

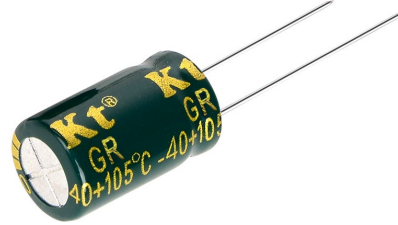
# Kingtronics®

# GKT-GR

## Aluminum Electrolytic Capacitor – Radial

### FEATURES

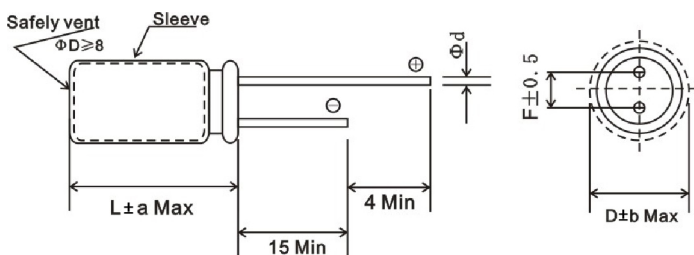
- ◆ Long life of 3000~6000 hours at 105°C.
- ◆ High frequency, low impedance, high ripple current.
- ◆ Especially designed for LED driver.



### SPECIFICATIONS

|  |   |      |      |      |      |      |      |          |           |                 |
|--|---|------|------|------|------|------|------|----------|-----------|-----------------|
| OPERATING TEMPERATURE RANGE (°C)   | -40°C ~ +105°C  |      |      |      |      |      |      |          |           |                 |
| Capacitance Range (μF)   | 6.8μF ~ 18000μF   |      |      |      |      |      |      |          |           |                 |
| Rated Voltage Range (V)  | 6.3V ~ 100V   |      |      |      |      |      |      |          |           |                 |
| CAPACITANCE TOLERANCE (+20°C, 120Hz)   | ±20%  |      |      |      |      |      |      |          |           |                 |
| LEAKAGE CURRENT (μA)   | 1≤0.01CV or 3uA, whichever is greater (after 2 minutes at 25°C)   |      |      |      |      |      |      |          |           |                 |
| DISSIPATION FACTOR (+20°C, 120Hz)  | Wv (V)  | 6.3  | 10   | 16   | 25   | 35   | 50   | 63       | 100       |                 |
|  | Tan δ   | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09     | 0.08      |                 |
| When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. |   |      |      |      |      |      |      |          |           |                 |
| Temperature Characteristics<br>(Impedance ratio at 120Hz)                                      | Ur(V)   | 6.3  | 10   | 16   | 25   | 35   | 50   | 63       | 100       |                 |
|  | Z-25°C/+20°C  | 4    | 3    | 2    | 2    | 2    | 2    | 2        | 2         |                 |
|  | Z-40°C/+20°C  | 8    | 6    | 4    | 3    | 3    | 3    | 3        | 3         |                 |
| LOAD LIFE  | After applying rated voltage with specified ripple current for specified time at 105°C and then resumed 24 hours:<br>Capacitance Change: ±25% of the initial measured value<br>Leakage current: ≤the initial specified value<br>Dissipation factory: ≤200% of the initial specified value |      |      |      |      |      |      |          | Case Size | Life Time (hrs) |
|  |   |      |      |      |      |      |      |          | ΦD ≤6.3   | 3000            |
|  |   |      |      |      |      |      |      |          | ΦD = 8    | 4000            |
|  |   |      |      |      |      |      |      |          | ΦD = 10   | 5000            |
|  |   |      |      |      |      |      |      | ΦD ≥12.5 | 6000      |                 |
| SHELF LIFE   | After storage for 1000 hours at +105°C, and then resumed 24 hours<br>Capacitance Change: ±25% of the initial measured value<br>Leakage current: ≤200% of the initial specified value<br>Dissipation factory: ≤200% of the initial specified value   |      |      |      |      |      |      |          |           |                 |

### DIMENSIONS (mm)



|         |           |     |     |     |     |     |
|---------|-----------|-----|-----|-----|-----|-----|
| ΦD      | 5         | 6.3 | 8   | 10  | 13  | 16  |
| F       | 2.0       | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 |
| Φd±0.05 | 0.5       | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 |
| a Max.  | +1.5 -1.0 |     |     |     |     |     |
| b Max.  | 0.5       |     |     |     |     |     |

### MULTIPLIER FOR RIPPLE CURRENT

| Frequency Coefficient |      |      |      |      |
|-----------------------|------|------|------|------|
| Frequency (Hz)        | 120  | 1K   | 10K  | 100K |
| 22~180μF              | 0.40 | 0.75 | 0.90 | 1.00 |
| 220~560μF             | 0.50 | 0.85 | 0.94 | 1.00 |
| Coefficient           |      |      |      |      |
| 680~1800μF            | 0.60 | 0.87 | 0.95 | 1.00 |
| 2200~3900μF           | 0.75 | 0.90 | 0.95 | 1.00 |
| 4700~6800μF           | 0.85 | 0.95 | 0.98 | 1.00 |

| Temperature Coefficient |      |      |      |
|-------------------------|------|------|------|
| Temperature(°C)         | +70  | +85  | +105 |
| Coefficient             | 1.96 | 1.68 | 1.0  |

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## Aluminum Electrolytic Capacitor – Radial

### STANDARD RATINGS

| Rated Voltage (Vdc) | Capacitance (µF) | Size ØDxL (mm) | Rated ripple current (mA rms) 105°C/100KHz | Impedance (Ω Max) |        |
|---------------------|------------------|----------------|--|-------------------|--------|
|                     |                  |                |  | 20°C              | -10°C  |
|                     |                  |                |  | 100KHz            | 100KHz |
| 6.3V                | 150              | 5x11           | 210  | 0.58              | 2.3    |
|                     | 330              | 6.3x11         | 340  | 0.22              | 0.87   |
|                     | 680              | 8x11.5         | 640  | 0.13              | 0.52   |
|                     | 820              | 10x12.5        | 865  | 0.080             | 0.32   |
|                     | 1000             | 8x16           | 840  | 0.087             | 0.35   |
|                     | 1200             | 8x20           | 1050                                       | 0.069             | 0.27   |
|                     |                  | 10x16          | 1210                                       | 0.060             | 0.24   |
|                     | 1500             | 10x20          | 1400                                       | 0.046             | 0.18   |
|                     | 1800             | 13x16          | 1450                                       | 0.049             | 0.16   |
|                     | 2200             | 10x23          | 1650                                       | 0.042             | 0.17   |
|                     | 2700             | 10x28          | 1910                                       | 0.031             | 0.12   |
|                     |                  | 16x16          | 1940                                       | 0.042             | 0.12   |
|                     | 3300             | 13x20          | 1900                                       | 0.035             | 0.12   |
|                     | 3900             | 13x25          | 2230                                       | 0.027             | 0.089  |
|                     |                  | 18x16          | 2210                                       | 0.043             | 0.11   |
|                     | 4700             | 13x30          | 2650                                       | 0.024             | 0.078  |
|                     | 5600             | 13x35          | 2880                                       | 0.020             | 0.065  |
|                     |                  | 16x20          | 2530                                       | 0.027             | 0.078  |
|                     | 6800             | 13x40          | 3350                                       | 0.017             | 0.056  |
|                     |                  | 16x25          | 2930                                       | 0.021             | 0.060  |
| 18x20               |                  | 2860           | 0.026                                      | 0.067             |        |
| 8200                | 16x31.5          | 3450           | 0.017                                      | 0.050             |        |
| 10000               | 16x35.5          | 3610           | 0.015                                      | 0.044             |        |
|                     | 18x25            | 3140           | 0.019                                      | 0.049             |        |
| 12000               | 16x40            | 4080           | 0.013                                      | 0.038             |        |
|                     | 18x31.5          | 4170           | 0.015                                      | 0.040             |        |
| 15000               | 18x35.5          | 4220           | 0.014                                      | 0.038             |        |
| 18000               | 18x40            | 4280           | 0.012                                      | 0.032             |        |
| 10V                 | 100              | 5x11           | 210  | 0.58              | 2.3    |
|                     | 220              | 6.3x11         | 340  | 0.22              | 0.87   |
|                     | 470              | 8x11.5         | 640  | 0.13              | 0.52   |
|                     | 680              | 8x16           | 840  | 0.087             | 0.35   |
|                     |                  | 10x12.5        | 865  | 0.080             | 0.32   |
|                     | 1000             | 8x20           | 1050                                       | 0.069             | 0.27   |
|                     |                  | 10x16          | 1210                                       | 0.060             | 0.24   |
|                     | 1200             | 10x20          | 1400                                       | 0.046             | 0.18   |
|                     | 1500             | 10x23          | 1650                                       | 0.042             | 0.17   |
|                     |                  | 13x16          | 1450                                       | 0.049             | 0.16   |
|                     | 2200             | 10x28          | 1910                                       | 0.031             | 0.12   |
|                     |                  | 13x20          | 1900                                       | 0.035             | 0.12   |
|                     |                  | 16x16          | 1940                                       | 0.042             | 0.12   |
|                     | 2700             | 18x16          | 2210                                       | 0.043             | 0.11   |
|                     |                  | 13x25          | 2230                                       | 0.027             | 0.089  |
|                     | 3300             | 13x30          | 2650                                       | 0.024             | 0.078  |
|                     |                  | 16x20          | 2530                                       | 0.027             | 0.078  |
|                     | 4700             | 13x35          | 2880                                       | 0.020             | 0.065  |
|                     |                  | 13x40          | 3350                                       | 0.017             | 0.056  |
|                     |                  | 16x25          | 2930                                       | 0.021             | 0.060  |
| 5600                | 18x20            | 2860           | 0.026                                      | 0.067             |        |
|                     | 16x31.5          | 3450           | 0.017                                      | 0.050             |        |
|                     | 18x25            | 3140           | 0.019                                      | 0.049             |        |
| 8200                | 16x35.5          | 3610           | 0.015                                      | 0.044             |        |
|                     | 18x31.5          | 4170           | 0.015                                      | 0.040             |        |
| 10000               | 16x40            | 4080           | 0.013                                      | 0.038             |        |
|                     | 18x35.5          | 4220           | 0.014                                      | 0.038             |        |
| 12000               | 18x40            | 4280           | 0.012                                      | 0.032             |        |

| Rated Voltage (Vdc) | Capacitance (µF) | Size ØDxL (mm) | Rated ripple current (mA rms) 105°C/100KHz | Impedance (Ω Max) |        |
|---------------------|------------------|----------------|--|-------------------|--------|
|                     |                  |                |  | 20°C              | -10°C  |
|                     |                  |                |  | 100KHz            | 100KHz |
| 16V                 | 56               | 5x11           | 210  | 0.58              | 2.3    |
|                     | 120              | 6.3x11         | 340  | 0.22              | 0.87   |
|                     | 330              | 8x11.5         | 640  | 0.13              | 0.52   |
|                     |                  | 8x16           | 840  | 0.087             | 0.35   |
|                     | 470              | 10x12.5        | 865  | 0.080             | 0.32   |
|                     |                  | 8x20           | 1050                                       | 0.069             | 0.27   |
|                     | 680              | 10x16          | 1210                                       | 0.060             | 0.24   |
|                     |                  | 10x20          | 1400                                       | 0.046             | 0.18   |
|                     | 1000             | 13x16          | 1450                                       | 0.049             | 0.16   |
|                     |                  | 10x23          | 1650                                       | 0.042             | 0.17   |
|                     | 1200             | 10x28          | 1910                                       | 0.031             | 0.12   |
|                     |                  | 13x20          | 1900                                       | 0.035             | 0.12   |
|                     | 1500             | 16x16          | 1940                                       | 0.042             | 0.12   |
|                     |                  | 13x25          | 2230                                       | 0.027             | 0.089  |
|                     | 2200             | 18x16          | 2210                                       | 0.043             | 0.11   |
|                     |                  | 13x30          | 2650                                       | 0.024             | 0.078  |
|                     | 2700             | 16x20          | 2530                                       | 0.027             | 0.078  |
|                     |                  | 13x35          | 2880                                       | 0.020             | 0.065  |
|                     | 3900             | 13x40          | 3350                                       | 0.017             | 0.056  |
|                     |                  | 16x25          | 2930                                       | 0.021             | 0.060  |
| 18x20               |                  | 2860           | 0.026                                      | 0.067             |        |
| 4700                | 16x31.5          | 3450           | 0.017                                      | 0.050             |        |
|                     | 18x25            | 3140           | 0.019                                      | 0.049             |        |
| 5600                | 16x35.5          | 3610           | 0.015                                      | 0.044             |        |
|                     | 18x31.5          | 4170           | 0.015                                      | 0.040             |        |
| 6800                | 16x40            | 4080           | 0.013                                      | 0.038             |        |
| 8200                | 18x35.5          | 4220           | 0.014                                      | 0.038             |        |
| 10000               | 18x40            | 4280           | 0.012                                      | 0.032             |        |
| 25V                 | 47               | 5x11           | 210  | 0.58              | 2.3    |
|                     | 100              | 6.3x11         | 340  | 0.22              | 0.87   |
|                     | 220              | 8x11.5         | 640  | 0.13              | 0.52   |
|                     |                  | 8x16           | 840  | 0.087             | 0.35   |
|                     | 330              | 10x12.5        | 865  | 0.080             | 0.32   |
|                     |                  | 8x20           | 1050                                       | 0.069             | 0.27   |
|                     | 470              | 10x16          | 1210                                       | 0.060             | 0.24   |
|                     |                  | 10x20          | 1400                                       | 0.046             | 0.18   |
|                     | 680              | 13x16          | 1450                                       | 0.049             | 0.16   |
|                     |                  | 10x23          | 1650                                       | 0.042             | 0.17   |
|                     | 820              | 10x28          | 1910                                       | 0.031             | 0.12   |
|                     |                  | 13x20          | 1900                                       | 0.035             | 0.12   |
|                     |                  | 16x16          | 1940                                       | 0.042             | 0.12   |
|                     | 1000             | 18x16          | 2210                                       | 0.043             | 0.11   |
|                     |                  | 13x25          | 2230                                       | 0.027             | 0.089  |
|                     | 1200             | 13x30          | 2650                                       | 0.024             | 0.078  |
|                     |                  | 16x20          | 2530                                       | 0.027             | 0.078  |
|                     | 1500             | 13x35          | 2880                                       | 0.020             | 0.065  |
|                     |                  | 13x40          | 3350                                       | 0.017             | 0.056  |
|                     | 1800             | 16x25          | 2930                                       | 0.021             | 0.060  |
| 16x31.5             |                  | 3450           | 0.017                                      | 0.050             |        |
| 2200                | 18x25            | 3140           | 0.019                                      | 0.049             |        |
|                     | 16x35.5          | 3610           | 0.015                                      | 0.044             |        |
| 2700                | 18x31.5          | 4170           | 0.015                                      | 0.040             |        |
|                     | 16x40            | 4080           | 0.013                                      | 0.038             |        |
| 3300                | 18x35.5          | 4220           | 0.014                                      | 0.038             |        |
|                     | 18x40            | 4280           | 0.012                                      | 0.032             |        |

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# GKT-GR

## Aluminum Electrolytic Capacitor – Radial

### STANDARD RATINGS

| Rated Voltage (Vdc) | Capacitance (µF) | Size ΦDxL (mm) | Rated ripple current (mA <sub>rms</sub> ) 105°C/100KHz | Impedance (Ω Max) |        |
|---------------------|------------------|----------------|--|-------------------|--------|
|                     |                  |                |  | 20°C              | -10°C  |
|                     |                  |                |  | 100KHz            | 100KHz |
| 35V                 | 33               | 5x11           | 210  | 0.58              | 2.3    |
|                     | 56               | 6.3x11         | 340  | 0.22              | 0.87   |
|                     | 150              | 8x11.5         | 640  | 0.13              | 0.52   |
|                     | 220              | 8x16           | 840  | 0.087             | 0.35   |
|                     |                  | 10x12.5        | 865  | 0.080             | 0.32   |
|                     | 270              | 8x20           | 1050   | 0.069             | 0.27   |
|                     | 330              | 10x16          | 1210   | 0.060             | 0.24   |
|                     | 470              | 10x20          | 1400   | 0.046             | 0.18   |
|                     |                  | 13x16          | 1450   | 0.049             | 0.16   |
|                     | 560              | 10x23          | 1650   | 0.042             | 0.17   |
|                     |                  | 10x28          | 1910   | 0.031             | 0.12   |
|                     | 680              | 13x20          | 1900   | 0.035             | 0.12   |
|                     |                  | 16x16          | 1940   | 0.042             | 0.12   |
|                     |                  | 13x25          | 2230   | 0.027             | 0.089  |
|                     | 1000             | 18x16          | 2210   | 0.043             | 0.11   |
|                     |                  | 13x30          | 2650   | 0.024             | 0.078  |
|                     | 1200             | 16x20          | 2530   | 0.027             | 0.078  |
|                     |                  | 13x35          | 2880   | 0.020             | 0.065  |
|                     | 1800             | 13x40          | 3350   | 0.017             | 0.056  |
|                     |                  | 16x25          | 2930   | 0.021             | 0.060  |
| 18x20               |                  | 2860           | 0.026  | 0.067             |        |
| 2200                | 16x31.5          | 3450           | 0.017  | 0.050             |        |
|                     | 18x25            | 3140           | 0.019  | 0.049             |        |
| 2700                | 16x35.5          | 3610           | 0.015  | 0.044             |        |
|                     | 18x31.5          | 4170           | 0.015  | 0.040             |        |
| 3300                | 16x40            | 4080           | 0.013  | 0.038             |        |
|                     | 18x35.5          | 4220           | 0.014  | 0.038             |        |
| 3900                | 18x40            | 4280           | 0.012  | 0.032             |        |
| 50V                 | 22               | 5x11           | 180  | 0.70              | 2.8    |
|                     | 56               | 6.3x11         | 295  | 0.30              | 1.2    |
|                     | 100              | 8x11.5         | 555  | 0.17              | 0.68   |
|                     | 120              | 8x16           | 730  | 0.12              | 0.48   |
|                     | 150              | 10x12.5        | 760  | 0.12              | 0.48   |
|                     | 180              | 8x20           | 910  | 0.091             | 0.36   |
|                     | 220              | 10x16          | 1050   | 0.084             | 0.34   |
|                     | 270              | 10x20          | 1220   | 0.060             | 0.24   |
|                     |                  | 13x16          | 1260   | 0.061             | 0.20   |
|                     | 330              | 10x23          | 1440   | 0.055             | 0.22   |
|                     | 470              | 10x28          | 1690   | 0.043             | 0.17   |
|                     |                  | 13x20          | 1660   | 0.045             | 0.15   |
|                     |                  | 16x16          | 1690   | 0.055             | 0.17   |
|                     | 560              | 13x25          | 1950   | 0.034             | 0.11   |
|                     |                  | 18x16          | 1930   | 0.054             | 0.15   |
|                     | 680              | 13x30          | 2310   | 0.030             | 0.10   |
|                     | 820              | 13x35          | 2510   | 0.025             | 0.083  |
|                     |                  | 16x20          | 2210   | 0.034             | 0.10   |
|                     | 1000             | 13x40          | 2920   | 0.021             | 0.069  |
|                     |                  | 16x25          | 2555   | 0.025             | 0.075  |
|                     |                  | 18x20          | 2490   | 0.036             | 0.097  |
|                     | 1200             | 16x31.5        | 3010   | 0.022             | 0.066  |
|                     |                  | 18x25          | 2740   | 0.026             | 0.070  |
|                     | 1500             | 16x35.5        | 3150   | 0.019             | 0.057  |
|                     | 1800             | 16x40          | 3710   | 0.016             | 0.048  |
|                     |                  | 18x31.5        | 3635   | 0.021             | 0.057  |
|                     | 2200             | 18x35.5        | 3680   | 0.017             | 0.046  |
| 2700                | 18x40            | 3800           | 0.014  | 0.038             |        |

| Rated Voltage (Vdc) | Capacitance (µF) | Size ΦDxL (mm) | Rated ripple current (mA <sub>rms</sub> ) 105°C/100KHz | Impedance (Ω Max) |        |
|---------------------|------------------|----------------|--|-------------------|--------|
|                     |                  |                |  | 20°C              | -10°C  |
|                     |                  |                |  | 100KHz            | 100KHz |
| 63V                 | 15               | 5x11           | 55   | 2.3               | 9.3    |
|                     | 33               | 6.3x11         | 115  | 1.2               | 5.0    |
|                     | 56               | 8x11.5         | 232  | 0.63              | 2.8    |
|                     | 82               | 8x16           | 300  | 0.45              | 2.1    |
|                     |                  | 10x12.5        | 288  | 0.43              | 1.8    |
|                     | 120              | 8x20           | 362  | 0.33              | 1.6    |
|                     |                  | 10x16          | 357  | 0.31              | 1.5    |
|                     | 180              | 10x20          | 466  | 0.21              | 0.94   |
|                     |                  | 13x16          | 466  | 0.23              | 1.1    |
|                     | 220              | 10x23          | 531  | 0.20              | 0.84   |
|                     |                  | 10x28          | 663  | 0.15              | 0.71   |
|                     | 270              | 13x20          | 690  | 0.16              | 0.64   |
|                     |                  | 16x16          | 795  | 0.14              | 0.66   |
|                     |                  | 13x25          | 784  | 0.12              | 0.45   |
|                     | 330              | 18x16          | 920  | 0.12              | 0.50   |
|                     | 470              | 13x30          | 905  | 0.10              | 0.42   |
|                     |                  | 16x20          | 1040   | 0.091             | 0.38   |
|                     | 560              | 13x35          | 1050   | 0.083             | 0.35   |
|                     |                  | 16x25          | 1250   | 0.073             | 0.27   |
|                     | 680              | 13x40          | 1180   | 0.071             | 0.30   |
| 18x20               |                  | 1240           | 0.080  | 0.30              |        |
| 820                 | 16x31.5          | 1570           | 0.054  | 0.20              |        |
|                     | 18x25            | 1490           | 0.057  | 0.21              |        |
| 1000                | 16x35.5          | 1790           | 0.045  | 0.17              |        |
|                     | 18x31.5          | 1630           | 0.047  | 0.17              |        |
| 1200                | 16x40            | 2020           | 0.040  | 0.15              |        |
|                     | 18x35.5          | 1790           | 0.040  | 0.15              |        |
| 1500                | 18x40            | 2330           | 0.036  | 0.13              |        |
| 100V                | 6.8              | 5x11           | 55   | 2.3               | 9.3    |
|                     | 15               | 6.3x11         | 115  | 1.2               | 5.0    |
|                     | 27               | 8x11.5         | 232  | 0.63              | 2.8    |
|                     | 39               | 8x16           | 300  | 0.45              | 2.1    |
|                     | 47               | 10x12.5        | 288  | 0.43              | 1.8    |
|                     | 56               | 8x20           | 362  | 0.33              | 1.6    |
|                     | 68               | 10x16          | 357  | 0.31              | 1.5    |
|                     | 82               | 10x20          | 466  | 0.21              | 0.94   |
|                     |                  | 13x16          | 466  | 0.23              | 1.1    |
|                     | 100              | 10x23          | 531  | 0.20              | 0.84   |
|                     | 120              | 10x28          | 663  | 0.15              | 0.71   |
|                     |                  | 13x20          | 690  | 0.16              | 0.64   |
|                     | 150              | 16x16          | 795  | 0.14              | 0.66   |
|                     |                  | 13x25          | 784  | 0.12              | 0.45   |
|                     | 180              | 18x16          | 920  | 0.12              | 0.50   |
|                     |                  | 13x30          | 905  | 0.10              | 0.42   |
|                     | 220              | 16x20          | 1040   | 0.091             | 0.38   |
|                     |                  | 13x35          | 1050   | 0.083             | 0.35   |
|                     | 270              | 16x25          | 1250   | 0.073             | 0.27   |
|                     |                  | 13x40          | 1180   | 0.071             | 0.30   |
| 330                 | 18x20            | 1240           | 0.080  | 0.30              |        |
|                     | 16x31.5          | 1570           | 0.054  | 0.20              |        |
| 390                 | 18x25            | 1490           | 0.057  | 0.21              |        |
|                     | 16x35.5          | 1790           | 0.045  | 0.17              |        |
| 470                 | 18x31.5          | 1630           | 0.047  | 0.17              |        |
|                     | 16x40            | 2020           | 0.040  | 0.15              |        |
| 560                 | 18x35.5          | 1790           | 0.040  | 0.15              |        |
| 680                 | 18x35.5          | 1790           | 0.040  | 0.15              |        |
| 820                 | 18x40            | 2330           | 0.036  | 0.13              |        |

**Kingtronics® International Company**

# Kingtronics®

# GKT-GR

## Aluminum Electrolytic Capacitor – Radial

### HOW TO ORDER

| <b>GKT</b> | <b>GR</b>  | <b>0J</b>     | <b>0R1</b>  | <b>M</b>              | <b>00500110</b> | <b>020</b> | <b>000</b>  | <b>B</b> | <b>R</b> |
|------------|------------|---------------|-------------|-----------------------|-----------------|------------|-------------|----------|----------|
| 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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