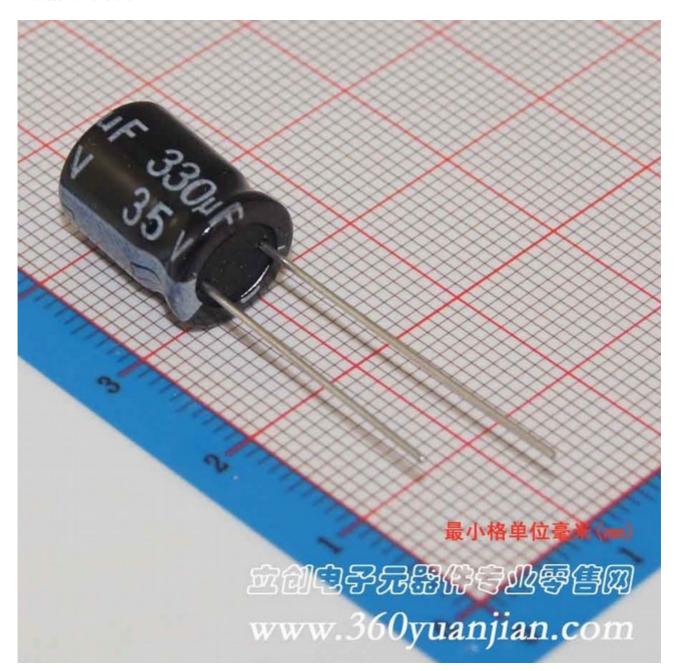


此商品编号对应的规格参数是: 330uF 35V/10\*13

此商品的实物图片为:



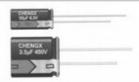


# KM Series

## +105°C, General (普通品)

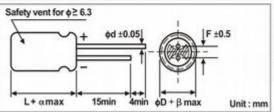
### **FEATURES**

- 1. Rated working voltage range 6.3 to 100V DC/160 to 450V DC at operation temperature range -40 to +105°C/-25 to +105°C.
- This series is for communication equipments, switching power supply, industrial measuring instruments, automotive electric products, etc.



| Item                            | Performa   | nce Chara           | actesisti | ics            |      |                                |   |         |      |      |      |  |
|---------------------------------|--|---------------------|-----------|----------------|------|--------------------------------|---|---------|------|------|------|--|
| Operating Temperature Range     | -40 to +105°C  |                     |           |                |      |                                | -25 to +105°C                                       |         |      |      |      |  |
| Reted Working Voltage Range     | 6.3 to 100   | V                   |           |                |      |                                | 160 to 450  | V       |      |      |      |  |
| Nominal Capacitance Range       | 0.1 to 330   | 00μF                |           |                |      |                                |   |         |      |      |      |  |
| Capacitance Tolerance           | ±20% (12   | ±20% (120Hz, +20°C) |           |                |      |                                |   |         |      |      |      |  |
| Leakage Current                 | ≤ 0.01C  | / or 3(μA)          | whichev   | er is grea     | ater |                                | 1≤0.03CV  | +40(µA) |      |      |      |  |
|                                 | -  |                     |           | and the second |      | tage at +20                    |   | - qu    |      |      |      |  |
| tan δ (120Hz, +20°C)            | Working \  | /oltage (V)         |           | 5.3            | 10   | 16                             | 25  | 35      | 50   | 63   | 100  |  |
|                                 | tan δ (max.)   |                     | 0         | .26            | 0.22 | 0.18                           | 0.16  | 0.14    | 0.12 | 0.10 | 0.08 |  |
|                                 | Working Voltage (V)  |                     | 1         | 60             | 200  | 250                            | 250   | 350     | 400  | 420  | 450  |  |
|                                 | tan δ (max.)   |                     | 0.        | .20            | 0.20 | 0.20                           | 0.20  | 0.24    | 0.24 | 0.24 | 0.24 |  |
|                                 | For capacitance value > 1000 μF, add 0.02 per another 1000 μF  |                     |           |                |      |                                |   |         |      |      |      |  |
| Low Temperature Characteristics | Impedance ratio max. at 120Hz  |                     |           |                |      |                                |   |         |      |      |      |  |
|                                 | Working Voltage (V)  |                     | (         | 3.3            | 10   | 16                             | 25  | 35      | 50   | 63   | 100  |  |
|                                 | Z-25°C / Z+20°C  |                     |           | 5              | 4    | 3                              | 2   | 2       | 2    | 2    | 2    |  |
|                                 | Z-40°C / Z+20°C  |                     | - 0.5     | 10             | 8    | 6                              | 4   | 3       | 3    | 3    | 3    |  |
|                                 | Working Voltage (V)  |                     | 1         | 60             | 200  | 220                            | 250   | 350     | 400  | 420  | 450  |  |
|                                 | Z-25°C / Z+20°C  |                     | _         | 3              | 3    | 3                              | 4   | 4       | 6    | 6    | 15   |  |
|                                 | For capacitance value > 1000 µF, Add 0.5 per another 1000 µF for Z-25°C / Z+20°C  Add 1.0 per another 1000 µF for Z-40°C / Z+20°C                |                     |           |                |      |                                |   |         |      |      |      |  |
| ligh Temperature Loading        | Test conditions Post test requirements at +20°C  |                     |           |                |      |                                |   |         |      |      |      |  |
|                                 | Duration :   | φD                  | ≤ 6.3     | ≥ 8            |      | Lea                            | Leakage current : ≤ Initial specified value         |         |      |      |      |  |
|                                 |  | Load life           | 1000h     | 2000h          |      | Cap                            | Cap. change : within ±20% of initial measured value |         |      |      |      |  |
|                                 | Ambient temp. :+105°C tan δ :≤200% of initial specified value  |                     |           |                |      |                                |   |         |      |      |      |  |
|                                 | Applied voltage : DC voltage with maximum permissible ripple current specified at +105°C   |                     |           |                |      |                                |   |         |      |      |      |  |
|                                 | (Sum of the DC voltage and super-imposed peak AC voltage for maximum permissible ripple<br>current should be equal to reted DC working voltage). |                     |           |                |      |                                |   |         |      |      |      |  |
| Shelf Life                      | ·  |                     |           |                |      | ost test requirements at +20°C |   |         |      |      |      |  |
|                                 | Duration   |                     | 000 hour  | s              |      |                                | ame limits for high temperature loading.            |         |      |      |      |  |
|                                 | Ambient t  | emp. : +1           | 105°C     |                |      |                                |   |         |      |      |      |  |
|                                 | Ambient temp. : +105°C   |                     |           |                |      |                                |   |         |      |      |      |  |

### CASE SIZE TABLE



| φD | 5   | 6.3 | 8       | 10  | 12.5        | 16      | 18  | 22   | 25   |  |
|----|-----|-----|---------|-----|-------------|---------|-----|------|------|--|
| F  | 2.0 | 2.5 | 3.5     | 5.0 | 5.0         | 7.5     | 7.5 | 10.0 | 10.0 |  |
| φd | 0.5 |     |         | 0   | .6          | 0.8     |     |      |      |  |
| α  |     | (L  | < 20) 1 | .5  | (L≥ 20) 2.0 |         |     |      |      |  |
| β  |     | (0  | < 20) 0 | .5  | (0          | ≥ 20) 1 | .0  |      |      |  |



# KM Series

## +105°C, General (普通品)

| Voltag   | e (Code) | 6.3       | V (OJ)         | 10\       | / (1A)         | 16\       | / (1C)         | 25V (1E)  |               |
|----------|----------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|---------------|
| Cap.(µF) | Code     | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Curren |
| 0.1      | 104      |           |                |           |                |           |                |           |               |
| 0.15     | 154      |           |                |           |                |           |                |           |               |
| 0.22     | 224      |           |                |           |                | 3         |                |           |               |
| 0.33     | 334      |           |                |           |                | 3         |                |           |               |
| 0.47     | 474      |           |                |           |                |           |                |           |               |
| 1        | 105      |           |                |           |                |           |                |           |               |
| 2.2      | 225      |           |                |           |                |           |                |           |               |
| 3.3      | 335      |           |                |           |                |           |                |           |               |
| 4.7      | 475      |           |                |           |                |           |                | 5 x 11    | 26            |
| 10       | 106      |           |                |           |                | 5 x 11    | 35             | 5 x 11    | 38            |
| 22       | 226      |           |                | 5 x 11    | 49             | 5 x 11    | 54             | 5 x 11    | 57            |
| 33       | 336      | 5 x 11    | 54             | 5 x 11    | 60             | 5 x 11    | 65             | 5 x 11    | 75            |
| 47       | 476      | 5 x 11    | 65             | 5 x 11    | 70             | 5 x 11    | 80             | 5 x 11    | 84            |
| 68       | 686      | 5 x 11    | 70             | 5 x 11    | 75             | 5 x 11    | 90             | 5 x 11    | 92            |
| 100      | 107      | 5 x 11    | 95             | 5 x 11    | 105            | 5 x 11    | 125            | 6.3 x 11  | 159           |
| 220      | 227      | 5 x 11    | 153            | 5 x 11    | 170            | 6.3 x 11  | 213            | 8 x 12    | 285           |
| 330      | 337      | 6.3 x 11  | 216            | 6.3 x 11  | 239            | 8 x 12    | 315            | 8 x 12    | 340           |
| 470      | 477      | 6.3 x 11  | 258            | 6.3 x 11  | 285            | 8 x 12    | 366            | 10 x 12.5 | 471           |
| 680      | 687      | 8 x 12    | 365            | 8 x 12    | 408            | 10 x 12.5 | 480            | 10 x 16   | 620           |
| 1000     | 108      | 8 x 12    | 443            | 10 x 12.5 | 571            | 10 x 16   | 680            | 10 x 20   | 821           |
| 2200     | 228      | 10 x16    | 740            | 10 x 20   | 886            | 12.5 x 20 | 1108           | 12.5 x 20 | 1176          |
| 3300     | 338      | 10 x 20   | 1032           | 12.5 x 20 | 1205           | 12.5 x 25 | 1389           | 16 x 25   | 1646          |
| 4700     | 478      | 12.5 x 20 | 1280           | 12.5 x 25 | 1492           | 16 x 25   | 1740           | 16 x 30   | 2012          |
| 6800     | 688      | 12.5 x 25 | 1554           | 16 x 25   | 1824           | 16 x 30   | 2081           | 16 x 35   | 2308          |
| 10000    | 109      | 16 x 25   | 1897           | 16 x 30   | 1980           | 16 x 35   | 2379           | 18 x 35   | 2500          |
| 15000    | 159      | 16 x 30   | 2188           | 16 x 40   | 2180           | 18 x 35   | 2600           |           |               |
| 22000    | 229      | 18 x 35   | 2400           | 18 x 40   | 2407           |           |                |           |               |
| 33000    | 339      | 18 x 40   | 2555           |           |                |           |                |           |               |

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size  $\phi D \times L(mm)$ 

| Voltage (Code) 35V (1V) |      | 501       | V (1H)         | 63        | V (1J)         | 100V (2A) |                |           |               |
|-------------------------|------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|---------------|
| Cap.(µF)                | Code | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Currer |
| 0.1                     | 104  |           |                | 5 x 11    | 1              |           |                |           |               |
| 0.15                    | 154  |           |                | 5 x 11    | 1.5            |           |                |           |               |
| 0.22                    | 224  |           |                | 5 x 11    | 3              |           |                |           |               |
| 0.33                    | 334  |           |                | 5 x 11    | 4              |           |                |           |               |
| 0.47                    | 474  |           |                | 5 x 11    | 7              |           |                | 5 x 11    | 10            |
| 1                       | 105  | 3         |                | 5 x 11    | 13             |           |                | 5 x 11    | 16            |
| 2.2                     | 225  |           |                | 5 x 11    | 20             |           |                | 5 x 11    | 23            |
| 3.3                     | 335  |           |                | 5 x 11    | 30             |           |                | 5 x 11    | 34            |
| 4.7                     | 475  | 5 x 11    | 28             | 5 x 11    | 37             | 5 x 11    | 40             | 5 x 11    | 40            |
| 10                      | 106  | 5 x 11    | 41             | 5 x 11    | 54             | 5 x 11    | 59             | 6.3 x 11  | 61            |
| 22                      | 226  | 5 x 11    | 67             | 5 x 11    | 79             | 5 x 11    | 79             | 6.3 x 11  | 92            |
| 33                      | 336  | 5 x 11    | 80             | 5 x 11    | 101            | 6.3 x 11  | 122            | 8 x 12    | 144           |
| 47                      | 476  | 5 x 11    | 101            | 6.3 x 11  | 133            | 6.3 x 11  | 146            | 10 x 12.5 | 199           |
| 68                      | 686  |           |                |           |                | 8 x 12    | 155            | 10 x 16   | 240           |
| 100                     | 107  | 6.3 x 11  | 168            | 8 x 12    | 229            | 10 x 12.5 | 251            | 10 x 20   | 349           |
| 220                     | 227  | 8 x 12    | 294            | 10 x 16   | 509            | 10 x 20   | 504            | 12.5 x 25 | 622           |
| 330                     | 337  | 10 x 12.5 | 419            | 10 x 16   | 589            | 12.5 x 20 | 688            | 12.5 x 25 | 800           |
| 470                     | 477  | 10 x 16   | 547            | 10 x 20   | 707            | 12.5 x 20 | 810            | 16 x 25   | 990           |
| 680                     | 687  | 10 x 20   | 682            | 12.5 x 20 | 923            | 12.5 x 25 | 1160           | 16 x 30   | 1289          |
| 1000                    | 108  | 12.5 x 20 | 1023           | 12.5 x 25 | 1287           | 16 x 25   | 1448           | 18 x 35   | 2020          |
| 2200                    | 228  | 16 x 25   | 1497           | 16 x 35   | 1884           | 18 x 35   | 1781           |           |               |
| 3300                    | 338  | 16 x 30   | 1808           | 18 x 35   | 2167           |           |                |           |               |
| 4700                    | 478  | 18 x 35   | 2335           |           | 7 6            |           |                |           |               |
| 6800                    | 688  | 18 x 40   | 2400           |           |                |           |                |           |               |



## KM Series

## +105°C, General (普通品)

### STANDARD RATINGS

| Voltag   | e (Code) | 160V (2C) |                | 200       | V (2D)         | 220       | V (2N)         | 250       | V (2E)        |
|----------|----------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|---------------|
| Cap.(µF) | Code     | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Curren |
| 0.47     | 474      |           |                |           |                |           |                | 6.3 x 11  | 8             |
| 1        | 105      |           |                |           |                |           |                | 6.3 x 11  | 17            |
| 2.2      | 225      |           |                |           |                |           |                | 6.3 x 11  | 27            |
| 3.3      | 335      |           |                | 6.3 x 11  | 30             | 6.3 x 11  | 30             | 6.3 x 11  | 35            |
| 4.7      | 475      | 6.3 x 11  | 41             | 6.3 x 11  | 40             | 8 x 12    | 40             | 8 x 12    | 45            |
| 10       | 106      | 8 x 12    | 60             | 10 x 12.5 | 72             | 10 x 12.5 | 70             | 10 x 12.5 | 75            |
| 22       | 226      | 10 x 16   | 110            | 10 x 16   | 113            | 10 x 20   | 125            | 10 x 20   | 130           |
| 33       | 336      | 10 x 20   | 156            | 10 x 20   | 165            | 12.5 x 20 | 165            | 12.5 x 20 | 184           |
| 47       | 476      | 10 x 20   | 195            | 10 x 20   | 194            | 12.5 x 20 | 220            | 12.5 x 25 | 238           |
| 68       | 686      | 12.5 x 20 | 250            | 12.5 x 25 | 250            | 12.5 x 25 | 245            | 16 x 20   | 246           |
| 82       | 826      | 12.5 x 25 | 310            | 10 x 30   | 320            | 12.5 x 30 | 280            | 16 x 25   | 351           |
| 100      | 107      | 12.5 x 25 | 360            | 16 x 25   | 386            | 16 x 25   | 335            | 16 x 25   | 390           |
| 150      | 157      | 12.5 x 30 | 380            | 16 x 25   | 525            | 16 x 30   | 365            | 16 x 30   | 440           |
| 180      | 187      | 12.5 x 35 | 420            | 12.5 x 35 | 560            | 16 x 35   | 500            | 16 x 35   | 469           |
| 220      | 227      | 16 x 30   | 680            | 16 x 30   | 643            | 16 x 40   | 615            | 16 x 35   | 485           |
| 270      | 277      | 16 x 30   | 728            | 18 x 30   | 740            |           |                |           |               |
| 330      | 337      | 18 x 35   | 830            | 18x 30    | 808            |           |                |           |               |
| 390      | 397      | 18 x 35   | 850            | 18 x 35   | 904            |           |                |           |               |
| 470      | 477      | 18 x 40   | 880            | 18 x 40   | 1016           |           |                |           |               |
| 560      | 567      | 18 x 45   | 925            | 18 x 45   | 1112           |           |                |           |               |

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size  $\phi D \times L(mm)$ 

| Voltag   | e (Code) | 350       | V (2V)         | 400       | V (2G)         | 420       | V (2M)         | 450V (2W) |               |  |
|----------|----------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|---------------|--|
| Cap.(µF) | Code     | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Currer |  |
| 0.47     | 474      | 6.3 x 11  | 8              |           |                |           |                |           |               |  |
| 1        | 105      | 6.3 x 11  | 18             | 6.3 x 11  | 19             | 6.3 x 11  | 15             | 6.3 x 11  | 16            |  |
| 2.2      | 225      | 6.3 x 11  | 25             | 8 x 12    | 30             | 8 x 12    | 29             | 8 x 12    | 24            |  |
| 3.3      | 335      | 8 x 12    | 40             | 8 x 12    | 35             | 8 x 12    | 35             | 8 x 12    | 29            |  |
| 4.7      | 475      | 8 x 12    | 43             | 8 x 12    | 40             | 10 x 16   | 52             | 10 x 16   | 42            |  |
| 10       | 106      | 10 x 16   | 73             | 10 x 16   | 78             | 10 x 20   | 85             | 12.5 x 25 | 84            |  |
| 18       | 186      | 12.5 x 20 | 100            | 12.5 x 20 | 105            | 12.5 x 25 | 124            | 10 x 30   | 108           |  |
| 22       | 226      | 12.5 x 20 | 150            | 12.5 x 20 | 148            | 12.5 x 25 | 140            | 12.5 x 25 | 131           |  |
| 27       | 276      | 12.5 x 25 | 177            | 10 x 30   | 192            | 12.5 x 25 | 170            | 12.5 x 30 | 164           |  |
| 33       | 386      | 12.5 x 25 | 200            | 12.5 x 25 | 193            | 16 x 25   | 200            | 16 x 25   | 237           |  |
| 39       | 396      | 12.5 x 25 | 258            | 16 x 25   | 251            | 12.5 x 30 | 248            | 12.5 x 35 | 256           |  |
| 47       | 476      | 12.5 x 25 | 265            | 12.5 x 30 | 266            | 12.5 x 35 | 288            | 16 x 30   | 305           |  |
| 56       | 566      | 16 x 30   | 280            | 12.5 x 35 | 336            | 12.5 x 40 | 344            | 16 x 30   | 352           |  |
| 68       | 686      | 16 x 30   | 288            | 16 x 30   | 396            | 16 x 30   | 408            | 18 x 30   | 366           |  |
| 82       | 826      | 18 x 30   | 372            | 18 x 30   | 443            | 16 x 35   | 456            | 18 x 30   | 440           |  |
| 100      | 107      | 18 x 35   | 460            | 18 x 30   | 489            | 18 x 35   | 488            | 18 x 35   | 490           |  |
| 120      | 127      |           |                | 18 x 35   | 570            | 18 x 40   | 528            | 18 x 40   | 592           |  |
| 150      | 157      |           |                | 18 x 40   | 616            | 18 x 45   | 568            | 18 x 45   | 640           |  |
| 180      | 187      |           |                | 18 x 50   | 704            |           |                |           |               |  |

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ¢D x L(mm)

### RIPPLE CURRENT MULTIPLIER

| Frequency Coefficient |                          |      |      |      |      |      |  |  |  |  |
|-----------------------|--------------------------|------|------|------|------|------|--|--|--|--|
| Rated Voltage(V)      | Cap.(.F) Coescient (rtz) | 50   | 120  | 300  | 1k   | 10k~ |  |  |  |  |
|                       | ~47                      | 0.75 | 1.00 | 1.35 | 1.57 | 2.00 |  |  |  |  |
| 6.3 ~ 100             | 68~470                   | 0.80 | 1.00 | 1.23 | 1.34 | 1.50 |  |  |  |  |
|                       | ≥ 560                    | 0.85 | 1.00 | 1.10 | 1.13 | 1.15 |  |  |  |  |
| 160 ~ 450             | 0.47 ~ 220               | 0.80 | 1.00 | 1.25 | 1.40 | 1.60 |  |  |  |  |
|                       | ≥ 270                    | 0.90 | 1.00 | 1.10 | 1.13 | 1.15 |  |  |  |  |