

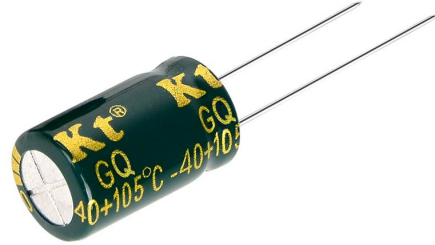
# Kingtronics®

# GKT-GQ

## Aluminum Electrolytic Capacitor— Radial

### FEATURES

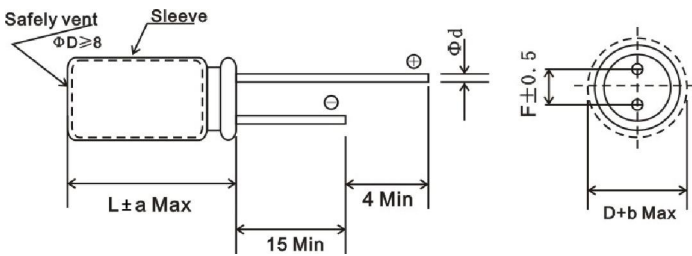
- ◆ Long life of 4000~10000 hours at 105°C.
- ◆ High frequency, low impedance, high ripple current.
- ◆ Especially designed for LED driver.



### SPECIFICATIONS

OPERATING TEMPERATURE RANGE (°C)	-40°C ~ +105°C										
Capacitance Range (μF)	1μF ~ 15000μF										
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)										
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 (Impedance ratio at 120Hz)	U <sub>R</sub> (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: Capacitance Change: ±25% of the initial measured value Leakage current: ≤the initial specified value Dissipation factory: ≤200% of the initial specified value							Case Size		Life Time (hrs)	
								ΦD ≤ 6.3	4000	5000	
								ΦD = 8, 10	6000	7000	
								ΦD ≥12.5	8000	10000	
SHELF LIFE	After storage for 1000 hours at +105°C, and then resumed 24 hours Capacitance Change: ±25% of the initial measured value Leakage current: ≤200% of the initial specified value Dissipation factory: ≤200% of the initial specified value										

### DIMENSIONS (mm)



ΦD	5	6.3	8	10	12.5	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					
Frequency (Hz)	120	1K	10K	100K ≤	
1 ~ 10μF	0.42	0.60	0.80	1.00	
22 ~ 33μF	0.55	0.75	0.90	1.00	
Coefficient	47 ~ 330μF	0.70	0.85	0.95	1.00
	470 ~ 1000μF	0.75	0.90	0.98	1.00
	2200 ~ 15000μF	0.80	0.95	1.00	1.00

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

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### STANDARD RATINGS

Rated Voltage (Vdc)	Capacitance (µF)	Size ΦDxL (mm)	Rated ripple current (mArms) 105°C/100KHz	Impedance (Ω Max)	
				20°C 100KHz	-10°C 100KHz
6.3V	100	5x11	150	0.90	3.6
	220	6.3x11	250	0.40	1.6
	330	6.3x11	250	0.40	1.6
	470	8x11.5	400	0.25	1.0
	1000	10x12.5	580	0.16	0.65
	2200	12.5x20	1300	0.062	0.21
	3300	12.5x20	1300	0.062	0.21
	4700	16x25	1850	0.034	0.096
	6800	16x25	1850	0.034	0.096
	10000	16x31.5	2000	0.029	0.087
	15000	18x35.5	2200	0.025	0.058
10V	100	5x11	150	0.90	3.6
	220	6.3x11	250	0.40	1.6
	330	8x11.5	400	0.25	1.0
	470	8x11.5	400	0.25	1.0
	1000	10x16	770	0.12	0.46
	2200	12.5x20	1300	0.062	0.21
	3300	12.5x25	1650	0.048	0.16
	4700	16x25	1850	0.034	0.096
	6800	16x31.5	2000	0.029	0.087
	10000	18x35.5	2200	0.025	0.058
	16V	47	5x11	150	0.90
100		6.3x11	250	0.40	1.6
220		8x11.5	400	0.25	1.0
330		8x11.5	400	0.25	1.0
470		10x12.5	580	0.16	0.65
1000		10x20	1050	0.078	0.30
2200		12.5x25	1650	0.048	0.16
3300		16x25	1850	0.034	0.096
4700		16x31.5	2000	0.029	0.087
6800		18x35.5	2200	0.025	0.058
25V		33	5x11	150	0.90
	47	5x11	150	0.90	3.6
	100	6.3x11	250	0.40	1.6
	220	8x11.5	400	0.25	1.0
	330	10x12.5	580	0.16	0.65
	470	10x16	770	0.12	0.46
	1000	12.5x20	1300	0.062	0.21
	2200	16x25	1850	0.034	0.096
	3300	16x31.5	2000	0.029	0.087
	4700	18x35.5	2200	0.025	0.058
	35V	33	5x11	150	0.90
47		6.3x11	250	0.40	1.6
100		8x11.5	400	0.25	1.0
220		10x12.5	580	0.16	0.65
330		10x16	770	0.12	0.46
470		10x20	1050	0.078	0.30
1000		12.5x25	1650	0.048	0.16
2200		16x31.5	2000	0.029	0.087
3300		18x35.5	2200	0.025	0.058

Rated Voltage (Vdc)	Capacitance (µF)	Size ΦDxL (mm)	Rated ripple current (mArms) 105°C/100KHz	Impedance (Ω Max)		
				20°C 100KHz	-10°C 100KHz	
50V	1	5x11	30	4.0	8.0	
	2.2	5x11	43	2.5	6.0	
	3.3	5x11	53	2.2	5.6	
	4.7	5x11	88	1.9	5.0	
	10	5x11	100	1.5	4.0	
	22	5x11	150	0.90	3.6	
	33	6.3x11	250	0.40	1.6	
	47	6.3x11	250	0.40	1.6	
	100	8x11.5	400	0.25	1.0	
	220	10x16	770	0.12	0.46	
	330	10x20	1050	0.078	0.30	
	470	12.5x20	1300	0.062	0.21	
	1000	16x25	1850	0.034	0.096	
	2200	18x35.5	2200	0.025	0.058	
63V	10	5x11	87	2.3	9.3	
	22	6.3x11	140	1.3	5.2	
	33	6.3x11	140	1.2	5.0	
	47	8x11.5	210	0.63	2.8	
	100	10x12.5	300	0.43	1.8	
	220	10x20	520	0.21	0.84	
	330	12.5x20	660	0.16	0.64	
	470	12.5x25	750	0.12	0.45	
	1000	16x31.5	1390	0.054	0.20	
	100V	1	5x11	20	4.5	15.0
		2.2	5x11	30	3.0	13.0
3.3		5x11	40	2.7	11.0	
4.7		5x11	65	2.5	10.0	
10		6.3x11	140	1.2	5.0	
22		8x11.5	160	0.63	2.8	
33		10x12.5	230	0.43	1.8	
47		10x16	290	0.31	1.5	
100		12.5x20	430	0.16	0.64	
220		16x25	900	0.073	0.27	
330		16x25	900	0.073	0.27	

**Kingtronics® International Company**

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## Aluminum Electrolytic Capacitor— Radial

### HOW TO ORDER

<b>GKT</b>	<b>GQ</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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