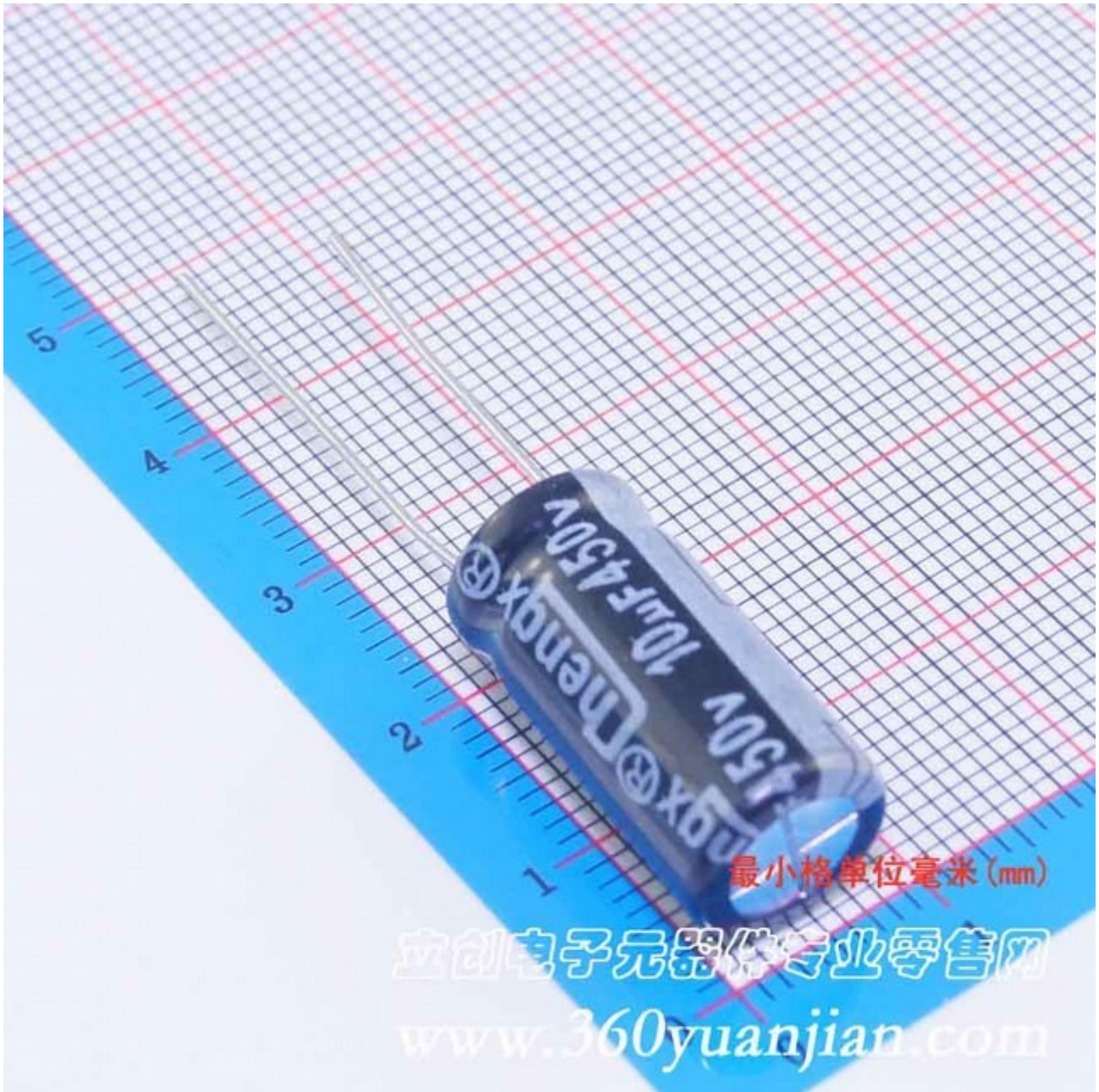


此商品编号对应的规格参数是: 10uF 450V 10*20

此商品的实物图片为:



KM Series

+105°C, General (普通品)

FEATURES

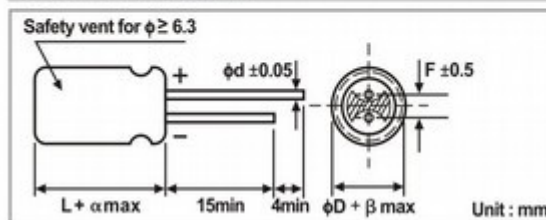
1. Rated working voltage range 6.3 to 100V DC/160 to 450V DC at operation temperature range -40 to +105°C/-25 to +105°C.
2. This series is for communication equipments, switching power supply, industrial measuring instruments, automotive electric products, etc.



SPECIFICATIONS

| Item | Performance Characteristics | |
|---------------------------------|---|--|
| Operating Temperature Range | -40 to +105°C | -25 to +105°C |
| Rated Working Voltage Range | 6.3 to 100V | 160 to 450V |
| Nominal Capacitance Range | 0.1 to 33000µF | |
| Capacitance Tolerance | ±20% (120Hz, +20°C) | |
| Leakage Current | $I \leq 0.01CV$ or $3(\mu A)$ whichever is greater | $I \leq 0.03CV + 40(\mu A)$ |
| | after 2 minutes application of rated working voltage at +20°C | |
| tan δ (120Hz, +20°C) | Working Voltage (V) | 6.3 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) | 160 200 250 250 350 400 420 450 |
| | tan δ (max.) | 0.20 0.20 0.20 0.20 0.24 0.24 0.24 0.24 |
| | For capacitance value > 1000µF, add 0.02 per another 1000µF | |
| Low Temperature Characteristics | Impedance ratio max. at 120Hz | |
| | Working Voltage (V) | 6.3 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 | 10 8 6 4 3 3 3 3 |
| | Working Voltage (V) | 160 200 220 250 350 400 420 450 |
| | Z-25°C / Z+20°C | 3 3 3 4 4 6 6 15 |
| | For capacitance value > 1000µF, Add 0.5 per another 1000µF for Z-25°C / Z+20°C Add 1.0 per another 1000µF for Z-40°C / Z+20°C | |
| High Temperature Loading | Test conditions | |
| | Duration : $\phi D \leq 6.3 \geq 8$ Load life 1000h 2000h | Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±20% of initial measured value tan δ : ≤ 200% of initial specified value |
| | Ambient temp. : +105°C 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 current should be equal to rated DC working voltage). | |
| Shelf Life | Test conditions | |
| | Duration : 1000 hours Ambient temp. : +105°C Applied voltage : (None) | Post test requirements at +20°C Same limits for high temperature loading. |
| Others | JIS C - 5101 (IES 60384) | |

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 | (D < 20) 0.5 | | | | | (D ≥ 20) 1.0 | | | |

KM Series

+105°C, General (普通品)

STANDARD RATINGS

| Voltage (Code) | | 6.3V (0J) | | 10V (1A) | | 16V (1C) | | 25V (1E) | |
|----------------|------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|
| Cap.(μ F) | Code | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current |
| 0.1 | 104 | | | | | | | | |
| 0.15 | 154 | | | | | | | | |
| 0.22 | 224 | | | | | | | | |
| 0.33 | 334 | | | | | | | | |
| 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 x 16 | 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 ϕ D x L(mm)

| Voltage (Code) | | 35V (1V) | | 50V (1H) | | 63V (1J) | | 100V (2A) | |
|----------------|------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|
| Cap.(μ F) | Code | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current |
| 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 | | | 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 | | | | | | |
| 6800 | 688 | 18 x 40 | 2400 | | | | | | |

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

Case Size ϕ D x L(mm)

KM Series

+105°C, General (普通品)

STANDARD RATINGS

| Voltage (Code) | | 160V (2C) | | 200V (2D) | | 220V (2N) | | 250V (2E) | |
|----------------|------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|
| Cap.(μF) | Code | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current |
| 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 φD x L(mm)

| Voltage (Code) | | 350V (2V) | | 400V (2G) | | 420V (2M) | | 450V (2W) | |
|----------------|------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|
| Cap.(μF) | Code | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current | Case Size | Ripple Current |
| 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 φD x L(mm)

RIPPLE CURRENT MULTIPLIER

| Frequency Coefficient | | | | | | | |
|-----------------------|------------|-------------|------|------|------|------|------|
| Rated Voltage(V) | Cap.(μF) | Coefficient | 50 | 120 | 300 | 1k | 10k~ |
| 6.3 ~ 100 | ~ 47 | | 0.75 | 1.00 | 1.35 | 1.57 | 2.00 |
| | 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 |