |     |   |
| Shelf Life                                |             | 1000 hours at 85°C with no voltage applied                                                                                                       |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
|                                           |             | Capacitance Change                                                                                                                               |           |     |     |      | ≤20% of initial measured value   |     |     |     |     |     |     |     |     |     |   |
|                                           |             | Dissipation Factor                                                                                                                               |           |     |     |      | ≤200% of maximum specified value |     |     |     |     |     |     |     |     |     |   |
|                                           |             | Leakage Current                                                                                                                                  |           |     |     |      | ≤100% of maximum specified value |     |     |     |     |     |     |     |     |     |   |
| Ripple Current Multipliers                |             | Frequency (Hz)                                                                                                                                   |           |     |     |      |                                  |     |     |     |     |     |     |     |     |     |   |
|                                           |             | WVDC                                                                                                                                             |           | 60  | 120 | 1k   | 10k                              |     |     |     |     |     |     |     |     |     |   |
|                                           |             | 10 to 100                                                                                                                                        |           | 0.9 | 1.0 | 1.15 | 1.25                             |     |     |     |     |     |     |     |     |     |   |
|                                           |             | 160 to 250                                                                                                                                       |           | 0.8 | 1.0 | 1.15 | 1.47                             |     |     |     |     |     |     |     |     |     |   |
|                                           |             | 350 to 500                                                                                                                                       |           | 0.8 | 1.0 | 1.15 | 1.47                             |     |     |     |     |     |     |     |     |     |   |



### Lead style options



# LBA

+85°C Standard, 2000 hrs

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz, +20°C | Maximum RMS Ripple Current (A)<br>120 Hz, +85°C | Dims DxL (mm) |
|------|------------------|----------------|-----------------------------------|-------------------------------------------------|---------------|
| 10   | 12000            | 129LBA010M2AD  | 75.99                             | 2.44                                            | 20x30         |
| 10   | 12000            | 129LBA010M2BC  | 75.99                             | 2.41                                            | 22x25         |
| 10   | 15000            | 159LBA010M2AE  | 60.79                             | 2.9                                             | 20x35         |
| 10   | 15000            | 159LBA010M2BD  | 60.79                             | 2.88                                            | 22x30         |
| 10   | 18000            | 189LBA010M2AF  | 50.66                             | 3.31                                            | 20x40         |
| 10   | 18000            | 189LBA010M2BE  | 50.66                             | 3.22                                            | 22x35         |
| 10   | 18000            | 189LBA010M2CD  | 50.66                             | 3.08                                            | 25x30         |
| 10   | 22000            | 229LBA010M2BF  | 41.45                             | 3.79                                            | 22x40         |
| 10   | 22000            | 229LBA010M2CD  | 41.45                             | 3.66                                            | 25x30         |
| 10   | 27000            | 279LBA010M2CE  | 33.77                             | 4.04                                            | 25x35         |
| 10   | 27000            | 279LBA010M2DD  | 33.77                             | 3.99                                            | 30x30         |
| 10   | 33000            | 339LBA010M2BH  | 27.63                             | 4.58                                            | 22x50         |
| 10   | 33000            | 339LBA010M2CF  | 27.63                             | 4.56                                            | 25x40         |
| 10   | 33000            | 339LBA010M2DD  | 27.63                             | 4.58                                            | 30x30         |
| 10   | 39000            | 399LBA010M2CG  | 25.93                             | 5.29                                            | 25x45         |
| 10   | 39000            | 399LBA010M2DE  | 25.93                             | 5.21                                            | 30x35         |
| 10   | 39000            | 399LBA010M2ED  | 25.93                             | 5.5                                             | 35x30         |
| 10   | 47000            | 479LBA010M2CH  | 24.34                             | 5.78                                            | 25x50         |
| 10   | 47000            | 479LBA010M2DF  | 24.34                             | 5.78                                            | 30x40         |
| 10   | 47000            | 479LBA010M2EE  | 24.34                             | 5.55                                            | 35x35         |
| 10   | 56000            | 569LBA010M2DG  | 23.09                             | 6.59                                            | 30x45         |
| 10   | 56000            | 569LBA010M2EE  | 23.09                             | 6.4                                             | 35x35         |
| 10   | 68000            | 689LBA010M2DH  | 21.94                             | 7.5                                             | 30x50         |
| 10   | 68000            | 689LBA010M2EF  | 21.94                             | 7.48                                            | 35x40         |
| 10   | 82000            | 829LBA010M2EH  | 21.03                             | 8.5                                             | 35x50         |
| 16   | 6800             | 688LBA016M2AC  | 121.9                             | 2.33                                            | 20x25         |
| 16   | 8200             | 828LBA016M2AD  | 101.09                            | 2.56                                            | 20x30         |
| 16   | 10000            | 109LBA016M2AE  | 82.89                             | 2.85                                            | 20x35         |
| 16   | 10000            | 109LBA016M2BD  | 82.89                             | 2.84                                            | 22x30         |
| 16   | 10000            | 109LBA016M2CC  | 82.89                             | 2.76                                            | 25x25         |
| 16   | 12000            | 129LBA016M2AF  | 69.08                             | 3.2                                             | 20x40         |
| 16   | 12000            | 129LBA016M2BD  | 69.08                             | 3.13                                            | 22x30         |
| 16   | 12000            | 129LBA016M2CC  | 69.08                             | 3.01                                            | 25x25         |
| 16   | 15000            | 159LBA016M2BE  | 55.26                             | 3.69                                            | 22x35         |
| 16   | 15000            | 159LBA016M2BF  | 55.26                             | 3.94                                            | 22x40         |
| 16   | 15000            | 159LBA016M2CD  | 55.26                             | 3.64                                            | 25x30         |
| 16   | 15000            | 159LBA016M2DC  | 55.26                             | 3.51                                            | 30x25         |
| 16   | 18000            | 189LBA016M2BF  | 46.05                             | 3.98                                            | 22x40         |
| 16   | 18000            | 189LBA016M2CE  | 46.05                             | 3.98                                            | 25x35         |
| 16   | 18000            | 189LBA016M2DD  | 46.05                             | 3.88                                            | 30x30         |
| 16   | 22000            | 229LBA016M2BH  | 37.68                             | 5.23                                            | 22x50         |
| 16   | 22000            | 229LBA016M2CF  | 37.68                             | 4.44                                            | 25x40         |
| 16   | 22000            | 229LBA016M2CH  | 37.68                             | 4.52                                            | 25x50         |
| 16   | 22000            | 229LBA016M2DD  | 37.68                             | 4.45                                            | 30x30         |
| 16   | 22000            | 229LBA016M2EC  | 37.68                             | 4.13                                            | 35x25         |
| 16   | 27000            | 279LBA016M2CG  | 30.7                              | 4.98                                            | 25x45         |
| 16   | 27000            | 279LBA016M2DE  | 30.7                              | 4.95                                            | 30x35         |
| 16   | 27000            | 279LBA016M2ED  | 30.7                              | 4.82                                            | 35x30         |
| 16   | 33000            | 339LBA016M2CH  | 25.12                             | 5.49                                            | 25x50         |
| 16   | 33000            | 339LBA016M2DF  | 25.12                             | 5.8                                             | 30x40         |
| 16   | 33000            | 339LBA016M2ED  | 25.12                             | 5.15                                            | 35x30         |
| 16   | 39000            | 399LBA016M2DG  | 0.02                              | 6.21                                            | 30x45         |
| 16   | 39000            | 399LBA016M2EE  | 0.02                              | 6.12                                            | 35x35         |
| 16   | 47000            | 479LBA016M2DH  | 22.58                             | 6.78                                            | 30x50         |
| 16   | 47000            | 479LBA016M2EF  | 22.58                             | 6.71                                            | 35x40         |
| 16   | 56000            | 569LBA016M2EG  | 21.61                             | 7.69                                            | 35x45         |
| 25   | 4700             | 478LBA025M2AC  | 158.73                            | 2.18                                            | 20x25         |
| 25   | 4700             | 478LBA025M2BC  | 158.73                            | 2.2                                             | 22x25         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz, +20°C | Maximum RMS Ripple Current (A)<br>120 Hz, +85°C | Dims DxL (mm) |
|------|------------------|----------------|-----------------------------------|-------------------------------------------------|---------------|
| 25   | 5600             | 568LBA025M2AD  | 133.22                            | 2.33                                            | 20x30         |
| 25   | 5600             | 568LBA025M2BC  | 133.22                            | 2.31                                            | 22x25         |
| 25   | 6800             | 688LBA025M2AE  | 109.71                            | 2.56                                            | 20x35         |
| 25   | 6800             | 688LBA025M2BD  | 109.71                            | 2.56                                            | 22x30         |
| 25   | 6800             | 688LBA025M2CC  | 109.71                            | 2.55                                            | 25x25         |
| 25   | 8200             | 828LBA025M2AF  | 90.98                             | 2.91                                            | 20x40         |
| 25   | 8200             | 828LBA025M2CC  | 90.98                             | 2.78                                            | 25x25         |
| 25   | 10000            | 109LBA025M2BE  | 74.6                              | 3.31                                            | 22x35         |
| 25   | 10000            | 109LBA025M2CD  | 74.6                              | 3.16                                            | 25x30         |
| 25   | 10000            | 109LBA025M2DC  | 74.6                              | 3.31                                            | 30x25         |
| 25   | 12000            | 129LBA025M2BF  | 62.17                             | 3.77                                            | 22x40         |
| 25   | 12000            | 129LBA025M2CE  | 62.17                             | 3.63                                            | 25x35         |
| 25   | 12000            | 129LBA025M2DC  | 62.17                             | 3.8                                             | 30x25         |
| 25   | 15000            | 159LBA025M2BH  | 49.74                             | 4.21                                            | 22x50         |
| 25   | 15000            | 159LBA025M2CF  | 49.74                             | 4.1                                             | 25x40         |
| 25   | 15000            | 159LBA025M2DD  | 49.74                             | 4                                               | 30x30         |
| 25   | 18000            | 189LBA025M2CG  | 41.45                             | 4.68                                            | 25x45         |
| 25   | 18000            | 189LBA025M2DE  | 41.45                             | 4.66                                            | 30x35         |
| 25   | 18000            | 189LBA025M2ED  | 41.45                             | 4.68                                            | 35x30         |
| 25   | 22000            | 229LBA025M2DF  | 33.91                             | 5.33                                            | 30x40         |
| 25   | 22000            | 229LBA025M2EE  | 33.91                             | 5.73                                            | 35x35         |
| 25   | 27000            | 279LBA025M2DG  | 27.63                             | 6.02                                            | 30x45         |
| 25   | 27000            | 279LBA025M2EF  | 27.63                             | 6.02                                            | 35x40         |
| 25   | 33000            | 339LBA025M2EG  | 22.61                             | 6.75                                            | 35x45         |
| 25   | 33000            | 339LBA025M2EH  | 22.61                             | 7.2                                             | 35x50         |
| 25   | 39000            | 399LBA025M2EH  | 0.02                              | 7.56                                            | 35x50         |
| 35   | 2200             | 228LBA035M2CA  | 301.43                            | 1.7                                             | 25x20         |
| 35   | 2700             | 278LBA035M2AC  | 245.61                            | 1.76                                            | 20x25         |
| 35   | 3300             | 338LBA035M2AD  | 200.95                            | 2.14                                            | 20x30         |
| 35   | 3300             | 338LBA035M2BC  | 200.95                            | 2.2                                             | 22x25         |
| 35   | 3900             | 398LBA035M2AD  | 170.14                            | 2.28                                            | 20x30         |
| 35   | 3900             | 398LBA035M2BC  | 170.14                            | 2.22                                            | 22x25         |
| 35   | 4700             | 478LBA035M2AE  | 141.09                            | 2.46                                            | 20x35         |
| 35   | 4700             | 478LBA035M2BD  | 141.09                            | 2.4                                             | 22x30         |
| 35   | 4700             | 478LBA035M2CC  | 141.09                            | 2.35                                            | 25x25         |
| 35   | 5600             | 568LBA035M2BE  | 118.42                            | 2.79                                            | 22x35         |
| 35   | 5600             | 568LBA035M2CD  | 118.42                            | 2.75                                            | 25x30         |
| 35   | 6800             | 688LBA035M2BE  | 60.95                             | 2.9                                             | 22x35         |
| 35   | 6800             | 688LBA035M2CD  | 97.52                             | 2.89                                            | 25x30         |
| 35   | 8200             | 828LBA035M2BG  | 80.87                             | 3.47                                            | 22x45         |
| 35   | 8200             | 828LBA035M2CE  | 80.87                             | 3.45                                            | 25x35         |
| 35   | 8200             | 828LBA035M2DD  | 80.87                             | 3.29                                            | 30x30         |
| 35   | 10000            | 109LBA035M2BH  | 66.31                             | 3.75                                            | 22x50         |
| 35   | 10000            | 109LBA035M2CF  | 66.31                             | 3.65                                            | 25x40         |
| 35   | 10000            | 109LBA035M2DD  | 66.31                             | 4                                               | 30x30         |
| 35   | 12000            | 129LBA035M2CG  | 55.26                             | 4.15                                            | 25x45         |
| 35   | 12000            | 129LBA035M2DE  | 55.26                             | 4.14                                            | 30x35         |
| 35   | 12000            | 129LBA035M2ED  | 55.26                             | 4.27                                            | 35x30         |
| 35   | 15000            | 159LBA035M2DF  | 44.21                             | 5.07                                            | 30x40         |
| 35   | 15000            | 159LBA035M2EE  | 44.21                             | 5                                               | 35x35         |
| 35   | 18000            | 189LBA035M2DG  | 36.84                             | 5.3                                             | 30x45         |
| 35   | 18000            | 189LBA035M2EF  | 36.84                             | 5.71                                            | 35x40         |
| 35   | 22000            | 229LBA035M2EG  | 30.14                             | 6.25                                            | 35x45         |
| 35   | 27000            | 279LBA035M2EH  | 24.56                             | 6.9                                             | 35x50         |
| 50   | 1800             | 188LBA050M2AC  | 322.36                            | 1.7                                             | 20x25         |
| 50   | 2200             | 228LBA050M2AD  | 263.75                            | 2.07                                            | 20x30         |
| 50   | 2200             | 228LBA050M2BC  | 263.75                            | 2                                               | 22x25         |
| 50   | 2700             | 278LBA050M2AE  | 214.91                            | 2.21                                            | 20x35         |

# LBA

+85°C Standard, 2000 hrs

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz, +20°C | Maximum RMS Ripple Current (A)<br>120 Hz, +85°C | Dims DxL (mm) |
|------|------------------|----------------|-----------------------------------|-------------------------------------------------|---------------|
| 50   | 2700             | 278LBA050M2BD  | 214.91                            | 2.21                                            | 22x30         |
| 50   | 3300             | 338LBA050M2AF  | 175.83                            | 2.41                                            | 20x40         |
| 50   | 3300             | 338LBA050M2BC  | 401.9                             | 1.8                                             | 22x25         |
| 50   | 3300             | 338LBA050M2BD  | 175.83                            | 2.4                                             | 22x30         |
| 50   | 3300             | 338LBA050M2CC  | 175.83                            | 2.35                                            | 25x25         |
| 50   | 3900             | 398LBA050M2BE  | 148.78                            | 2.72                                            | 22x35         |
| 50   | 3900             | 398LBA050M2CD  | 148.78                            | 2.68                                            | 25x30         |
| 50   | 4700             | 478LBA050M2BF  | 123.46                            | 2.91                                            | 22x40         |
| 50   | 4700             | 478LBA050M2CD  | 123.46                            | 3.07                                            | 25x30         |
| 50   | 4700             | 478LBA050M2CE  | 123.46                            | 2.86                                            | 25x35         |
| 50   | 4700             | 478LBA050M2DC  | 123.46                            | 2.8                                             | 30x25         |
| 50   | 5600             | 568LBA050M2BG  | 103.62                            | 3.43                                            | 22x45         |
| 50   | 5600             | 568LBA050M2CE  | 103.62                            | 3.47                                            | 25x35         |
| 50   | 5600             | 568LBA050M2DD  | 103.62                            | 3.43                                            | 30x30         |
| 50   | 6800             | 688LBA050M2BH  | 85.33                             | 3.94                                            | 22x50         |
| 50   | 6800             | 688LBA050M2CF  | 85.33                             | 3.87                                            | 25x40         |
| 50   | 6800             | 688LBA050M2DD  | 85.33                             | 3.69                                            | 30x30         |
| 50   | 6800             | 688LBA050M2DE  | 85.33                             | 3.93                                            | 30x35         |
| 50   | 6800             | 688LBA050M2ED  | 85.33                             | 3.73                                            | 35x30         |
| 50   | 8200             | 828LBA050M2CG  | 70.76                             | 4.44                                            | 25x45         |
| 50   | 8200             | 828LBA050M2DE  | 70.76                             | 4.47                                            | 30x35         |
| 50   | 8200             | 828LBA050M2ED  | 70.76                             | 4.41                                            | 35x30         |
| 50   | 10000            | 109LBA050M2DF  | 58.03                             | 5.08                                            | 30x40         |
| 50   | 10000            | 109LBA050M2EE  | 58.03                             | 4.7                                             | 35x35         |
| 50   | 12000            | 129LBA050M2DH  | 48.35                             | 5.72                                            | 30x50         |
| 50   | 12000            | 129LBA050M2EF  | 48.35                             | 5.69                                            | 35x40         |
| 50   | 15000            | 159LBA050M2EG  | 38.68                             | 5.9                                             | 35x45         |
| 50   | 18000            | 189LBA050M2EH  | 32.24                             | 7.14                                            | 35x50         |
| 63   | 1500             | 158LBA063M2AC  | 331.57                            | 1.69                                            | 20x25         |
| 63   | 1500             | 158LBA063M2BC  | 331.57                            | 2                                               | 22x25         |
| 63   | 1800             | 188LBA063M2AD  | 276.31                            | 2.04                                            | 20x30         |
| 63   | 1800             | 188LBA063M2BC  | 276.31                            | 1.9                                             | 22x25         |
| 63   | 2200             | 228LBA063M2AE  | 226.07                            | 2.4                                             | 20x35         |
| 63   | 2200             | 228LBA063M2BD  | 226.07                            | 2.35                                            | 22x30         |
| 63   | 2200             | 228LBA063M2CC  | 226.07                            | 2.3                                             | 25x25         |
| 63   | 2700             | 278LBA063M2AF  | 184.21                            | 2.52                                            | 20x40         |
| 63   | 2700             | 278LBA063M2BE  | 184.21                            | 2.5                                             | 22x35         |
| 63   | 2700             | 278LBA063M2CD  | 184.21                            | 2.52                                            | 25x30         |
| 63   | 3300             | 338LBA063M2BF  | 150.71                            | 2.72                                            | 22x40         |
| 63   | 3300             | 338LBA063M2CD  | 150.71                            | 2.74                                            | 25x30         |
| 63   | 3300             | 338LBA063M2DC  | 150.71                            | 2.78                                            | 30x25         |
| 63   | 3900             | 398LBA063M2BG  | 127.53                            | 3.09                                            | 22x45         |
| 63   | 3900             | 398LBA063M2CE  | 127.53                            | 3.13                                            | 25x35         |
| 63   | 3900             | 398LBA063M2DD  | 127.53                            | 3.09                                            | 30x30         |
| 63   | 4700             | 478LBA063M2BH  | 105.82                            | 3.69                                            | 22x50         |
| 63   | 4700             | 478LBA063M2CE  | 105.82                            | 3.59                                            | 25x35         |
| 63   | 4700             | 478LBA063M2CF  | 105.82                            | 3.59                                            | 25x40         |
| 63   | 4700             | 478LBA063M2DD  | 105.82                            | 3.2                                             | 30x30         |
| 63   | 5600             | 568LBA063M2CG  | 88.81                             | 4.01                                            | 25x45         |
| 63   | 5600             | 568LBA063M2DE  | 88.81                             | 4                                               | 30x35         |
| 63   | 5600             | 568LBA063M2ED  | 88.81                             | 3.75                                            | 35x30         |
| 63   | 6800             | 688LBA063M2CH  | 73.14                             | 4.52                                            | 25x50         |
| 63   | 6800             | 688LBA063M2DF  | 73.14                             | 4.55                                            | 30x40         |
| 63   | 8200             | 828LBA063M2DG  | 60.65                             | 5.12                                            | 30x45         |
| 63   | 8200             | 828LBA063M2EE  | 60.65                             | 5.05                                            | 35x35         |
| 63   | 10000            | 109LBA063M2DH  | 49.74                             | 5.78                                            | 30x50         |
| 63   | 10000            | 109LBA063M2EG  | 49.74                             | 5.2                                             | 35x45         |
| 80   | 1000             | 108LBA080M2AC  | 414.47                            | 1.56                                            | 20x25         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz, +20°C | Maximum RMS Ripple Current (A)<br>120 Hz, +85°C | Dims DxL (mm) |
|------|------------------|----------------|-----------------------------------|-------------------------------------------------|---------------|
| 80   | 1000             | 108LBA080M2BC  | 414.47                            | 1.65                                            | 22x25         |
| 80   | 1200             | 128LBA080M2AD  | 345.39                            | 1.8                                             | 20x30         |
| 80   | 1200             | 128LBA080M2BC  | 345.39                            | 1.77                                            | 22x25         |
| 80   | 1500             | 158LBA080M2AE  | 276.31                            | 2.1                                             | 20x35         |
| 80   | 1500             | 158LBA080M2BD  | 276.31                            | 2.01                                            | 22x30         |
| 80   | 1800             | 188LBA080M2AF  | 230.26                            | 2.3                                             | 20x40         |
| 80   | 1800             | 188LBA080M2BD  | 230.26                            | 2.11                                            | 22x30         |
| 80   | 1800             | 188LBA080M2CC  | 230.26                            | 2.26                                            | 25x25         |
| 80   | 2200             | 228LBA080M2CD  | 188.39                            | 2.53                                            | 25x30         |
| 80   | 2200             | 228LBA080M2DC  | 188.39                            | 2.56                                            | 30x25         |
| 80   | 2700             | 278LBA080M2BG  | 153.51                            | 2.93                                            | 22x45         |
| 80   | 2700             | 278LBA080M2CE  | 153.51                            | 2.93                                            | 25x35         |
| 80   | 2700             | 278LBA080M2DD  | 153.51                            | 2.91                                            | 30x30         |
| 80   | 3300             | 338LBA080M2BH  | 125.6                             | 3.23                                            | 22x50         |
| 80   | 3300             | 338LBA080M2CF  | 125.6                             | 3.29                                            | 25x40         |
| 80   | 3300             | 338LBA080M2DD  | 125.6                             | 3.25                                            | 30x30         |
| 80   | 3900             | 398LBA080M2CG  | 106.27                            | 3.62                                            | 25x45         |
| 80   | 3900             | 398LBA080M2DE  | 106.27                            | 3.7                                             | 30x35         |
| 80   | 4700             | 478LBA080M2CH  | 88.18                             | 4.28                                            | 25x50         |
| 80   | 4700             | 478LBA080M2DF  | 88.18                             | 4.23                                            | 30x40         |
| 80   | 4700             | 478LBA080M2ED  | 88.18                             | 3.3                                             | 35x30         |
| 80   | 5600             | 568LBA080M2EE  | 74.01                             | 4.64                                            | 35x35         |
| 80   | 6800             | 688LBA080M2DH  | 60.95                             | 5.27                                            | 30x50         |
| 80   | 6800             | 688LBA080M2EF  | 60.95                             | 5.24                                            | 35x40         |
| 80   | 6800             | 688LBA080M2EG  | 60.95                             | 4.8                                             | 35x45         |
| 80   | 8200             | 828LBA080M2EG  | 50.54                             | 5.89                                            | 35x45         |
| 80   | 10000            | 109LBA080M2EH  | 41.45                             | 6.63                                            | 35x50         |
| 100  | 680              | 687LBA100M2AC  | 487.61                            | 1.66                                            | 20x25         |
| 100  | 680              | 687LBA100M2BC  | 487.61                            | 1.85                                            | 22x25         |
| 100  | 820              | 827LBA100M2AD  | 404.36                            | 1.85                                            | 20x30         |
| 100  | 820              | 827LBA100M2BC  | 404.36                            | 1.86                                            | 22x25         |
| 100  | 1000             | 108LBA100M2AE  | 331.57                            | 2.02                                            | 20x35         |
| 100  | 1000             | 108LBA100M2BD  | 331.57                            | 2.02                                            | 22x30         |
| 100  | 1000             | 108LBA100M2CC  | 331.57                            | 2.03                                            | 25x25         |
| 100  | 1200             | 128LBA100M2AF  | 276.31                            | 2.12                                            | 20x40         |
| 100  | 1200             | 128LBA100M2BD  | 276.31                            | 2.12                                            | 22x30         |
| 100  | 1200             | 128LBA100M2CC  | 276.31                            | 2.11                                            | 25x25         |
| 100  | 1500             | 158LBA100M2BE  | 221.05                            | 2.45                                            | 22x35         |
| 100  | 1500             | 158LBA100M2CD  | 221.05                            | 2.47                                            | 25x30         |
| 100  | 1800             | 188LBA100M2BF  | 184.21                            | 2.77                                            | 22x40         |
| 100  | 1800             | 188LBA100M2CE  | 184.21                            | 2.81                                            | 25x35         |
| 100  | 1800             | 188LBA100M2DC  | 184.21                            | 2.65                                            | 30x25         |
| 100  | 2200             | 228LBA100M2BG  | 150.71                            | 3.15                                            | 22x45         |
| 100  | 2200             | 228LBA100M2CF  | 150.71                            | 3.21                                            | 25x40         |
| 100  | 2200             | 228LBA100M2CG  | 150.71                            | 3.41                                            | 25x45         |
| 100  | 2200             | 228LBA100M2DD  | 150.71                            | 3.17                                            | 30x30         |
| 100  | 2700             | 278LBA100M2DE  | 122.8                             | 3.65                                            | 30x35         |
| 100  | 2700             | 278LBA100M2ED  | 122.8                             | 3.77                                            | 35x30         |
| 100  | 2700             | 278LBA100M2EG  | 122.8                             | 3.66                                            | 35x45         |
| 100  | 3300             | 338LBA100M2CH  | 100.48                            | 4.15                                            | 25x50         |
| 100  | 3300             | 338LBA100M2DF  | 100.48                            | 4.18                                            | 30x40         |
| 100  | 3300             | 338LBA100M2EE  | 100.48                            | 3.58                                            | 35x35         |
| 100  | 3900             | 398LBA100M2DG  | 85.02                             | 4.64                                            | 30x45         |
| 100  | 3900             | 398LBA100M2EE  | 85.02                             | 4.61                                            | 35x35         |
| 100  | 4700             | 478LBA100M2DH  | 70.55                             | 5.26                                            | 30x50         |
| 100  | 4700             | 478LBA100M2EF  | 70.55                             | 5.23                                            | 35x40         |
| 100  | 4700             | 478LBA100M2EG  | 70.55                             | 4.3                                             | 35x45         |
| 100  | 5600             | 568LBA100M2EG  | 59.21                             | 5.88                                            | 35x45         |

# LBA

+85°C Standard, 2000 hrs

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+85°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|----------------------------------------------------|---------------|
| 100  | 6800             | 688LBA100M2EH  | 48.76                                | 6.01                                               | 35x50         |
| 160  | 220              | 227LBA160M2BA  | 1130.36                              | 1                                                  | 22x20         |
| 160  | 270              | 277LBA160M2AC  | 921.04                               | 1.28                                               | 20x25         |
| 160  | 330              | 337LBA160M2AC  | 753.57                               | 1.55                                               | 20x25         |
| 160  | 390              | 397LBA160M2AD  | 637.64                               | 1.63                                               | 20x30         |
| 160  | 390              | 397LBA160M2BC  | 637.64                               | 1.63                                               | 22x25         |
| 160  | 470              | 477LBA160M2AE  | 529.11                               | 1.9                                                | 20x35         |
| 160  | 470              | 477LBA160M2BD  | 529.11                               | 1.86                                               | 22x30         |
| 160  | 470              | 477LBA160M2CC  | 529.11                               | 1.52                                               | 25x25         |
| 160  | 560              | 567LBA160M2AF  | 444.07                               | 2.14                                               | 20x40         |
| 160  | 560              | 567LBA160M2BD  | 444.07                               | 2.15                                               | 22x30         |
| 160  | 560              | 567LBA160M2CD  | 444.07                               | 2.15                                               | 25x30         |
| 160  | 680              | 687LBA160M2BF  | 365.71                               | 2.35                                               | 22x40         |
| 160  | 680              | 687LBA160M2CD  | 365.71                               | 2.33                                               | 25x30         |
| 160  | 680              | 687LBA160M2DC  | 365.71                               | 2.1                                                | 30x25         |
| 160  | 820              | 827LBA160M2BG  | 303.27                               | 2.68                                               | 22x45         |
| 160  | 820              | 827LBA160M2CE  | 303.27                               | 2.65                                               | 25x35         |
| 160  | 820              | 827LBA160M2DD  | 303.27                               | 2.64                                               | 30x30         |
| 160  | 1000             | 108LBA160M2BH  | 248.68                               | 3.02                                               | 22x50         |
| 160  | 1000             | 108LBA160M2CF  | 248.68                               | 3                                                  | 25x40         |
| 160  | 1000             | 108LBA160M2DD  | 248.68                               | 2.8                                                | 30x30         |
| 160  | 1200             | 128LBA160M2CG  | 207.23                               | 3.43                                               | 25x45         |
| 160  | 1200             | 128LBA160M2DE  | 209.23                               | 3.2                                                | 30x35         |
| 160  | 1200             | 128LBA160M2ED  | 207.23                               | 3.2                                                | 35x30         |
| 160  | 1500             | 158LBA160M2DF  | 165.79                               | 3.96                                               | 30x40         |
| 160  | 1500             | 158LBA160M2EE  | 165.79                               | 3.48                                               | 35x35         |
| 160  | 1800             | 188LBA160M2DG  | 184.21                               | 4.31                                               | 30x45         |
| 160  | 1800             | 188LBA160M2EE  | 184.21                               | 4.28                                               | 35x35         |
| 160  | 2200             | 228LBA160M2EF  | 113.04                               | 4.96                                               | 35x40         |
| 160  | 2700             | 278LBA160M2EH  | 92.1                                 | 5.57                                               | 35x50         |
| 200  | 220              | 227LBA200M2AC  | 1130.36                              | 1.19                                               | 20x25         |
| 200  | 220              | 227LBA200M2BC  | 1130.36                              | 1.14                                               | 22x25         |
| 200  | 220              | 227LBA200M2CA  | 1130.36                              | 1.1                                                | 25x20         |
| 200  | 270              | 277LBA200M2AD  | 921.04                               | 1.39                                               | 20x30         |
| 200  | 270              | 277LBA200M2BC  | 921.04                               | 1.37                                               | 22x25         |
| 200  | 330              | 337LBA200M2AD  | 753.57                               | 1.56                                               | 20x30         |
| 200  | 330              | 337LBA200M2BC  | 753.57                               | 1.51                                               | 22x25         |
| 200  | 390              | 397LBA200M2AE  | 637.64                               | 1.74                                               | 20x35         |
| 200  | 390              | 397LBA200M2BD  | 637.64                               | 1.73                                               | 22x30         |
| 200  | 390              | 397LBA200M2CC  | 637.64                               | 1.71                                               | 25x25         |
| 200  | 470              | 477LBA200M2AF  | 529.11                               | 2.03                                               | 20x40         |
| 200  | 470              | 477LBA200M2BD  | 529.11                               | 1.97                                               | 22x30         |
| 200  | 470              | 477LBA200M2BF  | 529.11                               | 2.02                                               | 22x40         |
| 200  | 470              | 477LBA200M2CD  | 529.11                               | 1.91                                               | 25x30         |
| 200  | 470              | 477LBA200M2CE  | 529.11                               | 1.8                                                | 25x35         |
| 200  | 560              | 567LBA200M2BF  | 444.07                               | 2.18                                               | 22x40         |
| 200  | 560              | 567LBA200M2CD  | 444.07                               | 2.15                                               | 25x30         |
| 200  | 560              | 567LBA200M2DC  | 444.07                               | 2.15                                               | 30x25         |
| 200  | 680              | 687LBA200M2BH  | 365.71                               | 2.48                                               | 22x50         |
| 200  | 680              | 687LBA200M2CE  | 365.71                               | 2.48                                               | 25x35         |
| 200  | 680              | 687LBA200M2DD  | 365.71                               | 2.48                                               | 30x30         |
| 200  | 820              | 827LBA200M2BH  | 303.27                               | 2.81                                               | 22x50         |
| 200  | 820              | 827LBA200M2CF  | 303.27                               | 2.79                                               | 25x40         |
| 200  | 820              | 827LBA200M2DD  | 303.27                               | 2.75                                               | 30x30         |
| 200  | 1000             | 108LBA200M2CG  | 248.68                               | 3.28                                               | 25x45         |
| 200  | 1000             | 108LBA200M2DE  | 248.68                               | 3.15                                               | 30x35         |
| 200  | 1000             | 108LBA200M2DG  | 248.68                               | 3.42                                               | 30x45         |
| 200  | 1000             | 108LBA200M2EE  | 248.68                               | 3.35                                               | 35x35         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+85°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|----------------------------------------------------|---------------|
| 200  | 1200             | 128LBA200M2CH  | 207.23                               | 3.61                                               | 25x50         |
| 200  | 1200             | 128LBA200M2DF  | 207.23                               | 3.61                                               | 30x40         |
| 200  | 1500             | 158LBA200M2DG  | 165.79                               | 4.13                                               | 30x45         |
| 200  | 1500             | 158LBA200M2EG  | 165.79                               | 4.1                                                | 35x45         |
| 200  | 1800             | 188LBA200M2EG  | 138.16                               | 4.59                                               | 35x45         |
| 200  | 1800             | 188LBA200M2EH  | 138.16                               | 4.38                                               | 35x50         |
| 200  | 2200             | 228LBA200M2EH  | 113.04                               | 4.7                                                | 35x50         |
| 250  | 150              | 157LBA250M2CA  | 1657.86                              | 0.85                                               | 25x20         |
| 250  | 180              | 187LBA250M2AC  | 1381.55                              | 1.2                                                | 20x25         |
| 250  | 220              | 227LBA250M2AD  | 1130.36                              | 1.26                                               | 20x30         |
| 250  | 220              | 227LBA250M2BC  | 1130.36                              | 1.24                                               | 22x25         |
| 250  | 270              | 277LBA250M2AD  | 921.04                               | 1.42                                               | 20x30         |
| 250  | 270              | 277LBA250M2BD  | 921.04                               | 1.5                                                | 22x30         |
| 250  | 330              | 337LBA250M2AE  | 753.57                               | 1.68                                               | 20x35         |
| 250  | 330              | 337LBA250M2BD  | 753.57                               | 1.66                                               | 22x30         |
| 250  | 330              | 337LBA250M2CC  | 753.57                               | 1.61                                               | 25x25         |
| 250  | 330              | 337LBA250M2CD  | 753.57                               | 1.67                                               | 25x30         |
| 250  | 390              | 397LBA250M2AF  | 637.64                               | 1.92                                               | 20x40         |
| 250  | 390              | 397LBA250M2BE  | 637.64                               | 1.88                                               | 22x35         |
| 250  | 390              | 397LBA250M2CD  | 637.64                               | 1.88                                               | 25x30         |
| 250  | 470              | 477LBA250M2BF  | 529.11                               | 2.15                                               | 22x40         |
| 250  | 470              | 477LBA250M2BH  | 529.11                               | 2.08                                               | 22x50         |
| 250  | 470              | 477LBA250M2CE  | 529.11                               | 2.15                                               | 25x35         |
| 250  | 470              | 477LBA250M2CF  | 529.11                               | 2.03                                               | 25x40         |
| 250  | 470              | 477LBA250M2DC  | 529.11                               | 2.04                                               | 30x25         |
| 250  | 470              | 477LBA250M2DD  | 529.11                               | 1.97                                               | 30x30         |
| 250  | 560              | 567LBA250M2BG  | 444.07                               | 2.48                                               | 22x45         |
| 250  | 560              | 567LBA250M2CE  | 444.07                               | 2.35                                               | 25x35         |
| 250  | 560              | 567LBA250M2DD  | 444.07                               | 2.35                                               | 30x30         |
| 250  | 680              | 687LBA250M2CF  | 365.71                               | 2.67                                               | 25x40         |
| 250  | 680              | 687LBA250M2DE  | 365.71                               | 2.4                                                | 30x35         |
| 250  | 820              | 827LBA250M2CH  | 303.27                               | 3.1                                                | 25x50         |
| 250  | 820              | 827LBA250M2DE  | 303.27                               | 2.98                                               | 30x35         |
| 250  | 820              | 827LBA250M2ED  | 303.27                               | 2.96                                               | 35x30         |
| 250  | 1000             | 108LBA250M2DG  | 248.68                               | 3                                                  | 30x45         |
| 250  | 1000             | 108LBA250M2DH  | 248.68                               | 3.65                                               | 30x50         |
| 250  | 1000             | 108LBA250M2EF  | 248.68                               | 3.58                                               | 35x40         |
| 250  | 1200             | 128LBA250M2DH  | 207.23                               | 3.99                                               | 30x50         |
| 250  | 1200             | 128LBA250M2EF  | 207.23                               | 3.84                                               | 35x40         |
| 250  | 1500             | 158LBA250M2EH  | 165.79                               | 4                                                  | 35x50         |
| 350  | 100              | 107LBA350M2CC  | 2486.8                               | 0.63                                               | 25x25         |
| 350  | 120              | 127LBA350M2AD  | 2072.33                              | 0.96                                               | 20x30         |
| 350  | 120              | 127LBA350M2BC  | 2072.33                              | 1.04                                               | 22x25         |
| 350  | 150              | 157LBA350M2AD  | 1657.86                              | 1.1                                                | 20x30         |
| 350  | 150              | 157LBA350M2BD  | 1657.86                              | 1.2                                                | 22x30         |
| 350  | 150              | 157LBA350M2CC  | 1657.86                              | 1.22                                               | 25x25         |
| 350  | 180              | 187LBA350M2AE  | 1381.55                              | 1.24                                               | 20x35         |
| 350  | 180              | 187LBA350M2BD  | 1381.55                              | 1.34                                               | 22x30         |
| 350  | 180              | 187LBA350M2CC  | 1381.55                              | 1.37                                               | 25x25         |
| 350  | 220              | 227LBA350M2BE  | 1130.36                              | 1.47                                               | 22x35         |
| 350  | 220              | 227LBA350M2CD  | 1130.36                              | 1.53                                               | 25x30         |
| 350  | 220              | 227LBA350M2DC  | 1130.36                              | 1.54                                               | 30x25         |
| 350  | 220              | 227LBA350M2DD  | 1130.36                              | 1.29                                               | 30x30         |
| 350  | 270              | 277LBA350M2BF  | 921.04                               | 1.7                                                | 22x40         |
| 350  | 270              | 277LBA350M2CE  | 921.04                               | 1.73                                               | 25x35         |
| 350  | 270              | 277LBA350M2DC  | 921.04                               | 1.8                                                | 30x25         |
| 350  | 330              | 337LBA350M2BG  | 753.57                               | 1.87                                               | 22x45         |
| 350  | 330              | 337LBA350M2CF  | 753.57                               | 1.97                                               | 25x40         |

# LBA

+85°C Standard, 2000 hrs

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+85°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|----------------------------------------------------|---------------|
| 350  | 330              | 337LBA350M2DD  | 753.57                               | 2.03                                               | 30x30         |
| 350  | 390              | 397LBA350M2CF  | 637.64                               | 2.14                                               | 25x40         |
| 350  | 390              | 397LBA350M2DE  | 637.64                               | 2.23                                               | 30x35         |
| 350  | 390              | 397LBA350M2ED  | 637.64                               | 2.3                                                | 35x30         |
| 350  | 470              | 477LBA350M2DE  | 529.11                               | 2.53                                               | 30x35         |
| 350  | 470              | 477LBA350M2ED  | 529.11                               | 2.55                                               | 35x30         |
| 350  | 560              | 567LBA350M2DF  | 444.07                               | 2.73                                               | 30x40         |
| 350  | 560              | 567LBA350M2EE  | 444.07                               | 2.75                                               | 35x35         |
| 350  | 680              | 687LBA350M2EF  | 365.71                               | 3.15                                               | 35x40         |
| 350  | 820              | 827LBA350M2EG  | 303.27                               | 3.47                                               | 35x45         |
| 350  | 1000             | 108LBA350M2EH  | 248.68                               | 3.6                                                | 35x50         |
| 400  | 68               | 686LBA400M2AC  | 3657.05                              | 0.75                                               | 20x25         |
| 400  | 82               | 826LBA400M2AD  | 3032.68                              | 0.82                                               | 20x30         |
| 400  | 82               | 826LBA400M2BC  | 3032.68                              | 0.84                                               | 22x25         |
| 400  | 100              | 107LBA400M2AD  | 2486.8                               | 0.95                                               | 20x30         |
| 400  | 100              | 107LBA400M2BD  | 2486.8                               | 0.68                                               | 22x30         |
| 400  | 100              | 107LBA400M2CC  | 2486.8                               | 0.99                                               | 25x25         |
| 400  | 120              | 127LBA400M2AE  | 2072.33                              | 1.07                                               | 20x35         |
| 400  | 120              | 127LBA400M2BD  | 2072.33                              | 1.09                                               | 22x30         |
| 400  | 120              | 127LBA400M2CC  | 2072.33                              | 1.13                                               | 25x25         |
| 400  | 150              | 157LBA400M2AF  | 1657.86                              | 1.22                                               | 20x40         |
| 400  | 150              | 157LBA400M2BF  | 1657.86                              | 0.94                                               | 22x40         |
| 400  | 150              | 157LBA400M2CD  | 1657.86                              | 1.27                                               | 25x30         |
| 400  | 180              | 187LBA400M2BF  | 1381.55                              | 1.41                                               | 22x40         |
| 400  | 180              | 187LBA400M2CD  | 1381.55                              | 1.44                                               | 25x30         |
| 400  | 180              | 187LBA400M2DC  | 1381.55                              | 1.52                                               | 30x25         |
| 400  | 220              | 227LBA400M2BG  | 1130.36                              | 1.58                                               | 22x45         |
| 400  | 220              | 227LBA400M2CE  | 1130.36                              | 1.64                                               | 25x35         |
| 400  | 220              | 227LBA400M2DD  | 1130.36                              | 1.66                                               | 30x30         |
| 400  | 270              | 277LBA400M2CF  | 921.04                               | 1.79                                               | 25x40         |
| 400  | 270              | 277LBA400M2DD  | 921.04                               | 1.82                                               | 30x30         |
| 400  | 330              | 337LBA400M2CG  | 753.57                               | 2                                                  | 25x45         |
| 400  | 330              | 337LBA400M2DE  | 753.57                               | 2.05                                               | 30x35         |
| 400  | 330              | 337LBA400M2ED  | 753.57                               | 2.05                                               | 35x30         |
| 400  | 390              | 397LBA400M2DF  | 637.64                               | 2.26                                               | 30x40         |
| 400  | 390              | 397LBA400M2EE  | 637.64                               | 2.28                                               | 35x35         |
| 400  | 470              | 477LBA400M2DG  | 529.11                               | 2.51                                               | 30x45         |
| 400  | 470              | 477LBA400M2EF  | 529.11                               | 2.54                                               | 35x40         |
| 400  | 470              | 477LBA400M2EG  | 529.11                               | 2.23                                               | 35x45         |
| 400  | 560              | 567LBA400M2EF  | 444.07                               | 2.85                                               | 35x40         |
| 400  | 680              | 687LBA400M2EH  | 365.71                               | 3.1                                                | 35x50         |
| 400  | 820              | 827LBA400M2EH  | 303.27                               | 4                                                  | 35x50         |
| 450  | 47               | 476LBA450M2BC  | 7054.74                              | 0.46                                               | 22x25         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+85°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|----------------------------------------------------|---------------|
| 450  | 56               | 566LBA450M2AC  | 5920.94                              | 0.61                                               | 20x25         |
| 450  | 68               | 686LBA450M2AD  | 4876.07                              | 0.7                                                | 20x30         |
| 450  | 68               | 686LBA450M2BC  | 4876.07                              | 0.71                                               | 22x25         |
| 450  | 68               | 686LBA450M2CC  | 4876.07                              | 0.6                                                | 25x25         |
| 450  | 82               | 826LBA450M2AE  | 4043.57                              | 0.8                                                | 20x35         |
| 450  | 82               | 826LBA450M2BC  | 4043.57                              | 0.86                                               | 22x25         |
| 450  | 100              | 107LBA450M2BD  | 3315.73                              | 0.95                                               | 22x30         |
| 450  | 100              | 107LBA450M2BE  | 3315.73                              | 0.77                                               | 22x35         |
| 450  | 100              | 107LBA450M2CC  | 3315.73                              | 0.97                                               | 25x25         |
| 450  | 120              | 127LBA450M2AF  | 2763.11                              | 0.99                                               | 20x40         |
| 450  | 120              | 127LBA450M2BE  | 2763.11                              | 1.07                                               | 22x35         |
| 450  | 120              | 127LBA450M2CD  | 2763.11                              | 1.09                                               | 25x30         |
| 450  | 150              | 157LBA450M2BF  | 2210.49                              | 1.18                                               | 22x40         |
| 450  | 150              | 157LBA450M2CD  | 2210.49                              | 1.25                                               | 25x30         |
| 450  | 150              | 157LBA450M2DC  | 2210.49                              | 1.29                                               | 30x25         |
| 450  | 180              | 187LBA450M2BG  | 1842.07                              | 1.32                                               | 22x45         |
| 450  | 180              | 187LBA450M2CE  | 1842.07                              | 1.4                                                | 25x35         |
| 450  | 180              | 187LBA450M2DD  | 1842.07                              | 1.45                                               | 30x30         |
| 450  | 220              | 227LBA450M2CF  | 1507.15                              | 1.59                                               | 25x40         |
| 450  | 220              | 227LBA450M2DD  | 1507.15                              | 1.64                                               | 30x30         |
| 450  | 220              | 227LBA450M2DF  | 1507.15                              | 1.44                                               | 30x40         |
| 450  | 220              | 227LBA450M2ED  | 1507.15                              | 1.66                                               | 35x30         |
| 450  | 270              | 277LBA450M2CG  | 1228.05                              | 1.73                                               | 25x45         |
| 450  | 270              | 277LBA450M2DE  | 1228.05                              | 1.89                                               | 30x35         |
| 450  | 270              | 277LBA450M2ED  | 1228.05                              | 1.9                                                | 35x30         |
| 450  | 330              | 337LBA450M2DF  | 1004.77                              | 2.12                                               | 30x40         |
| 450  | 330              | 337LBA450M2EE  | 1004.77                              | 2.15                                               | 35x35         |
| 450  | 390              | 397LBA450M2DG  | 850.19                               | 2.35                                               | 30x45         |
| 450  | 390              | 397LBA450M2EF  | 850.19                               | 2.38                                               | 35x40         |
| 450  | 470              | 477LBA450M2EG  | 529.11                               | 2.68                                               | 35x45         |
| 450  | 470              | 477LBA450M2EH  | 529.11                               | 2.5                                                | 35x50         |
| 500  | 100              | 107LBA500M2CC  | 3315.73                              | 0.8                                                | 25x25         |
| 500  | 100              | 107LBA500M2DC  | 3315.73                              | 0.84                                               | 30x25         |
| 500  | 120              | 127LBA500M2CD  | 2763.11                              | 0.89                                               | 25x30         |
| 500  | 120              | 127LBA500M2DC  | 2763.11                              | 0.9                                                | 30x25         |
| 500  | 150              | 157LBA500M2CE  | 2210.49                              | 1.07                                               | 25x35         |
| 500  | 180              | 187LBA500M2DE  | 1842.07                              | 1.3                                                | 30x35         |
| 500  | 220              | 227LBA500M2CG  | 1507.15                              | 1.4                                                | 25x45         |
| 500  | 270              | 277LBA500M2CH  | 1228.05                              | 1.6                                                | 25x50         |
| 500  | 270              | 277LBA500M2DF  | 1228.05                              | 1.55                                               | 30x40         |
| 500  | 330              | 337LBA500M2DG  | 1004.77                              | 1.8                                                | 30x45         |
| 500  | 390              | 397LBA500M2DH  | 850.19                               | 2.1                                                | 30x50         |