



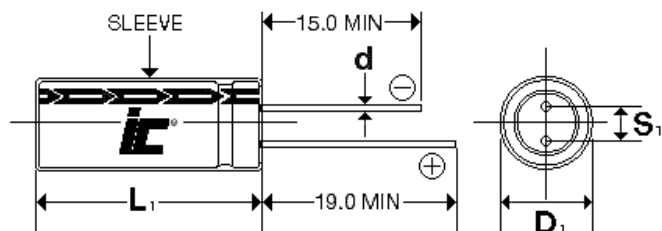
### FEATURES

Long Life - High Temperature - RoHS Compliant

### APPLICATIONS

Switching Power Supplies - Power Adaptors - Electronic Ballasts

| Operating Temperature Range                              |       | -40°C to +105°C                                     |     |                                                                 |     |     |           |                                                                  |     |  |
|----------------------------------------------------------|-------|-----------------------------------------------------|-----|-----------------------------------------------------------------|-----|-----|-----------|------------------------------------------------------------------|-----|--|
| Capacitance Tolerance                                    |       | +20% at 120 Hz, 20°C                                |     |                                                                 |     |     |           |                                                                  |     |  |
| Surge Voltage                                            | WVDC  | 6.3                                                 | 10  | 16                                                              | 25  | 35  | 50        | 63                                                               | 100 |  |
|                                                          | SVDC  | 7.9                                                 | 13  | 20                                                              | 32  | 44  | 63        | 79                                                               | 125 |  |
| Dissipation Factor<br>120 Hz, 20°C                       | WVDC  | 6.3                                                 | 10  | 16                                                              | 25  | 35  | 50        | 63                                                               | 100 |  |
|                                                          | tan δ | .22                                                 | .19 | .16                                                             | .14 | .12 | .1        | .09                                                              | .08 |  |
|                                                          |       | Add .02 for every 1000µF above 1000µF               |     |                                                                 |     |     |           |                                                                  |     |  |
| Leakage current                                          |       | .01CV or 3µA, Whichever is greater                  |     |                                                                 |     |     |           |                                                                  |     |  |
|                                                          |       | 2 Minutes                                           |     |                                                                 |     |     |           |                                                                  |     |  |
| Low Temperature Stability<br>Impedance Ratio<br>(120 Hz) |       | Rated WVDC                                          |     | 6.3                                                             | 10  | 16  | 25 to 100 |                                                                  |     |  |
|                                                          |       | -25°C to +20°C                                      |     | 4                                                               | 3   | 2   | 2         |                                                                  |     |  |
|                                                          |       | -40°C to +20°C                                      |     | 8                                                               | 6   | 4   | 3         |                                                                  |     |  |
| Load Life                                                |       | After application of rated voltage applied at 105°C |     |                                                                 |     |     |           |                                                                  |     |  |
|                                                          |       | WVDC                                                |     | 6.3 to 10                                                       |     |     |           | 16 to 100                                                        |     |  |
|                                                          |       |                                                     |     | D≤6.3mm 4000 Hrs.<br>D=8 to 10mm 6000 Hrs.<br>D≥ 12mm 8000 Hrs. |     |     |           | D≤6.3mm 5000 Hrs.<br>D=8 to 10mm 7000 Hrs.<br>D≥ 12mm 10000 Hrs. |     |  |
|                                                          |       | Capacitance Change                                  |     | ≤25% 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                                  |     | ≤25% of initial measured value                                  |     |     |           |                                                                  |     |  |
|                                                          |       | Dissipation Factor                                  |     | ≤200% of maximum specified value                                |     |     |           |                                                                  |     |  |
|                                                          |       | Leakage Current                                     |     | -100% of maximum specified value                                |     |     |           |                                                                  |     |  |
| Ripple Current Multipliers                               |       |                                                     |     | Frequency (Hz)                                                  |     |     |           |                                                                  |     |  |
|                                                          |       | Capacitance (µF)                                    |     | 120                                                             | 1k  | 10k | 100k      |                                                                  |     |  |
|                                                          |       | .47 to 180                                          |     | .4                                                              | .75 | .9  | 1.0       |                                                                  |     |  |
|                                                          |       | 220 to 560                                          |     | .5                                                              | .85 | .94 | 1.0       |                                                                  |     |  |
|                                                          |       | 680 to 1800                                         |     | .6                                                              | .87 | .95 | 1.0       |                                                                  |     |  |
|                                                          |       | 2200 to 3900                                        |     | .75                                                             | .9  | .95 | 1.0       |                                                                  |     |  |
|                                                          |       | 4700 to 15000                                       |     | .85                                                             | .95 | .98 | 1.0       |                                                                  |     |  |



| D | 5   | 6.3 | 8   | 10  | 12.5 | 16  | 18  |
|---|-----|-----|-----|-----|------|-----|-----|
| S | 2.0 | 2.5 | 3.5 | 5.0 | 5.0  | 7.5 | 7.5 |
| d | 0.5 | 0.5 | 0.6 | 0.6 | 0.6  | 0.8 | 0.8 |

L<sub>1</sub>=L+1.5mm (L<20mm) Max.  
L<sub>1</sub>=L+2mm (L≥20mm) Max  
D<sub>1</sub>=D+0.5mm Max.  
S<sub>1</sub>=S+0.5 mm

# KBM

**+105°C, High Frequency Low Impedance/ESR, 8000 to 10000 hours**

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Impedance Ω +20°C, 100kHz | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxL (mm) |
|------|------------------|----------------|-------------------------------|---------------------------|-------------------------------------------------|---------------|
| 6.3  | 330              | 337KBM6R3M     | 1.106                         | 0.21                      | 340                                             | 6.3x11        |
| 6.3  | 1000             | 108KBM6R3MFBW  | 0.365                         | 0.08                      | 850                                             | 8x16          |
| 6.3  | 1000             | 108KBM6R3M     | 0.365                         | 0.08                      | 870                                             | 10x12.5       |
| 6.3  | 2200             | 228KBM6R3MGJD  | 0.1959                        | 0.042                     | 1650                                            | 10x25         |
| 6.3  | 3300             | 338KBM6R3M     | 0.1407                        | 0.035                     | 1900                                            | 12.5x20       |
| 6.3  | 4700             | 478KBM6R3MTJD  | 0.1058                        | 0.03                      | 2200                                            | 12.5x25       |
| 6.3  | 6800             | 688KBM6R3M     | 0.073                         | 0.025                     | 2400                                            | 16x25         |
| 6.3  | 10000            | 109KBM6R3M     | 0.066                         | 0.02                      | 2920                                            | 16x30         |
| 10   | 100              | 107KBM010M     | 3.152                         | 0.58                      | 210                                             | 5x11          |
| 10   | 220              | 227KBM010M     | 1.433                         | 0.22                      | 340                                             | 6.3x11        |
| 10   | 470              | 477KBM010M     | 0.671                         | 0.13                      | 640                                             | 8x11.5        |
| 10   | 1000             | 108KBM010MGJG  | 0.315                         | 0.069                     | 1050                                            | 8x20          |
| 10   | 1000             | 108KBM010M     | 0.315                         | 0.06                      | 1210                                            | 10x16         |
| 10   | 1500             | 158KBM010M     | 0.168                         | 0.042                     | 1650                                            | 10x25         |
| 10   | 2200             | 228KBM010M     | 0.173                         | 0.035                     | 1900                                            | 12.5x20       |
| 10   | 3300             | 338KBM010M     | 0.126                         | 0.03                      | 2125                                            | 12.5x25       |
| 10   | 4700             | 478KBM010M     | 0.095                         | 0.025                     | 2400                                            | 16x25         |
| 10   | 6800             | 688KBM010M     | 0.076                         | 0.02                      | 2920                                            | 16x30         |
| 10   | 10000            | 109KBM010M     | 0.061                         | 0.018                     | 3520                                            | 18x35         |
| 16   | 330              | 337KBM016M     | 0.804                         | 0.1                       | 640                                             | 8x11.5        |
| 16   | 1000             | 108KBM016M     | 0.265                         | 0.046                     | 1400                                            | 10x20         |
| 16   | 2200             | 228KBM016M     | 0.151                         | 0.027                     | 2230                                            | 12.5x25       |
| 16   | 3300             | 338KBM016M     | 0.111                         | 0.025                     | 2420                                            | 16x25         |
| 16   | 4700             | 478KBM016M     | 0.085                         | 0.02                      | 2920                                            | 16x30         |
| 16   | 6800             | 688KBM016M     | 0.068                         | 0.018                     | 3520                                            | 18x35         |
| 25   | 47               | 476KBM025M     | 4.941                         | 0.58                      | 210                                             | 5x11          |
| 25   | 100              | 107KBM025M     | 2.322                         | 0.22                      | 350                                             | 6.3x11        |
| 25   | 220              | 227KBM025M     | 1.056                         | 0.13                      | 640                                             | 8x11.5        |
| 25   | 470              | 477KBM025M     | 0.494                         | 0.06                      | 1210                                            | 10x16         |
| 25   | 1000             | 108KBM025M     | 0.232                         | 0.035                     | 1900                                            | 12.5x20       |
| 25   | 2200             | 228KBM025M     | 0.136                         | 0.025                     | 2780                                            | 16x25         |
| 25   | 3300             | 338KBM025M     | 0.101                         | 0.02                      | 2920                                            | 16x30         |
| 25   | 4700             | 478KBM025M     | 0.078                         | 0.018                     | 3520                                            | 18x35         |
| 35   | 33               | 336KBM035M     | 6.032                         | 0.58                      | 210                                             | 5x11          |
| 35   | 100              | 107KBM035M     | 1.99                          | 0.16                      | 460                                             | 8x11.5        |
| 35   | 150              | 157KBM035M     | 1.061                         | 0.13                      | 640                                             | 8x11          |
| 35   | 220              | 227KBM035MFBW  | 0.905                         | 0.087                     | 900                                             | 8x16          |
| 35   | 220              | 227KBM035M     | 0.905                         | 0.08                      | 910                                             | 10x12.5       |
| 35   | 270              | 277KBM035MFJG  | 0.7368                        | 0.069                     | 1000                                            | 8x20          |
| 35   | 330              | 337KBM035M     | 0.603                         | 0.06                      | 1210                                            | 10x16         |
| 35   | 470              | 477KBM035M     | 0.423                         | 0.046                     | 1400                                            | 10x20         |
| 35   | 1000             | 108KBM035M     | 0.199                         | 0.027                     | 2130                                            | 12.5x25       |
| 35   | 2200             | 228KBM035M     | 0.121                         | 0.025                     | 2610                                            | 16x30         |

| WVDC | Capacitance (μF) | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Impedance Ω +20°C, 100kHz | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxL (mm) |
|------|------------------|----------------|-------------------------------|---------------------------|-------------------------------------------------|---------------|
| 35   | 3300             | 338KBM035M     | 0.09                          | 0.02                      | 3200                                            | 18x35         |
| 50   | 1                | 105KBM050M     | 165.786                       | 3                         | 45                                              | 5x11          |
| 50   | 2.2              | 225KBM050M     | 75.3575                       | 2.5                       | 60                                              | 5x11          |
| 50   | 3.3              | 335KBM050M     | 50.2383                       | 2.2                       | 65                                              | 5x11          |
| 50   | 4.7              | 475KBM050M     | 35.2737                       | 1.9                       | 100                                             | 5x11          |
| 50   | 10               | 106KBM050M     | 16.5786                       | 1.5                       | 130                                             | 5x11          |
| 50   | 22               | 226KBM050M     | 7.5357                        | 0.7                       | 200                                             | 5x11          |
| 50   | 33               | 336KBM050M     | 5.0238                        | 0.6                       | 280                                             | 6.3x11        |
| 50   | 47               | 476KBM050M     | 3.5274                        | 0.35                      | 290                                             | 6.3x11        |
| 50   | 100              | 107KBM050MFH   | 1.6579                        | 0.16                      | 600                                             | 8x11.5        |
| 50   | 150              | 157KBM050M     | 0.8841                        | 0.12                      | 760                                             | 10x12         |
| 50   | 220              | 227KBM050M     | 0.7536                        | 0.064                     | 1050                                            | 10x16         |
| 50   | 330              | 337KBM050MGJD  | 0.5024                        | 0.055                     | 1480                                            | 10x25         |
| 50   | 470              | 477KBM050M     | 0.3527                        | 0.045                     | 1670                                            | 12.5x20       |
| 50   | 1000             | 108KBM050M     | 0.1658                        | 0.025                     | 2410                                            | 16x25         |
| 50   | 1500             | 158KBM050M     | 0.1105                        | 0.19                      | 3150                                            | 16x36         |
| 50   | 2200             | 228KBM050M     | 0.1055                        | 0.022                     | 3180                                            | 18x35         |
| 63   | 10               | 106KBM063M     | 14.9208                       | 1.5                       | 105                                             | 5x11          |
| 63   | 22               | 226KBM063M     | 6.7822                        | 0.96                      | 200                                             | 6.3x11        |
| 63   | 33               | 336KBM063MEBB  | 4.5214                        | 0.96                      | 200                                             | 6.3x11        |
| 63   | 47               | 476KBM063M     | 3.1746                        | 0.4                       | 360                                             | 8x11.5        |
| 63   | 68               | 686KBM063MFH   | 2.1942                        | 0.3                       | 420                                             | 8x11.5        |
| 63   | 100              | 107KBM063MGU   | 1.4921                        | 0.1                       | 685                                             | 10x12.5       |
| 63   | 220              | 227KBM063M     | 0.6782                        | 0.08                      | 1100                                            | 10x25         |
| 63   | 330              | 337KBM063M     | 0.4521                        | 0.075                     | 1100                                            | 12.5x20       |
| 63   | 470              | 477KBM063M     | 0.1492                        | 0.065                     | 1800                                            | 12.5x25       |
| 63   | 470              | 477KBM063MTAG  | 0.1492                        | 0.06                      | 360                                             | 12.5x30       |
| 63   | 680              | 687KBM063MKJD  | 0.219                         | 0.05                      | 2000                                            | 16x25         |
| 63   | 820              | 827KBM063MLJD  | 0.182                         | 0.048                     | 2200                                            | 18x25         |
| 63   | 1000             | 108KBM063M     | 0.1492                        | 0.04                      | 2500                                            | 16x35         |
| 63   | 1200             | 128KBM063MLAG  | 0.152                         | 0.03                      | 2600                                            | 18x30         |
| 100  | 1                | 105KBM100M     | 132.696                       | 4.5                       | 20                                              | 5x11          |
| 100  | 2.2              | 225KBM100M     | 60.317                        | 3                         | 30                                              | 5x11          |
| 100  | 3.3              | 335KBM100M     | 40.211                        | 2.7                       | 40                                              | 5x11          |
| 100  | 4.7              | 475KBM100M     | 28.233                        | 2.5                       | 65                                              | 5x11          |
| 100  | 10               | 106KBM100M     | 13.2629                       | 1.2                       | 140                                             | 6.3x11        |
| 100  | 15               | 156KBM100MEBB  | 8.8419                        | 1                         | 140                                             | 6.3x11        |
| 100  | 22               | 226KBM100M     | 6.032                         | 0.7                       | 210                                             | 8x11.5        |
| 100  | 33               | 336KBM100M     | 4.021                         | 0.5                       | 240                                             | 10x12.5       |
| 100  | 47               | 476KBM100MGU   | 2.823                         | 0.34                      | 400                                             | 10x12.5       |
| 100  | 68               | 686KBM100MGBW  | 1.95                          | 0.3                       | 460                                             | 10x16         |
| 100  | 100              | 107KBM100M     | 1.327                         | 0.18                      | 820                                             | 12.5x20       |
| 100  | 330              | 337KBM100M     | 0.402                         | 0.07                      | 1300                                            | 16x25         |