



# Aluminum Electrolytic Capacitors

+105°C Long Life Snap-Mount



## FEATURES

Multiple Case Sizes - High Voltage – High Current

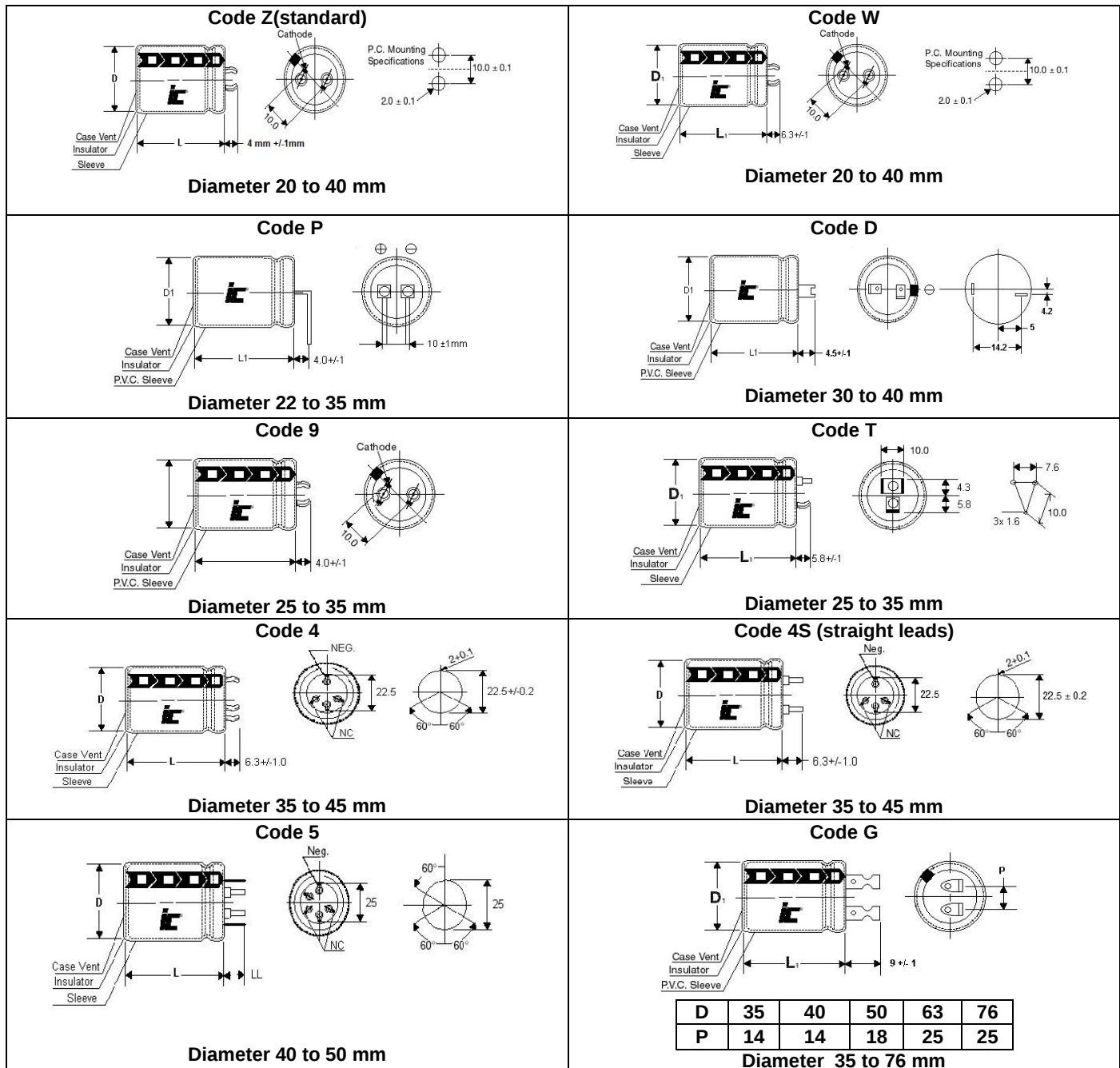
## APPLICATIONS

Filtering – Switching Power Supplies

|                                              |             |                                                                                                       |     |     |      |              |                                  |     |                  |     |     |     |     |     |     |
|----------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------|-----|-----|------|--------------|----------------------------------|-----|------------------|-----|-----|-----|-----|-----|-----|
| Operating Temperature Range                  |             | -40°C to +105°C (≤250WVDC)<br>-25°C to +105°C (>250WVDC)                                              |     |     |      |              |                                  |     |                  |     |     |     |     |     |     |
| 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 |
|                                              | SVDC        | 13                                                                                                    | 20  | 32  | 44   | 63           | 79                               | 100 | 120              | 200 | 250 | 300 | 400 | 450 | 500 |
| Dissipation Factor tan δ<br>(120 Hz)         | WVDC        | 10                                                                                                    | 16  | 25  | 35   | 50           | 63                               | 80  | 100              | 160 | 200 | 250 | 350 | 400 | 450 |
|                                              |             | .55                                                                                                   | .5  | .45 | .4   | .35          | .3                               | .25 | .2               | .15 | .15 | .15 | .15 | .15 | .15 |
|                                              |             | For capacitances above 33000uF, add to DF value $\frac{(\text{Capacitance}-33000)}{10000} \times 0.1$ |     |     |      |              |                                  |     |                  |     |     |     |     |     |     |
| Leakage Current @20°C,<br>Rated WVDC applied |             | Time                                                                                                  |     |     |      | 5 Minutes    |                                  |     |                  |     |     |     |     |     |     |
|                                              |             |                                                                                                       |     |     |      | $3\sqrt{CV}$ |                                  |     |                  |     |     |     |     |     |     |
| Impedance Ratio<br>(120 Hz)                  | WVDC        | 10                                                                                                    | 16  | 25  | 35   | 50           | 63                               | 80  | 100              | 160 | 200 | 250 | 350 | 400 | 450 |
|                                              | -25°C/+20°C | 4                                                                                                     | 4   | 4   | 4    | 4            | 4                                | 4   | 4                | 3   | 3   | 3   | 8   | 8   | 8   |
|                                              | -40°C/+20°C | 15                                                                                                    | 15  | 15  | 15   | 15           | 15                               | 15  | 15               | 15  | 15  | 15  | -   | -   | -   |
| Load Life                                    |             | 2000 hours with rated voltage and rated ripple current applied at 105°C                               |     |     |      |              |                                  |     |                  |     |     |     |     |     |     |
|                                              |             | 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 105°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<br>Multipliers                |             | Frequency (Hz)                                                                                        |     |     |      |              |                                  |     | Temperature (°C) |     |     |     |     |     |     |
|                                              | WVDC        | 60                                                                                                    | 120 | 400 | 1k   | 10k          | 50k                              | 40  | 60               | 70  | 85  | 105 |     |     |     |
|                                              | ≤100        | 0.8                                                                                                   | 1.0 | 1.1 | 1.15 | 1.25         | 1.25                             | 2.5 | 2.2              | 2   | 1.8 | 1   |     |     |     |
|                                              | >160        | 0.8                                                                                                   | 1.0 | 1.1 | 1.15 | 1.47         | 1.47                             | 2.5 | 2.2              | 2   | 1.8 | 1   |     |     |     |



### Lead Style Options



# LMH

+105°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, +105°C | Dims DxL (mm) |
|------|------------------|----------------|-----------------------------------|--------------------------------------------------|---------------|
| 10   | 12000            | 129LMH010MZBC  | 75.99                             | 2.2                                              | 22x25         |
| 10   | 15000            | 159LMH010MZBD  | 60.79                             | 2.3                                              | 22x30         |
| 10   | 18000            | 189LMH010MZBD  | 50.657                            | 2.4                                              | 22x30         |
| 10   | 18000            | 189LMH010MZCC  | 50.657                            | 2.4                                              | 25x25         |
| 10   | 22000            | 229LMH010MZBE  | 41.45                             | 2.6                                              | 22x35         |
| 10   | 22000            | 229LMH010MZCD  | 41.45                             | 2.6                                              | 25x30         |
| 10   | 27000            | 279LMH010MZBF  | 33.77                             | 3.1                                              | 22x40         |
| 10   | 27000            | 279LMH010MZCE  | 33.77                             | 3.1                                              | 25x35         |
| 10   | 33000            | 339LMH010MZBG  | 27.63                             | 3.4                                              | 22x45         |
| 10   | 33000            | 339LMH010MZCF  | 27.63                             | 3.4                                              | 25x40         |
| 10   | 39000            | 399LMH010MZCG  | 25.93                             | 3.7                                              | 25x45         |
| 10   | 39000            | 399LMH010MZDD  | 25.93                             | 3.7                                              | 30x30         |
| 10   | 39000            | 399LMH010MZEC  | 25.93                             | 3.7                                              | 35x25         |
| 10   | 47000            | 479LMH010MZCH  | 24.34                             | 4.2                                              | 25x50         |
| 10   | 47000            | 479LMH010MZDE  | 24.34                             | 4.2                                              | 30x35         |
| 10   | 47000            | 479LMH010MZED  | 24.34                             | 4.2                                              | 35x30         |
| 10   | 56000            | 569LMH010MZDF  | 23.09                             | 5                                                | 30x40         |
| 10   | 56000            | 569LMH010MZEE  | 23.09                             | 5                                                | 35x35         |
| 10   | 68000            | 689LMH010MZDG  | 21.94                             | 5.4                                              | 30x45         |
| 10   | 68000            | 689LMH010MZEZ  | 21.94                             | 5.4                                              | 35x40         |
| 10   | 82000            | 829LMH010MZEG  | 21.03                             | 5.9                                              | 35x45         |
| 10   | 100000           | 104LMH010MZEH  | 20.2259                           | 6.5                                              | 35x50         |
| 16   | 10000            | 109LMH016MZBC  | 82.89                             | 2.6                                              | 22x25         |
| 16   | 12000            | 129LMH016MZBD  | 69.08                             | 2.9                                              | 22x30         |
| 16   | 12000            | 129LMH016MZCC  | 69.08                             | 2.9                                              | 25x25         |
| 16   | 15000            | 159LMH016MZBE  | 55.262                            | 3.2                                              | 22x35         |
| 16   | 18000            | 189LMH016MZBF  | 46.05                             | 3.5                                              | 22x40         |
| 16   | 18000            | 189LMH016MZCD  | 46.05                             | 3.5                                              | 25x30         |
| 16   | 22000            | 229LMH016MZBG  | 37.68                             | 3.8                                              | 22x45         |
| 16   | 22000            | 229LMH016MZCE  | 37.68                             | 3.8                                              | 25x35         |
| 16   | 22000            | 229LMH016MZDC  | 37.68                             | 3.8                                              | 30x25         |
| 16   | 27000            | 279LMH016MZBH  | 30.7                              | 4.2                                              | 22x50         |
| 16   | 27000            | 279LMH016MZCF  | 30.7                              | 4.2                                              | 25x40         |
| 16   | 27000            | 279LMH016MZDD  | 30.7                              | 4.2                                              | 30x30         |
| 16   | 27000            | 279LMH016MZEC  | 30.7                              | 4.2                                              | 35x25         |
| 16   | 33000            | 339LMH016MZCG  | 25.12                             | 4.7                                              | 25x45         |
| 16   | 33000            | 339LMH016MZDE  | 25.12                             | 4.7                                              | 30x35         |
| 16   | 39000            | 399LMH016MZDF  | 21.26                             | 5.1                                              | 30x40         |
| 16   | 39000            | 399LMH016MZED  | 21.26                             | 5.1                                              | 35x30         |
| 16   | 47000            | 479LMH016MZDG  | 22.58                             | 5.5                                              | 30x45         |
| 16   | 47000            | 479LMH016MZEE  | 22.58                             | 5.5                                              | 35x35         |
| 16   | 56000            | 569LMH016MZDH  | 21.61                             | 6                                                | 30x50         |
| 16   | 56000            | 569LMH016MZEH  | 21.61                             | 6                                                | 35x50         |
| 16   | 68000            | 689LMH016MZEG  | 20.72                             | 6.4                                              | 35x45         |
| 25   | 6800             | 688LMH025MZBC  | 109.71                            | 2.4                                              | 22x25         |
| 25   | 8200             | 828LMH025MZBD  | 109.71                            | 2.7                                              | 22x30         |
| 25   | 8200             | 828LMH025MZCC  | 109.71                            | 2.7                                              | 25x25         |
| 25   | 10000            | 109LMH025MZBE  | 74.6                              | 3                                                | 22x35         |
| 25   | 12000            | 129LMH025MZBF  | 62.17                             | 3.2                                              | 22x40         |
| 25   | 12000            | 129LMH025MZCD  | 62.17                             | 3.2                                              | 25x30         |
| 25   | 15000            | 159LMH025MZBG  | 49.74                             | 3.6                                              | 22x45         |
| 25   | 15000            | 159LMH025MZCE  | 49.74                             | 3.6                                              | 25x35         |
| 25   | 15000            | 159LMH025MZDC  | 49.74                             | 3.6                                              | 30x25         |
| 25   | 18000            | 189LMH025MZBH  | 41.45                             | 3.9                                              | 22x50         |
| 25   | 18000            | 189LMH025MZCF  | 41.45                             | 3.9                                              | 25x40         |
| 25   | 18000            | 189LMH025MZDD  | 41.45                             | 3.9                                              | 30x30         |
| 25   | 18000            | 189LMH025MZEC  | 41.45                             | 3.9                                              | 35x25         |
| 25   | 22000            | 229LMH025MZCG  | 33.91                             | 4.3                                              | 25x45         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz, +20°C | Maximum RMS Ripple Current (A)<br>120 Hz, +105°C | Dims DxL (mm) |
|------|------------------|----------------|-----------------------------------|--------------------------------------------------|---------------|
| 25   | 22000            | 229LMH025MZDE  | 33.91                             | 4.3                                              | 30x35         |
| 25   | 22000            | 229LMH025MZED  | 33.91                             | 4.3                                              | 35x30         |
| 25   | 27000            | 279LMH025MZDF  | 27.63                             | 4.8                                              | 30x40         |
| 25   | 27000            | 279LMH025MZEE  | 27.63                             | 4.8                                              | 35x35         |
| 25   | 33000            | 339LMH025MZDG  | 22.61                             | 5.5                                              | 30x45         |
| 25   | 33000            | 339LMH025MZEZ  | 22.61                             | 5.5                                              | 35x40         |
| 25   | 39000            | 399LMH025MZDH  | 19.13                             | 5.8                                              | 30x50         |
| 25   | 39000            | 399LMH025MZEG  | 19.13                             | 5.8                                              | 35x45         |
| 25   | 47000            | 479LMH025MZEH  | 20.81                             | 6.3                                              | 35x50         |
| 35   | 4700             | 478LMH035MZBC  | 141.1                             | 2.2                                              | 22x25         |
| 35   | 5600             | 568LMH035MZBD  | 118.42                            | 2.4                                              | 22x30         |
| 35   | 5600             | 568LMH035MZCC  | 118.42                            | 2.4                                              | 25x25         |
| 35   | 6800             | 688LMH035MZBE  | 97.52                             | 2.6                                              | 22x35         |
| 35   | 8200             | 828LMH035MZBF  | 97.52                             | 2.9                                              | 22x40         |
| 35   | 8200             | 828LMH035MZCD  | 97.52                             | 2.9                                              | 25x30         |
| 35   | 10000            | 109LMH035MZBG  | 66.32                             | 3.2                                              | 22x45         |
| 35   | 10000            | 109LMH035MZCE  | 66.32                             | 3.2                                              | 25x35         |
| 35   | 10000            | 109LMH035MZDC  | 66.32                             | 3.2                                              | 30x25         |
| 35   | 12000            | 129LMH035MZBH  | 55.26                             | 3.5                                              | 22x50         |
| 35   | 12000            | 129LMH035MZCF  | 55.26                             | 3.5                                              | 25x40         |
| 35   | 12000            | 129LMH035MZDD  | 55.26                             | 3.5                                              | 30x30         |
| 35   | 12000            | 129LMH035MZEC  | 55.26                             | 3.5                                              | 35x25         |
| 35   | 15000            | 159LMH035MZCG  | 44.21                             | 3.9                                              | 25x45         |
| 35   | 15000            | 159LMH035MZDE  | 44.21                             | 3.9                                              | 30x35         |
| 35   | 15000            | 159LMH035MZED  | 44.21                             | 3.9                                              | 35x30         |
| 35   | 18000            | 189LMH035MZDF  | 36.84                             | 4.3                                              | 30x40         |
| 35   | 18000            | 189LMH035MZEE  | 36.84                             | 4.3                                              | 35x35         |
| 35   | 22000            | 229LMH035MZDG  | 30.14                             | 5                                                | 30x45         |
| 35   | 22000            | 229LMH035MZEZ  | 30.14                             | 5                                                | 35x40         |
| 35   | 27000            | 279LMH035MZEG  | 24.56                             | 5.3                                              | 35x45         |
| 35   | 33000            | 339LMH035MZEH  | 20.1                              | 5.9                                              | 35x50         |
| 50   | 2700             | 278LMH050MZBC  | 153.51                            | 1.8                                              | 22x25         |
| 50   | 3300             | 338LMH050MZBD  | 175.83                            | 2                                                | 22x30         |
| 50   | 3900             | 398LMH050MZBE  | 148.78                            | 2.2                                              | 22x35         |
| 50   | 3900             | 398LMH050MZCC  | 148.78                            | 2.2                                              | 25x25         |
| 50   | 4700             | 478LMH050MZBF  | 123.46                            | 2.5                                              | 22x40         |
| 50   | 4700             | 478LMH050MZCD  | 123.46                            | 2.5                                              | 25x30         |
| 50   | 5600             | 568LMH050MZBG  | 103.62                            | 2.8                                              | 22x45         |
| 50   | 5600             | 568LMH050MZCE  | 103.62                            | 2.8                                              | 25x35         |
| 50   | 5600             | 568LMH050MZDC  | 103.62                            | 2.8                                              | 30x25         |
| 50   | 6800             | 688LMH050MZBH  | 85.33                             | 3.3                                              | 22x50         |
| 50   | 6800             | 688LMH050MZCF  | 85.33                             | 3.3                                              | 25x40         |
| 50   | 6800             | 688LMH050MZDD  | 85.33                             | 3.3                                              | 30x30         |
| 50   | 6800             | 688LMH050MZEC  | 85.33                             | 3.3                                              | 35x25         |
| 50   | 8200             | 828LMH050MZCG  | 85.33                             | 3.6                                              | 25x45         |
| 50   | 8200             | 828LMH050MZDE  | 85.33                             | 3.6                                              | 30x35         |
| 50   | 10000            | 109LMH050MZCH  | 58.03                             | 4                                                | 25x50         |
| 50   | 10000            | 109LMH050MZDF  | 58.03                             | 4                                                | 30x40         |
| 50   | 10000            | 109LMH050MZED  | 58.03                             | 4                                                | 35x30         |
| 50   | 12000            | 129LMH050MZDG  | 48.35                             | 4.5                                              | 30x45         |
| 50   | 12000            | 129LMH050MZEE  | 48.35                             | 4.5                                              | 35x35         |
| 50   | 15000            | 159LMH050MZDH  | 38.68                             | 4.8                                              | 30x50         |
| 50   | 15000            | 159LMH050MZEZ  | 38.68                             | 4.8                                              | 35x40         |
| 50   | 18000            | 189LMH050MZEG  | 32.24                             | 5.2                                              | 35x45         |
| 63   | 2200             | 228LMH063MZBC  | 226.07                            | 2                                                | 22x25         |
| 63   | 2700             | 278LMH063MZBD  | 184.207                           | 2.2                                              | 22x30         |
| 63   | 2700             | 278LMH063MZCC  | 184.207                           | 2.2                                              | 25x25         |
| 63   | 3300             | 338LMH063MZBE  | 153.51                            | 2.5                                              | 22x35         |

# LMH

+105°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>+105°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|-----------------------------------------------------|---------------|
| 63   | 3900             | 398LMH063MZBF  | 127.528                              | 2.7                                                 | 22x40         |
| 63   | 3900             | 398LMH063MZCD  | 127.528                              | 2.7                                                 | 25x30         |
| 63   | 3900             | 398LMH063MZDC  | 127.528                              | 2.7                                                 | 30x25         |
| 63   | 4700             | 478LMH063MZBG  | 105.82                               | 3                                                   | 22x45         |
| 63   | 4700             | 478LMH063MZCE  | 105.82                               | 3                                                   | 25x35         |
| 63   | 5600             | 568LMH063MZBH  | 88.81                                | 3.3                                                 | 22x50         |
| 63   | 5600             | 568LMH063MZCF  | 88.81                                | 3.3                                                 | 25x40         |
| 63   | 5600             | 568LMH063MZDD  | 88.81                                | 3.3                                                 | 30x30         |
| 63   | 5600             | 568LMH063MZEC  | 88.81                                | 3.3                                                 | 35x25         |
| 63   | 6800             | 688LMH063MZCG  | 73.14                                | 3.6                                                 | 25x45         |
| 63   | 6800             | 688LMH063MZDE  | 73.14                                | 3.6                                                 | 30x35         |
| 63   | 6800             | 688LMH063MZED  | 73.14                                | 3.6                                                 | 35x30         |
| 63   | 8200             | 828LMH063MZDF  | 73.14                                | 3.9                                                 | 30x40         |
| 63   | 8200             | 828LMH063MZEE  | 73.14                                | 3.9                                                 | 35x35         |
| 63   | 10000            | 109LMH063MZDG  | 49.74                                | 4.4                                                 | 30x45         |
| 63   | 10000            | 109LMH063MZEZ  | 49.74                                | 4.4                                                 | 35x40         |
| 63   | 12000            | 129LMH063MZEG  | 365.71                               | 4.8                                                 | 35x45         |
| 63   | 15000            | 159LMH063MZEH  | 188.39                               | 5.4                                                 | 35x50         |
| 80   | 1200             | 128LMH080MZBC  | 365.71                               | 1.5                                                 | 22x25         |
| 80   | 1500             | 158LMH080MZBD  | 276.21                               | 1.7                                                 | 22x30         |
| 80   | 1500             | 158LMH080MZCC  | 276.21                               | 1.7                                                 | 25x25         |
| 80   | 1800             | 188LMH080MZBE  | 230.26                               | 1.8                                                 | 22x35         |
| 80   | 2200             | 228LMH080MZBF  | 188.394                              | 2.1                                                 | 22x40         |
| 80   | 2200             | 228LMH080MZCD  | 188.394                              | 2.1                                                 | 25x30         |
| 80   | 2700             | 278LMH080MZBG  | 92.104                               | 2.4                                                 | 22x45         |
| 80   | 2700             | 278LMH080MZCE  | 154.51                               | 2.4                                                 | 25x35         |
| 80   | 2700             | 278LMH080MZDC  | 154.51                               | 2.4                                                 | 30x25         |
| 80   | 3300             | 338LMH080MZBH  | 153.51                               | 2.6                                                 | 22x50         |
| 80   | 3300             | 338LMH080MZCF  | 153.51                               | 2.6                                                 | 25x40         |
| 80   | 3300             | 338LMH080MZDD  | 153.51                               | 2.6                                                 | 30x30         |
| 80   | 3300             | 338LMH080MZEC  | 153.51                               | 2.6                                                 | 35x25         |
| 80   | 3900             | 398LMH080MZCG  | 106.273                              | 3                                                   | 25x45         |
| 80   | 3900             | 398LMH080MZDE  | 106.273                              | 3                                                   | 30x35         |
| 80   | 4700             | 478LMH080MZCH  | 141.1                                | 3.3                                                 | 25x50         |
| 80   | 4700             | 478LMH080MZDF  | 88.184                               | 3.3                                                 | 30x40         |
| 80   | 4700             | 478LMH080MZED  | 88.184                               | 3.3                                                 | 35x30         |
| 80   | 5600             | 568LMH080MZDG  | 74.01                                | 3.7                                                 | 30x45         |
| 80   | 5600             | 568LMH080MZEE  | 74.01                                | 3.7                                                 | 35x35         |
| 80   | 6800             | 688LMH080MZDH  | 60.951                               | 3.9                                                 | 30x50         |
| 80   | 6800             | 688LMH080MZEZ  | 60.951                               | 3.9                                                 | 35x40         |
| 80   | 8200             | 828LMH080MZEG  | 60.95                                | 4.3                                                 | 35x45         |
| 100  | 820              | 827LMH100MZBC  | 404.357                              | 1.4                                                 | 22x25         |
| 100  | 1000             | 108LMH100MZBD  | 121.902                              | 1.7                                                 | 22x30         |
| 100  | 1200             | 128LMH100MZBD  | 276.31                               | 1.8                                                 | 22x30         |
| 100  | 1200             | 128LMH100MZCC  | 276.31                               | 1.8                                                 | 25x25         |
| 100  | 1500             | 158LMH100MZBE  | 221.05                               | 2.1                                                 | 22x35         |
| 100  | 1500             | 158LMH100MZCD  | 221.05                               | 2.1                                                 | 25x30         |
| 100  | 1800             | 188LMH100MZBF  | 184.207                              | 2.3                                                 | 22x40         |
| 100  | 1800             | 188LMH100MZCE  | 184.207                              | 2.3                                                 | 25x35         |
| 100  | 1800             | 188LMH100MZDC  | 184.207                              | 2.3                                                 | 30x25         |
| 100  | 2200             | 228LMH100MZCF  | 150.715                              | 2.6                                                 | 25x40         |
| 100  | 2200             | 228LMH100MZDD  | 150.715                              | 2.6                                                 | 30x30         |
| 100  | 2200             | 228LMH100MZEC  | 150.715                              | 2.6                                                 | 35x25         |
| 100  | 2700             | 278LMH100MZCG  | 122.805                              | 2.9                                                 | 25x45         |
| 100  | 2700             | 278LMH100MZDE  | 122.805                              | 2.9                                                 | 30x35         |
| 100  | 3300             | 338LMH100MZCH  | 100.48                               | 3.2                                                 | 25x50         |
| 100  | 3300             | 338LMH100MZDF  | 100.48                               | 3.2                                                 | 30x40         |
| 100  | 3300             | 338LMH100MZED  | 100.48                               | 3.2                                                 | 35x30         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+105°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|-----------------------------------------------------|---------------|
| 100  | 3900             | 398LMH100MZDG  | 85.02                                | 3.6                                                 | 30x45         |
| 100  | 3900             | 398LMH100MZEE  | 85.02                                | 3.6                                                 | 35x35         |
| 100  | 4700             | 478LMH100MZDH  | 70.547                               | 3.8                                                 | 30x50         |
| 100  | 5600             | 568LMH100MZEG  | 59.21                                | 4.1                                                 | 35x45         |
| 160  | 150              | 157LMH160MZBD  | 1657.86                              | 0.71                                                | 22x30         |
| 160  | 470              | 477LMH160MZBC  | 529.11                               | 1.4                                                 | 22x25         |
| 160  | 560              | 567LMH160MZBC  | 444.071                              | 1.4                                                 | 22x25         |
| 160  | 680              | 687LMH160MZBD  | 365.71                               | 1.7                                                 | 22x30         |
| 160  | 680              | 687LMH160MZCC  | 365.71                               | 1.7                                                 | 25x25         |
| 160  | 820              | 827LMH160MZBE  | 303.27                               | 2                                                   | 22x35         |
| 160  | 820              | 827LMH160MZCD  | 303.27                               | 2                                                   | 25x30         |
| 160  | 1000             | 108LMH160MZBF  | 248.68                               | 2.2                                                 | 22x40         |
| 160  | 1000             | 108LMH160MZCE  | 248.68                               | 2.2                                                 | 25x35         |
| 160  | 1000             | 108LMH160MZDC  | 248.68                               | 2.2                                                 | 30x25         |
| 160  | 1200             | 128LMH160MZCF  | 207.23                               | 2.3                                                 | 25x40         |
| 160  | 1200             | 128LMH160MZDD  | 207.23                               | 2.3                                                 | 30x30         |
| 160  | 1200             | 128LMH160MZEC  | 207.23                               | 2.33                                                | 35x25         |
| 160  | 1500             | 158LMH160MZCG  | 165.79                               | 2.5                                                 | 25x45         |
| 160  | 1500             | 158LMH160MZDE  | 165.79                               | 2.5                                                 | 30x35         |
| 160  | 1500             | 158LMH160MZED  | 165.786                              | 2.5                                                 | 35x30         |
| 160  | 1800             | 188LMH160MZCH  | 138.16                               | 2.7                                                 | 25x50         |
| 160  | 1800             | 188LMH160MZDF  | 138.16                               | 2.7                                                 | 30x40         |
| 160  | 1800             | 188LMH160MZED  | 138.16                               | 2.7                                                 | 35x30         |
| 160  | 2200             | 228LMH160MZDG  | 113.06                               | 2.9                                                 | 30x45         |
| 160  | 2200             | 228LMH160MZEE  | 113.06                               | 2.9                                                 | 35x35         |
| 160  | 2700             | 278LMH160MZDH  | 92.1                                 | 3.1                                                 | 30x50         |
| 160  | 2700             | 278LMH160MZEZ  | 92.1                                 | 3.1                                                 | 35x40         |
| 160  | 3300             | 338LMH160MZEG  | 75.358                               | 3.1                                                 | 35x45         |
| 160  | 3300             | 338LMH160MZEZ  | 75.358                               | 3.3                                                 | 35x50         |
| 200  | 390              | 397LMH200MZBC  | 637.64                               | 1.31                                                | 22x25         |
| 200  | 470              | 477LMH200MZBD  | 529.11                               | 1.44                                                | 22x30         |
| 200  | 560              | 567LMH200MZBD  | 444.071                              | 1.48                                                | 22x30         |
| 200  | 560              | 567LMH200MZCC  | 444.071                              | 1.48                                                | 25x25         |
| 200  | 680              | 687LMH200MZBF  | 365.71                               | 1.75                                                | 22x40         |
| 200  | 680              | 687LMH200MZCD  | 365.71                               | 1.75                                                | 25x30         |
| 200  | 820              | 827LMH200MZBF  | 303.27                               | 1.75                                                | 22x40         |
| 200  | 820              | 827LMH200MZBG  | 303.27                               | 2.04                                                | 22x45         |
| 200  | 820              | 827LMH200MZCE  | 303.27                               | 2.04                                                | 25x35         |
| 200  | 820              | 827LMH200MZDC  | 303.27                               | 1.92                                                | 30x25         |
| 200  | 1000             | 108LMH200MZBG  | 248.68                               | 2.04                                                | 22x45         |
| 200  | 1000             | 108LMH200MZBH  | 248.68                               | 2.3                                                 | 22x50         |
| 200  | 1000             | 108LMH200MZCG  | 248.68                               | 2.3                                                 | 25x45         |
| 200  | 1000             | 108LMH200MZDD  | 248.68                               | 2.3                                                 | 30x30         |
| 200  | 1000             | 108LMH200MZEC  | 248.68                               | 2.3                                                 | 35x25         |
| 200  | 1200             | 128LMH200MZCC  | 207.23                               | 2.65                                                | 25x45         |
| 200  | 1200             | 128LMH200MZCH  | 207.23                               | 2.65                                                | 25x50         |
| 200  | 1200             | 128LMH200MZDE  | 207.23                               | 2.65                                                | 30x35         |
| 200  | 1200             | 128LMH200MZEC  | 207.23                               | 2.3                                                 | 35x25         |
| 200  | 1200             | 128LMH200MZED  | 207.23                               | 2.65                                                | 35x30         |
| 200  | 1500             | 158LMH200MZCH  | 165.79                               | 2.57                                                | 25x50         |
| 200  | 1500             | 158LMH200MZDF  | 165.79                               | 2.8                                                 | 30x40         |
| 200  | 1500             | 158LMH200MZED  | 165.786                              | 2.49                                                | 35x30         |
| 200  | 1800             | 188LMH200MZDG  | 138.16                               | 2.68                                                | 30x45         |
| 200  | 1800             | 188LMH200MZEZ  | 138.16                               | 2.08                                                | 35x40         |
| 200  | 2200             | 228LMH200MZDH  | 113.036                              | 2.92                                                | 30x50         |
| 200  | 2200             | 228LMH200MZEZ  | 113.036                              | 2.92                                                | 35x40         |
| 200  | 2200             | 228LMH200MZEG  | 113.06                               | 3.48                                                | 35x45         |
| 200  | 2700             | 278LMH200MZEG  | 92.104                               | 3.27                                                | 35x45         |

# LMH

+105°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>+105°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|-----------------------------------------------------|---------------|
| 250  | 220              | 227LMH250MZBC  | 1130.62                              | 0.89                                                | 22x25         |
| 250  | 270              | 277LMH250MZBC  | 921.04                               | 1.1                                                 | 22x25         |
| 250  | 330              | 337LMH250MZBD  | 753.58                               | 1.2                                                 | 22x30         |
| 250  | 330              | 337LMH250MZCC  | 753.58                               | 1.2                                                 | 25x25         |
| 250  | 390              | 397LMH250MZBD  | 637.64                               | 1.3                                                 | 22x30         |
| 250  | 390              | 397LMH250MZBE  | 637.64                               | 1.3                                                 | 22x35         |
| 250  | 390              | 397LMH250MZCC  | 637.64                               | 1.3                                                 | 25x25         |
| 250  | 470              | 477LMH250MZBF  | 529.11                               | 1.4                                                 | 22x40         |
| 250  | 470              | 477LMH250MZBE  | 529.11                               | 1.4                                                 | 22x35         |
| 250  | 470              | 477LMH250MZCD  | 529.11                               | 1.4                                                 | 25x30         |
| 250  | 560              | 567LMH250MZBF  | 444.071                              | 1.4                                                 | 22x40         |
| 250  | 560              | 567LMH250MZCE  | 444.071                              | 1.49                                                | 25x35         |
| 250  | 560              | 567LMH250MZDC  | 444.071                              | 1.44                                                | 30x25         |
| 250  | 680              | 687LMH250MZBG  | 365.71                               | 1.7                                                 | 22x45         |
| 250  | 680              | 687LMH250MZBH  | 365.71                               | 1.7                                                 | 22x50         |
| 250  | 680              | 687LMH250MZCF  | 365.71                               | 1.73                                                | 25x40         |
| 250  | 680              | 687LMH250MZDD  | 365.71                               | 1.71                                                | 30x30         |
| 250  | 680              | 687LMH250MZEC  | 365.71                               | 1.7                                                 | 35x25         |
| 250  | 820              | 827LMH250MZCG  | 303.27                               | 2                                                   | 25x45         |
| 250  | 820              | 827LMH250MZDE  | 303.27                               | 2                                                   | 30x35         |
| 250  | 820              | 827LMH250MZED  | 303.27                               | 2                                                   | 35x30         |
| 250  | 1000             | 108LMH250MZCH  | 248.68                               | 2.2                                                 | 25x50         |
| 250  | 1000             | 108LMH250MZDF  | 248.68                               | 2.2                                                 | 30x40         |
| 250  | 1000             | 108LMH250MZED  | 248.68                               | 2.2                                                 | 35x30         |
| 250  | 1200             | 128LMH250MZDG  | 207.23                               | 2.3                                                 | 30x45         |
| 250  | 1200             | 128LMH250MZEE  | 207.23                               | 2.3                                                 | 35x35         |
| 250  | 1500             | 158LMH250MZDH  | 165.786                              | 2.3                                                 | 30x50         |
| 250  | 1500             | 158LMH250MZEF  | 165.786                              | 2.3                                                 | 35x40         |
| 250  | 1500             | 158LMH250MZEG  | 165.79                               | 2.5                                                 | 35x45         |
| 250  | 1800             | 188LMH250MZEG  | 138.16                               | 2.5                                                 | 35x45         |
| 250  | 1800             | 188LMH250MZEH  | 138.16                               | 2.7                                                 | 35x50         |
| 350  | 120              | 127LMH350MZBC  | 2072.33                              | 0.75                                                | 22x25         |
| 350  | 180              | 187LMH350MZBD  | 1381.55                              | 0.9                                                 | 22x30         |
| 350  | 180              | 187LMH350MZCC  | 1381.55                              | 0.9                                                 | 25x25         |
| 350  | 220              | 227LMH350MZBE  | 1130.62                              | 1                                                   | 22x35         |
| 350  | 220              | 227LMH350MZCD  | 1130.62                              | 1                                                   | 25x30         |
| 350  | 270              | 277LMH350MZBF  | 921.04                               | 1.1                                                 | 22x40         |
| 350  | 270              | 277LMH350MZCD  | 921.04                               | 1.1                                                 | 25x30         |
| 350  | 270              | 277LMH350MZDC  | 921.04                               | 1.1                                                 | 30x25         |
| 350  | 330              | 337LMH350MZBG  | 753.58                               | 1.2                                                 | 22x45         |
| 350  | 330              | 337LMH350MZCG  | 753.58                               | 1.2                                                 | 25x45         |
| 350  | 330              | 337LMH350MZDD  | 753.58                               | 1.2                                                 | 30x30         |
| 350  | 390              | 397LMH350MZCG  | 637.64                               | 1.3                                                 | 25x45         |
| 350  | 390              | 397LMH350MZDE  | 637.64                               | 1.3                                                 | 30x35         |
| 350  | 470              | 477LMH350MZCH  | 529.11                               | 1.4                                                 | 25x50         |
| 350  | 470              | 477LMH350MZDE  | 529.11                               | 1.4                                                 | 30x35         |
| 350  | 470              | 477LMH350MZED  | 529.11                               | 1.4                                                 | 35x30         |
| 350  | 560              | 567LMH350MZDG  | 444.071                              | 1.5                                                 | 30x45         |
| 350  | 560              | 567LMH350MZEE  | 444.071                              | 1.5                                                 | 35x35         |
| 350  | 680              | 687LMH350MZDH  | 365.71                               | 1.7                                                 | 30x50         |
| 350  | 680              | 687LMH350MZEF  | 365.71                               | 1.7                                                 | 35x40         |
| 350  | 820              | 827LMH350MZEG  | 303.27                               | 2                                                   | 35x45         |
| 400  | 100              | 107LMH400MZBC  | 2486.8                               | 0.7                                                 | 22x25         |
| 400  | 120              | 127LMH400MZBC  | 2072.33                              | 0.68                                                | 22x25         |
| 400  | 120              | 127LMH400MZBD  | 2072.33                              | 0.75                                                | 22x30         |
| 400  | 150              | 157LMH400MZBD  | 1657.86                              | 0.88                                                | 22x30         |
| 400  | 150              | 157LMH400MZCC  | 1657.86                              | 0.88                                                | 25x25         |
| 400  | 180              | 187LMH400MZBD  | 1381.55                              | 0.73                                                | 22x30         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+105°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|-----------------------------------------------------|---------------|
| 400  | 180              | 187LMH400MZBE  | 1381.55                              | 0.95                                                | 22x35         |
| 400  | 180              | 187LMH400MZCC  | 1381.55                              | 0.73                                                | 25x25         |
| 400  | 180              | 187LMH400MZCD  | 1381.55                              | 0.95                                                | 25x30         |
| 400  | 220              | 227LMH400MZBE  | 1130.62                              | 0.85                                                | 22x35         |
| 400  | 220              | 227LMH400MZBG  | 1130.62                              | 1.1                                                 | 22x45         |
| 400  | 220              | 227LMH400MZCD  | 1130.62                              | 0.85                                                | 25x30         |
| 400  | 220              | 227LMH400MZCE  | 1130.62                              | 1.1                                                 | 25x35         |
| 400  | 220              | 227LMH400MZDC  | 1130.62                              | 1.1                                                 | 30x25         |
| 400  | 270              | 277LMH400MZBF  | 921.04                               | 1                                                   | 22x40         |
| 400  | 270              | 277LMH400MZBH  | 921.04                               | 1.22                                                | 22x50         |
| 400  | 270              | 277LMH400MZCE  | 921.04                               | 1                                                   | 25x35         |
| 400  | 270              | 277LMH400MZCF  | 921.04                               | 1.22                                                | 25x40         |
| 400  | 270              | 277LMH400MZDC  | 921.04                               | 1                                                   | 30x25         |
| 400  | 270              | 277LMH400MZDD  | 921.04                               | 1.22                                                | 30x30         |
| 400  | 270              | 277LMH400MZEC  | 921.04                               | 1.22                                                | 35x25         |
| 400  | 330              | 337LMH400MZBH  | 753.58                               | 1.15                                                | 22x50         |
| 400  | 330              | 337LMH400MZCF  | 753.58                               | 1.15                                                | 25x40         |
| 400  | 330              | 337LMH400MZCG  | 753.58                               | 1.44                                                | 25x45         |
| 400  | 330              | 337LMH400MZDD  | 753.58                               | 1.44                                                | 30x30         |
| 400  | 330              | 337LMH400MZDE  | 753.58                               | 1.37                                                | 30x35         |
| 400  | 330              | 337LMH400MZEC  | 753.58                               | 1.15                                                | 35x25         |
| 400  | 330              | 337LMH400MZED  | 753.58                               | 1.44                                                | 35x30         |
| 400  | 390              | 397LMH400MZCG  | 637.64                               | 1.4                                                 | 25x45         |
| 400  | 390              | 397LMH400MZCH  | 637.64                               | 1.55                                                | 25x50         |
| 400  | 390              | 397LMH400MZDF  | 637.64                               | 1.58                                                | 30x40         |
| 400  | 390              | 397LMH400MZED  | 637.64                               | 1.55                                                | 35x30         |
| 400  | 470              | 477LMH400MZCH  | 529.11                               | 1.55                                                | 25x50         |
| 400  | 470              | 477LMH400MZDF  | 529.11                               | 1.55                                                | 30x40         |
| 400  | 470              | 477LMH400MZDG  | 529.11                               | 1.68                                                | 30x45         |
| 400  | 470              | 477LMH400MZED  | 529.11                               | 1.55                                                | 35x30         |
| 400  | 470              | 477LMH400MZEE  | 529.11                               | 1.68                                                | 35x35         |
| 400  | 560              | 567LMH400MZDG  | 444.071                              | 1.9                                                 | 30x45         |
| 400  | 560              | 567LMH400MZDH  | 444.071                              | 1.9                                                 | 30x50         |
| 400  | 560              | 567LMH400MZEE  | 444.071                              | 1.63                                                | 35x35         |
| 400  | 560              | 567LMH400MZEF  | 444.071                              | 1.9                                                 | 35x40         |
| 400  | 680              | 687LMH400MZDH  | 365.71                               | 1.8                                                 | 30x50         |
| 400  | 680              | 687LMH400MZEF  | 365.71                               | 1.8                                                 | 35x40         |
| 400  | 680              | 687LMH400MZEG  | 365.71                               | 2.12                                                | 35x45         |
| 400  | 820              | 827LMH400MZEG  | 303.27                               | 1.9                                                 | 35x45         |
| 400  | 820              | 827LMH400MZEH  | 303.27                               | 2.3                                                 | 35x50         |
| 450  | 68               | 686LMH450MZBC  | 365.71                               | 0.47                                                | 22x25         |
| 450  | 82               | 826LMH450MZBD  | 3032.68                              | 0.55                                                | 22x30         |
| 450  | 100              | 107LMH450MZBC  | 2486.8                               | 0.64                                                | 22x25         |
| 450  | 100              | 107LMH450MZCC  | 2486.8                               | 0.64                                                | 25x25         |
| 450  | 120              | 127LMH450MZBD  | 2072.33                              | 0.69                                                | 22x30         |
| 450  | 120              | 127LMH450MZBE  | 2072.33                              | 0.72                                                | 22x35         |
| 450  | 120              | 127LMH450MZCC  | 2072.33                              | 0.69                                                | 25x25         |
| 450  | 120              | 127LMH450MZCD  | 2072.33                              | 0.72                                                | 25x30         |
| 450  | 150              | 157LMH450MZBE  | 1657.86                              | 0.79                                                | 22x35         |
| 450  | 150              | 157LMH450MZCD  | 1657.86                              | 0.79                                                | 25x30         |
| 450  | 150              | 157LMH450MZDC  | 1657.86                              | 0.79                                                | 30x25         |
| 450  | 180              | 187LMH450MZBF  | 1381.55                              | 0.79                                                | 22x40         |
| 450  | 180              | 187LMH450MZBG  | 1381.55                              | 0.87                                                | 22x45         |
| 450  | 180              | 187LMH450MZCD  | 1381.55                              | 0.79                                                | 25x30         |
| 450  | 180              | 187LMH450MZCF  | 1381.55                              | 0.87                                                | 25x40         |
| 450  | 180              | 187LMH450MZDD  | 1381.55                              | 0.87                                                | 30x30         |
| 450  | 220              | 227LMH450MZBG  | 1130.62                              | 0.87                                                | 22x45         |
| 450  | 220              | 227LMH450MZCE  | 1130.62                              | 0.87                                                | 25x35         |

# LMH

+105°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>+105°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|-----------------------------------------------------|---------------|
| 450  | 220              | 227LMH450MZCG  | 1130.62                              | 1                                                   | 25x45         |
| 450  | 220              | 227LMH450MZDD  | 1130.62                              | 1                                                   | 30x30         |
| 450  | 220              | 227LMH450MZEC  | 1130.62                              | 1                                                   | 35x25         |
| 450  | 270              | 277LMH450MZBH  | 921.04                               | 1.05                                                | 22x50         |
| 450  | 270              | 277LMH450MZCF  | 921.04                               | 1.05                                                | 25x40         |
| 450  | 270              | 277LMH450MZCH  | 921.04                               | 1.19                                                | 25x50         |
| 450  | 270              | 277LMH450MZDD  | 921.04                               | 1.05                                                | 30x30         |
| 450  | 270              | 277LMH450MZDF  | 921.04                               | 1.19                                                | 30x40         |
| 450  | 270              | 277LMH450MZEC  | 921.04                               | 1.05                                                | 35x25         |
| 450  | 270              | 277LMH450MZED  | 921.04                               | 1.19                                                | 35x30         |
| 450  | 330              | 337LMH450MZCH  | 753.58                               | 1.2                                                 | 25x50         |
| 450  | 330              | 337LMH450MZDE  | 753.58                               | 1.2                                                 | 30x35         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | Maximum RMS Ripple Current (A)<br>120 Hz,<br>+105°C | Dims DxL (mm) |
|------|------------------|----------------|--------------------------------------|-----------------------------------------------------|---------------|
| 450  | 330              | 337LMH450MZDG  | 753.58                               | 1.38                                                | 30x45         |
| 450  | 330              | 337LMH450MZED  | 753.58                               | 1.38                                                | 35x30         |
| 450  | 330              | 337LMH450MZEE  | 753.58                               | 1.38                                                | 35x35         |
| 450  | 390              | 397LMH450MZDF  | 637.64                               | 1.38                                                | 30x40         |
| 450  | 390              | 397LMH450MZDH  | 637.64                               | 1.74                                                | 30x50         |
| 450  | 390              | 397LMH450MZEE  | 637.64                               | 1.55                                                | 35x35         |
| 450  | 470              | 477LMH450MZDG  | 529.11                               | 1.55                                                | 30x45         |
| 450  | 470              | 477LMH450MZEF  | 529.11                               | 1.55                                                | 35x40         |
| 450  | 470              | 477LMH450MZEG  | 529.11                               | 1.74                                                | 35x45         |
| 450  | 560              | 567LMH450MZEG  | 444.071                              | 1.7                                                 | 35x45         |
| 450  | 560              | 567LMH450MZEH  | 444.071                              | 1.9                                                 | 35x50         |
| 450  | 680              | 687LMH450MZEH  | 365.71                               | 1.91                                                | 35x50         |