



FEATURES

- High ripple Current Ratings
 - Large Case Size Selection
 - Extended Life
- High Voltage
 - Lead free Leads
 - Rugged Design

SPECIFICATIONS

| | | | | | | | | | | | | | | | |
|--|---|---|------|------|------|------|-------------------------|--|------|-----------------------|-----|-----|-----|-----|--|
| Capacitance Tolerance | | ±20% at 120Hz, 20°C | | | | | | | | | | | | | |
| Operating Temperature Range | | -40°C to +85°C | | | | | | | | -25°C to +85°C | | | | | |
| Dissipation Factor | WVDC | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | |
| | tan δ | .4 | .3 | .25 | .2 | .15 | .15 | .15 | .1* | .1* | .1* | .15 | .15 | .15 | |
| <small>*Note: .15 for 35mm diameters</small> | | | | | | | | | | | | | | | |
| Impedance Ratio 120Hz | WVDC | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | |
| | -25°C/20°C | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 8 | 8 | |
| | -40°C/20°C | 15 | 10 | 8 | 6 | 6 | 5 | 5 | - | - | - | - | - | - | |
| Leakage Current | WVDC | ≤450 WVDC | | | | | | | | | | | | | |
| | Time | 5 minutes | | | | | | | | | | | | | |
| | | .02 CV or 3mA whichever is smaller | | | | | | | | | | | | | |
| Load Life | 3,000 hours at +85°C with rated WVDC and rated ripple current | | | | | | | | | | | | | | |
| | | Capacitance change Dissipation factor Leakage current | | | | | | ≤ 20% of initial measured value ≤200% of initial specified value ≤100% Initial specified value | | | | | | | |
| Shelf life | 1,000 hours at 85°C with no voltage applied. Units will meet load life specifications. | | | | | | | | | | | | | | |
| Ripple Current Multipliers | | Frequency (Hz) | | | | | Temperature (°C) | | | | | | | | |
| | WVDC | 50 | 120 | 300 | 1k | 10k+ | +85C | +70C | +60C | +45C | | | | | |
| | 16 to 50 | .95 | 1.0 | 1.03 | 1.05 | 1.08 | 1.0 | 1.32 | 1.5 | 1.73 | | | | | |
| | 6.3 to 100 | .92 | 1.0 | 1.07 | 1.13 | 1.19 | 1.0 | 1.32 | 1.5 | 1.73 | | | | | |
| | 160 to 250 | .81 | 1.0 | 1.17 | 1.32 | 1.45 | 1.0 | 1.32 | 1.5 | 1.73 | | | | | |
| 350 to 450 | .77 | 1.0 | 1.16 | 1.13 | 1.41 | 1.0 | 1.32 | 1.5 | 1.73 | | | | | | |

SPECIAL ORDER OPTIONS

(See pages 33 thru 37)

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

PHYSICAL DIMENSIONS

| WVDC (SV) μF | 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) |
|-----------------|---------|---------|---------|---------|---------|----------|-----------|----------------|----------------------------------|-------------------------|----------------------------------|---|---|
| 82 | | | | | | | | | | | → | 22x25 | 22x30 |
| 100 | | | | | | | | | | | → | 22x25 | 22x30 25x25 22x35 25x25 25x30 30x25 |
| 120 | | | | | | | | | | | → | 22x30 25x25 | 22x30 25x25 22x40 25x30 30x25 |
| 150 | | | | | | | | | | | → | 22x30 25x25 | 22x35 25x30 22x45 25x35 30x30 |
| 180 | | | | | | | | | | | → | 22x35 25x30 30x25 | 22x40 25x35 22x50 25x40 30x30 35x25 |
| 220 | | | | | | | | | → | 22x25 | 22x25 | 22x40 25x35 30x25 | 22x50 25x40 30x30 35x25 25x45 30x35 35x30 |
| 270 | | | | | | | | | → | 22x25 | 22x30 25x25 | 22x50 25x40 30x35 30x30 35x25 | 25x40 30x35 25x25 30x40 |
| 330 | | | | | | | | | → | 22x25 | 22x30 25x25 | 22x35 25x30 | 25x45 25x50 30x40 35x30 30x45 35x35 |
| 390 | | | | | | | | | → | 22x25 | 22x30 25x25 | 22x35 25x30 30x25 | 25x50 30x40 35x35 35x40 |
| 470 | | | | | | | | | → | 22x30 25x25 | 22x35 25x30 30x25 | 22x40 25x35 30x25 35x25 | 30x40 35x40 35x45 |
| 560 | | | | | | | | | → | 22x35 25x25 | 22x40 25x35 30x25 | 22x50 25x40 30x30 35x25 | 30x50 35x40 35x45 |
| 680 | | | | | | | | | → | 22x40 25x30 30x25 | 22x45 25x35 30x30 35x25 | 25x45 30x35 35x30 | 35x45 35x50 |
| 820 | | | | | | | | | → | 22x45 25x35 30x30 | 25x40 30x30 35x25 | 25x50 30x40 35x30 | |
| 1000 | | | | | | → | 22x25 | 22x30 25x25 | 22x50 25x40 30x30 35x25 | 25x50 30x35 35x30 | 30x45 35x35 30x50 | | |

Convert to inches, divide by 25.4.

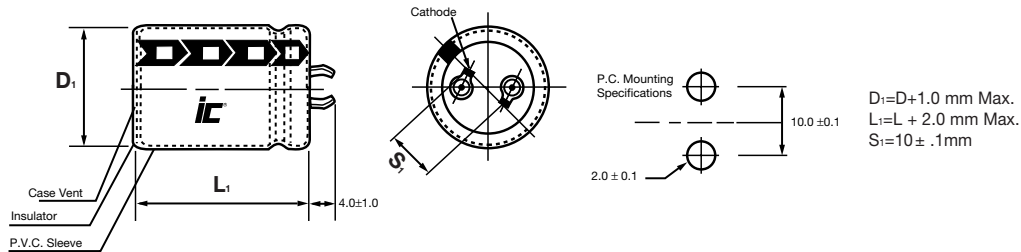
DxL(mm)

PHYSICAL DIMENSIONS

| WVDC (SV) μF | 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) |
|-----------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------|-----------|-----------|-----------|-----------|-----------|
| 1200 | | | | | | 22x30 25x25 | 25x45 30x35 35x30 | 30x40 35x35 | 35x40 | | | | |
| 1500 | | | | | 22x25 | 22x30 25x25 | 22x35 25x30 | 30x40 35x35 | 35x40 | 35x50 | | | |
| 1800 | | | | | | | 30x25 22x40 25x35 30x30 | 30x45 35x35 | 35x45 | | | | |
| 2200 | | | | 22x25 | 22x30 25x25 | 22x40 25x30 30x25 | 22x50 25x40 30x30 35x25 | 35x45 | 35x50 | | | | |
| 3300 | | | 22x25 | 22x30 25x25 | 22x35 25x30 30x25 | 22x50 25x40 30x30 35x25 | 25x50 30x40 35x30 | | | | | | |
| 4700 | | 22x25 | 22x30 25x25 | 22x35 25x30 30x25 | 22x45 25x35 30x30 35x25 | 25x50 30x40 35x30 | 30x50 35x40 | | | | | | |
| 6800 | 22x25 | 22x30 25x25 | 22x35 25x30 30x25 | 22x50 25x40 30x30 35x25 | 25x50 30x35 35x30 | 30x50 35x40 | 35x50 | | | | | | |
| 10000 | 22x25 25x25 | 22x35 25x30 30x25 | 22x45 25x35 30x30 35x25 | 25x50 30x35 35x30 | 30x45 35x40 | | | | | | | | |
| 15000 | 22x35 25x30 30x25 | 22x45 25x35 30x30 35x25 | 25x50 30x35 35x30 | 30x50 35x40 | 35x50 | | | | | | | | |
| 22000 | 22x50 25x40 30x30 35x25 | 25x45 30x35 35x30 | 30x45 35x40 | | | | | | | | | | |
| 33000 | 30x40 35x30 | 30x50 35x40 | 35x50 | | | | | | | | | | |
| 47000 | 30x50 35x40 | | | | | | | | | | | | |

Convert to inches, divide by 25.4.

DxL(mm)



3 and 4 pin mounting styles available on special order. Contact I.C. for details

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) |
|------------------|------|-----------------------------|--------------------------------|--|---------------------|
| 82 | 400 | 826LBB400M2BC | 3032.68 | 0.76 | 22x25 |
| 82 | 450 | 826LBB450M2BD | 3032.68 | 0.83 | 22x30 |
| 100 | 350 | 107LBB350M2BC | 2486.80 | 0.86 | 22x25 |
| 100 | 400 | 107LBB400M2BD | 2486.80 | 0.91 | 22x30 |
| 100 | 400 | 107LBB400M2CC | 2486.80 | 0.91 | 25x25 |
| 100 | 450 | 107LBB450M2BE | 2486.80 | 0.97 | 22x35 |
| 100 | 450 | 107LBB450M2CC | 2486.80 | 0.9 | 25x25 |
| 100 | 450 | 107LBB450M2CD | 2486.80 | 0.98 | 25x30 |
| 100 | 450 | 107LBB450M2DC | 2486.80 | 1.02 | 30x25 |
| 120 | 350 | 127LBB350M2BD | 2072.33 | 0.86 | 22x30 |
| 120 | 350 | 127LBB350M2CC | 2072.33 | 0.86 | 25x25 |
| 120 | 400 | 127LBB400M2BD | 2072.33 | 1 | 22x30 |
| 120 | 400 | 127LBB400M2CC | 2072.33 | 1 | 25x25 |
| 120 | 450 | 127LBB450M2BF | 2072.33 | 1.13 | 22x40 |
| 120 | 450 | 127LBB450M2CD | 2072.33 | 1.08 | 25x30 |
| 120 | 450 | 127LBB450M2DC | 2072.33 | 1.12 | 30x25 |
| 150 | 350 | 157LBB350M2BD | 1657.86 | 0.96 | 22x30 |
| 150 | 350 | 157LBB350M2CC | 1657.86 | 1.1 | 25x25 |
| 150 | 400 | 157LBB400M2BE | 1657.86 | 1.19 | 22x35 |
| 150 | 400 | 157LBB400M2CD | 1657.86 | 1.2 | 25x30 |
| 150 | 400 | 157LBB400M2DC | 1657.86 | 1.25 | 30x25 |
| 150 | 450 | 157LBB450M2BG | 1657.86 | 1.33 | 22x45 |
| 150 | 450 | 157LBB450M2CE | 1657.86 | 1.28 | 25x35 |
| 150 | 450 | 157LBB450M2DD | 1657.86 | 1.34 | 30x30 |
| 180 | 350 | 187LBB350M2BE | 1381.55 | 1.13 | 22x35 |
| 180 | 350 | 187LBB350M2CD | 1381.55 | 1.14 | 25x30 |
| 180 | 350 | 187LBB350M2DC | 1381.55 | 1.18 | 30x25 |
| 180 | 400 | 187LBB400M2BF | 1381.55 | 1.38 | 22x40 |
| 180 | 400 | 187LBB400M2CE | 1381.55 | 1.4 | 25x35 |
| 180 | 400 | 187LBB400M2DC | 1381.55 | 1.37 | 30x25 |
| 180 | 450 | 187LBB450M2BH | 1381.55 | 1.53 | 22x50 |
| 180 | 450 | 187LBB450M2CF | 1381.55 | 1.49 | 25x40 |
| 180 | 450 | 187LBB450M2DD | 1381.55 | 1.47 | 30x30 |
| 180 | 450 | 187LBB450M2EC | 1381.55 | 1.5 | 35x25 |
| 220 | 200 | 227LBB200M2BC | 753.57 | 1.25 | 22x25 |
| 220 | 250 | 227LBB250M2BC | 753.57 | 1.31 | 22x25 |
| 220 | 350 | 227LBB350M2BF | 1130.36 | 1.32 | 22x40 |
| 220 | 350 | 227LBB350M2CE | 1130.36 | 1.44 | 25x35 |
| 220 | 350 | 227LBB350M2DC | 1130.36 | 1.3 | 30x25 |
| 220 | 400 | 227LBB400M2BH | 1130.36 | 1.69 | 22x50 |
| 220 | 400 | 227LBB400M2CF | 1130.36 | 1.64 | 25x40 |
| 220 | 400 | 227LBB400M2DD | 1130.36 | 1.62 | 30x30 |
| 220 | 400 | 227LBB400M2EC | 1130.36 | 1.66 | 35x25 |
| 220 | 450 | 227LBB450M2CG | 1130.36 | 1.73 | 25x45 |
| 220 | 450 | 227LBB450M2DE | 1130.36 | 1.72 | 30x35 |
| 220 | 450 | 227LBB450M2ED | 1130.36 | 1.78 | 35x30 |
| 270 | 200 | 277LBB200M2BC | 614.02 | 1.67 | 22x25 |

| Capacitance (µF) | WVDC | IC [®] PART NUMBER | Maximum ESR mΩ 120Hz, +20°C | Maximum RMS Ripple Current (A) 120Hz, +85°C | Dimensions DxL (mm) |
|------------------|------|-----------------------------|--------------------------------|--|---------------------|
| 270 | 250 | 277LBB250M2BD | 614.02 | 1.57 | 22x30 |
| 270 | 250 | 277LBB250M2CC | 614.02 | 1.57 | 25x25 |
| 270 | 350 | 277LBB350M2BH | 921.04 | 1.61 | 22x50 |
| 270 | 350 | 277LBB350M2CF | 921.04 | 1.57 | 25x40 |
| 270 | 350 | 277LBB350M2DD | 921.04 | 1.55 | 30x30 |
| 270 | 350 | 277LBB350M2EC | 921.04 | 1.59 | 35x25 |
| 270 | 400 | 277LBB400M2CG | 921.04 | 1.92 | 25x45 |
| 270 | 400 | 277LBB400M2DE | 921.04 | 1.91 | 30x35 |
| 270 | 400 | 277LBB400M2ED | 921.04 | 1.97 | 35x30 |
| 270 | 450 | 277LBB450M2DF | 921.04 | 2.02 | 30x40 |
| 270 | 450 | 277LBB450M2EE | 921.04 | 2.1 | 25x25 |
| 330 | 160 | 337LBB160M2BC | 502.38 | 1.4 | 22x25 |
| 330 | 200 | 337LBB200M2BD | 502.38 | 1.66 | 22x30 |
| 330 | 200 | 337LBB200M2CC | 502.38 | 1.66 | 25x25 |
| 330 | 250 | 337LBB250M2BE | 502.38 | 1.85 | 22x35 |
| 330 | 250 | 337LBB250M2CD | 502.38 | 1.87 | 25x30 |
| 330 | 350 | 337LBB350M2CG | 753.57 | 1.82 | 25x45 |
| 330 | 350 | 337LBB350M2DE | 753.57 | 1.83 | 30x35 |
| 330 | 350 | 337LBB350M2ED | 753.57 | 1.88 | 35x30 |
| 330 | 400 | 337LBB400M2CH | 753.57 | 2.22 | 25x50 |
| 330 | 400 | 337LBB400M2DF | 753.57 | 2.23 | 30x40 |
| 330 | 400 | 337LBB400M2ED | 753.57 | 2.18 | 35x30 |
| 330 | 450 | 337LBB450M2DG | 753.57 | 2.35 | 30x45 |
| 330 | 450 | 337LBB450M2EE | 753.57 | 2.32 | 35x35 |
| 390 | 160 | 397LBB160M2BC | 425.09 | 1.44 | 22x25 |
| 390 | 200 | 397LBB200M2BD | 425.09 | 1.8 | 22x30 |
| 390 | 200 | 397LBB200M2CC | 425.09 | 1.8 | 25x25 |
| 390 | 250 | 397LBB250M2BE | 425.09 | 2.01 | 22x35 |
| 390 | 250 | 397LBB250M2CD | 425.09 | 2.03 | 25x30 |
| 390 | 250 | 397LBB250M2DC | 425.09 | 2.1 | 30x25 |
| 390 | 350 | 397LBB350M2CH | 637.64 | 2.08 | 25x50 |
| 390 | 350 | 397LBB350M2DF | 637.64 | 2.1 | 30x40 |
| 390 | 350 | 397LBB350M2ED | 637.64 | 2.04 | 35x30 |
| 390 | 400 | 397LBB400M2DG | 637.64 | 2.55 | 30x45 |
| 390 | 400 | 397LBB400M2EE | 637.64 | 2.52 | 35x35 |
| 390 | 450 | 397LBB450M2EF | 637.64 | 2.66 | 35x40 |
| 470 | 160 | 477LBB160M2BD | 352.74 | 1.73 | 22x30 |
| 470 | 160 | 477LBB160M2CC | 352.74 | 1.74 | 25x25 |
| 470 | 200 | 477LBB200M2BE | 352.74 | 1.78 | 22x35 |
| 470 | 200 | 477LBB200M2CD | 352.74 | 2.13 | 25x30 |
| 470 | 200 | 477LBB200M2DC | 352.74 | 2.21 | 30x25 |
| 470 | 250 | 477LBB250M2BF | 352.74 | 2.34 | 22x40 |
| 470 | 250 | 477LBB250M2CE | 352.74 | 2.38 | 25x35 |
| 470 | 250 | 477LBB250M2DC | 352.74 | 2.31 | 30x25 |
| 470 | 250 | 477LBB250M2EC | 529.11 | 2.54 | 35x25 |
| 470 | 350 | 477LBB350M2DF | 529.11 | 2.3 | 30x40 |
| 470 | 350 | 477LBB350M2EE | 529.11 | 2.38 | 35x35 |

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) |
|------------------|------|----------------|-------------------------------|---|---------------------|
| 470 | 400 | 477LBB400M2EF | 529.11 | 2.92 | 35x40 |
| 470 | 450 | 477LBB450M2EG | 529.11 | 3.07 | 35x45 |
| 560 | 160 | 567LBB160M2BE | 296.05 | 1.99 | 22x35 |
| 560 | 160 | 567LBB160M2CC | 296.05 | 1.95 | 25x25 |
| 560 | 200 | 567LBB200M2BF | 296.05 | 2.44 | 22x40 |
| 560 | 200 | 567LBB200M2CE | 296.05 | 2.48 | 25x35 |
| 560 | 200 | 567LBB200M2DC | 296.05 | 2.41 | 30x25 |
| 560 | 250 | 567LBB250M2BH | 296.05 | 2.82 | 22x50 |
| 560 | 250 | 567LBB250M2CF | 296.05 | 2.74 | 25x40 |
| 560 | 250 | 567LBB250M2DD | 296.05 | 2.71 | 30x30 |
| 560 | 250 | 567LBB250M2EC | 444.07 | 2.78 | 35x25 |
| 560 | 350 | 567LBB350M2DH | 444.07 | 2.76 | 30x50 |
| 560 | 350 | 567LBB350M2EF | 444.07 | 2.75 | 35x40 |
| 560 | 400 | 567LBB400M2EG | 444.07 | 3.34 | 35x45 |
| 680 | 160 | 687LBB160M2BF | 243.80 | 2.32 | 22x40 |
| 680 | 160 | 687LBB160M2CD | 243.80 | 2.21 | 25x30 |
| 680 | 160 | 687LBB160M2DC | 243.80 | 2.29 | 30x25 |
| 680 | 200 | 687LBB200M2BG | 243.80 | 2.83 | 22x45 |
| 680 | 200 | 687LBB200M2CE | 243.80 | 2.73 | 25x35 |
| 680 | 200 | 687LBB200M2DD | 243.80 | 2.85 | 30x30 |
| 680 | 200 | 687LBB200M2EC | 365.71 | 2.92 | 35x25 |
| 680 | 250 | 687LBB250M2CG | 243.80 | 3.19 | 25x45 |
| 680 | 250 | 687LBB250M2DE | 243.80 | 3.18 | 30x35 |
| 680 | 250 | 687LBB250M2ED | 365.71 | 3.28 | 35x30 |
| 680 | 350 | 687LBB350M2EG | 365.71 | 3.18 | 35x45 |
| 680 | 400 | 687LBB400M2EH | 365.71 | 3.85 | 35x50 |
| 820 | 160 | 827LBB160M2BG | 202.18 | 2.68 | 22x45 |
| 820 | 160 | 827LBB160M2CE | 202.18 | 2.58 | 25x35 |
| 820 | 160 | 827LBB160M2DD | 202.18 | 2.7 | 30x30 |
| 820 | 200 | 827LBB200M2CF | 202.18 | 3.17 | 25x40 |
| 820 | 200 | 827LBB200M2DD | 202.18 | 3.13 | 30x30 |
| 820 | 200 | 827LBB200M2EC | 303.27 | 3.21 | 35x25 |
| 820 | 250 | 827LBB250M2CH | 202.18 | 3.67 | 25x50 |
| 820 | 250 | 827LBB250M2DF | 202.18 | 3.69 | 30x40 |
| 820 | 250 | 827LBB250M2ED | 303.27 | 3.6 | 35x30 |
| 1000 | 80 | 108LBB080M2BC | 248.68 | 1.5 | 22x25 |
| 1000 | 100 | 108LBB100M2BD | 248.68 | 2 | 22x30 |
| 1000 | 100 | 108LBB100M2CC | 248.68 | 2 | 25x25 |
| 1000 | 160 | 108LBB160M2BH | 165.79 | 3.11 | 22x50 |
| 1000 | 160 | 108LBB160M2CF | 165.79 | 3.02 | 25x40 |
| 1000 | 160 | 108LBB160M2DD | 165.79 | 2.98 | 30x30 |
| 1000 | 160 | 108LBB160M2EC | 248.68 | 3.05 | 35x25 |
| 1000 | 200 | 108LBB200M2CH | 165.79 | 3.87 | 25x50 |
| 1000 | 200 | 108LBB200M2DE | 165.79 | 3.68 | 30x35 |
| 1000 | 200 | 108LBB200M2ED | 248.68 | 3.8 | 35x30 |
| 1000 | 250 | 108LBB250M2DG | 165.79 | 4.28 | 30x45 |
| 1000 | 250 | 108LBB250M2EE | 248.68 | 4.22 | 35x35 |

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR mΩ 120Hz,+20°C | Maximum RMS Ripple Current (A) 120Hz,+85°C | Dimensions DxL (mm) |
|------------------|------|----------------|-------------------------------|---|---------------------|
| 1200 | 100 | 128LBB100M2BD | 207.23 | 2.1 | 22x30 |
| 1200 | 100 | 128LBB100M2CC | 207.23 | 2.1 | 25x25 |
| 1200 | 160 | 128LBB160M2CG | 138.16 | 3.49 | 25x45 |
| 1200 | 160 | 128LBB160M2DE | 138.16 | 3.48 | 30x35 |
| 1200 | 160 | 128LBB160M2ED | 207.23 | 3.59 | 35x30 |
| 1200 | 200 | 128LBB200M2DF | 138.16 | 4.26 | 30x40 |
| 1200 | 200 | 128LBB200M2EE | 207.23 | 4.42 | 35x35 |
| 1200 | 250 | 128LBB250M2DH | 138.16 | 4.91 | 30x50 |
| 1200 | 250 | 128LBB250M2EF | 207.23 | 4.88 | 35x40 |
| 1500 | 63 | 158LBB063M2BC | 165.79 | 1.66 | 22x25 |
| 1500 | 80 | 158LBB080M2BD | 165.79 | 2 | 22x30 |
| 1500 | 80 | 158LBB080M2CC | 165.79 | 2 | 25x25 |
| 1500 | 100 | 158LBB100M2BE | 165.79 | 2.41 | 22x35 |
| 1500 | 100 | 158LBB100M2CD | 165.79 | 2.43 | 25x30 |
| 1500 | 100 | 158LBB100M2DC | 165.79 | 2.46 | 30x25 |
| 1500 | 160 | 158LBB160M2DF | 110.52 | 4.11 | 30x40 |
| 1500 | 160 | 158LBB160M2EE | 165.79 | 4.26 | 35x35 |
| 1500 | 200 | 158LBB200M2EF | 165.79 | 5.02 | 35x40 |
| 1500 | 250 | 158LBB250M2EH | 165.79 | 5.74 | 35x50 |
| 1800 | 100 | 188LBB100M2BF | 138.16 | 2.77 | 22x40 |
| 1800 | 100 | 188LBB100M2CE | 138.16 | 2.75 | 25x35 |
| 1800 | 100 | 188LBB100M2DD | 138.16 | 2.35 | 30x30 |
| 1800 | 160 | 188LBB160M2DG | 92.10 | 4.73 | 30x45 |
| 1800 | 160 | 188LBB160M2EE | 138.16 | 4.67 | 35x35 |
| 1800 | 200 | 188LBB200M2EG | 138.16 | 4.32 | 35x45 |
| 2200 | 50 | 228LBB050M2BC | 150.71 | 1.91 | 22x25 |
| 2200 | 63 | 228LBB063M2BD | 113.04 | 2.31 | 22x30 |
| 2200 | 63 | 228LBB063M2CC | 113.04 | 2.3 | 25x25 |
| 2200 | 80 | 228LBB080M2BF | 113.04 | 2.44 | 22x40 |
| 2200 | 80 | 228LBB080M2CD | 113.04 | 2.46 | 25x30 |
| 2200 | 80 | 228LBB080M2DC | 113.04 | 2.49 | 30x25 |
| 2200 | 100 | 228LBB100M2BH | 113.04 | 3.08 | 22x50 |
| 2200 | 100 | 228LBB100M2CF | 113.04 | 3.13 | 25x40 |
| 2200 | 100 | 228LBB100M2DD | 113.04 | 3.09 | 30x30 |
| 2200 | 100 | 228LBB100M2EC | 113.04 | 3.14 | 35x25 |
| 2200 | 160 | 228LBB160M2EG | 113.04 | 4.96 | 35x45 |
| 2200 | 200 | 228LBB200M2EH | 113.04 | 4.92 | 35x50 |
| 3300 | 35 | 338LBB035M2BC | 125.60 | 2.05 | 22x25 |
| 3300 | 50 | 338LBB050M2BD | 100.48 | 2.37 | 22x30 |
| 3300 | 50 | 338LBB050M2CC | 100.48 | 2.38 | 25x25 |
| 3300 | 63 | 338LBB063M2BE | 75.36 | 2.62 | 22x35 |
| 3300 | 63 | 338LBB063M2CD | 75.36 | 2.64 | 25x30 |
| 3300 | 63 | 338LBB063M2DC | 75.36 | 2.78 | 30x25 |
| 3300 | 80 | 338LBB080M2BH | 75.36 | 3.16 | 22x50 |
| 3300 | 80 | 338LBB080M2CF | 75.36 | 3.21 | 25x40 |
| 3300 | 80 | 338LBB080M2DD | 75.36 | 3.17 | 30x30 |
| 3300 | 80 | 338LBB080M2EC | 75.36 | 3.5 | 35x25 |

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) |
|------------------|------|-----------------------------|--------------------------------|--|---------------------|
| 3300 | 100 | 338LBB100M2CH | 75.36 | 4.06 | 25x50 |
| 3300 | 100 | 338LBB100M2DF | 75.36 | 4.05 | 30x40 |
| 3300 | 100 | 338LBB100M2ED | 75.36 | 4.05 | 35x30 |
| 4700 | 25 | 478LBB025M2BC | 105.82 | 2.25 | 22x25 |
| 4700 | 35 | 478LBB035M2BD | 88.18 | 2.41 | 22x30 |
| 4700 | 35 | 478LBB035M2CC | 88.18 | 2.42 | 25x25 |
| 4700 | 50 | 478LBB050M2BE | 70.55 | 2.72 | 22x35 |
| 4700 | 50 | 478LBB050M2CD | 70.55 | 2.98 | 25x30 |
| 4700 | 50 | 478LBB050M2DC | 70.55 | 2.81 | 30x25 |
| 4700 | 63 | 478LBB063M2BG | 52.91 | 3.04 | 22x45 |
| 4700 | 63 | 478LBB063M2CE | 52.91 | 2.79 | 25x35 |
| 4700 | 63 | 478LBB063M2DD | 52.91 | 3.32 | 30x30 |
| 4700 | 63 | 478LBB063M2EC | 52.91 | 3.36 | 35x25 |
| 4700 | 80 | 478LBB080M2CH | 52.91 | 4.05 | 25x50 |
| 4700 | 80 | 478LBB080M2DH | 52.91 | 4.05 | 30x40 |
| 4700 | 80 | 478LBB080M2ED | 52.91 | 4.09 | 35x30 |
| 4700 | 100 | 478LBB100M2DH | 52.91 | 5.13 | 30x50 |
| 4700 | 100 | 478LBB100M2EF | 52.91 | 5.11 | 35x40 |
| 6800 | 16 | 688LBB016M2BC | 121.90 | 2.4 | 22x25 |
| 6800 | 25 | 688LBB025M2BD | 73.14 | 2.4 | 22x30 |
| 6800 | 25 | 688LBB025M2CC | 73.14 | 2.56 | 25x25 |
| 6800 | 35 | 688LBB035M2BE | 60.95 | 2.82 | 22x35 |
| 6800 | 35 | 688LBB035M2CD | 60.95 | 2.74 | 25x30 |
| 6800 | 35 | 688LBB035M2DC | 60.95 | 2.97 | 30x25 |
| 6800 | 50 | 688LBB050M2BH | 48.76 | 3.81 | 22x50 |
| 6800 | 50 | 688LBB050M2CF | 48.76 | 3.81 | 25x40 |
| 6800 | 50 | 688LBB050M2DD | 48.76 | 3 | 30x30 |
| 6800 | 50 | 688LBB050M2EC | 48.76 | 3.23 | 35x25 |
| 6800 | 63 | 688LBB063M2CH | 36.57 | 4.27 | 25x50 |
| 6800 | 63 | 688LBB063M2DE | 36.57 | 3.46 | 30x35 |
| 6800 | 63 | 688LBB063M2ED | 36.57 | 4.15 | 35x30 |
| 6800 | 80 | 688LBB080M2DH | 36.57 | 5.16 | 30x50 |
| 6800 | 80 | 688LBB080M2EF | 36.57 | 5.14 | 35x40 |
| 6800 | 100 | 688LBB100M2EH | 36.57 | 6.5 | 35x50 |
| 10000 | 16 | 109LBB016M2BC | 82.89 | 2.77 | 22x25 |
| 10000 | 16 | 109LBB016M2CC | 66.31 | 2.67 | 25x25 |
| 10000 | 25 | 109LBB025M2BE | 49.74 | 3.2 | 22x35 |
| 10000 | 25 | 109LBB025M2CD | 49.74 | 3.12 | 25x30 |
| 10000 | 25 | 109LBB025M2DC | 49.74 | 3.21 | 30x25 |

| 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 | 109LBB035M2BG | 41.45 | 3.34 | 22x45 |
| 10000 | 35 | 109LBB035M2CE | 41.45 | 3.06 | 25x35 |
| 10000 | 35 | 109LBB035M2DD | 41.45 | 3.46 | 30x30 |
| 10000 | 35 | 109LBB035M2EC | 41.45 | 3.02 | 35x25 |
| 10000 | 50 | 109LBB050M2CH | 33.16 | 3.7 | 25x50 |
| 10000 | 50 | 109LBB050M2DE | 33.16 | 3.35 | 30x35 |
| 10000 | 50 | 109LBB050M2ED | 33.16 | 3.64 | 35x30 |
| 10000 | 63 | 109LBB063M2DG | 24.87 | 3.72 | 30x45 |
| 10000 | 63 | 109LBB063M2EF | 24.87 | 5.47 | 35x40 |
| 15000 | 16 | 159LBB016M2BE | 55.26 | 3.29 | 22x35 |
| 15000 | 16 | 159LBB016M2CD | 55.26 | 3.46 | 25x30 |
| 15000 | 16 | 159LBB016M2DC | 55.26 | 3.66 | 30x25 |
| 15000 | 25 | 159LBB025M2BG | 33.16 | 3.7 | 22x45 |
| 15000 | 25 | 159LBB025M2CE | 33.16 | 3.45 | 25x35 |
| 15000 | 25 | 159LBB025M2DD | 33.16 | 4 | 30x30 |
| 15000 | 25 | 159LBB025M2EC | 33.16 | 3.95 | 35x25 |
| 15000 | 35 | 159LBB035M2CH | 27.63 | 4.54 | 25x50 |
| 15000 | 35 | 159LBB035M2DE | 27.63 | 3.67 | 30x35 |
| 15000 | 35 | 159LBB035M2ED | 27.63 | 3.98 | 35x30 |
| 15000 | 50 | 159LBB050M2DH | 22.10 | 4.61 | 30x50 |
| 15000 | 50 | 159LBB050M2EF | 22.10 | 4.83 | 35x40 |
| 15000 | 63 | 159LBB063M2EH | 16.58 | 5.3 | 35x50 |
| 22000 | 16 | 229LBB016M2BH | 37.68 | 4.37 | 22x50 |
| 22000 | 16 | 229LBB016M2CF | 37.68 | 4.26 | 25x40 |
| 22000 | 16 | 229LBB016M2DD | 37.68 | 4.21 | 30x30 |
| 22000 | 16 | 229LBB016M2EC | 37.68 | 4.15 | 35x25 |
| 22000 | 25 | 229LBB025M2CG | 22.61 | 4.48 | 25x45 |
| 22000 | 25 | 229LBB025M2DE | 22.61 | 4.52 | 30x35 |
| 22000 | 25 | 229LBB025M2ED | 22.61 | 4.61 | 35x30 |
| 22000 | 35 | 229LBB035M2DG | 18.84 | 4.94 | 30x45 |
| 22000 | 35 | 229LBB035M2EF | 18.84 | 5.41 | 35x40 |
| 33000 | 16 | 339LBB016M2DF | 25.12 | 5.36 | 30x40 |
| 33000 | 16 | 339LBB016M2ED | 25.12 | 5.15 | 35x30 |
| 33000 | 25 | 339LBB025M2DH | 15.07 | 6.15 | 30x50 |
| 33000 | 25 | 339LBB025M2EF | 15.07 | 6.33 | 35x40 |
| 33000 | 35 | 339LBB035M2EH | 12.56 | 7.27 | 35x50 |
| 47000 | 16 | 479LBB016M2DH | 17.64 | 6.79 | 30x50 |
| 47000 | 16 | 479LBB016M2EF | 17.64 | 6.76 | 35x40 |