

# Kingtronics®

# GKT-GZ

## Aluminum Electrolytic Capacitor – Radial

### FEATURES

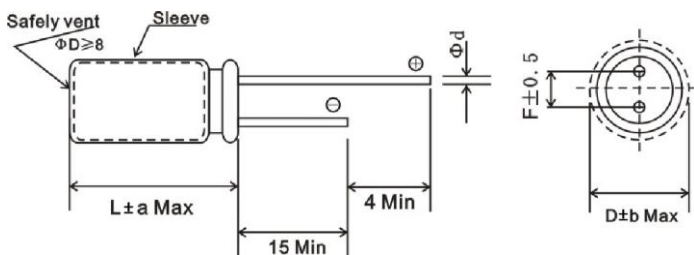
- ◆ Long life of 6000~10000 hours at 105°C.
- ◆ Miniaturized, extremely low impedance.
- ◆ Especially designed for LED driver.



### SPECIFICATIONS

OPERATING TEMPERATURE RANGE (°C)	-40°C ~ +105°C								
Capacitance Range (μF)	22μF ~ 10000μF								
Rated Voltage Range (V)	6.3V ~ 50V								
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% (6.3, 10V: ±30%) 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	6000
								ΦD8 & Φ10x12	8000
								Φ10x16 to Φ18	10000
SHELF LIFE	After storage for 1000 hours at +105°C, and then resumed 24 hours Capacitance Change: ±25% (6.3, 10V: ±30%) 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	5.0	7.5	7.5
Φd±0.05	0.5	0.5	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 Max.	(D<18)	0.5
	(D≥18)	1.0

### 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 ~ 10000μF	0.85	0.95	0.98	1.00

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### STANDARD RATINGS

Rated Voltage (Vdc)	Capacitance (µF)	Size ΦDxL (mm)	tanδ	Impedance (Ω Max) 20°C 100KHz	Rated ripple current (mArms) 105°C /100KHz
6.3V	220	5x11	0.22	0.22	345
	470	6.3x11	0.22	0.094	540
	820	8x11.5	0.22	0.056	945
	1200	8x16	0.22	0.045	1250
		10x12.5	0.22	0.039	1330
	1500	8x20	0.22	0.029	1500
	1800	10x16	0.22	0.028	1760
	2200	10x20	0.24	0.020	1960
	2700	10x25	0.24	0.018	2250
	3900	12.5x20	0.26	0.017	2480
	4700	12.5x25	0.28	0.015	2900
	5600	12.5x30	0.30	0.013	3450
	6800	12.5x35	0.32	0.012	3570
		16x20	0.32	0.015	3250
	8200	16x25	0.36	0.013	3630
10000	18x25	0.40	0.012	3650	
10V	150	5x11	0.19	0.22	345
	330	6.3x11	0.19	0.094	540
	680	8x11.5	0.19	0.056	945
	1000	8x16	0.19	0.045	1250
	1000	10x12.5	0.19	0.039	1330
	1500	8x20	0.19	0.029	1500
		10x16	0.19	0.028	1760
	1800	10x20	0.19	0.020	1960
	2200	10x25	0.21	0.018	2250
	3300	12.5x20	0.23	0.017	2480
	3900	12.5x25	0.23	0.015	2900
	4700	12.5x30	0.25	0.013	3450
		16x20	0.25	0.015	3250
	5600	12.5x35	0.27	0.012	3570
	6800	16x25	0.29	0.013	3630
8200	18x25	0.33	0.012	3650	
16V	100	5x11	0.16	0.22	345
	220	6.3x11	0.16	0.094	540
	470	8x11.5	0.16	0.056	945
	680	8x16	0.16	0.045	1250
		10x12.5	0.16	0.039	1330
	1000	8x20	0.16	0.029	1500
		10x16	0.16	0.028	1760
	1500	10x20	0.16	0.020	1960
	1800	10x25	0.16	0.018	2250
	2200	12.5x20	0.18	0.017	2480
	2700	12.5x25	0.18	0.015	2900
	3300	12.5x30	0.20	0.013	2450
		16x20	0.20	0.015	3250
	3900	12.5x35	0.20	0.012	3570
	4700	16x25	0.22	0.013	3630
5600	18x25	0.24	0.012	3650	

Rated Voltage (Vdc)	Capacitance (µF)	Size ΦDxL (mm)	tanδ	Impedance (Ω Max) 20°C 100KHz	Rated ripple current (mArms) 105°C/100KHz
25V	68	5x11	0.14	0.22	345
	150	6.3x11.5	0.14	0.094	540
	330	8x11.5	0.14	0.056	945
	390	8x16	0.14	0.045	1250
	470	10x12.5	0.14	0.039	1330
	560	8x20	0.14	0.029	1500
	680	10x16	0.14	0.028	1760
	820	10x20	0.14	0.020	1960
	1000	10x25	0.14	0.018	2250
	1500	12.5x20	0.14	0.017	2480
	1800	12.5x25	0.14	0.015	2900
	2200	12.5x30	0.16	0.013	3450
		16x20	0.16	0.015	3250
	2700	12.5x35	0.16	0.012	3570
	3300	16x25	0.18	0.013	3630
3900	18x25	0.18	0.012	3650	
35V	47	5x11	0.12	0.22	345
	100	6.3x11	0.12	0.094	540
	220	8x16	0.12	0.056	945
	270	8x20	0.12	0.045	1250
	330	10x12.5	0.12	0.039	1330
	390	8x20	0.12	0.029	1500
	470	10x16	0.12	0.028	1760
	560	10x20	0.12	0.020	1960
	680	10x25	0.12	0.018	2250
	1000	12.5x20	0.12	0.017	2480
	1200	12.5x25	0.12	0.015	2900
	1500	12.5x30	0.12	0.013	3450
		16x20	0.12	0.015	3250
	1800	12.5x35	0.12	0.012	3570
	2200	16x25	0.14	0.013	3630
2700	18x25	0.14	0.012	3650	
50V	22	5x11	0.10	0.34	238
	56	6.3x11	0.10	0.14	385
	100	8x11.5	0.10	0.074	724
	120	8x16	0.10	0.061	950
	150	10x12.5	0.10	0.061	979
	180	8x20	0.10	0.046	1190
	220	10x16	0.10	0.042	1370
	270	10x20	0.10	0.030	1580
	330	10x25	0.10	0.028	1870
	470	12.5x20	0.10	0.027	2050
	560	12.5x25	0.10	0.023	2410
	680	12.5x30	0.10	0.021	2860
	820	16x20	0.10	0.019	2960
		16x20	0.10	0.023	2730
	1000	16x25	0.10	0.021	3010
1500	18x25	0.10	0.019	3290	

**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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