# 液态小型铝电解电容器产品编码规则

| 1 | 2 | 3 |
|---|---|---|

| 系列 | 代码 |
|---|---|
| L3M | L3M |
| LMM | LMM |
| LK7 | LK7 |
| LK | OLK |
| KCX | KCX |
| KCG | KCG |
| KCM | KCM |
| LKF | LKF |
| LKM | LKM |
| LKG | LKG |
| LKZ | LKZ |
| LLK | LLK |
| LKX | LKX |
| LKL | LKL |
| LKL(R) | LKL(R) |
| LKJ | LKJ |
| LKD | LKD |
| V4M | V4M |
| V3MC | V3MC |
| V3M | V3M |
| VMM | VMM |
| VK7 | VK7 |
| VKO | VKO |
| VKM | VKM |
| VKG | VKG |
| VKL | VKL |
| VKL(R) | VKL(R) |

| 4 | 5 | 6 | 7 |
|---|---|---|---|

| 产品直径 | 代码 | 产品高度 | 代码 |
|---|---|---|---|
| 3.5 | F | 3.95 | 039 |
| 3.55 | W | 4.5 | 045 |
| 4 | A | 5 | 050 |
| 4.5 | G | 5.4 | 054 |
| 5 | B | 5.7 | 057 |
| 5.5 | H | 5.8 | 058 |
| 6.3 | C | 6.5 | 065 |
| 7 | T | 7 | 070 |
| 8 | D | 7.7 | 077 |
| 10 | E | 8 | 080 |
| 12.5 | L | 8.5 | 085 |
| 13 | S | 9 | 090 |
| 16 | I | 9.5 | 095 |
| 18 | J | 10 | 100 |
| 20 | N | 10.5 | 105 |
| 22 | K | 11 | 110 |
| 25 | M | 11.5 | 115 |
| | | 12 | 120 |
| | | 12.5 | 125 |
| | | 13 | 130 |
| | | 13.5 | 135 |
| | | 14 | 140 |
| | | 14.5 | 145 |
| | | 15 | 150 |
| | | 16 | 160 |
| | | 16.5 | 165 |
| | | 17 | 170 |
| | | 18 | 180 |
| | | 19 | 190 |
| | | 20 | 200 |
| | | 21 | 210 |
| | | 22 | 220 |
| | | 23 | 230 |
| | | 25 | 250 |
| | | 28 | 280 |
| | | 30 | 300 |
| | | 31.5 | 315 |
| | | 32 | 320 |
| | | 35.5 | 355 |
| | | 36 | 360 |
| | | 40 | 400 |
| | | 41.5 | 415 |
| | | 45 | 450 |
| | | 50 | 500 |

| 8 | 9 |
|---|---|

| 额定电压(V) | 代码 |
|---|---|
| 6.3 | 0J |
| 10 | 1A |
| 16 | 1C |
| 20 | 1D |
| 25 | 1E |
| 27 | 1N |
| 35 | 1V |
| 40 | 1G |
| 50 | 1H |
| 63 | 1J |
| 70 | 1L |
| 80 | 1K |
| 90 | 1F |
| 100 | 2A |
| 110 | 2R |
| 120 | 2K |
| 125 | 2B |
| 130 | 1Q |
| 140 | 2Q |
| 160 | 2C |
| 180 | 2M |
| 200 | 2D |
| 250 | 2E |
| 270 | 2N |
| 300 | 2S |
| 315 | 2F |
| 320 | 1U |
| 330 | 2U |
| 350 | 2V |
| 375 | 2P |
| 400 | 2G |
| 420 | 2T |
| 450 | 2W |
| 480 | 2L |
| 500 | 2H |
| 550 | 2I |
| 600 | 2J |
| 630 | 2Y |
| 650 | 2X |

| 10 | 11 | 12 |
|---|---|---|

| 静电容量(μF) | 代码 |
|---|---|
| 0.1 | R10 |
| 0.22 | R22 |
| 0.33 | R33 |
| 0.47 | R47 |
| 0.56 | R56 |
| 0.68 | R68 |
| 0.82 | R82 |
| 1.0 | 1R0 |
| 2.2 | 2R2 |
| 3.3 | 3R3 |
| 4.7 | 4R7 |
| 5.6 | 5R6 |
| 6.8 | 6R8 |
| 8.2 | 8R2 |
| 10 | 100 |
| 22 | 220 |
| 33 | 330 |
| 47 | 470 |
| 56 | 560 |
| 68 | 680 |
| 82 | 820 |
| 100 | 101 |
| 220 | 221 |
| 330 | 331 |
| 470 | 471 |
| 560 | 561 |
| 680 | 681 |
| 820 | 821 |
| 1000 | 102 |
| 1500 | 152 |
| 2200 | 222 |
| 3300 | 332 |
| 4700 | 472 |
| 6800 | 682 |
| 10000 | 103 |
| 22000 | 223 |
| 33000 | 333 |

| 13 |
|---|

| 容量范围 | 代码 |
|---|---|
| ±20% | M |
| ±10% | K |
| 0%~+10% | R |
| 0%~-10% | T |
| -10%~+20% | V |
| -20%~+5% | L |
| -10%~+5% | G |
| -10%~+15% | H |
| 0%~+40% | I |
| ±15% | J |
| -20%~+50% | A |
| -5%~-20% | B |
| -5%~+20% | E |
| -15%~+5% | C |
| -15%~-5% | D |
| 0%~+20% | F |
| 0%~+15% | N |
| -5%~+15% | W |
| -20%~+0% | S |
| -20%~+10% | P |
| 0%~+5% | Q |

| 14 |
|---|

| 附属码(国内) | |
|---|---|
| O | 引线30F/35F |
| H | 引线33F/38F |
| F | 引线22F/27F |
| A | 切直脚A图 |
| B | 切脚成型B图 |
| C | 切脚成型C图 |
| D | 切脚成型D图 |
| E | 切脚成型E图 |
| Q | 切脚折弯90° F图A型(右) |
| P | 切脚折弯90° F图B型(左) |
| X | 切脚成型G图 |
| g | 切脚双折弯90° H图A型(右) |
| f | 切脚双折弯90° H图B型(左) |
| K | 编带A图 |
| J | 编带B图 |
| V | SMD |
| TM | 涂膜 |
| CG | 车规 |
| 附属码(IND) | |
| 2 | 引线30F/35F |
| 3 | 引线33F/38F |
| 4 | 切直脚A图 |
| 5 | 切脚成型B图 |
| 6 | 切脚成型C图 |
| 7 | 切脚成型D图 |
| 8 | 切脚成型E图 |
| 9 | 引线22F/27F |
| M | 编带A图 |
| N | 编带B图 |

# LK7

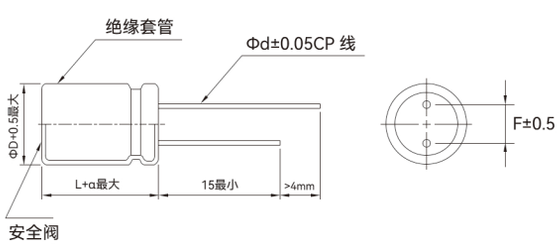
◆7mm高 超小型产品 高端电源专用
◆105℃环境下5000~6000小时
◆符合AEC-Q200 RoHS指令对应




## ■ 主要技术参数

| 项目 | 特性 |
|---|---|
| 使用温度范围 | -40~+105℃ |
| 标称电压范围 | 6.3~400V |
| 容量允许偏差 | ±20%（25±2℃ 120Hz） |
| 漏电流(μA) | 6.3~100WV I≦0.01CV or 3μA 取大者 C:标称容量(μF) V:额定电压(V) 2分钟读数<br>160~400WV I≦0.02CV+10(μA) C:标称容量(μF) V:额定电压(V) 2分钟读数 |
| 损耗角正切值<br>(25±2℃ 120Hz) | 额定电压(V) 6.3 10 16 25 35 50 63<br>tg δ 0.32 0.28 0.24 0.20 0.16 0.14 0.14<br>额定电压(V) 80 100 160 200 250 350 400<br>tg δ 0.12 0.12 0.15 0.15 0.15 0.15 0.15<br>标称容量超过1000μF者，则每增加1000μF，损耗角正切值增加0.02 |
| 温度特性<br>(120Hz) | 额定电压(V) 6.3 10 16 25 35 50 63<br>阻抗比Z(-40℃)/Z(20℃) 12 10 8 6 4 4 4<br>额定电压(V) 80 100 160 200 250 350 400<br>阻抗比Z(-40℃)/Z(20℃) 4 4 4 5 5 7 7 |
| 耐久性 | 在105℃烘箱中，施加含额定纹波电流的额定电压，持续规定时间后，置于常温16小时后测试，测试温度：25±2℃，电容器的性能应满足如下要求<br>容量变化率：在初始值的±30%以内<br>损耗角正切值：在规定值的300%以下<br>漏电流：在规定值以下<br>负荷寿命：Φ5、Φ6.3：5000小时；Φ8、Φ10：6000小时 |
| 高温储存 | 在105℃下，储存1000小时，置于常温16小时后测试，测试温度25±2℃，电容器的性能应满足如下要求<br>容量变化率：在初始值的±30%以内<br>损耗角正切值：在规定值的300%以下<br>漏电流：在规定值的200%以下 |

## ■ 产品尺寸图（单位：mm）




| D | 5 | 6.3 | 8(≦100V) | 8(≧160V) | 10 |
|---|---|---|---|---|---|
| d | 0.45 | 0.5 | 0.5 | 0.6 | 0.6 |
| F | 2.0 | 2.5 | 3.5 | | 5.0 |
| α | 1.0 | | | | 1.5 |

备注：≧Φ6.3 产品有安全阀

## ■ 纹波电流补偿系数

### ①频率修正因子

| 频率(Hz) | 50 | 120 | 1K | ≧10K |
|---|---|---|---|---|
| 修正因子 | 0.65 | 1.00 | 1.37 | 1.50 |

### ②温度修正系数

| 环境温度(℃) | 50℃ | 70℃ | 85℃ | 105℃ |
|---|---|---|---|---|
| 修正因子 | 2.1 | 1.8 | 1.4 | 1.0 |

# LK7

## ■ 标准品一览表

| 电压(V) | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 项目 / 容量 (μF) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) |
| 2.2 | | | | | | | | | | | 5×7 | 31 |
| 2.7 | | | | | | | | | | | 5×7 | 31 |
| 3.3 | | | | | | | | | | | 5×7 | 31 |
| 3.9 | | | | | | | | | | | 5×7 | 31 |
| 4.7 | | | | | | | 5×7 | 50 | 5×7 | 50 | 5×7 | 31 |
| 5.6 | | | | | | | 5×7 | 50 | 5×7 | 50 | 5×7 | 31 |
| 6.8 | | | | | | | 5×7 | 55 | 5×7 | 50 | 5×7 | 31 |
| 8.2 | | | | | | | 5×7 | 55 | 5×7 | 50 | 5×7 | 31 |
| 10 | 5×7 | 55 | 5×7 | 55 | 5×7 | 55 | 5×7 | 60 | 5×7 | 50 | 5×7 | 31 |
| 12 | 5×7 | 55 | 5×7 | 55 | 5×7 | 55 | 5×7 | 60 | 5×7 | 60 | 5×7 | 37 |
| 15 | 5×7 | 60 | 5×7 | 60 | 5×7 | 60 | 5×7 | 60 | 5×7 | 60 | 5×7 | 44 |
| 18 | 5×7 | 60 | 5×7 | 60 | 5×7 | 60 | 5×7 | 60 | 5×7 | 60 | 6.3×7 | 55 |
| 22 | 5×7 | 60 | 5×7 | 70 | 5×7 | 70 | 5×7 | 60 | 5×7 | 70 | 6.3×7 | 65 |
| 27 | 5×7 | 70 | 5×7 | 70 | 5×7 | 70 | 5×7 | 70 | 6.3×7 | 80 | 6.3×7 | 78 |
| 33 | 5×7 | 80 | 5×7 | 80 | 5×7 | 80 | 5×7 | 85 | 6.3×7 | 90 | 8×7 | 85 |
| 39 | 5×7 | 80 | 5×7 | 80 | 5×7 | 80 | 5×7 | 85 | 6.3×7 | 98 | 8×7 | 100 |
| 47 | 5×7 | 90 | 5×7 | 90 | 5×7 | 90 | 5×7 | 90 | 6.3×7 | 105 | 8×7 | 120 |
| 56 | 5×7 | 90 | 5×7 | 90 | 5×7 | 90 | 6.3×7 | 98 | 8×7 | 115 | 8×7 | 125 |
| 68 | 5×7 | 90 | 5×7 | 90 | 5×7 | 90 | 6.3×7 | 105 | 8×7 | 125 | 10×7 | 140 |
| 82 | 5×7 | 100 | 5×7 | 98 | 6.3×7 | 105 | 6.3×7 | 115 | 8×7 | 140 | 10×7 | 160 |
| 100 | 5×7 | 105 | 6.3×7 | 115 | 6.3×7 | 115 | 8×7 | 125 | 8×7 | 170 | 10×7 | 180 |
| 120 | 5×7 | 110 | 6.3×7 | 115 | 6.3×7 | 128 | 8×7 | 140 | 10×7 | 180 | | |
| 150 | 6.3×7 | 115 | 6.3×7 | 135 | 8×7 | 140 | 8×7 | 170 | 10×7 | 210 | | |
| 180 | 6.3×7 | 135 | 8×7 | 160 | 8×7 | 170 | 10×7 | 190 | | | | |
| 220 | 6.3×7 | 160 | 8×7 | 170 | 8×7 | 190 | 10×7 | 220 | | | | |
| 270 | 8×7 | 170 | 8×7 | 190 | 10×7 | 220 | | | | | | |
| 330 | 8×7 | 180 | 10×7 | 220 | 10×7 | 240 | | | | | | |
| 390 | 8×7 | 190 | 10×7 | 240 | 10×7 | 260 | | | | | | |
| 470 | 8×7 | 200 | 10×7 | 260 | | | | | | | | |
| 560 | 10×7 | 240 | | | | | | | | | | |
| 680 | 10×7 | 280 | | | | | | | | | | |

# LK7

## ■ 标准品一览表

| 电压(V) | 63 | | 80 | | 100 | | 160 | | 200 | | 250 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 项目 / 容量 (μF) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) |
| 1.0 | | | | | | | | | 5×7 | 20 | 5×7 | 20 |
| 1.2 | | | | | | | | | 5×7 | 20 | 5×7 | 20 |
| 1.5 | | | | | | | | | 5×7 | 22 | 5×7 | 22 |
| 1.8 | | | | | | | | | 5×7 | 22 | 5×7 | 22 |
| 2.2 | 5×7 | 30 | 5×7 | 30 | 5×7 | 28 | 5×7 | 20 | 6.3×7 | 25 | 6.3×7 | 25 |
| 2.7 | 5×7 | 30 | 5×7 | 30 | 5×7 | 28 | 5×7 | 20 | 6.3×7 | 35 | 6.3×7 | 35 |
| 3.3 | 5×7 | 30 | 5×7 | 30 | 5×7 | 28 | 6.3×7 | 22 | 6.3×7 | 40 | 6.3×7 | 40 |
| 3.9 | 5×7 | 30 | 5×7 | 30 | 5×7 | 28 | 6.3×7 | 22 | 8×7 | 50 | 8×7 | 50 |
| 4.7 | 5×7 | 30 | 5×7 | 30 | 5×7 | 28 | 6.3×7 | 22 | 8×7 | 55 | 8×7 | 55 |
| 5.6 | 5×7 | 30 | 5×7 | 30 | 5×7 | 28 | 8×7 | 50 | 8×7 | 65 | 8×7 | 65 |
| 6.8 | 5×7 | 30 | 5×7 | 30 | 6.3×7 | 30 | 8×7 | 55 | 8×7 | 72 | 10×7 | 80 |
| 8.2 | 5×7 | 30 | 5×7 | 30 | 6.3×7 | 40 | 8×7 | 60 | 10×7 | 95 | 10×7 | 95 |
| 10 | 5×7 | 30 | 6.3×7 | 50 | 6.3×7 | 50 | 8×7 | 65 | 10×7 | 108 | 10×7 | 108 |
| 12 | 6.3×7 | 50 | 6.3×7 | 55 | 8×7 | 75 | 10×7 | 95 | | | | |
| 15 | 6.3×7 | 56 | 6.3×7 | 70 | 8×7 | 85 | 10×7 | 115 | | | | |
| 18 | 6.3×7 | 70 | 6.3×7 | 75 | 8×7 | 100 | | | | | | |
| 22 | 8×7 | 75 | 8×7 | 85 | 8×7 | 120 | | | | | | |
| 27 | 8×7 | 85 | 8×7 | 100 | 10×7 | 130 | | | | | | |
| 33 | 8×7 | 100 | 8×7 | 120 | 10×7 | 150 | | | | | | |
| 39 | 8×7 | 120 | 10×7 | 130 | | | | | | | | |
| 47 | 10×7 | 130 | 10×7 | 150 | | | | | | | | |
| 56 | 10×7 | 150 | 10×7 | 160 | | | | | | | | |
| 68 | 10×7 | 160 | | | | | | | | | | |

| 电压(V) | 350 | | 400 | |
|---|---|---|---|---|
| 项目 / 容量 (μF) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) | 尺寸 ΦD×L(mm) | 纹波电流 (mA r.m.s/ 105℃ 120Hz) |
| 1.0 | 6.3×7 | 25 | 6.3×7 | 25 |
| 1.2 | 6.3×7 | 30 | 6.3×7 | 30 |
| 1.5 | 6.3×7 | 35 | 6.3×7 | 35 |
| 1.8 | 6.3×7 | 40 | 6.3×7 | 40 |
| 2.2 | 8×7 | 50 | 8×7 | 50 |
| 2.7 | 8×7 | 55 | 8×7 | 55 |
| 3.3 | 8×7 | 70 | 8×7 | 70 |
| 3.9 | 10×7 | 80 | 10×7 | 80 |
| 4.7 | 10×7 | 95 | 10×7 | 95 |
| 5.6 | 10×7 | 108 | | |