



### FEATURES

Multiple Case Sizes - High Voltage – High Current

### APPLICATIONS

Filtering – Switching Power Supplies

|                                           |             |                                                                                                                                                                             |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
|-------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----|------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Operating Temperature Range               |             | <b>-40°C to +85°C (10VDC to 250VDC)<br/>-25°C to +85°C (350VDC to 500VDC)</b>                                                                                               |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
| Capacitance Tolerance                     |             | <b>+20% at 120 Hz, 20°C</b>                                                                                                                                                 |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
| 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 the following to the Dissipation factors values above $\frac{(\text{capacitance}-33000 \mu\text{F}) \cdot 0.1}{10000 \mu\text{F}}$ add |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
| Leakage Current @20°C, Rated WVDC applied |             | Time                                                                                                                                                                        | <b>5 Minutes</b>                 |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
|                                           |             | $3\sqrt{CV}$                                                                                                                                                                |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
| 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  | -   | -   | -   | -   |  |
| Load Life                                 |             | <b>2000 hours with rated voltage applied at 85°C with full rated ripple current applied</b>                                                                                 |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
|                                           |             | Capacitance Change                                                                                                                                                          | ≤20% of initial measured value   |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
|                                           |             | Dissipation Factor                                                                                                                                                          | ≤200% of maximum specified value |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
|                                           |             | Leakage Current                                                                                                                                                             | ≤100% of maximum specified value |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
| Shelf Life                                |             | <b>1000 hours at 85°C with no voltage applied</b>                                                                                                                           |                                  |     |      |      |    |     |     |     |     |     |     |     |     |     |  |
|                                           |             | 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,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+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,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+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) 120 Hz, +20°C | Maximum RMS Ripple Current (A) 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) 120 Hz, +20°C | Maximum RMS Ripple Current (A) 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         |