



Radial Lead Aluminum Electrolytic Capacitors

+105°C Low Impedance

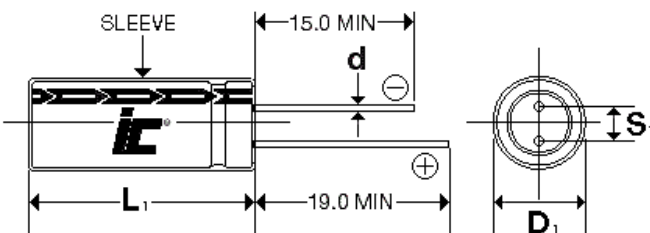
FEATURES

Standardized Case Sizes - High Ripple Current - Multiple Case Sizes

APPLICATIONS

Bypass - Coupling - Filtering - De-Coupling

| | | | | | | | | | |
|---|-----------------------|--|----------------------------------|-----|-----|-----|------|----|-----|
| Operating Temperature Range | | -55°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 | WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| | Tan δ | .22 | .19 | .16 | .14 | .12 | .1 | .1 | .1 |
| | | Add .02 for every 1000uF above 1000uF | | | | | | | |
| Leakage Current | | 2 Minutes | | | | | | | |
| | | .01CV or 3uA, Whichever is greater | | | | | | | |
| Low Temperature Stability Impedance Ratio (120 Hz) | WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
| | -25°C to +20°C | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| | -40°C to +20°C | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 |
| Load Life | | 5000 hours at 105°C with rated WVDC and ripple current applied (4000 hrs. for D=10, 3000 hrs. for D=8, 2000 hrs. for D≤6.3) | | | | | | | |
| | | 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 | ≤25% initial measured value | | | | | | |
| | | Dissipation Factor | ≤200% of maximum specified value | | | | | | |
| | | Leakage Current | ≤100% of maximum specified value | | | | | | |
| Ripple Current Multipliers | | Frequency (Hz) | | | | | | | |
| | | Capacitance | 50 | 120 | 1k | 10k | 100k | | |
| | | C≤180 | .4 | .4 | .75 | .9 | 1.0 | | |
| | | 220<C≤560 | .5 | .5 | .85 | .94 | 1.0 | | |
| | | 680<C≤1800 | .6 | .6 | .87 | .95 | 1.0 | | |
| | | 2200<C≤3900 | .75 | .75 | .9 | .95 | 1.0 | | |
| | | C≥4700 | .85 | .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 |

$L_1 = L + 1.5$ mm Max. ($L < 20$ mm)
 $L_1 = L + 2.0$ mm Max. ($L \geq 20$ mm)
 $D_1 = D + 0.5$ mm Max.
 $S_1 = S + 0.5$ mm

KXM

+105°C, High Voltage Low Impedance Long Life, 5000 hours

| Capacitance (µF) | VVDC | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Impedance Ω +20°C/-10°C, 100kHz | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxD (mm) |
|------------------|------|----------------|-------------------------------|---------------------------------|---|---------------|
| 470 | 100 | 477KXM100M | 0.3527 | 0.049/0.132 | 1920 | 16x40 |
| 470 | 100 | 477KXM100MR | 0.3527 | 0.056/0.157 | 1775 | 18x35 |
| 560 | 6.3 | 567KXM6R3M | 0.6513 | 0.072/0.22 | 760 | 8x11.5 |
| 560 | 35 | 567KXM035M | 0.3553 | 0.022/0.066 | 2150 | 10x25 |
| 560 | 50 | 567KXM050M | 0.296 | 0.023/0.059 | 2410 | 12.5x25 |
| 560 | 63 | 567KXM063M | 0.296 | 0.036/0.072 | 1950 | 12.5x40 |
| 560 | 63 | 567KXM063MRU | 0.296 | 0.04/0.08 | 1725 | 18x20 |
| 560 | 100 | 567KXM100M | 0.296 | 0.043/0.116 | 2050 | 18x35 |
| 680 | 10 | 687KXM010MLN | 0.4632 | 0.077/0.194 | 760 | 10x12.5 |
| 680 | 10 | 687KXM010M | 0.4632 | 0.056/0.17 | 995 | 8x16 |
| 680 | 16 | 687KXM016M | 0.3901 | 0.041/0.13 | 1250 | 8x20 |
| 680 | 16 | 687KXM016MLQ | 0.3901 | 0.074/0.184 | 880 | 10x16 |
| 680 | 25 | 687KXM025M | 0.3413 | 0.023/0.069 | 1820 | 10x20 |
| 680 | 35 | 687KXM035M | 0.2926 | 0.021/0.053 | 2150 | 12.5x20 |
| 680 | 50 | 687KXM050M | 0.2438 | 0.021/0.052 | 2860 | 12.5x30 |
| 680 | 63 | 687KXM063M | 0.195 | 0.033/0.066 | 2050 | 16x30 |
| 680 | 63 | 687KXM063MRV | 0.195 | 0.036/0.072 | 1950 | 18x25 |
| 680 | 100 | 687KXM100M | 0.195 | 0.038/0.103 | 2300 | 18x40 |
| 820 | 6.3 | 827KXM6R3M | 0.4448 | 0.056/0.17 | 995 | 8x16 |
| 820 | 25 | 827KXM025M | 0.283 | 0.022/0.066 | 2150 | 10x25 |
| 820 | 50 | 827KXM050M | 0.2022 | 0.019/0.023 | 3960 | 12.5x35 |
| 820 | 63 | 827KXM063M | 0.2022 | 0.03/0.06 | 2225 | 16x35 |
| 820 | 63 | 827KXM063MRW | 0.2022 | 0.032/0.064 | 2100 | 18x30 |
| 1000 | 6.3 | 108KXM6R3M | 0.3647 | 0.053/0.16 | 1030 | 10x12.5 |
| 1000 | 10 | 108KXM010MLQ | 0.315 | 0.063/0.158 | 1430 | 10x16 |
| 1000 | 10 | 108KXM010M | 0.315 | 0.041/0.13 | 1250 | 8x20 |
| 1000 | 16 | 108KXM016M | 0.2653 | 0.023/0.069 | 1820 | 10x20 |
| 1000 | 25 | 108KXM025M | 0.2321 | 0.021/0.053 | 2360 | 12.5x20 |
| 1000 | 35 | 108KXM035M | 0.1989 | 0.018/0.045 | 2770 | 12.5x25 |
| 1000 | 50 | 108KXM050M | 0.1658 | 0.021/0.056 | 2850 | 16x25 |
| 1000 | 63 | 108KXM063M | 0.1658 | 0.028/0.056 | 2375 | 16x40 |
| 1000 | 63 | 108KXM063MR | 0.1658 | 0.03/0.06 | 2280 | 18x35 |
| 1200 | 6.3 | 128KXM6R3MLQ | 0.3039 | 0.058/0.144 | 1430 | 10x16 |
| 1200 | 6.3 | 128KXM6R3M | 0.3039 | 0.041/0.13 | 1250 | 8x20 |
| 1200 | 10 | 128KXM010M | 0.2901 | 0.023/0.069 | 1820 | 10x20 |
| 1200 | 16 | 128KXM016M | 0.221 | 0.022/0.066 | 2150 | 10x25 |
| 1200 | 25 | 128KXM025M | 0.1934 | 0.05/0.124 | 1730 | 12.5x20 |
| 1200 | 35 | 128KXM035M | 0.1658 | 0.016/0.041 | 3290 | 12.5x30 |
| 1200 | 50 | 128KXM050M | 0.1382 | 0.042/0.083 | 2710 | 16x30 |
| 1200 | 63 | 128KXM063M | 0.1243 | 0.026/0.052 | 2500 | 18x40 |
| 1500 | 6.3 | 158KXM6R3M | 0.2432 | 0.023/0.069 | 1820 | 10x20 |
| 1500 | 10 | 158KXM010M | 0.21 | 0.022/0.066 | 2150 | 10x25 |

| Capacitance (µF) | VVDC | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Impedance Ω +20°C/-10°C, 100kHz | Maximum RMS Ripple Current (mA) 100 kHz, +105°C | Dims DxD (mm) |
|------------------|------|----------------|-------------------------------|---------------------------------|---|---------------|
| 1500 | 16 | 158KXM016M | 0.1768 | 0.021/0.053 | 2360 | 12.5x20 |
| 1500 | 25 | 158KXM025M | 0.1547 | 0.018/0.045 | 2770 | 12.5x25 |
| 1500 | 35 | 158KXM035M | 0.1326 | 0.015/0.039 | 3400 | 12.5x35 |
| 1500 | 35 | 158KXM035MQV | 0.1326 | 0.04/0.079 | 2700 | 16x25 |
| 1500 | 50 | 158KXM050M | 0.1326 | 0.035/0.071 | 3010 | 16x35 |
| 1800 | 25 | 188KXM025M | 0.1289 | 0.016/0.041 | 3290 | 12.5x30 |
| 1800 | 35 | 188KXM035M | 0.1105 | 0.016/0.043 | 3460 | 16x25 |
| 2200 | 6.3 | 228KXM6R3M | 0.1658 | 0.022/0.066 | 1980 | 10x25 |
| 2200 | 10 | 228KXM010M | 0.1733 | 0.021/0.053 | 2150 | 12.5x20 |
| 2200 | 16 | 228KXM016M | 0.1206 | 0.018/0.045 | 2770 | 12.5x25 |
| 2200 | 25 | 228KXM025M | 0.1055 | 0.015/0.039 | 3400 | 12.5x35 |
| 2200 | 25 | 228KXM025MQV | 0.1055 | 0.032/0.065 | 2390 | 16x25 |
| 2200 | 35 | 228KXM035M | 0.0904 | 0.031/0.077 | 2880 | 16x30 |
| 2200 | 50 | 228KXM050M | 0.1055 | 0.027/0.055 | 3690 | 18x35 |
| 2700 | 16 | 278KXM016M | 0.0982 | 0.016/0.041 | 3290 | 12.5x30 |
| 2700 | 25 | 278KXM025M | 0.086 | 0.016/0.043 | 3000 | 16x25 |
| 3300 | 6.3 | 338KXM6R3M | 0.1105 | 0.021/0.053 | 2080 | 12.5x20 |
| 3300 | 10 | 338KXM010M | 0.0955 | 0.018/0.045 | 2770 | 12.5x25 |
| 3300 | 16 | 338KXM016M | 0.0804 | 0.015/0.039 | 3150 | 12.5x35 |
| 3300 | 16 | 338KXM016MQV | 0.0804 | 0.029/0.057 | 2200 | 16x25 |
| 3300 | 25 | 338KXM025M | 0.0703 | 0.027/0.054 | 3020 | 16x30 |
| 3300 | 35 | 338KXM035M | 0.0603 | 0.026/0.064 | 3650 | 18x35 |
| 3300 | 50 | 338KXM050M | 0.0804 | 0.023/0.046 | 4350 | 18x40 |
| 3900 | 6.3 | 398KXM6R3M | 0.0935 | 0.018/0.045 | 2470 | 12.5x25 |
| 3900 | 10 | 398KXM010M | 0.0808 | 0.016/0.041 | 3290 | 12.5x30 |
| 3900 | 16 | 398KXM016M | 0.068 | 0.016/0.043 | 3460 | 16x25 |
| 4700 | 6.3 | 478KXM6R3M | 0.0776 | 0.016/0.041 | 3290 | 12.5x30 |
| 4700 | 10 | 478KXM010M | 0.067 | 0.015/0.039 | 3400 | 12.5x35 |
| 4700 | 10 | 478KXM010MQV | 0.067 | 0.025/0.051 | 2350 | 16x25 |
| 4700 | 16 | 478KXM016M | 0.0564 | 0.024/0.048 | 2670 | 16x30 |
| 4700 | 25 | 478KXM025M | 0.0494 | 0.023/0.046 | 3700 | 18x35 |
| 5600 | 6.3 | 568KXM6R3M | 0.0651 | 0.015/0.039 | 3400 | 12.5x35 |
| 5600 | 10 | 568KXM010M | 0.0562 | 0.016/0.043 | 3018 | 16x25 |
| 6800 | 6.3 | 688KXM6R3M | 0.0536 | 0.016/0.043 | 3250 | 16x25 |
| 6800 | 10 | 688KXM010M | 0.0463 | 0.023/0.045 | 2850 | 16x30 |
| 6800 | 16 | 688KXM016M | 0.039 | 0.022/0.043 | 3280 | 18x35 |
| 10000 | 6.3 | 109KXM6R3M | 0.0365 | 0.022/0.043 | 3000 | 16x30 |
| 10000 | 10 | 109KXM010M | 0.0315 | 0.021/0.041 | 3430 | 18x35 |
| 10000 | 16 | 109KXM016M | 0.0265 | 0.019/0.039 | 3670 | 18x40 |
| 15000 | 6.3 | 159KXM6R3M | 0.0243 | 0.02/0.041 | 3610 | 18x35 |
| 15000 | 10 | 159KXM010M | 0.021 | 0.019/0.039 | 3850 | 18x40 |