

LBA

+85°C Snap-Mount Aluminum Electrolytic Capacitors



For all general purpose high CV applications

FEATURES

- High Ripple Currents Ratings
- Rugged Design
- Large Case Size Selection
- Capacitance Range: 47μF to 47,000μF
- Voltage range: 10 WVDC to 500 WVDC
- Solvent Tolerant End Seal Standard

SPECIFICATIONS

| Capacitance Tolerance | | ±20% at 120Hz, 20°C | | | | | | | | | | | | | | |
|-----------------------------------|---|---|------|------|------|------|------|------------------|-------|---|-------|----------------|-----|-----|-----|-----|
| Operating Temperature Range | | -40°C to +85°C | | | | | | | | | | -25°C to +85°C | | | | |
| Dissipation Factor 120Hz, 20°C | WVDC | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 500 |
| | | tan δ | .5 | .4 | .3 | .25 | .2 | .15 | .15 | .15 | .1 | .1 | *.1 | .15 | .15 | .15 |
| | | *.15 for D=35 and 40mm | | | | | | | | | | | | | | |
| Impedance Ratio 120Hz | WVDC | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 500 |
| | -25°C/20°C | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 6 | 4 | 4 | 4 | 8 | 8 | 8 | 8 |
| | -40°C/20°C | 15 | 15 | 10 | 8 | 6 | 6 | 6 | 6 | 12 | 12 | 12 | - | - | - | - |
| Leakage Current | WVDC | ≤500 WVDC | | | | | | | | | | | | | | |
| | Time | 5 minutes | | | | | | | | | | | | | | |
| | | .02CV or 2000μA whichever is smaller | | | | | | | | | | | | | | |
| Load Life | 2,000 hours at 85°C with rated voltage and ripple current | | | | | | | | | | | | | | | |
| | | Capacitance change Dissipation factor Leakage current | | | | | | | | ≤ 20% of initial measured value ≤200% of initial specified value 100% < Initial specified value | | | | | | |
| Shelf life | 500 hours at +85°C with no voltage applied. Units will meet load life specifications | | | | | | | | | | | | | | | |
| Ripple Current Multipliers | | Frequency (Hz) | | | | | | Temperature (°C) | | | | | | | | |
| | WVDC | 60 | 120 | 300 | 1K | 10K | 100K | +85°C | +70°C | +60°C | +45°C | | | | | |
| | 6.3-50 | .95 | 1.0 | 1.07 | 1.13 | 1.19 | 1.2 | 1.0 | 1.15 | 1.3 | 1.48 | | | | | |
| | 63-100 | .92 | 1.0 | 1.17 | 1.32 | 1.45 | 1.5 | 1.0 | 1.15 | 1.3 | 1.48 | | | | | |
| | 160-250 | .81 | 1.0 | 1.16 | 1.31 | 1.41 | 1.43 | 1.0 | 1.15 | 1.3 | 1.48 | | | | | |
| 350-500 | .77 | 1.0 | 1.03 | 1.05 | 1.08 | 1.08 | 1.0 | 1.15 | 1.3 | 1.48 | | | | | | |

SPECIAL ORDER OPTIONS

(See Page 33 to 37)

- Special tolerances: ±10% (K), -10% + 30% (Q)
- Epoxy end seal



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Aluminum Electrolytic

PHYSICAL DIMENSIONS

| WVDC (SV) μF | 10 (13) | 16 (20) | 25 (32) | 35 (44) | 50 (63) | 63 (79) | 80 (100) | 100 (125) | 160 (200) | 200 (250) | 250 (300) | 350 (400) | 400 (450) | 450 (500) | 500 (550) |
|-----------------|---------|---------|----------------|-------------------------|----------------|---------|----------|----------------|-------------------------|----------------------------------|-------------------------|----------------|----------------|-----------|----------------------------------|
| 47 | | | | | | | | | | | | | | 22x25 | |
| 68 | | | | | | | | | | | | | | 25x25 | |
| 100 | | | | | | | | | | | | 22x30 25x25 | 22x30 | 22x35 | 22x40 25x30 30x25 |
| 150 | | | | | | | | | | | 25x20 | 25x30 | 22x40 25x30 | 25x40 | 22x50 25x40 30x35 35x30 |
| 220 | | | | | | | | | 22x20 | 22x25 25x20 | 22x30 25x25 30x20 | 30x30 | 22x50 25x40 | 30x40 | 25x50 30x45 35x35 |
| 330 | | | | | | | | | 22x25 | 22x30 25x25 | 22x40 25x30 30x25 | 30x40 35x30 | 30x45 | 35x40 | 35x45 |
| 470 | | | | | | | | | 25x25 | 22x40 25x30 25x35 30x25 | 22x50 25x40 | 30x30 35x40 | 35x45 40x35 | 35x50 | |
| 560 | | | | | | | | | | 25x35 | 30x35 | | | | |
| 680 | | | | | | | | 22x25 | 30x25 | 25x40 35x25 | 30x35 30x40 35x30 | | | | |
| 820 | | | | | | | | | | 30x40 | 30x45 35x35 | | | | |
| 1000 | | | | | | | 22x25 | 22x35 25x25 | 30x30 30x35 35x25 | 30x45 35x30 35x35 | 30x45 30x50 35x40 | | | | |
| 1200 | | | | | | | | | 30x35 35x30 | 30x45 30x50 35x35 35x40 | 35x45 35x50 | | | | |
| 1500 | | | | | | 22x25 | 25x25 | 25x35 | 35x35 | 35x40 35x45 | 35x50 | | | | |
| 1800 | | | | | | | | | 30x50 35x40 | 35x45 35x50 | | | | | |
| 2200 | | | 25x20 | 22x25 | 25x25 | 22x40 | 25x45 | 35x50 | 35x50 40x40 | | | | | | |
| 3300 | | | 22x25 | 22x30 25x25 | 25x35 | 25x45 | 35x35 | 35x35 | | | | | | | |
| 4700 | | 22x25 | 22x30 25x25 | 22x40 25x35 30x25 | 25x45 | 25x45 | 35x30 | 35x45 | | | | | | | |
| 5600 | | | 22x30 | | | | | | | | | | | | |
| 6800 | | 22x35 | 22x35 25x25 | 22x40 25x30 30x25 | 25x45 35x30 | 35x35 | 35x45 | | | | | | | | |
| 8200 | 22x25 | 22x30 | 22x35 | 25x35 | 30x40 | | | | | | | | | | |
| 10000 | 22x30 | 22x45 | 25x40 | 35x35 | 35x45 | | | | | | | | | | |
| 15000 | 25x25 | 22x40 | 25x45 | 30x40 | 35x35 | | | | | | | | | | |
| 22000 | 30x25 | 22x50 | 35x35 | 35x45 | | | | | | | | | | | |
| 33000 | 30x40 | 35x50 | | | | | | | | | | | | | |
| 47000 | 30x50 | 35x40 | | | | | | | | | | | | | |

Convert to inches, divide by 25.4.

DxL(mm)

STANDARD PART LISTING

| Capacitance (µF) | VVDC | ic PART NUMBER | Maximum ESR mΩ 120Hz, +20°C | Maximum RMS Ripple Current (A) 120Hz, +85°C | Dimensions D x L (mm) |
|------------------|------|----------------|--------------------------------|--|-----------------------|
| 47 | 450 | 476LBA450M2BC | 5291.055 | 0.46 | 22x25 |
| 68 | 450 | 686LBA450M2CC | 3657.053 | 0.6 | 25x25 |
| 100 | 350 | 107LBA350M2BD | 3315.728 | 0.65 | 22x30 |
| 100 | 350 | 107LBA350M2CC | 3315.728 | 0.63 | 25x25 |
| 100 | 400 | 107LBA400M2BD | 3315.728 | 0.68 | 22x30 |
| 100 | 450 | 107LBA450M2BE | 3315.728 | 0.77 | 22x35 |
| 100 | 500 | 107LBA500M2BF | 2486.796 | 0.85 | 22x40 |
| 100 | 500 | 107LBA500M2CD | 2486.796 | 0.81 | 25x30 |
| 100 | 500 | 107LBA500M2DC | 2486.796 | 0.84 | 30x25 |
| 150 | 250 | 157LBA250M2CA | 1105.243 | 0.85 | 25x20 |
| 150 | 350 | 157LBA350M2CD | 1657.864 | 0.97 | 25x30 |
| 150 | 400 | 157LBA400M2BF | 1657.864 | 0.94 | 22x40 |
| 150 | 400 | 157LBA400M2CD | 1657.864 | 0.89 | 25x30 |
| 150 | 450 | 157LBA450M2CF | 1657.864 | 1.08 | 25x40 |
| 150 | 500 | 157LBA500M2BH | 1657.864 | 1.15 | 22x50 |
| 150 | 500 | 157LBA500M2CF | 1657.864 | 1.12 | 25x40 |
| 150 | 500 | 157LBA500M2DE | 1657.864 | 1.18 | 30x35 |
| 150 | 500 | 157LBA500M2ED | 1657.864 | 1.22 | 35x30 |
| 220 | 160 | 227LBA160M2BA | 753.575 | 1 | 22x20 |
| 220 | 200 | 227LBA200M2BC | 753.575 | 1.14 | 22x25 |
| 220 | 200 | 227LBA200M2CA | 753.575 | 1.1 | 25x20 |
| 220 | 250 | 227LBA250M2BD | 753.575 | 1.2 | 22x30 |
| 220 | 250 | 227LBA250M2CC | 753.575 | 1.15 | 25x25 |
| 220 | 250 | 227LBA250M2DA | 753.575 | 1.1 | 30x20 |
| 220 | 350 | 227LBA350M2DD | 1130.362 | 1.29 | 30x30 |
| 220 | 400 | 227LBA400M2BH | 1130.362 | 1.26 | 22x50 |
| 220 | 400 | 227LBA400M2CF | 1130.362 | 1.22 | 25x40 |
| 220 | 450 | 227LBA450M2DF | 1130.362 | 1.44 | 30x40 |
| 220 | 500 | 227LBA500M2CH | 1130.362 | 1.5 | 25x50 |
| 220 | 500 | 227LBA500M2DG | 1130.362 | 1.59 | 30x45 |
| 220 | 500 | 227LBA500M2EE | 1130.362 | 1.57 | 35x35 |
| 330 | 160 | 337LBA160M2BC | 502.383 | 1.2 | 22x25 |
| 330 | 200 | 337LBA200M2BD | 502.383 | 1.48 | 22x30 |
| 330 | 200 | 337LBA200M2CC | 502.383 | 1.48 | 25x25 |
| 330 | 250 | 337LBA250M2BF | 502.383 | 1.72 | 22x40 |
| 330 | 250 | 337LBA250M2CD | 502.383 | 1.67 | 25x30 |
| 330 | 250 | 337LBA250M2DC | 502.383 | 1.61 | 30x25 |
| 330 | 350 | 337LBA350M2DF | 753.575 | 1.72 | 30x40 |

| Capacitance (µF) | VVDC | ic PART NUMBER | Maximum ESR mΩ 120Hz, +20°C | Maximum RMS Ripple Current (A) 120Hz, +85°C | Dimensions D x L (mm) |
|------------------|------|----------------|--------------------------------|--|-----------------------|
| 330 | 350 | 337LBA350M2ED | 753.575 | 1.88 | 35x30 |
| 330 | 400 | 337LBA400M2DG | 753.575 | 1.74 | 30x45 |
| 330 | 450 | 337LBA450M2EF | 753.575 | 1.92 | 35x40 |
| 330 | 500 | 337LBA500M2EG | 753.575 | 2.13 | 35x45 |
| 470 | 160 | 477LBA160M2CC | 352.737 | 1.52 | 25x25 |
| 470 | 200 | 477LBA200M2BF | 352.737 | 2.02 | 22x40 |
| 470 | 200 | 477LBA200M2CD | 352.737 | 1.91 | 25x30 |
| 470 | 200 | 477LBA200M2CE | 352.737 | 1.8 | 25x35 |
| 470 | 200 | 477LBA200M2DC | 352.737 | 1.97 | 30x25 |
| 470 | 250 | 477LBA250M2BH | 352.737 | 2.08 | 22x50 |
| 470 | 250 | 477LBA250M2CF | 352.737 | 2.03 | 25x40 |
| 470 | 250 | 477LBA250M2DD | 352.737 | 1.97 | 30x30 |
| 470 | 350 | 477LBA350M2EF | 529.106 | 2.3 | 35x40 |
| 470 | 400 | 477LBA400M2EG | 529.106 | 2.23 | 35x45 |
| 470 | 400 | 477LBA400M2FE | 529.106 | 2.16 | 40x35 |
| 470 | 450 | 477LBA450M2EH | 529.106 | 2.5 | 35x50 |
| 560 | 200 | 567LBA200M2CE | 296.047 | 2.22 | 25x35 |
| 560 | 250 | 567LBA250M2DE | 296.047 | 2.3 | 30x35 |
| 680 | 100 | 687LBA100M2BC | 365.705 | 1.85 | 22x25 |
| 680 | 160 | 687LBA160M2DC | 243.804 | 2.1 | 30x25 |
| 680 | 200 | 687LBA200M2CF | 243.804 | 2.43 | 25x40 |
| 680 | 200 | 687LBA200M2EC | 365.705 | 2.3 | 35x25 |
| 680 | 250 | 687LBA250M2DE | 243.804 | 2.4 | 30x35 |
| 680 | 250 | 687LBA250M2DF | 243.804 | 2.55 | 30x40 |
| 680 | 250 | 687LBA250M2ED | 365.705 | 2.48 | 35x30 |
| 820 | 200 | 827LBA200M2DF | 202.179 | 2.85 | 30x40 |
| 820 | 250 | 827LBA250M2DG | 202.179 | 2.9 | 30x45 |
| 820 | 250 | 827LBA250M2EE | 303.268 | 2.83 | 35x35 |
| 1000 | 80 | 108LBA080M2BC | 248.680 | 1.65 | 22x25 |
| 1000 | 100 | 108LBA100M2BE | 248.680 | 2.08 | 22x35 |
| 1000 | 100 | 108LBA100M2CC | 248.680 | 2.03 | 25x25 |
| 1000 | 160 | 108LBA160M2DD | 165.786 | 2.8 | 30x30 |
| 1000 | 160 | 108LBA160M2DE | 165.786 | 2.77 | 30x35 |
| 1000 | 160 | 108LBA160M2EC | 248.680 | 2.8 | 35x25 |
| 1000 | 200 | 108LBA200M2DG | 165.786 | 3.42 | 30x45 |
| 1000 | 200 | 108LBA200M2ED | 248.680 | 3.42 | 35x30 |
| 1000 | 200 | 108LBA200M2EE | 248.680 | 3.35 | 35x35 |
| 1000 | 250 | 108LBA250M2DG | 165.786 | 3 | 30x45 |

STANDARD PART LISTING

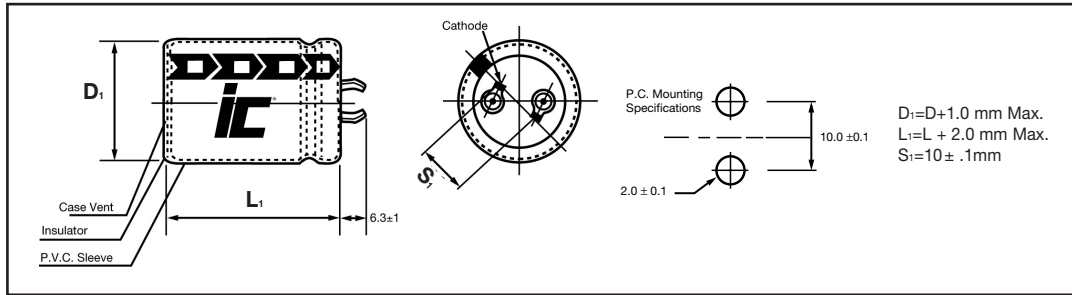
| Capacitance (µF) | WVDC | IC [®] PART NUMBER | Maximum ESR mΩ 120Hz,+20°C | Maximum RMS Ripple Current (A) 120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|-----------------------------|-------------------------------|---|---------------------|
| 1000 | 250 | 108LBA250M2DH | 165.786 | 3.65 | 30x50 |
| 1000 | 250 | 108LBA250M2EF | 248.680 | 3.58 | 35x40 |
| 1200 | 160 | 128LBA160M2DE | 138.155 | 3.2 | 30x35 |
| 1200 | 160 | 128LBA160M2ED | 207.233 | 3.2 | 35x30 |
| 1200 | 200 | 128LBA200M2DG | 138.155 | 3.4 | 30x45 |
| 1200 | 200 | 128LBA200M2DH | 138.155 | 3.4 | 30x50 |
| 1200 | 200 | 128LBA200M2EE | 207.233 | 3.54 | 35x35 |
| 1200 | 200 | 128LBA200M2EF | 207.233 | 3.47 | 35x40 |
| 1200 | 250 | 128LBA250M2EG | 207.233 | 3.5 | 35x45 |
| 1500 | 63 | 158LBA063M2BC | 165.786 | 2 | 22x25 |
| 1500 | 80 | 158LBA080M2CC | 165.786 | 2.15 | 25x25 |
| 1500 | 100 | 158LBA100M2CE | 165.786 | 2.76 | 25x35 |
| 1500 | 160 | 158LBA160M2EE | 165.786 | 3.48 | 35x35 |
| 1500 | 200 | 158LBA200M2EF | 165.786 | 3.8 | 35x40 |
| 1500 | 200 | 158LBA200M2EG | 165.786 | 4.1 | 35x45 |
| 1500 | 250 | 158LBA250M2EH | 165.786 | 4 | 35x50 |
| 1800 | 160 | 188LBA160M2DH | 92.104 | 4.1 | 30x50 |
| 1800 | 160 | 188LBA160M2EF | 138.155 | 4.1 | 35x40 |
| 1800 | 200 | 188LBA200M2EG | 138.155 | 4.2 | 35x45 |
| 1800 | 200 | 188LBA200M2EH | 138.155 | 4.38 | 35x50 |
| 2200 | 35 | 228LBA035M3CA | 188.394 | 1.7 | 25x20 |
| 2200 | 50 | 228LBA050M2BC | 150.715 | 2 | 22x25 |
| 2200 | 63 | 228LBA063M2CC | 113.036 | 2.3 | 25x25 |
| 2200 | 80 | 228LBA080M2BF | 113.036 | 2.71 | 22x40 |
| 2200 | 80 | 228LBA080M2CE | 113.036 | 2.66 | 25x35 |
| 2200 | 100 | 228LBA100M2CG | 113.036 | 3.41 | 25x45 |
| 2200 | 100 | 228LBA100M2DE | 113.036 | 3.35 | 30x35 |
| 2200 | 100 | 228LBA100M2ED | 113.036 | 3.28 | 35x30 |
| 2200 | 160 | 228LBA160M2EH | 113.036 | 4.97 | 35x50 |
| 2200 | 160 | 228LBA160M4FF | 113.036 | 4.57 | 40x40 |
| 2200 | 200 | 228LBA200M2EH | 113.036 | 4.7 | 35x50 |
| 3300 | 35 | 338LBA035M2BC | 125.596 | 2.2 | 22x25 |
| 3300 | 50 | 338LBA050M2BD | 100.477 | 2.4 | 22x30 |
| 3300 | 50 | 338LBA050M2CC | 100.477 | 2.35 | 25x25 |
| 3300 | 63 | 338LBA063M2CE | 75.357 | 2.81 | 25x35 |
| 3300 | 80 | 338LBA080M2CG | 75.357 | 3.41 | 25x45 |
| 3300 | 80 | 338LBA080M2ED | 75.357 | 3.28 | 35x30 |
| 3300 | 100 | 338LBA100M2EE | 75.357 | 3.58 | 35x35 |

| Capacitance (µF) | WVDC | IC [®] PART NUMBER | Maximum ESR mΩ 120Hz,+20°C | Maximum RMS Ripple Current (A) 120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|-----------------------------|-------------------------------|---|---------------------|
| 3300 | 100 | 338LBA100M2FD | 75.357 | 3.5 | 40x30 |
| 4700 | 25 | 478LBA025M2BC | 105.821 | 2.2 | 22x25 |
| 4700 | 35 | 478LBA035M2BD | 88.184 | 2.4 | 22x30 |
| 4700 | 35 | 478LBA035M2CC | 88.184 | 2.35 | 25x25 |
| 4700 | 50 | 478LBA050M2BF | 70.547 | 2.91 | 22x40 |
| 4700 | 50 | 478LBA050M2CE | 70.547 | 2.86 | 25x35 |
| 4700 | 50 | 478LBA050M2DC | 70.547 | 2.8 | 30x25 |
| 4700 | 63 | 478LBA063M2CE | 52.911 | 3.59 | 25x35 |
| 4700 | 63 | 478LBA063M2CG | 52.911 | 3.25 | 25x45 |
| 4700 | 63 | 478LBA063M2DD | 52.911 | 3.2 | 30x30 |
| 4700 | 63 | 478LBA063M2EC | 52.911 | 3.13 | 35x25 |
| 4700 | 80 | 478LBA080M2BE | 52.911 | 3.5 | 22x35 |
| 4700 | 80 | 478LBA080M2ED | 52.911 | 3.3 | 35x30 |
| 4700 | 80 | 478LBA080M2EE | 52.911 | 3.73 | 35x35 |
| 4700 | 100 | 478LBA100M2EG | 52.911 | 4.3 | 35x45 |
| 4700 | 100 | 478LBA100M2FE | 52.911 | 4.22 | 40x35 |
| 5600 | 25 | 568LBA025M2BD | 88.814 | 2.4 | 22x30 |
| 6800 | 25 | 688LBA025M2BE | 73.141 | 2.6 | 22x35 |
| 6800 | 25 | 688LBA025M2CC | 73.141 | 2.55 | 25x25 |
| 6800 | 35 | 688LBA035M2BE | 60.951 | 2.9 | 22x35 |
| 6800 | 35 | 688LBA035M2BF | 60.951 | 3.06 | 22x40 |
| 6800 | 35 | 688LBA035M2CD | 60.951 | 3.01 | 25x30 |
| 6800 | 35 | 688LBA035M2DC | 60.951 | 2.95 | 30x25 |
| 6800 | 50 | 688LBA050M2CG | 60.951 | 3.86 | 25x45 |
| 6800 | 50 | 688LBA050M2ED | 60.951 | 3.73 | 35x30 |
| 6800 | 63 | 688LBA063M2EE | 36.571 | 4.15 | 35x35 |
| 6800 | 80 | 688LBA080M2EG | 36.571 | 4.8 | 35x45 |
| 8200 | 16 | 828LBA016M2BC | 80.871 | 2.37 | 22x25 |
| 8200 | 25 | 828LBA025M2BE | 60.654 | 3.31 | 22x35 |
| 8200 | 35 | 828LBA035M2CE | 50.545 | 3.45 | 25x35 |
| 8200 | 50 | 828LBA050M2DF | 40.436 | 4.35 | 30x40 |
| 10000 | 16 | 109LBA016M2BD | 66.315 | 2.84 | 22x30 |
| 10000 | 16 | 109LBA016M2CC | 66.315 | 2.76 | 25x25 |
| 10000 | 25 | 109LBA025M2BG | 49.736 | 3.4 | 22x45 |
| 10000 | 25 | 109LBA025M2CE | 49.736 | 3.32 | 25x35 |
| 10000 | 25 | 109LBA025M2DC | 49.736 | 3.31 | 30x25 |
| 10000 | 35 | 109LBA035M2CF | 41.447 | 4.06 | 25x40 |
| 10000 | 35 | 109LBA035M2DD | 41.447 | 4 | 30x30 |

STANDARD PART LISTING

| Capacitance (μF) | WVDC | ic PART NUMBER | Maximum ESR mΩ 120Hz, +20°C | Maximum RMS Ripple Current (A) 120Hz, +85°C | Dimensions DxL (mm) |
|------------------|------|----------------|--------------------------------|--|---------------------|
| 10000 | 35 | 109LBA035M2EC | 41.447 | 3.93 | 35x25 |
| 10000 | 50 | 109LBA050M2EE | 33.157 | 4.7 | 35x35 |
| 10000 | 63 | 109LBA063M2EG | 24.868 | 5.2 | 35x45 |
| 15000 | 10 | 159LBA010M2CC | 55.262 | 2.76 | 25x25 |
| 15000 | 16 | 159LBA016M2BF | 44.210 | 3.94 | 22x40 |
| 15000 | 16 | 159LBA016M2DC | 44.210 | 3.51 | 30x25 |
| 15000 | 25 | 159LBA025M2CG | 33.157 | 4.5 | 25x45 |
| 15000 | 25 | 159LBA025M2ED | 33.157 | 4.39 | 35x30 |
| 15000 | 35 | 159LBA035M2DF | 27.631 | 5.07 | 30x40 |
| 15000 | 35 | 159LBA035M2EE | 27.631 | 5 | 35x35 |
| 15000 | 50 | 159LBA050M2EG | 22.105 | 5.9 | 35x45 |
| 22000 | 10 | 229LBA010M2DC | 37.679 | 3.49 | 30x25 |

| Capacitance (μF) | WVDC | ic PART NUMBER | Maximum ESR mΩ 120Hz, +20°C | Maximum RMS Ripple Current (A) 120Hz, +85°C | Dimensions DxL (mm) |
|------------------|------|----------------|--------------------------------|--|---------------------|
| 22000 | 16 | 229LBA016M2BH | 30.143 | 5.23 | 22x50 |
| 22000 | 16 | 229LBA016M2DD | 30.143 | 4.45 | 30x30 |
| 22000 | 16 | 229LBA016M2EC | 30.143 | 4.13 | 35x25 |
| 22000 | 25 | 229LBA025M2EE | 22.607 | 5.73 | 35x35 |
| 22000 | 25 | 229LBA025M2FD | 22.607 | 5.65 | 40x30 |
| 22000 | 35 | 229LBA035M2EG | 18.839 | 6.25 | 35x45 |
| 33000 | 16 | 339LBA016M2DF | 20.095 | 5.8 | 30x40 |
| 33000 | 16 | 339LBA016M2ED | 20.095 | 5.15 | 35x30 |
| 33000 | 25 | 339LBA025M2EH | 15.071 | 7.2 | 35x50 |
| 47000 | 16 | 479LBA016M2DH | 14.109 | 6.78 | 30x50 |
| 47000 | 16 | 479LBA016M2EF | 14.109 | 6.71 | 35x40 |



| CASE DIMENSIONS CODE LAST TWO LETTERS OF PART NUMBERS (DxL)mm | Letter Group | | | | | | | |
|---|--------------|----|----|----|----|----|----|----|
| | A | B | C | D | E | F | G | H |
| | 20 | 22 | 25 | 30 | 35 | 40 | 45 | 50 |