

Kingtronics®

GKT-GH

Aluminum Electrolytic Capacitor— Radial

FEATURES

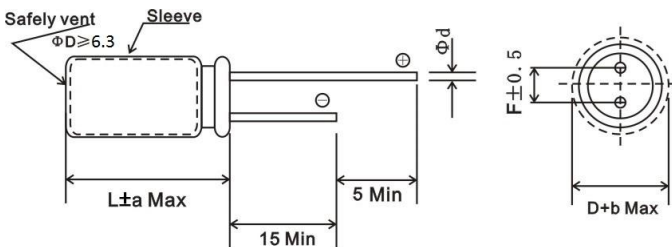
- ◆ Load life of 2000 hours at 105°C
- ◆ Low Impedance
- ◆ High Frequency
- ◆ Switch power supply



SPECIFICATIONS

| | | | | | | | | | | |
|-------------------------------------|---|------------------------------------|------|------|------|------|------|------|------|--|
| OPERATING TEMPERATURE RANGE (°C) | -55°C ~ +105°C | | | | | | | | | |
| Capacitance Range (µF) | 0.47 ~ 15000 | | | | | | | | | |
| Rated Voltage Range (V) | 6.3 ~ 100 | | | | | | | | | |
| CAPACITANCE TOLERANCE (25°C, 120Hz) | ±20% | | | | | | | | | |
| LEAKAGE CURRENT (µA) | 1=0.02CV or 3 whichever is greater (at 25°C, after 2 minutes), C: Nominal Capacitance (µF) V: Rated Voltage (V) | | | | | | | | | |
| DISSIPATION FACTOR (25°C, 120Hz) | Rated Voltage | 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 | |
| Add 0.02 per 1000µF or more. | | | | | | | | | | |
| LOAD LIFE (+105°C) | After life test at condition stated in the table below, the capacitors shall meet the following requirement. | | | | | | | | | |
| | Case Dia | Test time (hrs) | | | | | | | | |
| | ΦD≤8 | 1000 | | | | | | | | |
| | ΦD>8 | 2000 | | | | | | | | |
| | Ripple current applied | | | | | | | | | |
| | Leakage Current | Not more than the specified value. | | | | | | | | |
| | Capacitance Change | Within±20% of the initial value | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | | |
| SHELF LIFE (+105°C) | 1000 hours. No voltage applied. After test:UR to be applied for 30 minutes, 24 to 48 hours before measurement | | | | | | | | | |
| Characteristics of Low Temperature | Impedance at -10°C, 100KHz<200% of initial specified value at +20°C, 100KHz (Impedance ratio at 100KHz) | | | | | | | | | |

DIMENSIONS (mm)



| | | | | | | | |
|---------|-----|-----|-----|-----|----|-----|----|
| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
| F | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 | |
| Φd±0.05 | 0.5 | | 0.6 | | | 0.8 | |

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

| | | |
|-------|------|-----|
| b Max | D<18 | 0.5 |
| | D≥18 | 1.0 |

MULTIPLIER FOR RIPPLE CURRENT

| Frequency Coefficient | Freq(Hz) | | | |
|-----------------------|----------|------|------|------|
| | 120 | 1K | 10K | 100K |
| Cap(µF) | | | | |
| 0.47~4.7 | 0.40 | 0.68 | 0.78 | 1.0 |
| 5.6~47 | 0.50 | 0.76 | 0.87 | 1.0 |
| 56~270 | 0.70 | 0.85 | 0.90 | 1.0 |
| 330~1000 | 0.80 | 0.93 | 0.98 | 1.0 |
| 1200~15000 | 0.90 | 0.95 | 1.0 | 1.0 |

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

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STANDARD RATINGS

| V μF | 6.3V | 10V | 16V | 25V | 35V | 50V | 63V | 100V |
|---------|-------|--------|-------|--------|--------|----------------|-------|-------|
| 1 | -- | -- | -- | -- | -- | 5x11 | -- | |
| 2.2 | -- | -- | -- | -- | -- | 5x11 | -- | |
| 3.3 | -- | -- | -- | -- | -- | 5x11 | -- | |
| 4.7 | -- | -- | -- | -- | 5x11 | 5x11 | -- | |
| 6.8 | -- | -- | -- | -- | 5x11 | 5x11 | -- | |
| 10 | -- | -- | -- | -- | 5x11 | 5x12 | 5x12 | 6x11 |
| 15 | -- | -- | -- | -- | 5x11 | 5x12 | -- | |
| 18 | -- | -- | -- | -- | 5x11 | 5x12 | -- | |
| 22 | -- | -- | -- | 5x11 | 5x11 | 6x11 | 6x11 | 8x12 |
| 27 | -- | -- | -- | -- | 5x11 | 6x11 | -- | |
| 33 | -- | -- | -- | -- | 6x11 | 6x11 | 6x11 | 10x13 |
| 39 | -- | -- | -- | -- | 6x11 | 6x11 | -- | |
| 47 | -- | -- | 5x11 | 5x11 | 6x11 | 6x12 | 8x12 | 10x17 |
| 56 | -- | -- | 5x11 | 5x11 | 6x11 | 6x12 | -- | |
| 68 | -- | -- | 5x12 | 5x12 | 6x11 | 8x12 | 10x13 | 10x21 |
| 82 | -- | -- | -- | 6.3x11 | 6.3x11 | 8x12 | -- | |
| 100 | -- | 5x11 | 6x11 | 6x11 | 8x12 | 8x12 | 10x17 | 13x20 |
| 120 | -- | 5x11 | 6x11 | 6.3x11 | 8x12 | 8x16 | -- | |
| 150 | 5x11 | 5x11 | 6x11 | 8x12 | 8x12 | 8x19 | -- | |
| 180 | 5x11 | 6.3x11 | 6x11 | 8x12 | 8x14 | 8x19 | -- | |
| 220 | 6x11 | 6x11 | 6x11 | 8x12 | 10x15 | 10x17 | 10x21 | 16x26 |
| 270 | 6x11 | 6.3x11 | 8x12 | 8x14 | 10x15 | 10x21 | -- | |
| 330 | 6x11 | 8x12 | 8x12 | 10x12 | 10x17 | 10x21 | 13x20 | 16x26 |
| 390 | 6x12 | 8x12 | -- | 8x19 | 10x17 | 13x20 | -- | |
| 470 | 6x12 | 8x12 | 8x12 | 10x15 | 10x17 | 13x20 13x21 | 13x20 | 16x31 |
| 560 | 8x12 | 8x12 | 8x16 | 8x19 | 10x25 | 13x21 | -- | |
| 680 | 8x12 | 8x12 | 8x16 | 10x17 | 13x20 | 13x26 | 16x26 | |
| 820 | 8x14 | 8x16 | 8x19 | 10x25 | 13x20 | 13x25 | -- | |
| 1000 | 8x16 | 8x16 | 10x17 | 10x21 | 13x25 | 13x25 | 16x26 | |
| 1200 | 8x16 | 10x17 | 10x21 | 13x20 | 16x20 | 13x30 | 16x30 | |
| 1500 | 8x16 | 10x21 | 13x20 | 13x20 | 16x20 | 16x26 | -- | |
| 1800 | 10x15 | 10x25 | 13x20 | 13x26 | 16x26 | 16x32 | -- | |
| 2200 | 10x15 | 13x20 | 13x20 | 13x26 | 16x26 | 16x35 | 18x40 | |
| 2700 | 10x21 | 13x21 | 16x26 | 13x26 | 16x35 | 18x40 | -- | |
| 3300 | 13x20 | 13x20 | 13x30 | 16x26 | 16x35 | 18x40 | -- | |
| 3900 | 13x25 | -- | 16x26 | 16x26 | 18x40 | -- | -- | |
| 4700 | 13x25 | 13x26 | 16x26 | 16x26 | -- | -- | -- | |
| 5600 | 16x26 | 16x30 | 16x35 | -- | -- | -- | -- | |
| 6800 | 16x26 | 16x30 | 18x25 | -- | -- | -- | -- | |
| 8200 | 16x32 | 16x35 | -- | -- | -- | -- | -- | |
| 10000 | 16x35 | 16x40 | -- | -- | -- | -- | -- | |

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HOW TO ORDER

| GKT | GH | 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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