

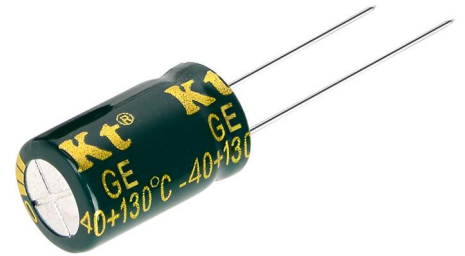
Kingtronics®

GKT-GE

Aluminum Electrolytic Capacitor— Radial

FEATURES

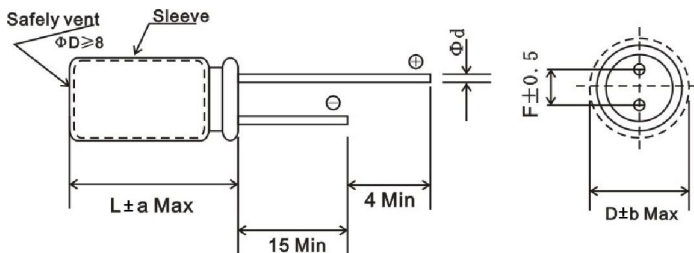
- ◆ High temperature, Long Life, High Stability.
- ◆ Ensure life: 130°C 3000 hours, 105°C 12000 hours.
- ◆ Extremely designed for LED lighting, Electronic energy saving lamps, Electronic ballast.



SPECIFICATIONS

| | | | | | | | |
|---|---|------|----------------------------------|------|-------------------------|------|-----------------------------|
| OPERATING TEMPERATURE RANGE (°C) | -40°C ~ +130°C (160V~400V) ; -25°C~+130°C (450V) | | | | | | |
| Capacitance Range (µF) | 1µF ~ 220µF | | | | | | |
| Rated Voltage Range (V) | 160V ~ 450V | | | | | | |
| CAPACITANCE TOLERANCE (+20°C, 120Hz) | ±20% | | | | | | |
| LEAKAGE CURRENT (µA) | 160V ~ 400V $I \leq 0.02CV + 10\mu A$ | | 450 $I \leq 0.03CV + 10\mu A$ | | I: Leakage Current (µA) | | C: Nominal Capacitance (µF) |
| DISSIPATION FACTOR (+20°C, 120Hz) | Wv (V) | 160 | 200 | 250 | 350 | 400 | 450 |
| | Tan δ | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 |
| | U _R (V) | 160 | 200 | 250 | 350 | 400 | 450 |
| Temperature Characteristics (Impedance ratio at 120Hz) | Z-25°C/+20°C | 3 | 3 | 3 | 5 | 5 | 6 |
| | Z-40°C/+20°C | 6 | 6 | 6 | 6 | 6 | -- |
| LOAD LIFE | After application of the rated DC voltage at 130°C 3,000 hours or application of DC voltage with rated ripple current (the voltage peak is not more than rated voltage) at 105°C 12,000 hours, measuring the parameters when the capacitors are restored to 20°C , the capacitors shall meet the requirements as below: Capacitance Change: ±20% of the initial measured value Leakage current: ≤the initial specified value Dissipation factory: ≤200% of the initial specified value | | | | | | |
| SHELF LIFE | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage application. Capacitance Change: ±20% of the initial measured value Leakage current: ≤200% of the initial specified value Dissipation factory: ≤200% of the initial specified value | | | | | | |

DIMENSIONS (mm)



| | | | | | |
|-------------|-----|-----|------|-----|-----|
| ΦD | 8 | 10 | 12.5 | 16 | 18 |
| F | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd ±0.05 | 0.5 | 0.6 | 0.6 | 0.8 | 0.8 |

| | | | |
|--------|------|-----------|-----------|
| a Max. | D<18 | D=18 | |
| | | L<35.5 | L≥35.5 |
| | | +1.5 -1.0 | +2.0 -1.0 |

| | | |
|--------|--------|-----|
| b M x. | (D<18) | 0.5 |
| | (D≥18) | 1.0 |

MULTIPLIER FOR RIPPLE CURRENT

| Frequency Coefficient | | | | | |
|-----------------------|---------|------|------|------|------|
| Frequency (Hz) | 120 | 1K | 10K | 100K | |
| Coefficient | 160~450 | 0.50 | 0.80 | 0.90 | 1.00 |

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STANDARD RATINGS

| Rated Voltage (Vdc) | Capacitance (µF) | Size ØDxL (mm) | tan δ | Rated ripple current (mA _{rms}) 105°C/100KHz |
|---------------------|------------------|----------------|-------|--|
| 160V | 3.3 | 8x12 | 0.15 | 88 |
| | 4.7 | 8x12 | 0.15 | 96 |
| | 5.6 | 8x16 | 0.15 | 102 |
| | 6.8 | 8x16 | 0.15 | 110 |
| | 8.2 | 8x16 | 0.15 | 180 |
| | 10 | 8x16 | 0.15 | 250 |
| | 15 | 8x20 | 0.15 | 340 |
| | 22 | 10x20 | 0.15 | 500 |
| | 33 | 10x20 | 0.15 | 525 |
| | | 12.5x20 | 0.15 | 550 |
| | 47 | 12.5x20 | 0.15 | 660 |
| | | 12.5x25 | 0.15 | 695 |
| | 68 | 12.5x25 | 0.15 | 760 |
| | | 16x20 | 0.15 | 760 |
| 100 | 16x25 | 0.15 | 1120 | |
| | 18x20 | 0.15 | 1120 | |
| 150 | 16x30 | 0.15 | 1360 | |
| | 18x25 | 0.15 | 1360 | |
| | 18x25 | 0.15 | 1400 | |
| 200V | 2.8 | 8x12 | 0.15 | 80 |
| | 3.3 | 8x12 | 0.15 | 92 |
| | 4.7 | 8x12 | 0.15 | 100 |
| | 5.6 | 8x16 | 0.15 | 108 |
| | 6.8 | 8x16 | 0.15 | 118 |
| | 8.2 | 10x16 | 0.15 | 180 |
| | 10 | 10x16 | 0.15 | 250 |
| | 15 | 10x20 | 0.15 | 358 |
| | 22 | 10x20 | 0.15 | 500 |
| | | 12.5x20 | 0.15 | 525 |
| | 33 | 12.5x20 | 0.15 | 600 |
| | | 12.5x25 | 0.15 | 695 |
| | 68 | 16x20 | 0.15 | 760 |
| | | 16x25 | 0.15 | 800 |
| 100 | 16x30 | 0.15 | 1180 | |
| | 18x20 | 0.15 | 1120 | |
| 150 | 18x30 | 0.15 | 1430 | |
| 220 | 18x35 | 0.15 | 1700 | |
| 250V | 2.2 | 8x12 | 0.15 | 80 |
| | 2.8 | 8x12 | 0.15 | 90 |
| | 3.3 | 8x12 | 0.15 | 100 |
| | 4.7 | 8x16 | 0.15 | 120 |
| | 5.6 | 8x16 | 0.15 | 140 |
| | 6.8 | 8x16 | 0.15 | 160 |
| | 8.2 | 10x16 | 0.15 | 180 |
| | 10 | 10x16 | 0.15 | 265 |
| | | 10x20 | 0.15 | 280 |
| | 15 | 10x20 | 0.15 | 380 |
| | 22 | 12.5x20 | 0.15 | 525 |
| | | 12.5x25 | 0.15 | 610 |
| | 33 | 12.5x25 | 0.15 | 630 |
| | | 12.5x25 | 0.15 | 720 |
| 47 | 16x25 | 0.15 | 760 | |
| | 16x30 | 0.15 | 850 | |
| 68 | 18x20 | 0.15 | 850 | |
| | 16x30 | 0.15 | 1200 | |
| 100 | 18x30 | 0.15 | 1260 | |
| | 18x35 | 0.15 | 1500 | |

| Rated Voltage (Vdc) | Capacitance (µF) | Size ØDxL (mm) | tan δ | Rated ripple current (mA _{rms}) 105°C/100KHz |
|---------------------|------------------|----------------|-------|--|
| 350V | 1 | 8x12 | 0.2 | 64 |
| | 1.5 | 8x12 | 0.2 | 70 |
| | 1.8 | 8x12 | 0.2 | 78 |
| | 2.2 | 8x16 | 0.2 | 88 |
| | 2.8 | 8x16 | 0.2 | 96 |
| | 3.3 | 8x16 | 0.2 | 110 |
| | 4.7 | 8x20 | 0.2 | 130 |
| | 5.6 | 8x20 | 0.2 | 180 |
| | 6.8 | 10x16 | 0.2 | 220 |
| | | 10x20 | 0.2 | 232 |
| | 8.2 | 12.5x20 | 0.2 | 238 |
| | | 12.5x25 | 0.2 | 245 |
| | 10 | 10x20 | 0.2 | 280 |
| | | 12.5x20 | 0.2 | 294 |
| 15 | 12.5x20 | 0.2 | 400 | |
| | 12.5x25 | 0.2 | 420 | |
| 22 | 12.5x20 | 0.2 | 525 | |
| | 12.5x25 | 0.2 | 540 | |
| 33 | 16x20 | 0.2 | 630 | |
| | 16x25 | 0.2 | 650 | |
| 47 | 16x25 | 0.2 | 760 | |
| | 18x20 | 0.2 | 760 | |
| 68 | 16x30 | 0.2 | 850 | |
| | 18x25 | 0.2 | 850 | |
| 100 | 18x35 | 0.2 | 1300 | |
| 400V | 1 | 8x16 | 0.2 | 72 |
| | 1.5 | 8x16 | 0.2 | 84 |
| | 1.8 | 8x16 | 0.2 | 85 |
| | 2.2 | 10x16 | 0.2 | 92 |
| | 2.8 | 10x16 | 0.2 | 100 |
| | 3.3 | 10x16 | 0.2 | 110 |
| | 4.7 | 10x20 | 0.2 | 130 |
| | 5.6 | 12.5x20 | 0.2 | 180 |
| | 6.8 | 10x16 | 0.2 | 220 |
| | | 12.5x20 | 0.2 | 232 |
| | 8.2 | 12.5x20 | 0.2 | 250 |
| | 10 | 10x20 | 0.2 | 280 |
| | | 12.5x20 | 0.2 | 294 |
| | 15 | 12.5x25 | 0.2 | 420 |
| 22 | 16x25 | 0.2 | 560 | |
| 33 | 16x30 | 0.2 | 674 | |
| 47 | 18x30 | 0.2 | 884 | |
| 68 | 18x40 | 0.2 | 1100 | |
| 100 | 18x50 | 0.2 | 1470 | |
| 450V | 1.5 | 8x16 | 0.2 | 88 |
| | 1.8 | 8x16 | 0.2 | 90 |
| | 2.2 | 8x16 | 0.2 | 96 |
| | 2.8 | 10x16 | 0.2 | 100 |
| | 3.3 | 10x16 | 0.2 | 110 |
| | 4.7 | 10x16 | 0.2 | 130 |
| | 5.6 | 10x20 | 0.2 | 180 |
| | 6.8 | 12.5x20 | 0.2 | 232 |
| | 8.2 | 12.5x20 | 0.2 | 262 |
| | 10 | 12.5x20 | 0.2 | 320 |
| | 15 | 12.5x25 | 0.2 | 420 |
| | 22 | 16x25 | 0.2 | 560 |
| | | 18x20 | 0.2 | 560 |
| | 33 | 16x30 | 0.2 | 700 |
| 18x25 | | 0.2 | 700 | |
| 47 | 18x30 | 0.2 | 880 | |
| 68 | 18x40 | 0.2 | 1000 | |
| 100 | 18x50 | 0.2 | 1470 | |

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Aluminum Electrolytic Capacitor– Radial

HOW TO ORDER

| GKT | GE | 0J | 0R1 | M | 00500110 | 020 | 000 | B | R |
|------------|------------|---------------|-------------|-----------------------|-----------------|------------|-------------|----------|----------|
| Series | Sub Series | Rated Voltage | Capacitance | Capacitance Tolerance | Dimension | Pitch/Pins | Lead Length | Packing | Pb |
| | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |

NOTE:

1. Rated Voltage

| Code | 0J | 1A | 1C | 1D | 1E | 1V | 1G | 1H | 1J | 1K |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Voltage | 6.3V | 10V | 16V | 20V | 25V | 35V | 40V | 50V | 63V | 80V |

| Code | 2A | 2B | 2C | 2K | 2D | 2E | 2F | 2U | 2V | 2G | 2X | 2W | 2H | 2Y |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Voltage | 100V | 120V | 160V | 180V | 200V | 250V | 315V | 330V | 350V | 400V | 420V | 450V | 500V | 550V |

2. Capacitance

| Code | 0R1 | R22 | R33 | R47 | 010 | 2R2 | 3R3 | 4R7 | 100 | 220 | 330 | 470 | 101 |
|------------------|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Capacitance (µF) | 0.1 | 0.22 | 0.33 | 0.47 | 1 | 2.2 | 3.3 | 4.7 | 10 | 22 | 33 | 47 | 100 |

| Code | 221 | 271 | 331 | 391 | 471 | 561 | 681 | 102 | 222 | 332 | 472 | 103 | 223 |
|------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|-------|-------|
| Capacitance (µF) | 220 | 270 | 330 | 390 | 470 | 560 | 680 | 1000 | 2200 | 3300 | 4700 | 10000 | 22000 |

3. Capacitance Tolerance

| Code | K | L | M | P | Q | R | T | U | V | H | F |
|-----------|------|------|------|---------|---------|--------|---------|---------|---------|--------|-------|
| Tolerance | ±10% | ±15% | ±20% | +100-0% | +30-10% | +20-0% | +50-10% | +75-10% | +20-10% | +20-5% | +30-0 |

4. Dimension

| Code | 00500110 | 00630120 | 01300200 | 01600300 | 03500450 |
|----------------|----------|----------|----------|----------|----------|
| Dimension (mm) | 5x11 | 6.3x12 | 13x20 | 16x30 | 35x45 |

5. Pitch/Pins

| Code | 020 | 025 | 035 | 050 | 075 | 100 | 127 | 4pins |
|------------------|-----|-----|-----|-----|-----|------|------|-------|
| Pitch (mm)/ Pins | 2.0 | 2.5 | 3.5 | 5.0 | 7.5 | 10.0 | 12.7 | 4PS |

6. Lead Length

| Code | 000 | 040 | 045 | 050 |
|-------------|----------|-----|-----|-----|
| Lead Length | Standard | 4.0 | 4.5 | 5.0 |

7. Packing

| Code | A | B |
|---------|------|------|
| Packing | Ammo | Bulk |

8. Pb

| Code | L | R |
|------|--------|------|
| Pb | Leaded | RoHS |

Note: Specifications are subject to change without notice.

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